Inculcating Innovation Culture and Developing Strategic Management of Technology and Innovation Plan in SME’s for Wealth Creation to support Malaysia National Entrepreneurship Policy 2030

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Abstract

This paper discusses on how to inculcate innovation culture and to plan, implement and manage strategic management of technology and innovation in Malaysian Small and Medium Enterprises (SMEs) for wealth creation, business sustainability and shared prosperity. It is agreed by many government agencies and scholars that SMEs play a vital role in the country’s economic development; hence, it is important and significant to gain useful insights into the critical success factors that affect their future success and development. In the face of globalisation and the merge of IR 4.0, SMEs need to transform themselves into highly competitive and resilient organisations to stay ahead of the curve and on the forefront of their industries. Also it is the right time for SMEs to identify and leverage on their success factors for a sustainable competitive advantage in today’s rapid technology changes and challenging economy.

Keywords: Innovation culture; SME; economic development; globalisation

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1.0 INTRODUCTION

An organisation’s culture has its DNA with its own uniqueness. In order to succeed today, SMEs are challenged to instil the kind of culture that will not only ensure survival but excellence in the global marketplace. Innovation being an element of organisational culture does help steer the organisation to maintain competitive advantage. According to Schumpeter (1934), the spirit of adventure and the element of innovation are essential for a complete formulation of the entrepreneurial function. In fact, innovation is central to building a proactive and entrepreneurial organisation (Johannessen et al., 2001) that has become widely recognised as a key to competitive success (Francis and Bessant, 2005). In many ways innovation is a single most important building block of competitive advantage which giving a company something unique that competitor’s lack (Hill and Jones, 1998).

Culture too plays an important role in enhancing innovation within organizations, as indicated by some scholars where they have also found that traits of involvement and adaptability are important to execution and implementation resulting in innovation (Denison, 1990; Denison and Mishra, 1995; Kotter and Heskett, 1992; Ashley and Bryan, 2009). This study investigates the need for an innovative culture and managing strategic management of technology and innovation plan and process in Malaysian Small and Medium Enterprises (SMEs) for wealth creation, business sustainability and shared prosperity.
2.0 BACKGROUND

Planning, implementing and managing strategic management of technology and innovation in the current activity of SMEs in Malaysia has become a stringent necessity. This situation is a consequence of serious challenges that exist on the market place, due to the unstable balance of the business environment forces and other influencing factors that can be identified in the actual economic context, where SMEs are very predominant. The way which SMEs grow and the strategies employed to promote and sustain growth are the real strategic issues in the SME sector in Malaysia and are also what makes the SME sector dynamic, innovative and visionary environment that it is. Therefore, it is a great need to discuss on inculcating innovation culture and planning as well implementing an effective strategic management of technology and innovation because what is most crucial is not the document produced but how the whole process is conducted otherwise we might end up having the documents on shelves which are of no use in SMEs.

An Overview of Malaysian SMEs

As defined by SME Corp. Malaysia (2013), SMEs are considered enterprises operating in manufacturing and services industries with sales turnover and number of full-time employees being the two criteria used in determining the definition with the “OR” basis as follows:

- For the manufacturing sector, SMEs are defined as firms with sales turnover not exceeding RM50 million OR number of full-time employees not exceeding 200.
- For the services and other sectors, SMEs are defined as firms with sales turnover not exceeding RM20 million OR number of full-time employees not exceeding 75.

SME sector is now clearly recognised as being the backbone of the country’s economy with tremendous potential to become a catalyst and an important source of growth in the new economy. In fact, SMEs constitute of 99% of total business establishments in Malaysia and according to the SME Annual Report 2017/18 released by SME Corp Malaysia, SMEs contributed RM435.1bil to the economy in 2017, with a higher GDP growth of 7.2% against 5.2% in 2016. As a result, contribution of SMEs to GDP stands at 37.1% in 2017, with overall employment at 66% and total exports at 17.3%. (SMECorp 2017/2018). In addition, based on the SME Input-Output, it is estimated allocation of RM17.94bil for SME development under the 3rd Focus; to foster an entrepreneurial economy which include financing, Industry 4.0, export, tourism, agriculture, entrepreneurship, human capital development and incentives was expected to generate an additional RM3.8bil of SME value-added in 2019. This is an increase of 0.3 percentage point in share of SME GDP to total GDP. A comprehensive institutional framework and clear policy plan places Malaysian SMEs in a favourable position to continue to expand. The Government remains committed to support SME development and entrepreneurship through various initiatives and programmes currently being undertaken by the various ministries and agencies to build up the capacity and enhance access to financing of SMEs.

