Determinants of Sustainable Development Among Malaysian Small and Medium Enterprises

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ABSTRACT

Sustainable development is an emerging paradigm designed to strike the balance between the ecological health of the planet and human development in a manner which ensures that both meet the needs of the present without compromising the future. However, little is known about the determinants of sustainable development among Small and Medium Enterprises (SMEs) in Malaysia. As such, the present study fills up the gaps by examining relationship between integrated management systems, technology and innovation capability, sustainability orientation, green corporate image, government support and sustainable development. A quantitative survey was done on Malaysian SMEs. Data collected were analyzed using smart-PLS 3.0. The present study discovered that technology and innovation capability, sustainability orientation and green corporate image had significant effects on sustainable development. However, integrated management systems and government support were insignificant. The factors that led to sustainable development were namely: technology and innovation capability, sustainability orientation, and green corporate

image. The findings can benefit enterprises and governments in building competitive, resilient, and sustainable enterprises.

Keywords: *Sustainable development; SMEs*

INTRODUCTION

Throughout the period since the release of the Brundtland Report by the World Commission on Environment and Development (WCED, 1987), the sustainable development concept has been gaining continuous interest from a majority of research disciplines in the recent decade. The world saw an increasing focus on business opportunities with the green agenda where traditional business was to encourage, to transform their business, to reflect their concern on an environmental, and social issue (Mazutis & Sweet, 2022) The commitment of social entrepreneurs to social goals can lead them to exploit limited resources and act productively within institutional constraints (Dyck et al., 2019). Despite institutional failures surrounding them, many enterprises attempt to implement strategies that promote sustainable development. Hence, sustainable entrepreneurship can be interpreted as a spin-off concept from sustainable development. Sustainable entrepreneurs are those companies that contribute to sustainable development by sustainably doing business (Lazano et. al, 2015).

Sustainable entrepreneurship has been widely debated lately (Zeng, 2017). Despite that, there is a lack of thoughtful consideration of the sum and substance of this phenomenon and the future of sustainable entrepreneurship in theory and practice (Muñoz & Cohen, 2018; Terán-Yépez et al., 2020). As such, sustainable entrepreneurship emerges as an important domain within the entrepreneurship study at present (Munoz & Cohen, 2018; Hall et al., 2010) and there is growing recognition that fundamental transformation is needed to reduce detrimental environmental and societal impacts created by our currently unsustainable business practices (Hall et al., 2010). In this context, sustainable entrepreneurship is increasingly recognized as a significant conduit for bringing about a transformation to sustainable products and processes, with numerous high-profile thinkers advocating sustainable entrepreneurship as a panacea for many social and environmental concerns (Hall et al., 2010). Besides, Shepherd and Patzelt (2011) argued that in today's world, the question as to how businesses can become a vehicle towards more sustainable

development has become more relevant than ever. As a way to solve the problems, crucial to a more sustainable economy is the successful implementation of sustainable practices through entrepreneurial activities (Patzelt & Shepherd, 2011).

Although the promise of sustainable entrepreneurship holds for fostering sustainable development, there remains considerable uncertainty regarding the nature of the role of sustainable entrepreneurship in the area. In addition, the determinants of sustainable development among small and medium enterprises in emerging economies is understudied (Zeng, 2017). The academic discourse on sustainable development within the mainstream sustainable entrepreneurship literature has to date been sparse. While entrepreneurs have long been recognized as a vehicle for exploiting emerging opportunities associated with societal needs, little understanding of how entrepreneurs will discover and develop those opportunities beyond the pull of existing markets. Thus, while the case for sustainable entrepreneurship as a panacea for transitioning towards a more sustainable society is alluring, there remain significant gaps in our knowledge of whether and how this process will unfold (Zeng, 2017). Besides, the relationship between sustainable entrepreneurship and sustainable development is often more prescriptive than descriptive and, perhaps, overly optimistic. Hence, it remains an open question as to what entrepreneurs have the potential for creating sustainable ventures, and if sustainable-oriented entrepreneurs differ from traditional entrepreneurs. Research is also needed to explore the role of public policy and how it may positively influence the incidence of sustainable entrepreneurship (Hall et al., 2010).

