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Organizational Support and Sustainable Entrepreneurship Performance of SMEs, the Moderating Role of Strategic Sustainability Orientation

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Abstract

Small and medium sized enterprises' (SMEs) activities have contributed significantly to environmental degradation that causes a disastrous effect on us and our future generation. Considering this, sustainable entrepreneurship has been promoted as a resolution of ecological problems capable of addressing climate change issues, public health, and safety concerns, and has become critical for competing in international markets. SMEs activities increased pollution exclusively causing environmental degradation. In response, the world is focusing on ensuring that SMEs produce products through safe and environmentally friendly practices. Literature suggests that organizational support provide SMEs with the impetus to achieve competitive advantage regarding turnover, customer attraction and market share opportunities to achieve business performance. Nonetheless, the implementation of sustainable entrepreneurship among them is still low due to numerous challenges. This paper intends to investigate the influence of organizational support on sustainable entrepreneurship towards performance among SMEs. A case study involving 300 herbal-based SMEs were surveyed using structured questionnaire. Data was analyzed using descriptive statistics, exploratory factor analysis, confirmatory factor analysis, and structural equation model. The results show that organizational support have a positive effect on sustainable entrepreneurship and performance among the SMEs, accounting for 52% and 47% variance respectively. This finding reveals that organizational support is significantly related to entrepreneurship performance, thus substantiates previous findings on the crucial roles of organizational support in enabling organizations to achieve sustainable entrepreneurship performance. This study contributes to triple bottom line literature based on incorporation of strategic choice theory, strategic sustainability orientation and resource-based view theory in entrepreneurship framework.

Keywords: entrepreneurship, organizational support, performance, SMEs, strategic sustainability orientation

1. Introduction

Entrepreneurship is a vague concept. There are a number of perspectives the term 'entrepreneurship' meant; while it focus on business development aspects on one part, the other part focuses on entrepreneurial behavior – possibly linked to activities of those in the commercial and non-commercial sectors. For instance, 'new firms' and/or existing 'small, and medium-sized enterprises' (SMEs) are often considered synonymous with entrepreneurship, and owner-managers, or in some cases 'dynamic' or fast growing new firms. Elsewhere, it takes a view of: providing certain functions in the economy, particularly in innovation and resource allocation (innovative entrepreneurs); or as a form of behavior characterized with systematic utilization of opportunities; or as a set of personal traits, cognitive styles, attributes or motivations (such as risk taking or being a 'great leader') of entrepreneurs [1].

In the eighteenth century, Richard Cantillon used the French term entrepreneur to describe a 'go-between' or a 'between-taker' who bought goods at certain prices and sold at uncertain prices (as the goods were purchased at a given price, there wasn't any clue on what price to sell them for). So the entrepreneur bore the risk and uncertainty of a venture but kept the surplus after the contractual payments had been made. Later, the concept was widened to include planning, supervising, organizing, and even owning the factors of production by the French philosopher, Jean-Baptiste Say and others. During the nineteenth century, entrepreneurial activity became fruitful due to technological advances during the Industrial Revolution; this further provided the drive for continued inventions and innovations.

The activities of entrepreneurs have contributed greatly to environmental degradation overtime [2]. However, the essence of every enterprise lies on sound entrepreneurship [3]. It has since been linked to wealth generation and economic growth for decades and in the modern society [4] aside market failure. Such degradation has caused a devastating effect to us and to our future generations. As such, linking entrepreneurship to sustainability development has been stimulated as a resolution of environmental problems [5]. Nowadays business operators' balance between economic gains and environmental concerns [6] as a matter of utmost importance, and the new business paradigm urges leaders to substantially focus on it [7].

In recent years, entrepreneurship has attracted wide interest following global developments which emphasizes sustainability in addressing various environmental and social issues. Currently, entrepreneurship has new business hype; where every self-respecting company portrays itself as a sustainable entrepreneur. Because of its increased importance, Business schools and employers' organizations devote whole conferences to the topic [8]; different themes were used to describe it (corporate social responsibility, ethical funds, and eco-efficiency, etc). Although these words reflect different concepts, they all point at various aspects of sustainable development. They mentioned that there is also a flourishing business in (expensive) sustainable entrepreneurship certifications; exclusively for big companies that publish sustainability reports yearly. This raises the question whether SMEs can afford to be sustainable entrepreneurs?

In 2004, [8] defines sustainable entrepreneurship as "the continuing commitment by businesses to behave ethically and contribute to economic development while improving the quality of life of the workforce, their families, the local and global community as well as future generations". Therefore, from an entrepreneurship perspective, an enterprise is not only a nexus of responsibilities towards the shareholders, but also towards nature, society and future generations. When the enterprise's interest is all-encompassing, its decision making process changes, and then we can genuinely speak about a whole new enterprise with a unique

operational management. For the fact that an enterprise does not operate on a deserted island, rather is entrenched in an economic, social, cultural and ecological environment that offers possibilities and poses threats and obligations which the theory and concepts of entrepreneurship try to find the right balance.

