

Antecedents of Sustainable Marketing Strategy: Empirical Evidence from ISO 14001 Certified Manufacturing Businesses in Thailand ปัจจัยเชิงสาเหตุของกลยุทธ์การตลาดที่ยั่งยืน : หลักฐานเชิงประจักษ์ของบริษัทที่ได้รับรอง มาตรฐาน ISO 14001 ในประเทศไทย

Suparada Pimpan,¹ Chutima Ruaguttamanun² and Komkrit Wongkhae³

ศุภรดา พิมพ์พรรค์,¹ ชุตินา เรืองอุตมานันท์² และ คมกริช วงศ์แซ่³

Article History

Receive: January 21, 2021

Revised: March 18, 2022

Accepted: March 21, 2022

บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อตรวจสอบอิทธิพลของตัวแปรอิสระ ซึ่งประกอบไปด้วย ทัศนคติของผู้บริหาร ความพร้อมของทรัพยากรของบริษัท แรงกดดันทางการแข่งขันที่มีอิทธิพลต่อกลยุทธ์การตลาดที่ยั่งยืน ทฤษฎีเชิงสถานการณ์ สามารถอธิบายความสัมพันธ์ระหว่างปัจจัยภายในปัจจัยภายนอกและกลยุทธ์ทางการตลาดที่ยั่งยืน ซึ่งเก็บรวบรวมข้อมูลจากผู้อำนวยการฝ่ายการตลาด หรือ ผู้จัดการฝ่ายการตลาด จำนวน 208 คน จากบริษัทที่ได้รับรองมาตรฐาน ISO 14001 ในประเทศไทย โดยใช้การวิเคราะห์แบบจำลองสมการโครงสร้างในการทดสอบสมมุติฐาน กลยุทธ์การตลาดที่ยั่งยืนเป็นหนึ่งในเครื่องมือที่สำคัญที่ใช้ในการดำเนินงานโดยเฉพาะอย่างยิ่งกับบริษัทที่ได้รับรองมาตรฐาน ISO 14001 ซึ่งระบุถึงกระบวนการที่ยั่งยืนที่รวมเอาด้าน เทคโนโลยี สิ่งแวดล้อมและด้านสังคมเพื่อส่งเสริมความเป็นมิตรต่อสิ่งแวดล้อม ความรับผิดชอบต่อสังคม ผลิตรภัณฑ์ และตราสินค้า ผลการวิจัย พบว่า ความพร้อมของทรัพยากรของบริษัท และแรงกดดันทางการแข่งขันมีอิทธิพลเชิงบวกต่อผลลัพธ์กลยุทธ์การตลาดที่ยั่งยืน ในขณะเดียวกัน ทัศนคติของผู้บริหารไม่มีนัยสำคัญทางสถิติต่อการมีอิทธิพลต่อกลยุทธ์การตลาดที่ยั่งยืน นอกจากนี้ข้อค้นพบงานวิจัยนี้ชี้ให้เห็นว่า บริษัทที่ได้รับรองมาตรฐาน ISO 14001 ที่ต้องการเติบโตอย่างยั่งยืนควรพิจารณาตัวแปรอิสระทั้งสามตัวแปรนี้ ดังนั้นผลการศึกษาที่พบสามารถนำไปใช้ในการกำหนดกลยุทธ์การตลาดที่ยั่งยืน อีกทั้งยังช่วยพัฒนาด้านการตลาดของบริษัทที่ได้รับรองมาตรฐาน ISO 14001 ด้วย

คำสำคัญ : กลยุทธ์การตลาดที่ยั่งยืน ; ทัศนคติของผู้บริหาร ; ความพร้อมของทรัพยากรของบริษัท ; แรงกดดันทางการแข่งขัน

¹ Doctor of Philosophy in Marketing Management, Mahasarakham Business School, Mahasarakham University

² Assistant Professor, Mahasarakham Business School, Mahasarakham University

³ Lecturer, Mahasarakham Business School, Mahasarakham University



ABSTRACT

The article aims to monitor the antecedents including top management vision, firm resource readiness, competitive force influence of sustainable marketing strategy. The contingency theory can explain the relationship among internal factors, external factors and sustainable marketing strategy. The data were obtained from survey that investigated 208 marketing directors or marketing managers of ISO 14001 certified manufacturing businesses in Thailand. The statistics techniques analyzing the data including the structural equation model (SEM) was applied for to the hypothesis' testing. Sustainable marketing strategy was one of the most significant instruments for making prevalent execution, particularly, with the ISO 14001 firm that was identified with the process of sustainable keys that incorporates technology, environmental and social to promote environmentally friendly, socially responsible, product practice and brand value. The results therefore found that firm resource readiness and competitive force were essentially factors affecting to sustainable marketing strategy. Meanwhile, top management vision was not significantly effect to sustainable marketing strategy. Moreover, the findings suggest that the ISO 14001 firms that want to sustain growth should consider such three antecedents. Therefore, the result can be applied to develop the sustainable marketing strategy, as well as developing marketing of ISO 14001 certified manufacturing businesses.

Keywords : Sustainable Marketing Strategy ; Top Management Vision ; Firm Resource Readiness ; Competitive Force

Introduction

Nowadays, the business in the world face rapid changes in customer need, demand uncertainty, complexity, and highly competitive in manufacturing. The businesses need to continually improve or change their strategies in order to survive and succeed. In order to succeed in business, organizations must adapt their ability to develop the sustainable marketing to increase the fluctuation of the constantly changing environment (Trivedi et al., 2018). Therefore, the business should be aware of using marketing strategies to improve and develop the organization's sustainability (Fernando, 2018).