Small and Medium-Sized Enterprises (SMEs) have attracted research in various fields of study (Mazutis & Sweet, 2022). Because of their predominance, SMEs' significant role in preserving the environment is self-evidenced (Fonseca et al., 2020). Prashar and Sunder (2020) pointed out that research in operation management literature on sustainability considerations towards the social issue and environment and social dimensions were less explored. Despite the wealth of literature available in the field, there is a lack of a theoretical framework explaining the sustainable development in the SMEs (Sarango-Lalangui et al., 2018). As such, further study needs to be conducted to better explain the phenomena of sustainable development within the context of small businesses.

LITERATURE REVIEW

Sustainable Development

Sustainable Development requires a fundamental shift in consciousness as well as action. It calls for a fresh vision, a new dream, and new approaches for shaping evolving new realities. As early as Zhou Dynasty (110-771BCE), realized that the mountains, forests, and rivers should be rationally used according to the laws of nature rather than overexploiting them (Shi et al., 2019). Thus, it is a development paradigm as well as the concept that calls for improving living standards without jeopardizing the earth's ecosystems or causing environmental challenges such as deforestation and water and air pollution that can result in problems such as climate change and extinction of species (Benaim et al., 2008; Browning & Rigolon, 2019). Its significance has been growing since 1972, where "sustainable development" was first coined at the United Nations on the Human Environment, beginning the concept of sustainable development. Later, in 1987, the World Commission on Environment and Development drafted a report on human development, "Our Common Future," which the first time systematically stated the definition of sustainable development. The definition emerging from the report, "Sustainable development is a development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs" (WCED, 1987), emphasizes the dynamic aspect of sustainability. At its core is the notion that all-natural systems have limits, and that human well-being requires living within those limits. Issues such as population, food, spices, genetic resources, energy, human habitation, social justice, and human development within the framework of social equity and equitable distribution and resource utilization were highlighted in the "our common future" reports (WCED, 1987).

The ensuing decades saw fundamental challenges to sustainable development and sustainable growth at all levels of systems, from individual to global. Sustainable development came in as an idea more than 130 years ago (George, 1879). It evolved and gained significant popularity and emergence with an increasingly keen interest among academic scholars, especially on operation management, which recognized sustainable development as a critical and inter-disciplinary field of research (Gunasekaran & Spalanzani, 2012; Prashar & Sunder, 2020). Unsustainable

business practices have had a negative impact both socially and environmentally due to the misuse of natural resources and the non-conservation of the environment (Ben Youssef et al., 2018).

At present, SMEs have considered the aspects of social implication and environment protection in strategy formulation to improve economic welfare (Gast et al., 2017; Prashar & Sunder, 2020). While economic sustainability in SMEs is vital for their survival, the social and environmental dimensions and economic dimensions improve their overall performance by creating a new form of competitive advantage (Schwab et al., 2019). Hence, it is very crucial to explore the sustainable development in SMEs to gain a better understanding of the economic, social, and environmental impacts of their operations to ensure the well-being of future generation (Prashar & Sunder, 2020). The main message concerning sustainable development concepts is geared towards the economy, the environment, and the society. Specifically, they relate, among others, to the conservation of ecosystem and biodiversity, production systems, population control, human resource management, conservation of progressive culture, and people's participation (Molinario et al., 2020).

Dimension of Sustainable Development

VUCA Approach

The VUCA concept was first introduced by the U.S. military after the end of the Cold War to describe the conditions of a world ever more challenging to predict and rely on, shaped by Volatility, Uncertainty, Complexity, and Ambiguity (Shambach, 2004). Since its first appearance in the 1990s, the concept was quickly embraced by other fields such as strategic decision-making, risk management, and situational problem-solving. Business and management science adopted the VUCA concept after the financial crisis in 2008–2009 when societies, companies, and organizations all over the world suddenly found themselves faced with similar conditions in their social and economic environments and model (Bennett & Lemoine, 2014). Current research on the VUCA concept focuses on its consequences for sustainable leadership and strategic development and the challenges of adapting managers and decision-makers' mindsets to these new conditions. Even though the principles have been addressed individually, the VUCA concept has yet to make its way into environmental science or conservation practice (Schick et al., 2016).