Specifically, SMEs play a major role in outsourcing services and specialised contract manufacturing for parts and components to large enterprises and Multinational Corporations (MNCs). The strong industrial linkage between MNCs and SMEs are crucial not only in marketing SMEs’ services and products abroad but also pushing SMEs quality to be on par with world standards. In fact, some local SMEs have successfully made inroads in world markets with their niche products.

Institutional Policies towards Malaysian SMEs

Various government ministries and agencies namely MITI, SME Corp, MIDA, MNC, MATRADE, MTDC, MNC, SIRIM, MIGHT, MIDF, SME Bank and associations like Federation of Manufacturers Malaysia (FMM), SMI Association of Malaysia are established to facilitate SME development. The Malaysian SME Masterplan, spanning from 2011 to 2020, was launched with a vision to create globally competitive SMEs that enhance wealth creation, and contribute to the social well-being of the nation. This was endorsed by the National SME Development Council to chart the policy direction of SMEs in all sectors through innovation-led and productivity-driven growth towards achieving a high income nation by 2020.
In line with New Economic Model (NEM) introduced in 2010, there are four strategic goals namely;

i) Increase business formation, through a constant stream of new entrants into the market  
ii) Intensify formalisation to incentivise innovation  
iii) Promote fair competition and increase in productivity of SMEs to boost income and raise standard of living and expand the number of high growth and innovation firms.

And subsequently, six focus areas are expected to generate the desired Keynesian multiplier effect for the country’s economy, are;

i) Access to Financing  
ii) Green Lane Procurement  
iii) Skill Upgrading  
iv) Bumiputera Development Agenda: New Approach  
v) Social Justice Policy, and  
vi) Labour Market Efficiency.

These strategic are embodied in the Eleven Malaysia Plan (2016-2020) to further unlock the growth potential of SMEs to create domestic players that can eventually become region and global champions (Malaysia SME, 2011).

Entrepreneurship is a key driver of the technological innovation process. Technological entrepreneurship which involve individual entrepreneurship or multiple entrepreneurship creating a new resource combination to make innovation possible as well as bring along the technical and commercial worlds in a profitable and sustainable way. In 2018 the Government of Malaysia (GoM) introduced National Policy on Industry 4.0 which focus on manufacturing sector. As mentioned by the Prime Minister, the manufacturing sector need to shift to higher value-added process, digitisation, advanced manufacturing technologies and efficient resource utilisation to drive competitiveness. A strong manufacturing sector may pave the way to enhanced productivity, job creation, innovation capacity, high-skilled talent pool and ultimately economic prosperity and societal well-being (MITI, 2018).

Entrepreneurship and Innovation have been in the centre of policy makers and stakeholders of the business world for many decades. Recently, the Prime Minister of Malaysia launched the National Entrepreneurship Policy 2030 which outlines six main objectives. Two of them are in line with this study where they emphasise on increasing the number of qualified, viable, resilient and competitive entrepreneurs with global thinking; and enhancing the capabilities of local entrepreneurs and small and medium industries. The Ministry of Entrepreneurs Development will push for innovations which involving all industries through providing a better business environment for all. The targets set by 2030 to increase the country’s position and international standing as follows;

- Top 25 in Global Entrepreneurship Development Index  
- Top 15 in Global Competitiveness Report  
- Top 10 in Ease of Doing Business  
- Top 20 in Global Innovation Index

In addition with this policy, the Government aims to create a culture of entrepreneurship, to encourage entrepreneurs to become job creators and hope they can help to create 80 percent jobs for the nation by 2030 (NEP 2030).

3.0 LITERATURE REVIEW

Innovation Culture

Innovation culture is the work environment that leaders cultivate in order to nurture unorthodox thinking and its application. Workplaces that foster a culture of innovation generally subscribe to the belief that innovation is not the province of top leadership but can come from anyone in the organization. Innovation cultures are prized by organizations that compete in markets defined by rapid change; maintaining the status quo is insufficient to compete effectively, thus making an innovation culture essential for success. Innovation cultures are difficult to establish and sustain but are considered by many management experts essential for creating competitive
differentiation and competitive advantage in the marketplace. Another benefit of creating a culture of innovation is for the sake of staff retention.