Sustainability is a mainstream issue in a world where the resources need to be preserved and this worried is evidenced by the growing interest shown in sustainable issues (Jiang et al., 2019). Sustainability marketing concept leads business to be able to response and aware of society responsibility and environmental. The concept will also adept to paradigm shift which is focus on customer needs while concentrate on environmental protection and community (Iacobucci et al., 2020). Likewise, sustainable marketing strategy can develop products and marketing practices that create values for short-and long-term customer needs. In the present, consumer behavior increasingly shows interest social issues and environmental problems toward consideration and awareness of processes, products, and brands value in the market (Abutaleb and El-Bassiouny, 2020). Moreover, it also includes outlooks among the period of sustainable development that are an improvement of marketing through intense understanding and strength of diverse prospects. In addition, the environmental impacts by firms are now a problem-solving which should have intense concern from the government sector, non-government sector, and the general public sector. The firms are strongly forced by these sectors to take responsibility for environmental effects from their activities, and their attempt to conserve the environment (Amoako, 2019). Therefore, the firms must contribute to resolve the environmental problem with integration of sustainability and environmental management issues (Yacob, Wong and Khor, 2019).

In this research, the sustainable marketing strategy is a combination of sustainable development and marketing strategy of competing businesses. And, use the contingency theory that shows understanding the nature of corporate strategy is improved by examining its antecedents in terms of both internal and external factors (Donaldson, 2001). Contingency theory suggests that there is no best way to manage an organization (Kulkarni, 2017). Likewise, the efficiency of an organization depends on its ability to adapt itself to fit the changing situation. It is expected that the nature of corporate strategy and organizational performance is better understood by examining the interactions between internal factors and external factors. As mentioned earlier, this research highlights the antecedents of sustainable marketing strategy as the constructs of top management vision, firm resource readiness, competitive force.

Therefore, the ISO 14001 certified manufacturing businesses in Thailand is considered appropriate to investigate the relationships among antecedents and sustainable marketing strategy that are important and add value to the business. This research uses questionnaires to collect data and has sent them to each firm by mail. A list of 468 of ISO 14001 certified manufacturing businesses in Thailand have been selected as a population and sample. The population was collected from the Thai Industrial Standards Institute, Ministry of Industry. The key participants were marketing directors or marketing managers. In this research, a valid and reliable self-administered questionnaire is used as the main research instrument for data collection, and statistical techniques consist of factor analysis, correlation analysis, and structural equation model (SEM) analyses which are processed to test all postulated hypotheses. In addition, the test of nonresponse bias is used to prevent possible response bias problems between early and late respondents. The main question of the research is to investigate the effect between sustainable marketing strategy and three antecedents consist of top management vision, firm resource readiness and competitive force. The results found that firm resource readiness and competitive force were essentially factors which affect sustainable marketing strategy. Meanwhile, top management vision has not significant effect on sustainable marketing strategy. Then, the outcomes of this research would benefit to marketing directors and marketing managers of ISO 14001 certified manufacturing or businesses of a similar nature. Also, sustainable marketing strategy is a reactive operation to increase the competitive advantage.

Research Objective

The main research objective of this study was to investigate the relationship between top management vision, firm resource readiness, and competitive force that effects on sustainable marketing strategy in ISO 14001 certified manufacturing businesses in Thailand. The main question is “How do top management vision, firm resource readiness, and competitive force effect on sustainable marketing strategy?”

Literature Review

In an era of globalization, organizational management needs to be consistent with the environment and the situation (Taherdangkoo, Mona and Ghasemi, 2018). Contingency theory is used to explain the phenomena of the organization's flexibility within the contexts of environment situational factor (Donaldson, 2001). Especially, the contingency theory suggests that the decision of the organization relies on the interaction of internal and external factors. In this research, contingency theory was implemented to explain the decision-making of marketing operations of the structural and behavioral characteristics of the manufacturing firm and its internal and external environment. Therefore, this theory has been applied to top management vision, firm resource readiness, and competitive force as an enhancement of the



organization which can enhance sustainable marketing strategy. The conceptual model presents the relationship of variables are as shown in Figure 1.

Conceptual Framework

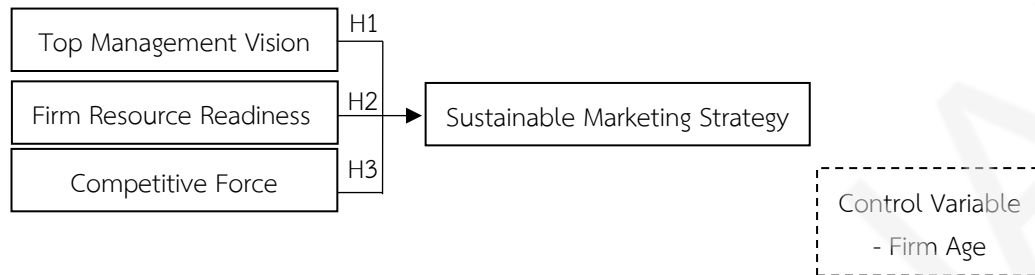


Figure 1 A Conceptual Framework

Sustainable Marketing Strategy (SMS)