A conservation site is defined to be subjected to "VUCA" conditions if the system expresses the following symptoms:

1. A change toward increasing dynamics and speed of change forces (Volatility)
2. A high degree of uncertainty within the main drivers of the system (Uncertainty)
3. A high number of interlinkages within the system and with modes of higher orders (Complexity)
4. Multiple interpretations of current and future conditions (Ambiguity)

In many cases, these global and national challenges are unprecedented with the rapidity and frequency of change in the modern era, becoming increasingly difficult to forecast and gauge. Many commentators note that we live in a time of VUCA, i.e., in a time where volatility, uncertainty, complexity, and ambiguity abound, and where such a state of affairs is becoming more, rather than less, commonplace (Bennett & Lemoine, 2014). As Bennett and Lemoine (2014) identified, VUCA is a world view that describes four situations. The situation is volatile. There is a rate of change itself, uncertain where there is a lack of clarity about the present and future outcomes, complicated where there are multiple and competing decision factors, and ambiguous. There may be a multiplicity of meanings and significance. Economic, social, and environmental factors deeply rooted in Sustainable Development principles are integral components of organizational sustainability. Through experiential learning experiences and dialogues had during the Caribbean Canada Emerging Leaders' Dialogue (CCELD) 2019, they considered the extent to which small, medium, and large enterprises in the country are sustainable in the context of volatility, uncertainty, complexity and ambiguity (VUCA).

Sustainable Development Theories

Resource-Based Theory

Utilizing the resources-based view, Barney (1996) defined sustainable development SMEs in terms of resources within the internal and external factors that determine SMEs' sustainable development. Accordingly, sustainable development can be viewed as mobilizing individual and interdependent resource stocks that contribute to the sustainability activities within their natural context.

The resource-based view, which had been developed within the field of strategic management, focuses on sustainable and unique costly-to-copy attributes of the firm as the sources of economic rents. For example, the firm's fundamental drivers and sustainable competitive advantage are required for sustainable development and superior financial performance (Teece, 2016). A firm's capabilities in obtaining and maintaining profitable market positions depend on its capacity to gain and defend advantageous positions concerning the firm (Conner, 1991). Barney (1996) posited that a firm's success in the market not only depends on environmental factors but also on the firm's functions and influence on the environment. He suggested that sustainable development's critical resources should be valuable, rare, imperfectly imitable, and not substitutable. Besides, Grant (1991) indicated that resources must capture durability, transparency, transferability, and replicability.

Game Theory

The sustainable development of society has attracted a lot of research efforts. A strategic aspect of society's evolution is introduced by game theory (Ahrensa & Zaščerinskab, 2012). A game is defined as a formal description of a strategic situation (Theodore & Bernhard (2001). In its turn, game theory is determined as the proper study of decision-making where several players must make choices that potentially affect the other players (Theodore & Bernhard, 2001). The social problem is defined as the source of psychological development. The present research is based on the definition of the social status of growth as the unity of outside developmental circumstances and an individual's psychological characteristics in his or her experience (Surikova, 2007). The social situation is also defined as a situation of interaction, social interaction, or social-cultural environment (Surikova, 2007). Therein, the terms "social situation," "situation of interaction," "social interaction," and "social-cultural environment" should be used synonymously.

As such, social interaction is determined as the unity of outside developmental circumstances and individual psychological characteristics in his or her experience (Surikova, 2007). The personal level (the internal perspective) focuses on cognitive activity (Surikova 2007). Cognitive activity refers to the unity of processes of sense, perception, attention, memory, thinking, speech, and imagination, by which people perceive, remember, think, speak, and solve problems. In other words, any function

in the individual cultural development appears at the beginning between people as inner psychical or interment category, and then on the intrinsic level as intrapsychic or intramental category (Wells et al., 1994). As a process, the development of a social situation has its cyclic nature.

Ecological Modernization Theory

This concept was first developed in theoretical terms in the early 1980s (Weber & Weber, 2020). Variously used to refer to the significant change internationally in policy discourse concerning the environment whereby the consistent overexploitation of Western industrial societies' environment is no longer accepted as routine (Cohen, 1998).

In a wide-ranging review, Mol and Sonnenfeld (2000) identified three stages in the maturation of ecological modernization theory. The first was characterized by a heavy emphasis on the role of technological innovation, a critical attitude towards the role of the state, and bias towards market solutions (Hajer, 1995). From the late 1980s to the mid-1990s, the second took a more moderate view of the roles of technological innovation, the state, and the market and emphasized institutional and cultural dynamics (Hajer, 1995). The Brundtland Report (WCED, 1987) embedded the new thinking in broader principles, which recognized that environmental safeguarding in the longer term requires concerted socio-economic and cultural change internationally; and Agenda 21 (UNCED, 1992) codified processes by which the growth might be achieved. In the third and current stage (Lash et al., 1996), the debate has broadened to include consumption and global processes in the international arena. Social movements modify their functions so that reform ideologies take precedence over confrontation with the state, and intergenerational solidarity towards environmental protection is assumed.