This chapter attempts to define sustainable entrepreneurship by synthesizing works from previous researchers with focus on sustainable drivers, sustainable orientation, and sustainable performance outcomes. Sustainable entrepreneurship stems from sustainable development and organizations brand themselves as sustainable entrepreneurs these days for noticeable development [9]. Indeed, integrating sustainability management into business practices have significantly contributed to sustainable development [4, 10]. Per the aforementioned, sustainable entrepreneurship refers to a firm's intra-organizational and inter-organizational practices for managing upstream suppliers, internal operations, and downstream customers to simultaneously achieve firm performance.

The SMEs form an important unit that should not be neglected when developing sustainable entrepreneurs in the society, because they contribute significantly to the economic development of a country. They significantly contribute to economic growth and employment globally (Organization for Economic Co-operation and Development) [11]. Though they exert relatively small impact individually, collectively their impact is substantial. In most nations, SMEs typically comprises about 95% of all private sector firms, thus forming a major portion of all economic activity [12]. Furthermore, they account for 35% of exports from Asia and approximately 26% of exports from developed countries including the United States [11]. For instance, SME accounted for 90% of all businesses and has employed 60% of workforce in the Asia-Pacific Economic Cooperation (APEC) region [13]. Also, they contribute up to 60% of the total national exports in countries like Italy, South Korea and China, [14].

1.1 The essence of sustainable entrepreneurship

Based on a well-known marketing principle, sustainable development is said to deal with the Triple-Bottom-Line; environmental quality, economic prosperity and social justice [15]. Additionally, some scholars [8, 16, 17] described sustainable entrepreneurship using a 3Ps formulation which includes people, profit, and the planet. They mentioned that all three aspects must be satisfied before any entrepreneurial activity can become sustainable.

In their work, [8] viewed sustainable entrepreneurship principally from the Triple-Bottom-Line; people, planet, and profit perspective. The first P (people) narrates the firm behavior concerning social and ethical dimensions, employee treatment and promotion of social cohesion – human right protection and gender relationship. The second P (planet) reviews the firm's disposition on the environment while the third P (profit) tells the enterprise's financial returns, allocation, and gains distribution between relevant stakeholders. They further opined that the sustainability of entrepreneurial activity is consistent with satisfying and maintaining balance among the components of the Triple-Bottom-Line.

Previous studies on the acceptance of environmental criterion on entrepreneurship activities have yielded economic benefits [2], innovation [18], competitive advantage [19–21], motivation [22], loyalty and customer satisfaction [23, 24] for the industry despite a reduction in levels of contamination and pollution [25]. In 2001 [26] stated that novel business opportunities and competition, value-addition measures, activities and processes were born out of environmental conservation efforts. Moreover, various involuntary factors have coerced the business entities to adopt sustainable practices [27]. For instance, the literature shows that legal

compliance is the main reason for accepting environmental practices [27, 28], profit orientation and obeying the law [29–32]. It is somewhat difficult for SMEs to see the link between environmental management systems (EMS) implementation and its benefits [33]. However, to encourage the adoption of sustainable activities within an industry, it is ideal to eradicate all the obstacles surrounding it and provide incentives [32, 34, 35]. In 2008 [36] opines that the burdens and expenses related to environmental technologies execution, and their productivity vary with the stakeholders circumstances and interests. Still, nowadays customers prefer paying more to purchase environmentally friendly products. Customers prioritize environmental issues when making their purchases, for example, collectivism is a good predictor of consumers' intention to pay more for green wine packaging [37].

A possible general gain of implementing sustainable entrepreneurship among SMEs is the internal dynamics that sustainable approaches introduced in both the production process and human resource management. It is possible to lead to a bolder investment policy in both technology and personnel that will produce results in the long run. Another argument covers the concentration trend of big global companies; SMEs obviously cannot compete with these international players, so they are therefore better off when they focus on their surroundings. The other benefits can be summarized as follows: A positive image and reputation; Lesser reliance on depleted resources; Higher employee motivation and new employee appeal; Efficient production due to superior technologies and better skilled staff; Superior market preferences and opportunities insight; Risk control (environmental accidents, scandals, bad publicity, etc.); Lower burden from changes in (environmental and social) legislation; Corporate social responsibility; Internal business dynamics; Business partnerships with other sustainable entrepreneurs; and Business partnerships with global players.

Sustainable entrepreneurship requires an on-going discourse between shareholders and stakeholders. Since a healthy financial basis remains essential, not only will shareholders have to live up to their social and environmental responsibility, but - especially in the case of SMEs - will stakeholders have to understand that sound financial results are essential for the survival of the enterprise. If not, there is no enterprise, let alone a sustainable one. After itemizing the possible gains of sustainable entrepreneurship for SME, a critical unsolved question remains: can SMEs afford it?