Sustainable marketing strategy is derived from two concepts, sustainable development and marketing strategy of competing businesses. In this research, sustainable marketing strategy is defined as a plan of action focused on the process of sustainable keys that incorporates technology, environmental and social to promote environmentally friendly and socially responsible, product practice and brand value (Trivedi et al., 2018). Sustainable marketing strategy is to have indicators, which can measure the performance of the firm (Kwatra, kumar and Sharma, 2019). Sustainable marketing strategy has three components of environment marketing, green marketing, and societal marketing (Kwatra, kumar and Sharma, 2019). Similarly, Kamper and Ballantine (2019) documented that emphasis has been on the integration of ethical, social, environmental, and economic or sustainability issues within corporate the same as sustainable marketing refers to triple bottom line (TBL), which aims to organization's economic, social and environmental impact (Elkington, 1997). Sustainable marketing strategy does bring competitive advantage and increased growth opportunities as it positions the company as sustainable and environmentally friendly (Kamper and Ballantine, 2019). Sustainable marketing strategy are the important of acknowledging sustainability issues and the influence these have on companies' marketing strategies (Rudawska, 2019). Moreover, sustainable marketing strategy needs to flow from a top management vision, firm resource readiness, competitive force and reflects determined goals for both marketing and sustainability. The previous research, top management investigates the characteristics and drivers of sustainable marketing (Jahanshahi and Brem, 2017). Next, the firm resources that influence the adoption and development of sustainable marketing strategies (Knight et al., 2018). So, the competitive force has a positively related to the adoption of sustainability marketing strategy (Taherdangkoo, Mona and Ghasemi, 2018). It implies that the influences and relationships of sustainable marketing strategy and its antecedents. Because creating a sustainable marketing strategy often involves top management vision, firm resource readiness, and competitive force that can make more successful. Thus, this research proposes a new construct, sustainable marketing strategy, by emphasizing on integration of top management vision, firm resource readiness, and competitive force. Therefore, these lead to the explanation of the understanding both internal and external environmental as following detail below.

Antecedents of Sustainable Marketing Strategy

Top Management Vision (TMV)

Top-management vision is defined as to the goal and direction of executive view with the new ideas, which is vision to make the organization goals and sustain growth (Li et al., 2019). Top management vision is measured by the perception of executive vision for long-term operations using the concept of fundamental objective or strategic direction (Ahmed and Mohamed, 2017). The concept of sustainable development has received growing recognition. A top management presents the vision statement as organizational direction in the future and to achieve goal. Likewise, a top management plays a crucial role in implementing and sustainability issues (Henry, Buyl and Jansen, 2019). So, the role of leaders' vision is important in driving sustainable marketing strategy in the organization. This research was implemented to explain how top management vision is associated with sustainable marketing strategy. From prior research, top management team is investigate the characteristics and drivers of sustainable marketing (Jahanshahi and Brem, 2017). Moreover, top management plays in leading their organization towards corporate sustainable marketing to reach high levels of performance (Henry, Buyl and Jansen, 2019). Therefore, in this research, the effect of top management vision on sustainable marketing strategy is hypothesized as follows:

H1 : Top management vision is positively related to sustainable marketing strategy.

Firm Resource Readiness (FRR)

This resource is a tool for considering strategic resources available to a business. Firm resource readiness is defined as firm ability in asset both tangible and intangible for supporting process of firm and result in marketing success (Demirkan, 2018). Firm resource readiness is to have indicates, which can measure by the level of sufficient and available resources, technology allocation to support strategy implementation, and the effective and efficient application of resources in performance (Portillo et al., 2018). The resource-based view (RBV) is a tool for considering the strategic resources available to a business. The fundamental principle of the RBV is the basis for a competitive advantage of a firm which bundles valuable resources at the firm disposal (Hamdoun, 2020). The resource-based view explains that through internal resources and capabilities a firm uses to building sources for competitive advantage (Hamdoun, 2020). Likewise, in this research was implemented to explain the firm resource readiness effect of sustainable marketing strategy under the contingency theory. From the contingency perspective, how effective sustainable marketing strategy is used by a firm is contingent on how the available resources are to be deployed and allocated. Furthermore, this research postulates that the more firm-specific resources that are available for a firm, the more likelihood a firm succeed in sustainable marketing strategy building. Thus, if the firm has the resources in readiness and potentiality, this advantage will support the firms to create new opportunity. Prior research has investigated the firm resources that influence the adoption and development of environmentally sustainable marketing strategies (Knight et al., 2018). As indicated in prior research, firm resource has been associated with business processes to contribute to the goal of sustainable marketing (Hurth, 2017). Therefore, in this research, the effect of firm resource readiness on sustainable marketing strategy is hypothesized as follows.

H2 : Firm resource readiness is positively related to sustainable marketing strategy.

Competitive Force (CF)

In a strategic perspective, a competitive strategy is one of the factors that have a major influence on goal achievement. Competitive force is defined as a set of perceived influences of industry structure that collectively determines strategy of competing firms in a given industry (Mahat, 2019). It is measured by the perception of the chief executive officer pertaining to the level of competitive influences that affect the firm operation in terms of competitive intensity (Duran, Cabuya and Molina, 2020). Moreover, that



industry structure is also another force directly affecting firm performance and positional advantage in a competitive market. Firms must put their priority on the competitive structure in the industry level, which has an impact on businesses including competitors in the industry, substitute products, new rivals, suppliers, and customers (Omsa et al., 2017). It contends that the success of a firm is dependent on how a firm predicts and reacts accurately to the competitive forces on sustainable marketing strategy. Therefore, these forces are at work within a certain industry and depending on the characteristics of that industry certain forces are more powerful than others. The previous research, competitive force has a positive relation to the adoption of sustainability marketing strategy performance (Taherdangkoo, Mona and Ghasemi, 2018). The competitive forces affect on generic strategies and firm performances (Omsa et al., 2017). Therefore, in this research, the effect of competitive force on sustainable marketing strategy is hypothesized as follows:

H3 : Competitive force is positively related to sustainable marketing strategy.