Determinants of Sustainable Development

Integrated Management Systems

Integrated management systems (IMS) can be a path for inducing sustainability (Anholon et al., 2018) mainly because manufacturing companies have undergone significant changes in the last few decades. As IMS can be shaped according to an organization's needs, they are capable of including different management system standards. Therefore, there are still debates about IMS. Before dwelling on the content of IMS, it is necessary

to explain the concept of integration. Integration refers to "completion" and "aggregation" (Cambridge, 2020). However, the term integration should not be confused with "combination" and "compliance" in terms of management system standards (MSSs). Compliance refers to parallel MSSs prepared for the same discipline despite showing significant differences in terms of structure and content (Zeng, 2017).

Technology and Innovation Capability

Van Kleef and Roome (2007) defined innovation as the process of discovery and development that generates new products, production processes, organizations, technology, and institutional and systemic arrangements. This definition includes employing ideas, knowledge, and technology in a manner that enables firms to improve performance significantly. Onsel *et al.* (2008) indicated that innovation is not necessarily related to problem-solving but is instead typically related to improving competitiveness and economic success, and it is frequently spurred by technology. The previous literature distinguished the different types of innovation as technology, process, product and service, management, operations, and organization (McFadzean et al., 2005).

For a firm, having competitive advantage is not only dependent on research and development but is also enhanced by potential technology (Chang & Chen, 2019). In reality, most firms cannot have up-to-date technology developed in-house because of the increasingly complex nature of technology and short product life cycles. Suppose a firm wants to remain competitive in the market. In that case, it must quickly integrate, adapt, and upgrade the diversity of its external and internal information storage, retrieval, and analytical tools that relate to necessary work activities in addition to business and management functions with external technologies and on-time product launches (Chang & Chen, 2019). Therefore, searching for the internal factors that encourage technological innovation capabilities might augment the firm's understanding of innovative processes (Kafetzopoulos & Psomas, 2015). In terms of technology activities, vital networking and social capabilities benefit technology innovation because of the collaboration among actors in a network, as design can be achieved by implementing additional capabilities from outside sources (Becker & Dietz, 2004).

Sustainability Orientation

Firms' sustainability orientation (SO) is widely understood as a strategic resource, leading to competitive advantage and superior firm performance. While recent empirical evidence suggests a moderate and positive relationship between SO and financial performance on a firm level, it understood the influence of SO on new product development (NPD) success (Claudy et al., 2016). The result of sustainable products and services is still one of the least understood sustainability management areas, providing a clear mandate for further research (De Medeiros et al., 2014). In operational efficiencies, higher quality products and more excellent customer value ultimately lead to superior organization performance (Hart, 1995).

Sustainability orientation has defined the level of concern about individuals' environmental protection and social responsibility and consists of items that measure the underlying attitudes and personal traits on ecological protection and social responsibility (Kuckertz & Wagner, 2010). It reflects its convictions and beliefs on sustainable entrepreneurship. Its relationship with opportunity recognition and entrepreneurship intention still questions. Sustainability orientation can help to understand the entrepreneurial purpose, to some extent focusing on sustainable development (Wagner, 2012) even though sustainability orientation and its positive impact of entrepreneurial intention tend to disappear with business experience.

Green Corporate Image

The green corporate image is reckoned to be the driving factor in the current business setups. Stakeholder's green perception of the firm encourages the growth of businesses. The organization moves from established companies to running businesses with sustainable agenda that creates values for their brand. Too and Bajracharya (2013) state in their research that the number of consumers preferring to purchase from companies that care about sustainability is growing. This statement is further strengthened by Namkung and Jang (2013) in their study by stating customers are more likely to choose a green restaurant that supports more green experiences and involvement. Although most leading brands have moved towards developing and introducing eco-friendly products in the current business era, it still faces a significant challenge to overcome consumer skepticism about their green operations and green attributes

(Kumar & Christodoulopoulou, 2014). These are seen as greenwashing, where many organizations claim to be green when they are not practicing it.