The size of a firm (SME) influences its entrepreneurship practices. SMEs could maintain a meaningful balance between profit, the environment, and social causes despite their limited business experience and financial resources, and still develop their companies successfully [18]. Yet, their involvement in sustainable entrepreneurship is still low. This low participation results from low knowledge and awareness for desired sustainability drivers, strategic sustainability orientation and sustainability practices leading to high-performance on the producers' part, while there also exist slight customer knowledge, awareness, and demand for environmentally friendly products.

1.2 Literature review

1.2.1 Sustainable entrepreneurship

The adoption of sustainable entrepreneurship in the context of SMEs has been receiving much attention recently because of the environmental issues related to their activities [22]. This is the current trend across the globe, hence; the most important direct drivers of environmental degradation are the activities involving the production, distribution, storage and other logistics along the value chain.

Thus, these activities tend to correlate to various environmental issues like the impact on the environment, rivers, natural resources, and the well-being of the people around. There also is the need for a more sustainable level of management of natural resources as this source will significantly reduce if there is no proper monitoring.

Some literature related to the drivers for environmental initiatives revealed that numerous sustainability initiative drivers exist. **Table 1** provides a summary of studies that empirically investigate the drivers for sustainability initiatives. Highlighting the eleven basic categories of drivers: Economic factors, Consumer pressure, Government encouragement [28, 42], Standard and regulation [42], Supplier participation specifically for SMEs [41], Internal and External pressure/ impediments [22, 38, 39], Social corporate responsibility, Environmental concerns and profit balancing [18], Benefits to the company [40], Quality management and production and Competitive advantage [32].

Generally, SMEs attribute their difficulties to constraints such as low capital investment, low-profit margins, the small and variable scale of operation, and low productivity. Previous studies show that most SMEs produce and market low value products locally. Hence their engagement in unsustainable entrepreneurial practices causing environmental degradation, increased waste generation, severe hazards and environmental pollution (both air and water). This in turn affects business activities economically via increase waste disposal costs, inefficient production and consumption of products and materials, and decreasing business opportunities.

Relevant literature	Driver	SME field of business
[38]	Perception and Cognition (internal and external) concerns.	Malaysia Herbal-based SME Entrepreneur
[22]	Perceived relative advantage, complexity, attitude, subjective norms, perceived behavioral control and intention.	Malaysia Traditional & complimentary herbal-based entrepreneurs
[39]	External and internal impediments to expanding operations by SMEs.	Entrepreneurship management strategy by SMEs
[40]	Transformational leadership and Perceived organizational support have a relationship with Innovation Performance.	Malaysian SMEs
[32]	Continuous improvement (CI), supplier management (SM), and environmental management (EM).	Chinese and Taiwan Manufacturing Firms
[28]	Economic factors, Ethical considerations (that is, government policy has triggered the environmental initiatives among the respondents).	Service accommodation
[41]	Buyer, Supplier participation, Government encouragement. Profit balancing, Environmental issues, Social concerns.	SME supplier
[18]	Government laws and regulations, Companies responsibility towards local communities (local, national and global communities), Customers (international buyers).	Sustainable entrepreneurs in different business background.
[42]	Top management leadership, Regulations, Customer pressure, Expected business benefits, Firm ownership	Leading frozen seafood processor

Table 1.
Empirical studies on drivers towards sustainable practices and performance among SMEs.

At the same time increasing negative environmental impact through the emission of pollutants to the environment, raising the GHG emissions, subsequently leading to global warming.

In addition, it leads to the contamination of water sources posing a threat for the world to sustain its potable water sources. Lastly, human health is affected by adulterated products produced with microbial and heavy metals presence, and subsequently causes social issues (like negative company image and reputation, low employee motivation, and shunning of corporate social responsibilities). Therefore, to overcome these challenges, SMEs need to develop an organizational culture through strategic sustainability orientation capable of enabling them to implement sustainable entrepreneurship. However, sustainability drivers and sustainability strategy factors have become crucial factors that could drive the success of SMEs in the future.

1.2.2 Organizational support

Organizational support is a prerequisite for a successful transformation of an organization. It denotes how top management guide and influence its employees towards achieving organizational goals. Effective leaders are essential in contributing to the success or failure of a group, organization, or even a whole country [43]. Previous studies show that a good leader is capable of enhancing firm performance [44–46], increasing employees' satisfaction, and improving employees' motivation [47]. Organizational support provides a sound strategic direction and encourages employee motivation [48].

Organizational support is essential for enhancing sustainable entrepreneurship because, leaders are expected to create the best possible products and services through optimum utilization of available resources [49]. Since a substantial change realization requires substantial time and energy, a possible decline in the initial motivation may occur, consequently, those leaders uninterested in sustainable entrepreneurship may fail to provide motivational support, and active participation in the change initiatives. Scholars [50–52] argued that the successful launching and implementation of changes hinges on the product of organizational support from the top leadership. An effort by the organization to shift towards sustainability is considered a vital change initiative that requires cultural change throughout the entire organization [53]. As such, the top leadership provides that support which becomes a firm's vital resource to successfully implement sustainability initiatives [50].