Research Methodology

Population and Sample

The population and sample of this research are drawing from a database of ISO 14001 certified manufacturing businesses in Thailand that were chosen from the online database of Thai Industrial Standards Institute, Ministry of Industry. This database is an excellent source of information, providing all the complete addresses and showing the of ISO 14001 certified manufacturing businesses in Thailand, which could confirm the data of whether an ISO 14001 certified manufacturing businesses could remain in businesses. Industrial businesses around the world have adopted many of models from the International Organization for Standardization (ISO) as their guidelines for organizational adaptation and expansion towards international markets and global markets. In Thailand, the Ministry of Industry of Thailand launched an ISO 14001 series in 1996, concerned with the environmental management system (EMS). At present, there are 468 businesses certified as ISO 14001 compliant. Therefore, businesses are shown an emphasis placed on understanding the environmental impact potential of the organization.

The sampling technique was selected the total population for this research with sampling by questionnaire survey. However, Kline (2005) suggested that the minimum sample size for conducting structural equation modeling should be 200 per group. Thus, the number of ISO 14001 certified manufacturing businesses in the population was 208 businesses. Therefore, this sample size was adequate for analysis.

Research Instruments

This research employed a questionnaire to collect data were analyzed by using appropriate statistical techniques (Neuman, 2006). The data collection via a questionnaire survey is familiar to marketing directors or marketing managers, and it can be collected from a representative population in a variety of locations. The reliability and validity of the instrument was assessed using three methods. Firstly, the item objective congruence index (IOC) was tested by three experts in the marketing area. If the result of item-objective congruence index from all items is equal to $.64 > .50$, then it is acceptable (Turner and Carlson, 2003). Secondly, a pilot study was used to solicit responses from 30 respondents in the context of understanding the survey's measures, wording, and to estimate any uncertainty in the questionnaire's reliability. Moreover, the surveys were separated into two equal parts: the first group consisted of 104 responses, which were regarded as the early respondents, and the second group consisted of 104 responses, which were regarded as the late respondents. Analysis indicated that there were no differences for each

factor from both the first and second respondent groups. Therefore, the instrument had validity, reliability and could be used to proceed.

Measures of the Research Variables

Variables Measurement

The measurement process involves the creation of multiple items in the conceptual model for the measurement of each construction. All constructs were measured using a 5-point Likert scale (range from 1 = strongly disagree to 5 = strongly agree), except for firm age. Measurements of these constructs are self-developed from existing literature. The scales used in the research tool were based on the validity and reliability of each structure and the context of the constructions.

Dependent Variable

Sustainable marketing strategy using four-item scale was developed to measure new scale from the definition and relevant literature.

Independents Variables

Top management vision is measured by using four-item scale to evaluating how firms perception of executive vision for long-term operations using the concept of fundamental objective or strategic direction (Ahmed and Mohamed, 2017). Next, firm resource readiness is measured by using four-item scale to potential how firms the level of sufficient and available resources, technology allocation to support strategy implementation, and the effective and efficient application of resources in performance (Portillo et al., 2018). Finally, competitive force is measured by using four-item scale to investigate how firms perception of the chief executive officer pertaining to the level of competitive influences that affect the firm operation in terms of competitive intensity (Duran, Cabuya and Molina, 2020).

Control Variable

The firm age referred to the period of time in business (Coad et al., 2018), and measured by dummy variable in which 0 means the firm has been in business less than or equal to 10 years, and 1 means the firm has been in business for more than 10 years (Matemilola et al., 2017). It is a critical control variable that may have effects on sustainable marketing strategy.

Data Collection

This research and development of framework, it was necessary to define a descriptor level system and this research focused on the current situation in environmental management system of ISO 14001 certified manufacturing businesses and development of a model. In this research, the main research instrument was a self-administered questionnaire comprises six sections. In the first section, respondents are requested to provide their personal information such as gender, age, education level, work experience, and current position. The second section, the organizational characteristics such as business owner type, types of manufacturing industry, number of employees, operational capital of the firms, the period of the time in operation business, the period of the time in ISO 14001 of business, and award in environmental management. For the third section, the opinion on sustainable marketing strategy of ISO 14001 certified manufacturing businesses in Thailand such as firm support the appropriate technology to develop new products for environmental friendly, firm focuses on the new product innovation for customer accept, firm recognizes to community, social, and environment consistently, firm promote the responsibility for reducing pollution, reducing of waste in the productions. For the fourth section, the opinion on the effect of internal environmental factors is top management vision such as top management vision applied of techniques and



the new methods as a part of sustainable strategy, top management support environmental friendly that impact on the specified operational plans, top management have a good vision and has the potential to meet the goals of social responsibility and environmental, top management believes that the operations that focus on social responsibility and environment, which will help firm to achieve long-term sustainable success. Likewise, the opinion on the effect of internal environmental factors is firm resource readiness such as firm have sufficient of resource to strategic sustainable marketing, firm apply the resource for maximize on environmental and sustainability, firm focus on sufficient budget allocation to environmental, community, and social, firm has marketing personnel resource, which will help operation achievement. For the fifth section, the opinion on the effect of external environmental factors is competitive force such as the current competitor that can make business need to improve and develop themselves in various fields such as social responsibility, due to intention more competitive business, business should find competitive opportunity at all the time, the competitive force of social factors are changing rapidly, which business must continually adjust their strategies, the competitive force from the production of eco-friendly product, which business must continually adjust their strategies. For the sixth section, recommendations and suggestions regarding business administration of ISO 14001 certified manufacturing businesses in Thailand. The data collections are proportion in each region and simple random sampling method, the questionnaires were sent by mail to these ISO 14001 certified manufacturing businesses in Thailand by using marketing directors and marketing managers as the key informants. The data collection was conducted in Thailand June 1 to August 31, 2020. In a mailing process, 18 surveys were returned due to incorrect addresses or move to unknown locations. After removing the undeliverable from the original 468 mailed, the valid mailing was 450 surveys, from which 211 responses were returned. Of the surveys completed and received 208 were usable. The effective response rate was approximately 46.22%. According to Aaker, Kumer and Day (2001), 20% response rate for a mail survey, without an appropriate follow up procedure, is considered acceptable.