Government Support

Some dimensions of sustainable development need more support and attention from the government and its political leaders. Hence an integrated approach is imperative (Hasna 2007). Without an integrated approach, governments may direct their focus only on some dimensions (i.e., political and economic) and neglect others. Humankind's impact on the ecology resulted in waste accumulation, pollution, "squeezing" of the natural resources (water, marine life, timber, etc.), the so-called greenhouse effect, and climate change. This condition makes it clear that present levels of output and the impact on resources and the environment are unsustainable. Yet, it seems as if the global community is committed to an economic system that multiplies consumption levels (Van der Waldt, 2015). These make the role of the government as a catalyst for change even more indispensable.

Moreover, it should be understood that the government's role in society, and general, has expanded dramatically over the past century. In comparison to pre-20th century functions, governments have taken on new and vast roles that typically comprise a modern state (Brown 1991). Recognizing that SMEs, especially private firms, is the critical engine for economic growth, the government has set up supporting measures and issued various incentives. Although these policies cover all the different aspects of support for SMEs, difficulties in their implementation still exist because of unclear and unrealistic requirements (Le, 2010).

Proposed Conceptual Framework

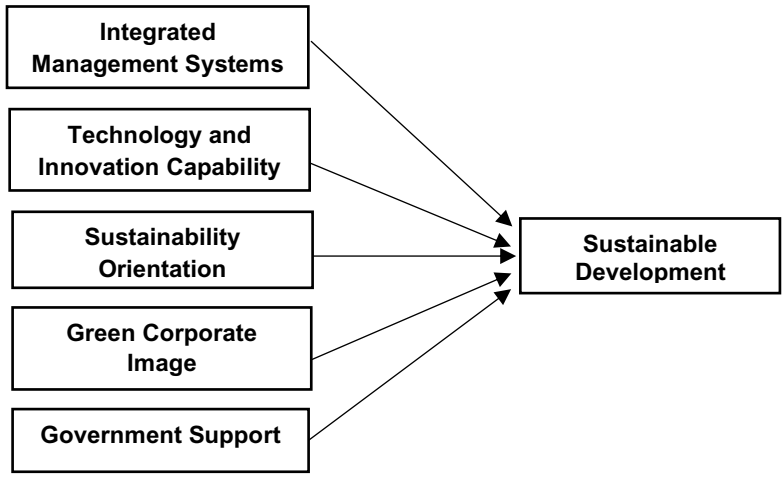
Based on the above literature review, the proposed conceptual framework of this study is developed. The framework is built around the concept of sustainable development that consists of sustainable development properties (VUCA Approach). Other building blocks of the framework are organizational and environmental characteristics. The SMEs under study's features are reportable by the SMEs owner, Chief Executive Officer, or general manager.

Notably, the proposed conceptual framework proposes that there is a relationship between the determinants of sustainable development (organizational and environmental characteristics) and sustainable development, which are expected to be positive. For example, the relationships between the determinants of sustainable development and sustainable development constructs are hypothesized to be positively associated. From this hypothesis, specific hypotheses for individual constructs then follow. To illustrate, integrated management systems are positively related to sustainable development.

The framework advances SME's sustainable development research by clarifying the newly emerging field of sustainable entrepreneurship and its theoretical foundation within sustainable development research. Sustainable entrepreneurship placed more importance on entrepreneurship and entrepreneurs (and their characteristics), broadly considered the critical variables in SME's sustainable development research.

The proposed research framework is expected to provide several contributions to the literature. It addresses the development of an integrated and multidisciplinary approach to understanding the sustainable development of SMEs in Malaysia. Sustainable development cannot be fully explained by one theory and is better explained with an integrated approach (Yepez et al., 2020; Munoz & Cohen, 2018). Thus, this framework integrates several theories related to sustainable development discussed in this chapter, namely resource-based view, ecological modernization theory and game theory. Besides, it also focuses on the multidisciplinary field of study, sustainable entrepreneurship, strategic management, information systems, economic and statistics, management, and organization studies to better understand, fully explain, and document the sustainable development of SMEs in Malaysia. This framework also considers environmental factors in terms of government support that may impact the sustainable development of SMEs (Hall et al., 2010). Thus, this research is based on the proposed conceptual framework presented in Figure 1 below.