A very nice definition of an innovative culture:

- A culture of innovation is an environment that creates creative thinking and advances efforts to extract economic and social value from knowledge, and, in doing so, generates new or improved products, services or processes;
- A healthy culture of innovation has a shared set of values and mutually reinforcing beliefs about the importance of innovation as well as an integrated pattern of behaviour that supports research and innovation; and
- A thriving culture of innovation can leverage the existing strengths of a given research and innovation ecosystem.

**Strategic Management of Technology and Innovation Plan & Process**

A strategic management of technology and innovation (SMTI) plan is a plan that integrates major objectives or goals, initiatives and actions plans into a cohesive whole for those entrepreneurs who venture into technology business. A well-formulated SMTI plan helps to allocate an organisation’s resources into a viable format based on its relative internal competencies, shortcomings, anticipated changes in the technology, innovation and environment, as well as contingent moves by intelligent opponents (Porter, 1996; A.S Ariffin 2011).

Referring to Drucker (1967), strategic planning is an iterative process with a very broad scope. It starts with analysing the strengths and weaknesses, matching the environment with threats and opportunities, establishing measurable objectives, developing plans, filling gaps, selecting options, implementing plans, and monitoring and controlling projects. Without the proper planning of each policy and project, the result may be poor execution, implementation or monitoring. A capacity to understand technological developments, a competitor’s strategies and industry evolution and resources available for innovation activity are very important element for the formulation of business innovation strategies.

An effective SMTI process involves the formulation and implementation of the major goals and initiatives taken by a company's top management on behalf of owners, based on consideration of resources and an assessment of the internal and external environments in which the organization competes. Many scholars defined strategy as the determination of the basic long-term goals of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals. Normally strategies are established to set direction, focus effort, define or clarify the organization, and provide consistency or guidance in response to the environment. SMTI involves the related concepts of strategic planning and strategic thinking and where company leaders formulate strategies for accomplishing company missions, vision and objectives. Many frameworks cycle through some variation on some very basic phases:

1) analysis or assessment, where an understanding of the current internal and external environments is developed;
2) strategy formulation, where high level strategy is developed and a basic organization level strategic plan is documented;
3) strategy execution, where the high level plan is translated into more operational planning and action items, and;
4) evaluation or sustainment phase, where ongoing refinement and evaluation of performance, culture, communications, data reporting, and other strategic management issues occurs.

MASTIC (2015) and Ariffin A.S (2011) highlights the key barriers and challenges facing SME organisations. They are access to finance, globalisation and liberalisation, embracing new technologies, productivity improvement, information awareness, to enhance SMEs performance, financing start-ups, market access, improving information awareness, and deepening industrial linkages. Indeed, SMEs are often confronted with emerging issues which stifles the high growth potentials and compromising competitive advantage (Hashim, 2012). SMEs frequently have difficulties in obtaining capital core credit, particularly in the early start-up phase (MASTIC, 2015 and Ariffin A.S (2011). Their restricted resources also reduce access to new technologies or innovation. While it is a high risk venture, there is also a very high potential for growth especially in technology-based areas. SMEs have a key role in developing national economies, but are often limited by lack of development support in financing business (Badulescu, 2010).
Based on the Strategy Paper 21 under the 11th Malaysian Plan, it indicates that there is lack of collaboration between government agencies and SMEs. This collaboration is crucial as SMEs generally cannot afford R&D activities due to the high cost of equipment. The low expenditure on R&D has hampered the capability and capacity of companies, particularly SMEs, to innovate. In addition, companies perceive innovation activities as high cost and high risk with uncertain demand. This lack of innovative capability of SMEs has also hindered collaborations with MNCs and large companies and transfer of technology and technical spill overs.

Other factors hampering innovation and technological innovation include lack of funds, attitude of managers and personnel towards change, need to comply to legal, regulation and international trade requirement as well as political interference. Figures 1 and 2 below indicate the factors hampering innovation as well as technological innovation initiatives in Malaysian SMEs.