Based on the arguments by [38, 54] that organizational support by top management allows entrepreneurship development and continuous performance improvement among SMEs in Malaysia, the contribution of this study is to support these findings through evaluating the influence of organizational support on sustainable entrepreneurship practices towards performance among Malaysian herbal-based SMEs. Therefore, it is imperative to investigate the potential impact of organizational support in guidance and maintenance of entrepreneurship operations among the Malaysian herbal-based SMEs towards sustainable business performance [55].

1.2.3 Performance

As the global economic order unfolds, organizations are becoming increasingly aware about performance measurement. Performance is multifaceted. This chapter will dwell on only three dimensions: economic, environmental, and social performance. Also, [56] suggested that performance measurement may likely become more complex as stakeholder expectations about companies' economic, environmental, and social responsibilities are constantly shifting.

Performance is one of the most important motives for implementing sustainable entrepreneurship. In 2001, [57] suggested that initial implementation of sustainable entrepreneurship might not positively affect profitability and sales performance in the short-term due to its initial upfront costs. It will however prepare them for a greater long-term performance; through improved capacity for managing environmental risks and effecting continuous environmental and social improvement [58]. The appropriate implementation of improved practices about internal operations is positively associated with firm sustainability performance.

1.3 Theoretical framework

Researchers argued that firms that often implement sustainable entrepreneurship achieve higher performance through lower costs, higher product quality, faster and more reliable delivery, and process flexibility [32, 59, 60]. Also, the practice will help in reducing pollutants and waste to improve environmental performance [32]. Therefore, based on these premise, this chapter assumes that those SME managers that support their employees in implementing sustainable entrepreneurship would achieve business performance.

This study intends to explore the existing interrelationships among and between sustainability antecedents, business strategy, sustainable entrepreneurship implementation, and performance through four different theories, thus; Triple-Bottom-Line (TBL), Strategic Choice Theory (SCT), Strategic Orientation Theory (SOT), and the Resource-Based View Theory (RBV).

1.3.1 Triple-bottom-line (TBL)

Triple-Bottom-Line (TBL or 3BL) is a concept coined by [15] in 1997 with the sole aim of searching for a new lens to view the sustainable values in business practices. He reported that sustainable business conduct has three main value creating aspects, namely: (i) Economic prosperity; (ii) Environmental quality and; (iii) Social justice. His concept was further developed into the “3P formulation” which consists of “people, planet and profit” [16]. Nevertheless, he [16] never illustrated any diagram for TBL; as such, several researchers developed various graphical illustrations on their own to represent TBL with inspiration from him [15, 16]. Currently, there is an increasing use of TBL as a tool or device for sustainable reporting under the headings of environmental quality, social justice and economic prosperity by organizations; due to its ease in monitoring the effects of business activities on the three dimensions in TBL [61, 62].

1.3.2 Strategic choice theory

Strategic Choice Theory [63] suggests the significant role that managerial discretion, understanding, and perspective play towards making crucial choice when taking organizational actions. He further explained that the theory suggests that organizations formulate and implement strategies using freedom of choice while responding to environmental issues to ensure efficient outcomes. Strategic Choice Theory assumes that there is a need for organizations to adapt its internal abilities to external opportunities [64]. This assertion however lends support to the earlier view of [65–67] that organizational structure should follow a strategy; and the choice of the strategy of interest depends on the adjustments made in the organizational structure. Other scholars [68, 69] argue that the theory assumes that there is no specific, unique, or universal management style that can suit any type of organization in different contexts, therefore proposed that organizations should

adapt their internal structures to the contingencies perceived in the surrounding environment in which they operate.

1.3.3 Strategic sustainability orientation

Strategic sustainability orientation refers to the strategy-making processes that provide firms with the basis of entrepreneurial decisions and actions [70, 71]. It refers to the strategic entrepreneurial posture that characterizes the behaviors which SMEs engages to discover and exploit entrepreneurial opportunities [71]. Basically, it refers to a firm's strategy, capturing the specific entrepreneurial aspect of decision making styles, methods, and practices [72]. In 2009, [73] defines it as the extent to which an organization is proactive and committed to economic, environmental, and social priorities in its decision-making.

1.3.4 Resource-based view

The resource-based view of the firm theory posits that when a firm have rare, valuable, and non-substitutable resources, it becomes its primary predictors of sustained competitive advantage [74, 75]. Therefore, the study emphasizes on SMEs' unique resources (which include all its assets and capabilities, its attributes, information, and the knowledge it controls) that will enable them to implement sustainable entrepreneurship towards attaining business performance [76].