Data Analysis

This research questions and to prove the hypotheses presented, data collected from the questionnaire were analyzed. The structural equation modeling to analyze the data derived from respondents. Besides, structural equation modeling can be used to examine the total effect of exogenous variables on the endogenous variable in the structural model. A two-step approach was used to test the structural model. The first step was to test the measurement model. This step examines the validity of a measurement model including convergent validity, discriminant validity, and construct validity. Further, assessment of the fit of a measurement model between the observed and estimated covariance matrix is taken. The confirmatory factor analysis (CFA) technique was used to assess fit and validity. Finally, second step was to test the conceptual framework and the validity of all hypotheses generated.

Results and Discussion

This research to test the quality of instruments, both validity and reliability were employed. Table 1 shows that the results of measure validation. Factor loading scores as between 0.60-0.82 are greater than the 0.40 cut-off and statistically significant are represented of discriminant and convergent validity (Nunnally and Bernstein, 1994). The discriminant power was used to evaluate validity of measurements by item-total correlation. In the scale validity, item-total correlation scores as between 0.60-0.75 are greater than 0.30 (Nunnally and Bernstein, 1994). Furthermore, Cronbach's alpha for all variables are shown between 0.80-0.94 are greater than 0.70 (Nunnally and Bernstein, 1994). However, Cronbach's alpha was used because

methods to assess the internal consistency within the number of items and sample size (Bujang, Omar and Baharum, 2018). Then, the composite reliability (CR) values were ranged between 0.80-0.94 are greater than 0.70 (Hair et al., 2010). The average variance extraced (AVE) values were ranged between 0.50-0.55 are greater than 0.50 (Hair et al., 2010). Therefore, all constructs of measurement can be applied for further analysis. To verify the research relationships, structural equation modeling is conducted to empirically investigates the hypotheses. The results of this research are presented in this below.

Table 1 Results of Measure Validation

Construct	Factor Loading	Item-total Correlation	Cronbach's Alpha	Composite Reliability	AVE
Top Management Vision (TMV)	0.69-0.74	0.60-0.64	0.80	0.80	0.51
Firm Resource Readiness (FRR)	0.70-0.79	0.61-0.72	0.82	0.83	0.55
Competitive Force (CF)	0.73-0.75	0.64-0.67	0.83	0.83	0.55
Sustainable Marketing Strategy (SMS)	0.60-0.82	0.66-0.75	0.94	0.94	0.50

The descriptive statistics and correlation matrix independents and dependent factors are presented in Table 2. The correlation coefficients of variables are ranging from 0.10-0.53, which lower than 0.80, and all the Variance Inflation Factor (VIF) values are lower than 10. The VIF ranged from 1.13-1.53 are below the cut-off value of 10 recommended by Hair et al. (2010), meaning that the independents variables are not correlated with each other. Therefore, there was no issue with multicollinearity in this research (Hair et al.,2010).

Table 2 Descriptive Statistics and Correlation Matrix

Variables	TMV	FRR	CF	SMS	FA
Mean	4.67	4.46	4.61	4.25	
S.D.	0.37	0.40	0.39	0.41	
TMV	1				
FRR	0.34**	1			
CF	0.15*	0.53**	1		
SMS	0.15*	0.28**	0.22**	1	
FA	0.26**	0.10	0.14*	0.13	1

*p < 0.01, ** p < 0.05

**Table 3** Result of Path Coefficients and Hypotheses Testing

Hypotheses	Relationship	Coefficients	t-value	Results
H1	TMV → SMS	0.524	0.63	Not Supported
H2	FRR → SMS	0.025**	2.24	Supported
H3	CF → SMS	0.010*	2.56	Supported

*p < 0.01, ** p < 0.05

Table 3 presents the results of path coefficients and hypotheses testing of the research relationships. The hypothesis testing was using confirmatory factor analysis to measure the validity of the model fit and structural equation modeling, which can lead to path analysis in order to be able to test the model and hypothesis. The research framework, the model of confirmatory factor analysis and structural equation model is shown in Figure 2. In figure 2 shows that a summary of the top management vision, firm resource readiness, and competitive force on sustainable marketing strategy relationships. In this research, the comparative fit index (CFI) with value of 0.909, the incremental fit index (IFI) with value of 0.910, and the root mean square error of approximation (RMSEA) with value of 0.073 are consider (Kline, 2005). Thus, the initial test of the measurement model results is a good fit to the data. CFI value is an index that ranges from 0 to 1, with value over 0.90 indicating a relatively good fit (Savalei, 2020). While IFI values always lie between 0 and 1, with values over 0.90 indicating a relatively good fit (Kline, 1998) and a RMSEA value lower than the recommended value 0.80 suggests a marginal fit (Bollen and Long, 1993). Moreover, squared multiple correlation (R^2) is the percentage of variance of construct explained by an observed variable. Squared multiple correlation (R^2) with value of 0.080. It can be concluded that all observed variables should be included in the further analysis.