<table>
<thead>
<tr>
<th>Relative Factors Hampering Innovation Activities</th>
<th>Manufacturing Sector</th>
<th>Services Sector</th>
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</thead>
<tbody>
<tr>
<td>Cost Factors</td>
<td></td>
<td></td>
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<tr>
<td>Cost too high</td>
<td>2.16</td>
<td>1.74</td>
</tr>
<tr>
<td>Lack of funds within the organization</td>
<td>1.93</td>
<td>1.71</td>
</tr>
<tr>
<td>Excessive perceived risk</td>
<td>1.65</td>
<td>1.51</td>
</tr>
<tr>
<td>Market Factors</td>
<td></td>
<td></td>
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<tr>
<td>Uncertain demand for innovative goods and services</td>
<td>1.81</td>
<td>1.30</td>
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<tr>
<td>Organisational Factors</td>
<td></td>
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<tr>
<td>Attitude of personnel towards change</td>
<td>1.66</td>
<td>1.54</td>
</tr>
<tr>
<td>Attitude of managers towards change</td>
<td>1.59</td>
<td>1.32</td>
</tr>
</tbody>
</table>

Source: Malaysia Science and Technology Information Centre (MASTIC)

Figure 1: Factors hampering Innovation Activities in Malaysia - 2015

Figure 2: Factors hampering Technological Innovation in Malaysia
(Source: Elite Interview with technology companies in Malaysia. Ariffin A.S. (2011))
Innovation is considered as a new paradigm which challenges the traditional management strategy and practices. This is because; innovation fosters the adoption of new idea or behaviour which is new to the organization (Harkema, 2003). It can be a new product, a new service or a new technology developed by the organisation. Innovation also is the process of turning opportunities into a practical use and can only be realized when an organisation adopts this process in its business practices. Nevertheless, the practice of innovation is not easy to adopt without having the culture that encourages the organisation to innovate. As such, organisation needs to foster the culture of innovation in its daily business activities. In general, culture refers to a degree in which values, norms and artifacts support the organization’s innovativeness (Stock & Zacharias, 2011).

Innovation culture can be influenced by several determinants such as strategy, structure, support mechanisms, behaviour, and open communication. Innovation culture depends on the right types norms which are widely shared among the employees and to activate creativity among them (Abidin et al., 2012; Ahmed, 1998) which will push them to create innovation mentality. Therefore, to operate successfully in a dynamic business environment, it is essential for the organisations to understand the values that drive and support the culture of such an environment. In order to enhance their competitive advantage, Malaysian SMEs need to adopt a culture of innovation to strengthen their innovative capabilities particularly to boost their research and development (Al Amin 2013). Indeed, SMEs with innovation culture will encourage the employees to become alert, creative and innovative in manoeuvring the organization (Skerlavaj, et al., 2010). As a result, SMEs with a great innovation capability may achieve better response from the environment and improve the capabilities required to enhance organizational performance and competitive advantage. On the other hand, organisational culture is so impacting it can result in the success or failure of a company.

Since studies have found innovation to improve performance (Rosenbusch et al., 2011), organizations have been aggressively instilling innovation in its culture, especially high-tech companies. However, even in non-tech industries such as the insurance industry, Lee and Yu (2004) found that an innovation orientated culture helps insurance firms improve growth in business (annual premium and sum insured). Being innovative requires an organization to not only be creative but also to implement those creative ideas. However successful implementation of creative ideas demand for a certain set of behaviours, norms and values which differ from merely producing creative ideas. In other words, generation of creative ideas alone does little for the organization, what is highly important is the effective implementation of those creative ideas (Flynn and Chatman, 2001). Moreover, high involvement and adaptive cultures help foster creativity in terms of generation of ideas and implementation (Dennison, 1996).

International investors will be keen and interested in those companies which can compete well in the wake of globalisation. Therefore, it is crucial for organisations to determine the most intangible factors which have bearing on future success of organisations. Maintaining top competitiveness and expanding business horizons are going to get tougher and more challenging. Competition in the global market and rising expectation of customers will continue to drive transformation in SMEs industries to become technologically-savvy, more efficient and resilient, and later sustain the momentum. Therefore, organisations should be capable of discerning its core strengths and weaknesses, opportunities and threats and then responding resiliently for survival, growth and development.

The SMTI process in SMEs is case-specific in that each context has a range of strategic variables and issues that may be widely diverse. Rather than SMEs not fitting the mould of the strategy process, strategic processes are difficult to reconcile with and transplant into SME sector. Below listed number of factors that militate against this process (Macgregor, 1999)

- Any vision of growth and configuration is emergent and rarely formalised by the entrepreneur.
- There is often a dichotomy between the business planning process (satisfying stakeholders) and the entrepreneur’s long term strategic view (often an informal or hidden agenda).
- The strategic paradigm is often not communicated to or agreed with other stakeholders by the entrepreneur.
- Strategic rhetoric is only used to communicate with peers and stakeholders. It is never used to communicate with employees. Those from the SME sector often misapply the strategic rhetoric and language of strategy and planning.
- The strategy process is often outcome or crisis-driven and often lacks analytical credibility.
- There is often much choice and implementation without recourse to analysis reflection and evaluation.