The study framework examine how SMEs transform their cultural norms and organizational structure to gain social legitimacy among external stakeholders such as competitors, governmental regulators, supply chain members, and NGOs [77]. Also, it examines how SMEs management, using freedom of choice (discretion, interpretation, and perspective) changes the firms' orientation towards implementing sustainability initiatives through creating a sustainability culture [78] via business strategy formulation (that is, the relationship between drivers and strategic orientation), and finding specific ways of efficiently implementing the formulated plan to create favorable performance (that is, the relationships between strategic sustainability orientation, and performance). In essence, the study examines how organizational support trigger SMEs' strategic sustainability orientation. Moreover, using the theoretical perspective of obtaining social legitimacy, clarify on the differentiation in SMEs sustainability orientation under different pressures [79–81]. Furthermore, strategic sustainability orientation acts as a dynamic organization-wide orientation that allows SMEs to invest different types of resources in sustainable entrepreneurship. Finally, using the logic of the TBL and RBV, this study explores how sustainable entrepreneurship implementation gives firms a competitive advantage.

The role of SME entrepreneurs, managers, and employees is critical in building external relations; in this vein, the larger the firm OS, the more intense the reactivity on SE commitment [22]. In this study, the construct of OS includes the managerial attitude and perspectives, top management support and employee motivation. To sum up, SME managers can influence firm SE adoption rate and be directly related to the degree of involvement via the use of OS and SSO. Based on the above arguments, this paper hypothesized that:

H1 SMEs' OS is positively related to their SSO.

H2 SSO is positively related to SE implementation.

H3 There is a positive relationship between SMEs' OS and SE.

H4 There is a positive relationship between SMEs' SE implementation and performance (economic, environmental, and social).

2. Methodology

2.1 Population and sample

The study used a population of the herbal-based SMEs registered with the National Pharmaceutical Regulatory Agency (NPRA) in Malaysia, because they produce herbal products. There are 532 herbal-based SMEs registered under the traditional and complementary medicine with different categories [82]. Consistent with the suggestions of [83], a total of 300 samples are sufficient for this study; census sampling was employed because of its usability under specific constraints such as budget, time frame and small size population [84].

2.2 Instrument of research

The study employed data collection survey method. A structured questionnaire was designed to elicit information about firm profile characteristics, organizational support, sustainable entrepreneurship, and performance of the herbal-based SMEs in Malaysia. All the items were designed in a five-point Likert scale to generate statistical measurements among the herbal-based SMEs' perception and opinions [85]; based on 'strongly disagree' (one) to 'strongly agree' (five) in respect of their OS and SSO respectively. For SE, the respondents were asked to choose based on 'not at all' (one) to 'to a great extent' (five). For Performance the measure includes: economic performance, based on 'strongly deteriorated (>20%)' (one) to 'strongly improved (>20%)' (five), while for both environmental and social performance, based on 'significant decrease' (one) to 'significant increase' (five) respectively. All items were adapted from previous established studies to ensure their reliability and validity. **Table 2** presents a summary of the questionnaire used for the study.

2.3 Biases controlling techniques

Some techniques were employed in the study to ensure the absence of bias in the data; for nonresponse bias, a comparison made regarding annual revenue and number of employees between early and late respondents revealed no significant difference between the two groups [86, 87]. This result suggests the absence of response bias. For common method bias Harman one-factor test was employed [88, 89].

Variable	No of Items	α
Section A	5	N/A
Firm Profile Characteristics		
Section B	4	0.931
Organizational Support		
Sustainable Entrepreneurship	7	0.915
Performance	18:	0.859
Economic	5	0.866
Environmental	7	0.820
Social	6	

Table 2.
A summary of the questionnaire used for the study.

The fundamental assumption of this technique is to detect the presence of common method variance, leading to a single factor emergence from the factor analysis or most concentration of the covariance in one of the factors [90]. As expected, the results yielded four factors which accounted for 71.049% of the total variance. Therefore, neither a single factor emerged from the Harman one-factor test nor did any factor accounted for most of the variance. These results revealed less serious concern regarding common method biases and provided support for the validity of the measurement.

3. Results and discussion

3.1 Firm profile characteristics

The summary of the firm profile characteristics of the herbal-based SMEs is presented in **Table 3**; majority of the firms were owned by sole proprietor (51%), partnership (33%) followed, then corporations (16%). More than two-third of the herbal-based SMEs were established less than 10 years (74%). Also about half of the herbal-based SMEs have staff strength of less than five employees (53.4%) and were in the market less than 10 years (88.4%). For annual revenue, majority of the

Firm profile characteristics	N = 300	
	F	%
Firm type	153	51.0
Sole Proprietorship		
Partnership	99	33.0
Corporation	48	16.0
Firm age	222	74.0
<10 years		
> 10 years	78	26.0
Firm size		
<5 people	160	53.4
5–75 people	88	29.3
>75 people	52	17.3
Annual revenue (RM)		
<0.3 Million	181	60.4
0.3–15 Million	94	31.3
>15 Million	25	8.3
Market experience		
<10 years	265	88.4
>10 years	35	11.6
Firm scope		
Local	231	77.0
International	69	23.0

Table 3.
A summary of the firm profile characteristics of the SMEs.

herbal-based SMEs were having less than RM300,000 (60.4%), and market their products locally (77%).