Figure 1
Proposed Conceptual Framework



Several propositions were developed based on the literature review and related theories. These propositions focus on the influence of integrated management systems, technology and innovation capability, sustainability orientation, green corporate image and government support on sustainable development. Details of the specific research propositions are presented as follows:

The Effects of Integrated Management Systems on Sustainable Development

Integrated management systems provide organizations with a management philosophy that enables processes to be successfully managed and achieve desired results. When executives and other employees internalize the emerging management philosophy, it has a positive impact on sustainable development and provides many benefits to the organization (Anholon et al., 2018). Past research indicates that integrated management systems have a constructive effect on management, employees, production, environment, market, occupational health, and safety processes. Integrated management systems focus on companies' medium- and long-term goals rather than the improvement in short-term indicators and form a corporate culture to this end (Gomes et al., 2006). As such the present study purpose:

H1: Integrated management systems relate positively with sustainable development.

The Effects of Technology and Innovation Capability on Sustainable Development

In the literature, innovation is considered an important element of firm success (Delgado-Verde et al., 2011). Harper and Becker (2004) indicated that innovation resulted in significant change, preferably an improvement in the real product, process, or service that exceeds the impact of previous achievements; these authors further indicated that innovation supported sustainable business management. Firms encourage innovation to achieve production and marketing goals, improve product or service quality, lower their operational costs, increase their market share, attain production flexibility, and enhance the management process (Walker et al., 2011). The above discussion signifies the importance of technology and innovation capability for sustainable development and leads to the following proposition:

H2: Technology and innovation capability relate positively with sustainable development.

The Effects of Sustainability Orientation on Sustainable Development

Sustainability orientation (SO) refers to the belief in integrating environmental and societal considerations in business operations (Kuckertz & Wagner, 2010). It demonstrates the readiness of the organization to implement sustainability-related initiatives (Prasad, 2015). Entrepreneur's sustainability orientation is defined as the entrepreneur embracing goals or objectives that 'focus on preserving nature, life support, and community. It is perceived opportunities to bring into existence future products, processes, and services for gain. The benefit is to include economic and non-economic gains to individuals, the economy, and society' (Patzelt & Shepherd, 2011).

In a more elaborative way, Klewitz and Hansen (2011) illustrated that sustainability orientation comprises a generation intelligence about creating opportunities, proactiveness, and managing risks. It is related to present and future economic, social, and environmental progression, the diffusion of that acumen across departments, and the organization's self-renewal (Klewitz & Hansen, 2011). Therefore, it can be expected that sustainable development will be influenced by sustainability orientation. This leads to the following proposition:

H3: Sustainability orientation relate positively with sustainable development.

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The Effects of Green Corporate Image on Sustainable Development

The corporate image definition is seen as what the stakeholders perceive the organization as a business (Amores-Salvadó et al., 2014). Corporate image is perceived as the feature of an organization in the eye of its stakeholders. It is the desired general impression of the organization in the minds of its stakeholders. Organizations spend their vital resources i.e., money, time, and people, to build a strong corporate image (Poon Teng Fatt et al., 2000).

Studies have shown that companies tend to secure a position in the industry through this image and create a competitive edge for themselves (Too & Bajracharya, 2013). Several types of research have focused on the green corporate image (GCI) across various industries. Bansal and DesJardine (2014) indicated a diverse GCI effect on several internal and external organizational factors such as employee work-life, top management support and commitment and organizational sustainable development. Therefore, it can be argued that:

H4: Green corporate image relates positively with sustainable development.

The Effects of Government Support on Sustainable Development

Recognizing the critical role of small and medium enterprises (SMEs) in the nation's economic activities, the Government of Malaysia has introduced several assistance programs. Incentives are called government-support programs (GSPs), consisting of financial and credit assistance, marketing, market research, technical and training assistance, extension and advisory services, and infrastructure supports. The GSPs aimed at preparing sustainable growth for SMEs. However, the contribution of GSPs toward business growth in SME firms is still questionable. GSPs are lacking and not delivering enough towards developing and strengthening local SMEs (Hasna, 2007). Thus, it is expected that government support will impact sustainable development. This leads to the following proposition:

H5: Government support relates positively with sustainable development.

RESEARCH METHODOLOGY

This study was designed to use a quantitative approach using self-administered survey questionnaires to collect data from a sample of manufacturing SMEs in malaysia. The key informants in the were the owners or the highest-ranking officer of the SMEs. Simple random sampling was used as a sampling method. After applying this method to 47,698 manufacturing SMEs (SME Corp, 2021), a sample of 231 respondents was obtained for the sample size of the study as suggested by Krejcie and Morgan (1970).