In this research, the effects of three antecedents including top management vision, firm resource readiness, and competitive force on sustainable marketing strategy as hypothesized. Firstly, the results indicate that the top management vision has no significant effect on sustainable marketing strategy ($b=0.524$, $p>0.10$). The results found in this research confirm the principal point of top management vision is impact on sustainable marketing (Jang, Zheng and Bosselman, 2017). Thus, one possible reason in this research might be due to the fact that top management vision of the ISO 14001 certified manufacturing businesses was not clear in the area of developing sustainable marketing strategy in the firm. In addition, the top management vision still had some problems such as the lack of the ability of knowledge about the concept of sustainability and environmental, which were identified as the hinder major problems of the efficiency performance of the business. Thus, the top management vision of the businesses should review their roles about the management in developing or paying a more concentration on improving sustainable marketing strategy. Therefore, hypothesis 1 is not supported. Secondly, the results also present that firm resource readiness has a positively influence on sustainable marketing strategy ($b=0.025$, $p<0.05$). This is consistent with Knight (2018) who found that firm resources that influence the adoption and development of environmentally sustainable marketing strategies. Firm resource is the main source to support marketing success and resource advantage. It explains that firm's resources and capabilities can drive competent marketing strategy to achieve marketing activities and firm goals. Thus, the firm has the resources in readiness and potentiality, this advantage will support the firms to create new opportunity. As indicated, firm resource readiness has been associated with business processes to achieve corporate goals. Firm resource readiness positively leads to sustainable marketing strategy. Therefore, hypothesis 2 is supported. Finally, these results

found the competitive force has a positively influence on sustainable marketing strategy ($b=0.010$, $p<0.01$). The results support the notion of differentiation, enabling firms to survive under fluctuating business environments. This indicates that the competitive force has a positive relation to the adoption of sustainability marketing strategy performance (Taherdangkoo, Mona and Ghasemi, 2018). This view uses managerial perceptions to capture the competitive forces of a firm. It contends that the success of a firm is dependent on how a firm predicts and reacts accurately to competitive forces. Hence, the business makes an effort to appoint new strategies to improve corporate sustainability as well as economic development, social development and environmental development. It is positively related to competitive force and sustainable marketing strategy. Therefore, hypothesis 3 is supported.

Additionally, the results of control variables indicate that firm age are not significantly associated with sustainable marketing strategy. These results can be interpreted that sustainable marketing strategy is not influenced by the age of a firm.

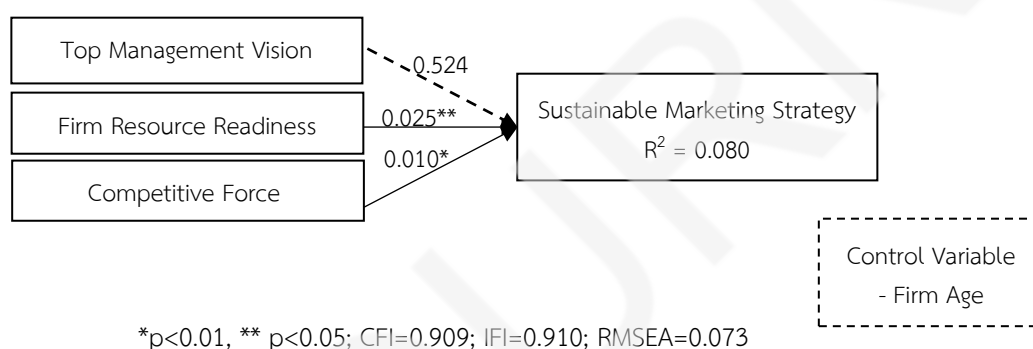


Figure 2 The Structural Equation Model

Conclusion

This research investigates the relationship of antecedents effect on sustainable marketing strategy. This research apply contingency theory. The results reveal firm resource readiness and competitive force has a positive significant effect on sustainable marketing strategy. Besides, top management vision has no significant influence on sustainable marketing strategy. The data collection was conducted with ISO 14001 certified manufacturing businesses in Thailand an structural equation model analysis was employed for the hypothesis testing. Therefore, the evidence will provide the directions and suggestion for the business to improve their marketing success.

Contributions

Theoretical Contributions

This research is an insight in providing clearer understanding of antecedents factors on sustainable marketing strategy. This research advances the literature by categorizing many antecedents consist of top management vision, firm resource readiness, competitive force and develops a model to test the relationships. The relationships in the conceptual model are explained by contingency theory. Contingency theory is able to explain the impacts of antecedents towards sustainable marketing strategy. Therefore, these factors are sources of a firm's readiness and competency to support sustainable marketing strategy to gain marketing outcomes.



Managerial Contributions

The research provides useful contributions and has implications of the key role of sustainable marketing strategy and paying attention to improvements appropriate with the context of ISO 14001 certified manufacturing businesses that are concerned with an environmental friendly. Thus, top management vision, firm resource readiness, competitive force should be concerned with the impact on sustainable marketing strategy that can lead to marketing success.

Sustainable marketing strategy is encouraged by important factors: top management vision, firm resource readiness, and competitive force. Particularly, firm resource readiness and competitive force are the most influential of these factors which has been shown to affect sustainable marketing strategy of ISO 14001 certified manufacturing businesses in Thailand. Firstly, top management vision is a key component of planning, decision-making, and determination on corporate policies and strategies for shifting business as they go into the future. Moreover, top management vision may put more policy to enact perform environmental concerns, and to support employees for enhancing competency toward corporate goals. Hence, top management vision may put more emphasis on how to establish the concept of sustainable marketing strategy in their organizations. To maximize the benefits of sustainable marketing strategy, managers should provide other resources to support its effectiveness relating to this concept and create new opportunities in the local and in the global market and utilize their sustainable marketing to succeed. Secondly, firm resource readiness that have richness and completeness are a key factor to drive sustainable marketing strategy to achieve a firm's goal. Moreover, firms should focus on firm resource readiness to search for new knowledge that leads to the creation, development, improvement, and transform of the sustainable marketing model to increase product creativity, customer acceptance and marketing success. Thirdly, competitive force has been shown to be the essential factor which is significant to sustainable marketing strategy among the ISO 14001 certified manufacturing businesses in Thailand. Moreover, the business can adapt themselves to the uncertain business environments by adapting core competency in order to ensure the building of competitive advantage. Therefore, in highly competitive situations, a firm's executive should improve sustainable marketing strategy for responding to the competitive force. Finally, the conceptual model in this research can be applied to other industries, other countries and culture because the concepts and theories that are used in this research have been studied from several industries. Therefore, the contribution of research can be used in other context.