3.2 The structural model evaluation

This multivariate statistical model extends the possibility of relationships among the latent variables. A structural model displays the interrelations among latent constructs and observable variables in the proposed model as a succession of structural equations. **Figure 1** illustrates the research model. The model-fit indices justifies that the overall adjustment is precise (see **Table 4**). The chi-square statistic measures the distance between the original data matrix and the matrix estimated by the model, so it shows a value of 745.589 ($p < 0.001$). It also shows an agreeable χ^2/df with an index of 2.032, which is below 3.0 threshold value referred by [56]. Additionally, the comparative fit index (CFI) with a value close to one (0.932) indicates an acceptable fit. Root Mean Square of Error Approximation (RMSEA) (0.059) achieved an excellent value, which indicates that the structural model falls within the agreeable range (between 0.030 and 0.080). While Standardized Root Mean Square Residual (SRMR) of (0.065) is within the range of accepted value which indicates a close fit of the proposed model concerning degrees of freedom and the sample variances and covariance, respectively. Therefore, it can be concluded that the data fit the model well considering the entire fit indices [91]. The estimated and evaluated full structural equation model indicated acceptable measurement properties for all latent constructs and their observed indicators. In evaluating the structural model, fit indices examination is the initial step; a scenario of an adequate goodness-of-fit, therefore, demonstrates the soundness of the posited linkages.

The measurement and structural model were assessed by structural equation modeling (SEM) using Amos Graphics because of its good explanatory nature via combining CFA and multiple regression analysis in a transparent manner [84]. **Table 5** presents the psychometric properties of the constructs tested in the model. As [83] suggested, the required measurements refer to the investigation of convergent validity, individual item reliability, composite reliability, and discriminant validity of the measurement model. All AVE values were higher than 0.50. However, since composite reliability is more accurate than Cronbach alpha, we used it to overcome potential deficiencies in the different indicator loadings. All composite

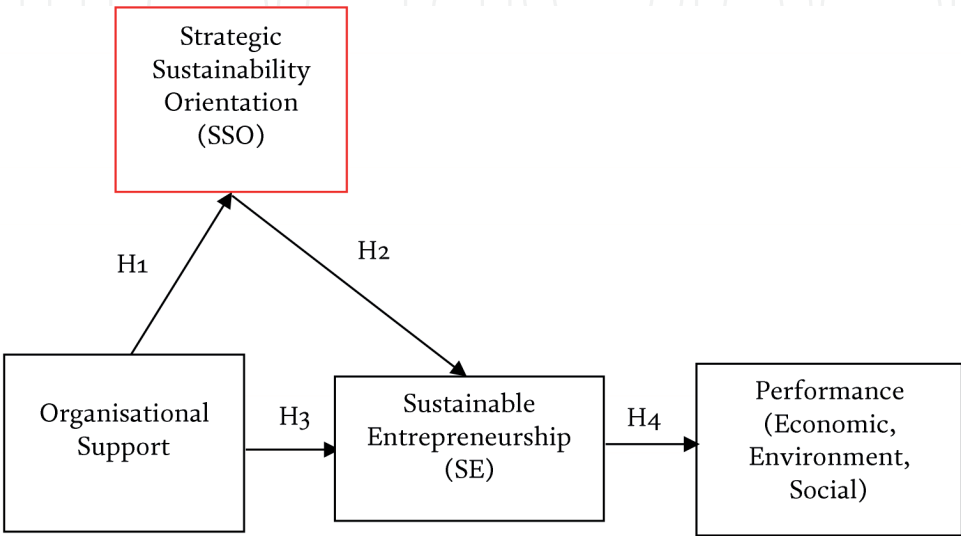


Figure 1.
Proposed model and relationships among OS, SSO, SE, and performance. Source: Author’s own.

Measure	Estimate	Threshold	Interpretation
CMIN	745.589	—	—
DF	367	—	—
CMIN/DF	2.032	Between 1 and 3	Excellent
CFI	0.932	>0.95	Acceptable
SRMR	0.065	<0.08	Excellent
RMSEA	0.059	<0.06	Excellent

Table 4.
Goodness of fit (GOF) result.

Dimension	No of items	CR	AVE
Performance	Three	0.757	0.522
SEP	Seven	0.934	0.671
OS	Four	0.859	0.545
SSO	Three	0.868	0.693

Table 5.
Psychometric properties of the constructs in the model.

reliability values were above the recommended threshold of 0.70, complying with the guidelines provided by [92]. In the present research, AVE values ranged from 0.522 to 0.693 while CR values ranged from 0.757 to 0.934.