The examination of relationships across variables was done with Structural Equation Modeling-Partial Least Squares (SEM-PLS). Two kinds of variables were involved, latent (construct) variable, an unobserved variable, and indicator variable, also known as an observed variable of each latent variable. The latent variable was divided into exogenous latent variable and endogenous latent variable. In this study, the exogenous latent variable refers to the integrated management systems, technology and innovation capability, sustainability orientation, green corporate image and government support, while the endogenous latent variable is represented by sustainable development.

Data Analysis

A descriptive analysis was performed to establish the general background of the respondents that participated in this study. Of the 231 SMEs in the survey, 62.8 percent are Bumiputera and 37.2 percent are Non-Bumiputera. 84.4 percent of the respondents are small company while medium and large companies constitute 12.6 percent and 3.0 percent respectively. It can be observed that the majority of the SMEs are small in size. As for the age of company, more than half of the SMEs (54.1%) began their operation between 1 to 5 years and 15.6 percent started their operation less than 1 years. This indicates that the majority of the SMEs in this study are considered as young entrepreneurial new ventures. The summary of profile of respondents are presented in Table 1.

Table 1
Profile of Respondents

Demographics	Items	Frequency	Pencertage(%)
Business Status	Bumiputera	145	62.8
	Non-Bumiputera	86	37.2
Size of Company	Small	195	84.4
	Medium	29	12.6
	Large	7	3.0
Age of Company	< 1Year	36	15.6
	1-5 Years	125	54.1
	6-10 Years	35	15.2
	11-15 Years	19	8.2
	>15 Years	16	6.9

Measurement Model Analysis

The measurement model was analysed by conducting the convergent and discriminant analysis. The convergent validity is obtained by examining the values of loadings, Cronbach's Alpha (CA), Composite Reliability (CR), and Average Variance Extracted (EVA). Results showed that each construct: (1) items loaded values exceeded 0.700, (2) the CR values ranged from 0.951 to 0.990, (3) the CA values ranged from 0.938 to 0.989, and (4) the AVE scores were in the range of 0.767 to 0.918. These values met the criteria recommended by Hair et al. (2017) namely, 0.70 in exaluating values of loadings, CR and CA, and 0.50 in assessing AVE. The summary of convergent validity results are presented in Table 2.

The discriminant validity was analyzed by using Heterotrait-Monotrait (HTMT) ratio of correlations, which measure the distinctiveness between constructs (Henseler et al., 2015). Henseler et al. (2015) recommended a threshold of 0.90 for conceptually similar constructs. However, a threshold of 0.85 should be observed for constructs that are conceptually different (Kline, 2011). In this study the discriminant validity has been established by values falling below 0.85. The summary of discriminant validity is presented in Table 3.

Table 2
Convergent Validity For Reflective Measurement Model

Construct	Items	Loadings	CA	CR	AVE
Integrated Management Systems (IMS)	IMS1	0.970	0.989	0.990	0.918
	IMS2	0.962			
	IMS3	0.930			
	IMS4	0.937			
Technology and Innovation Capability (TIC)	TIC1	0.858	0.965	0.970	0.783
	TIC2	0.818			
	TIC3	0.876			
	TIC4	0.818			
Sustainability Orientation (SO)	SO1	0.835	0.963	0.968	0.773
	SO2	0.847			
	SO3	0.876			
	SO4	0.899			
Green Corporate Image (GCI)	GCI1	0.913	0.983	0.985	0.853
	GCI2	0.941			
	GCI3	0.927			
	DCI4	0.923			
Government Support (GS)	GS1	0.702	0.938	0.951	0.767
	GS2	0.886			
	GS3	0.908			
	GS4	0.946			
	GS5	0.902			
Sustainable Development (SD)	SD1	0.891	0.985	0.987	0.863
	SD2	0.958			
	SD3	0.955			
	SD4	0.783			
	SD5	0.946			

Table 3
Discriminant Validity using HTMT Ratio

	IMS	GCI	GS	SO	TIC	SD
IMS						
GCI	0.451					
GS	0.500	0.402				
SO	0.407	0.391	0.388			
TIC	0.679	0.524	0.507	0.429		
SD	0.503	0.655	0.383	0.439	0.605	

Structural Model Analysis

Goodness-of-fit test for inner model was conducted to identify R^2. The test procedure is conducted with SmartPLS. The variance R^2 is 0.525, meaning that technology and innovation capability, sustainability orientation and green copporate image can explain sustainable development variance for 52.5%. In comparison, the remaining 47.5% is explained by other variables beyond the model. The condition for R^2 has been fulfilled, and therefore, the inner model is declared to be fit and can also be used for hypothesis testing.