Limitations and Future Research Direction

Limitations

In this research, some limitations are provided as follows: Firstly, the results of this analyzed research came from a single population as the ISO 14001 certified manufacturing businesses in Thailand. Secondly, in this research the data collection procedure and the follow-up process took approximately a month. As a result, the response rate emerges as a primary concern for this research. Even though, this research had attempted to increase the response rate as much as possible for reliability and validity of findings. Consequently, generalizability of the results beyond the scope of this research may be made limitedly. Thirdly, the researchers should be examined in another variable that impacts to operation in ISO 14001 certified manufacturing businesses for better in conceptual frameworks. Thus, the result of this research is derived from only ISO 14001 certified manufacturing businesses in Thailand. Finally, the results of this research may be narrow as lacking generalization concept of both other industries and countries.



Suggestions for Future Research Direction

The future research should explore and develop scales from different methods such as in-depth interviews from marketing managers representing each industry of ISO 14001 memberships, in order to create and confirm measurements that consist with true context of business and all relationships of this research model. Therefore, this conceptual framework can be applied to compare researches between Thailand and western countries because both are different in importance of sustainable marketing strategy. Hence, it is interesting that the results will be from different cultures. This research suggests a new theoretical framework but that only examines ISO 14001 certified manufacturing businesses in Thailand. For example, future research may separate the population of certified ISO 14001 firms in Thailand into two groups including manufacturer and service businesses to compare the results of such two groups. Finally, future research should study and apply the same or similar conceptual frameworks with other services and businesses for comparing results between manufacturing and services sectors businesses.

References

- Aaker, D. A., Kumar, V., and Day, G. S. (2001). *Marketing Research*. New York : John Wiley & Sons.
- Abutaleb, S., and El-Bassiouny, N. (2020). Assessing Sustainability Marketing from Macromarketing Perspective: A Multistakeholder Approach. *World Journal of Entrepreneurship, Management and Sustainable Development*. 16(4),287-305. <https://doi.org/10.1108/WJEMSD-02-2019-0017>
- Ahmed, R., and Mohamed, N. A. B. (2017). Development and Validation of an Instrument for Multidimensional Top Management Support. *International Journal of Productivity and Performance Management*. 66(7),873-895. <https://doi.org/10.1108/IJPPM-12-2015-0182>
- Amoako, G.K. (2019). A Conceptual Framework: Corporate Environmental Management Activities and Sustainable Competitive Advantage. *Management of Environmental Quality*. 31(2),331-347. <https://doi.org/10.1108/MEQ-09-2019-0187>
- Bollen, K. A., and Long, J. S. (1993). *Testing Structural Equation Models*. CA: Thousand Oaks, Sage Publications.
- Bujang, M.A., Omar, E.D., and Baharum, N. A. (2018). A Review of Sample Size Determination for Cronbach Alpha Test: A Simple Guide for Researchers. *The Malaysian Journal of Medical Sciences*. 25(6),85-99. <https://doi.org/10.21315/mjms2018.25.6.9>
- Coad, A., Holm, J.R., Krafft, J., and Quatraro, F. (2018). Firm Age and Performance. *Journal of Evolutionary Economics*. 28(1),1-11. <https://doi.org/10.1007/s00191-017-0532-6>
- Donaldson, L. (2001). *The Contingency Theory of Organizations*. CA : Thousand Oaks, Sage Publications.
- Demirkan, I. (2018). The Impact of Firm Resource on Innovation. *European Journal of Innovation Management*. 21(4),672-694. <https://doi.org/10.1108/EJIM-12-2017-0196>
- Duran, N.F.N., Cabuya, I.R.C., and Molina, S.A.P. (2020). Reliability and Validation Model for a Porter's Competitive Forces "threat of new entrants": Findings from Banking Industry in Colombia. *Journal of Applied Social Science*. 65(2),1-26. <http://dx.doi.org/10.22201/fca.24488410e.2018.1796>
- Elkington, J. (1997). *Cannibals with Forks. The Triple Bottom Line of 21st Century Businesses*. Oxford : Capstone Publishing Limited.
- Fernando, M. W. (2018). Sustainability Marketing Tools in Small and Medium Enterprises. *The Sustainable Marketing Concept in European SMEs*. 22(5),81-117. <https://doi.org/10.1108/978-1-78754-038-520180005>