3.3 Empirical findings

All the hypotheses were tested via SEM using Amos Graphics. This multivariate statistical model extends the possibility of relationships among the latent variables. The analysis of the hypotheses presents significant values and confirms all the relationships in the proposed model. The finding shows that OS directly contributed to SE implementation and indirectly through SSO among the herbal-based SMEs. **Table 6** shows the detail of the hypothesized relationships; H1 proposed that there is a positive relationship between OS by herbal-based SMEs and their SSO. However, the result shows that the magnitude of the relationship between OS and SSO was significant (β : 0.451, $p < .001$). Meaning that, considering the standardized regression weights, when OS goes up by 1 standard deviation, SSO goes up by 0.451 standard deviations. As such, H1 was supported. However, H2 proposed that herbal-based SMEs' SSO is positively related to their SE implementation. The result shows that the magnitude of the relationship between SSO and SE implementation was strong and shows support for a significant positive relationship (β : 0.545, $p < .001$). Considering the standardized regression weights, this means that, when SSO goes up by 1 standard deviation, SE implementation goes up by 0.545 standard deviations. As such, supports H2. The relationship between herbal-based SMEs OS, and their SE implementation was significant (β : 0.289, $p < .001$). This result indicates that, based on the standardized regression weights, when OS goes up by 1 standard deviation, SEP implementation goes up by 0.289 standard deviations respectively, thus, supporting H3. H4 proposed that higher level of SE implementation is positively related to Performance. However, the result shows that the magnitude of the relationship between a higher level of SE implementation and Performance was significant (β : 0.683, $p < .001$). Considering the standardized regression weights, when

Construct Path	Estimate	Std estimate	S.E.	CR	P	Result
H1 confirmed: OS \longrightarrow SSO	0.562	0.451	0.074	7.630	***	Significant
H2 confirmed: SSO \longrightarrow SE	0.848	0.545	0.087	9.738	***	Significant
H3 confirmed: OS \longrightarrow SE	0.560	0.289	0.100	5.577	***	Significant
H4 confirmed: SE \longrightarrow Per	0.180	0.683	0.027	6.690	***	Significant

***Note: Significant at $p < 0.001$ ($t > \pm 2.58$); $R^2 = 0.52$ and 0.47 ; SE = standard error; and CR = critical ratio.

Table 6.
Summarized results for hypotheses in the structural model analysis.