The hypothesis is tested by processing values obtained from bootstrapping formulation, and this processing is done with Smart-PLS 3.0. The hypothesis test on direct effect in Table 4 indicates that technology and innovation capability (b = 0.261, t = 2.540, p < 0.05), sustainability orientation (b = 0.099, t = 1.935, p < 0.05), and green corporate image (b = 0.436, t = 3.938, p < 0.05) have a direct and significant effect on sustainable development. Therefore, H2, H3 and H4 are supported. However, there are insufficient statistical evidences to indicate that integrated management systems (b = 0.080, t = 0.860, p > 0.05) and government support (b = -0.006, t = 0.113, p > 0.05) were significanlly related with sustainable development. As such, H1 and H5 are not supported.

Table 4
Results of Hypothesis Testing

Hypothesis	Path	Beta	Standard Error	T value	Decision
H1	IMS-> SD	0.080	0.100	0.860	Not Supported
H2	TIC-> SD	0.261	0.106	2.540	Supported
H3	SO-> SD	0.099	0.056	1.935	Supported
H4	GCI-> SD	0.436	0.109	3.938	Supported
H5	GS-> SD	-0.006	0.062	0.113	Not Supported

Significant at 5% level.

DISCUSSION

The findings of this study reveal that technology and innovation capability, sustainability orientation and green corporate image have a significant positive relationship with sustainable development. This finding is consistent with the findings of Harper and Becker (2004), Prasad (2015) and Bansal and DesJardine (2014). Sustainable development is seen as a way of generating competitive advantage by identifying sustainability as new business opportunities, resulting in new and sustainable products, production methods and business practices. Sustainable development can be viewed as mobilizing individual and interdependent resource stocks that enable and contribute to the sustainability activities within its natural context. Therefore, it is vital for SMEs to focus on sustainable and unique costly-to-copy attributes of the firm namely, technology and innovation capability, sustainability orientation and green corporate image as the firm's fundamental drivers and sustainable competitive advantage for sustainable development and superior financial performance.

However, there is insufficient statistical evidence to suggest the positive relationship between integrated management systems and government, and sustainable development. This finding is inconsistent with the findings of Anholon et al. (2018) and Hasna (2007). A possible explanation for these findings is that the majority of the SMEs in this study are still considered as new ventures, established within less than 10 years and thus, have low involvement and commitment in management systems. New ventures usually suffer from both the liability of newness (Stinchcombe, 1965) and the liability of smallness (Aldrich & Auster, 1986), which means limited access to resources that might assist their sustainable development practices. Some aspects of sustainable development need more support and attention from the government and its political leaders. Hence an integrated approach is imperative for the development of sustainable development SMEs. The government must design a plan to help SMEs in all aspects of their sustainable development that enable them to meet business challenges in the competitive domestic and global business environments.

CONCLUSION

Sustainability is an increasingly important issue for many people, especially in the business world. For business owners, leaders, and administrators, sustainable business practices are becoming imperatives that lead to sustainable competitive advantage of a firm. Making businesses more sustainable starts with being aware of the issue at hand and understanding just how important it is to make changes both for the business and the planet.

A sustainable business adheres to the triple bottom line which are profits, people, and the planet. A sustainable business earns profits by being socially responsible and protecting the use of the planet's resources. Sustainable development practices take an initial investment, but, over time, it will save money by prioritizing sustainability that can improve operational efficiency and cut costs.

Entrepreneurs should be aware of the complexities of sustainable development and the necessity of performing regular evaluations of a factors related to sustainable development. Significant factors include technology and innovation capability, sustainability orientation and green corporate image.

Small and medium enterprises are often recognized as the most important contribution of gross domestic product and employment. Therefore, federal government should offer tax credits, rebates and savings for going green which can develop sustainable competitive small and medium enterprises in domestic and international markets.

CONTRIBUTIONS OF AUTHORS

The first or lead author is the main writer and corresponding author. The other author contributed significantly in designing the online form, collecting and analyzing the data, and writing.

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CONFLICT OF INTERESTS

All authors declare that they have no conflict of interest.

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