- Hair, J. F., Black, W. C., Babin, B. J., and Anderson, R. E. (2010). *Multivariate Data Analysis: a Global Perspective*. 7th ed. Upper Saddle River, NJ : Pearson Prentice Hall.
- Hamdoun, M. (2020). The Antecedents and Outcomes of Environmental Management Based on The Resource-base View: A Systemic Literature Review. *Management of Environmental Quality*. 31(2), 451-469. <https://doi.org/10.1108/MEQ-12-2019-0280>
- Henry, L.A., Buyl, T., and Jansen, R.J.G. (2019). Leading Corporate Sustainability: The Role of Top Management Team Composition for Triple Bottom Line Performance. *Business Strategy and Environment*. 28(1), 173-184. <https://doi.org/10.1002/bse.2247>
- Hurth, V. (2017). Characterising Marketing Paradigms for Sustainable Marketing Management. *Social Business*. 7(3-4),359-390. <https://doi.org/10.1362/204440817X15108539431541>
- Iacobucci, D., Gabriel, M.L.D.S., Schneider, M.J., and Hamza, K.M. (2020). Marketing Research on Environmental Sustainability. *Review of Marketing Research*. 17(1),261-292. <https://doi.org/10.1108 /S1548-64352020000017019>
- Janhanshahi, A., and Brem, A. (2017). Sustainability in SMEs: Top Management Teams Behavioral Integration as Source of Innovativeness. *Sustainability*. 9(10),1-16. <https://doi.org/10.3390/su9101899>
- Jang, Y. J., Zheng, T., and Bosselman, R.H. (2017). Top managers' Environmental Value, Leadership, and Stakeholder Engagement in Promoting Environmental Sustainability in the Restaurant Industry. *International Journal of Hospitality Management*. 63(2),101-111. <https://doi.org/10.1016/j.ijhm.2017.03.005>
- Jiang, Y., Jia, F., Blome, C., and Chen, L. (2019). Achieving Sustainability in Global Sourcing: towards a Conceptual Framework. *Supply Chain Management*. 25(1),35-60. <https://doi.org/10.1108/SCM-12-2018-0448>
- Kamper, J.A., and Ballantine, P. (2019). What do we mean by sustainable marketing?. *Journal of Marketing Management*. 35(3-4),277-309. <https://doi.org/10.1080/0267257X.2019.1573845>
- Kline, R. B. (1998). *Principles and Practices of Structural Equation Modeling*. New York : The Guilford Press.
- Kline, R. B. (2005). *Methodology in The Social Sciences. Principles and Practice of Structural Equation Modeling* (2nded). New York : Guilford Press.
- Knight, H., Megicka, P., Agarwal, S., and leenders, M.A.A.M. (2018). Firm Resource and the Development of Environmental Sustainability among Small and Medium-Sized Enterprises: Evidence from the Australian Wine Industry, *Business Strategy and the environmental*. 28(1),25-39. <https://doi.org/10.1002/bse.2178>
- Kullkarni, V. (2017). *Contingency Theory*. New York : John Wiley & Son.
- Kwatra, S., Kumar, A., and Sharma, P. (2019). A Critical Review of Studies Related to Construction and Computation of Sustainable Development Indices. *Ecological Indicators*. 112(1),1-37. <https://doi.org/10.1016/j.ecolind.2019.106061>
- Li, Y., Ye, F., Dai, J., Zhao, X., and Sheu, C. (2019). The Adoption of Green Practices by Chinese Firms: Assessing the Determinants and Effects of Top Management Championship. *International Journal of Operations & Production Management*. 39(4),550-572. <https://doi.org/10.1108/IJOPM-12-2017-0753>
- Mahat, M. (2019). The Competitive Forces that Shape Australian Medical Education: An Industry Analysis Using Porter's Five Forces Framework. *International Journal of Educational Management*, 33(5); 1082-1093. <https://doi.org/10.1108/IJEM-01-2018-0015>



- Matemilola, B.T., Bany-Arifin, A. N., Nassir, A.M., and Azman-Saini, W. N. W. (2017). Moderating Effects of Firm Age on the Relationship between Debt and Stock Returns. *Journal of Asia-Pacific Business*. 18(1),81-96. <https://doi:10.1080/10599231.2017.1272999>
- Neuman, W. (2006). *Social Research Methods: Qualitative and Quantitative Approaches*. (7thed). Boston : Allyn and Bacon.
- Nunnally, J. C., and Bernstein, I. H. (1994). *Psychometric Theory*. (3rded). New York : McGraw Hill.
- Omsa, S., Abdullah, I.H., and Jamali, H. (2017). Five Competitive Forces Model and The Implementation of Porter's Generic Strategies to Green Firm Performance. *Science Journal of Business and Management*. 5(1),9-16. <https://doi:10.11648/j.sjbm.20170501.12>
- Portillo, P., Scarpellini, S., Moneva, J.M., and Valero-G.J. (2018). Classification and Measurement of the Firms' Resources and Capabilities Applied to Eco-Innovation Projects from a Resource-Based View Perspective. *Sustainability*. 10(9),1-23. <https://doi:10.3390/su10093161>
- Rudawska, E. (2019). Sustainable Marketing Strategy in Food and Drink Industry: A Comparative Analysis of B2B and B2C SMEs Operating in Europe. *Journal of Business & Industrial Marketing*. 34(4),875-890. <https://doi.org/10.1108/JBIM-05-2018-0171>
- Savelei, V. (2020). Improving Fit Indices in Structural Equation Modeling with Categorical Data. *Multivariate Behavioral Research*. 13(1),1-18. <https://doi:10.1080/00273171.2020.1717922>
- Taherdangkoo, M., Mona, B., and Ghasemi, K. (2018). The Role of Industries' Environmental Reputation and Competitive Intensity on Sustainability Marketing Strategy. *Spanish Journal of Marketing*. 23(1),3-24. <https://doi:10.1108/SJME-02-2018-0005>
- Trivedi, K., Trivedi, P., and Gojwami, V. (2018). Sustainable Marketing Strategies: Creating Business Value by Meeting Consumer Expectation. *International Journal of Management, Economics and Social Sciences*. 7(2),186-205. <http://hdl.handle.net/10419/180785>
- Turner, R., and Carlson, L. (2003). *Indexes of item-objective congruence for multidimensional items*. London: Lawrence Erlbaum Associates Inc. https://doi.org/10.1207/S15327574IJT0302_5
- Yacob, P., Wong, L.S., and Khor, S.C. (2019). An Empirical Investigation of Green Initiatives and Environmental Sustainability for Manufacturing SMEs. *Journal of Manufacturing Technology Management*. 30(1), 2-25. <https://doi:10.1108/JMTM-08-2017-0153>