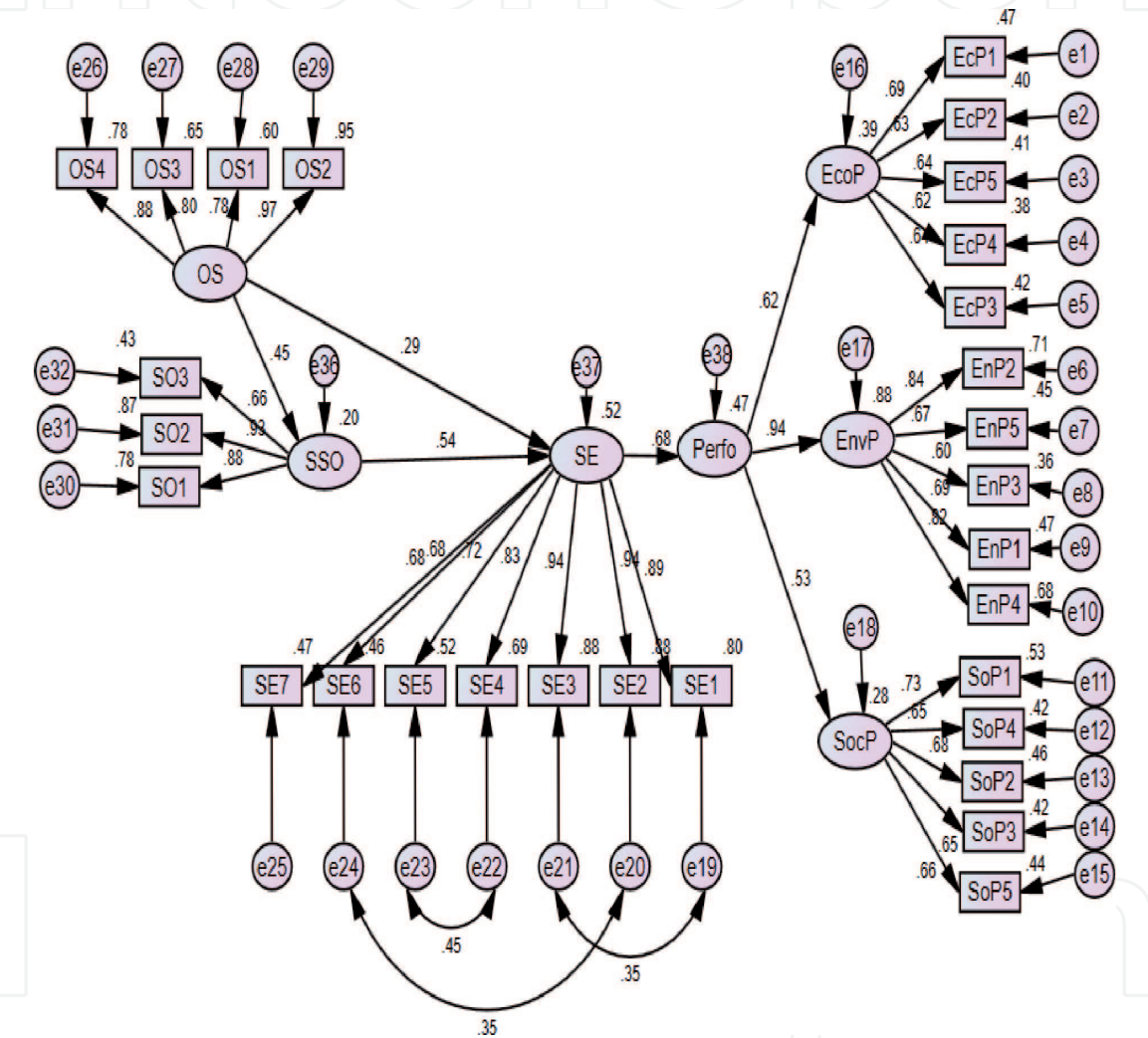


Figure 2.
AMOS test of the structural model.

the higher level of SE implementation goes up by 1 standard deviation, Performance goes up by 0.683 standard deviations. As such, H4 was supported (Table 6). The results show that OS and SSO explained 52% variation in SE implementation, while implementation of SE explains 47% variation of performance among the herbal-based SMEs. The SE implementation to performance path was the most influential predictor ($\beta = 0.683$), followed by SSO to SE implementation path ($\beta = 0.545$). The least relative path was the direct OS to SE implementation ($\beta = 0.289$). Conclusively, the SSO was the main predictor of SE implementation that leads to favorable performance among the Malaysian herbal-based SMEs. Figure 2 presents the diagram and results of the structural model.

4. Concluding remarks

Findings of this study show that OS construct have positive effects on SE implementation towards performance. As indicated in the SEM results, OS influences SE both directly and indirectly through SSO. However, the indirect influence was stronger. Hence, supports the first three hypotheses (H1, H2, and H3) which postulated that; OS has a significant direct effect on herbal-based SMEs SSO; SSO has a significant direct effect on herbal-based SMEs SE, and OS has significant direct effect on herbal-based SMEs' SE. The results have shown that the top management of the herbal-based SMEs made some commitment to sustainable business development through sustainability attitude and perspective, employee motivation, and

Sustainable entrepreneurship	
SE1	Our firm assesses the quality standard of stakeholders through ISO 9000 series certification
SE2	Our firm evaluates stakeholders' environmental commitment through ISO 14000 series certification
SE3	Our products are made from reduced hazardous materials
SE4	Our firm orders in small lot sizes from our suppliers
SE5	Our firm engages in remanufacturing of products
SE6	Our firm is committed to safe work environment
SE7	Our firm donates to community organizations
Performance:	
Environmental performance	
EnP1	Reduction of emissions
EnP2	Reduction of solid waste
EnP3	Recycling of waste materials
EnP4	Reduction of energy consumption
EnP5	Frequency for environmental accidents
Social performance	
SoP1	Social commitment
SoP2	Engagement with government officials
SoP3	The relationship with local communities
SoP4	Corporate reputation/image
SoP5	The relationship with NGOs
Economic performance	
EcP1	Conformance quality
EcP2	Ability to rapidly change production volumes
EcP3	Market share
EcP4	Return on investment (ROI)
EcP5	Profit margin on sales
Strategic sustainability orientation	
SSO1	Our firm is committed to improving market share
SSO2	Our firm is committed to pollution control
SSO3	Our firm is committed to enhancing social responsibility

Sustainable entrepreneurship	
Organizational support	
OS1	Our firm leadership believes that we will likely gain by implementing initiatives for productivity enhancements
OS2	Our firm leadership considers environmental preservation to be important
OS3	Our firm leadership considers improving the quality of life in respective local communities to be important
OS4	Our firm leadership encourages employees' efforts to reduce harmful environmental wastes

Table 7.
Operationalization of the constructs and their item.

employee support towards implementing SE in their business activities (**Table 7**). The provision of an enabling working environment for employees by SMEs (where top leadership is mindful and considerate of its employees' needs) will enhance continual improvement in performance of the organization, and encourage sustainable business development [50, 52, 93]. Therefore, it is imperative for all SMEs to concentrate on developing an organizational culture characterized by strategic sustainability orientation, positive attitude, employee motivation, and support. Though SME size and scale of production imposes a barrier to their success, nonetheless their chance to effectively achieve sustainable development lies on how their top management is committed to sustainability strategy. This study suggests that SMEs seeking for sustainable business performance should develop a sound organizational culture through sustainability orientation, which provides an enabling environment for SE implementation.

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