Research carried out by Edith Cowan University in Figure 3 below shows that strategic planning on the other hand is hampered by various barriers to planning which results in the lack of low-level of strategic planning in majority of SMEs. The implication is that an understanding of barriers would will allow more careful and
accurate encouragement to SMEs on how such barriers can be overcome, thereby increasing the overall levels of strategic planning in SMEs. (Robinson and Pearce, 1984).

Dynamic organisations should be concerned with long term strategic plans for success in competitiveness and profitability. Maltz (2003) states that measuring enterprise success is a continuous challenge due to the selection of either traditional financial measures and non-traditional financial measures and proposes five major success dimensions i.e. financial, market, process, people, and future to assess enterprise success depending on industry type and industries.

Friedman (1988) proposes a framework of enterprise success which encompasses the marketing concept, good management approaches and organisational ethics to satisfy the needs and wants of the various public organisations and, in the long run, ensure the satisfaction of the needs of the organisation itself. Flamholtz, Eric and Aksehirli (2000) find that there is a statistically significant relationship between the development of the six critical success factors i.e. markets, product and services, resource management, operations systems, management systems and corporate culture, and overall financial success of organisations. Vaughan (1999) deploys business performance as a variable to measure business success. Among the questions in the questionnaire are concerned changes in cash flow, gross profit, sales growth, and return on sales, market share, return on investment and return on equity.

4.0 DISCUSSION AND RECOMMENDATIONS

Based on many studies carried out by scholars, they discovered that areas of leadership, innovation, image and reputation, entrepreneurial competencies, and organisational culture are considered critical success factors for SMEs. In the past decades, a major concern has been the failure of SMEs to remain in business and in transforming themselves into large firms both regionally and globally. Therefore, many researches have been keen to discover ways in which small business growth can be successfully simulated and nurtured. Organisations need to have leadership foresight and vision to develop and allow management and employee to leverage the potentials. It is certainly required for every member of organisations to work as a team with common goals, to overcome imperfection and live up to the rising expectations of customer. Effective and strong organisations will not rest on its laurels but continue to nurture innovation develop themselves with core competencies and articulate an entrepreneurial culture which holds high the spirit of achieving bottom line targets (Prahalad & Hamel, 1990).
4.1 Efforts to enhance innovation in SMEs for wealth creation are therefore based on four strategies namely:

4.1.1 Strengthening the government mechanism

Sharing of resources
Companies must have access to resources such as the 1Dana portal that serve as a centralised registry for R&D&C&I-related information. SMEs would have access to this resources without incurring large capital outlays and they will be able to upgrade, test and certify their products to meet international standards.

Promoting innovative corporate culture
Innovation must be embedded into the corporate culture of SMEs to enable the companies to gain competitive advantage and to be sustainable. Support must be given to SMEs to enable them to move to the next level and capture return on innovation via programmes such as Mid-Tier Companies Development Programme (MTCDP). This will enable SMEs to strengthen their core business functions and to accelerate their growth.

4.1.2 Enhancing demand-driven research

Emphasis must be given to demand-driven research to promote strategic partnerships between companies and researchers, and generate higher return upon investment. Demand driven research will help resolve specific problems within stipulated time at lower cost. Current intermediaries that have been established by the Government in this way can help facilitate companies to connect to the right expertise. This would help improve productivity and competitiveness of the SMEs and higher commercialisation rate of R&D.

4.1.3 Strengthening Industry-Academia Collaboration through Intermediaries

Creation of new products or processes requires continuous R&D and innovation. The Government has established new intermediaries namely Steinbeis, SIRIM-Fraunhofer and PlaTCOM in the hope to encourage companies to innovate and improve their market competitiveness and productivity. These intermediaries are to complement existing agencies such a Malaysian Technology Development Corporation (MTDC). These industry-led intermediaries must continue to facilitate companies to source for the right researchers to provide solutions in terms of technology, process and business model improvements. This strategic alliance will in turn help accelerate sharing of knowledge and innovative ideas and improve SME competitiveness.

4.1.4 Promoting private financing of Research, Development, Commercialisation and Innovation

Access to financing and assistance must be strengthened through continuous engagement with private financial institutions, venture capitalist and angel investors to widen financial options, reduce dependency on Government resources and increase the financing of innovation projects. This includes the early stage financing for SMEs by the SME Investment Partner programme. In addition, it will be good to explore equity crowd funding to widen the range of fundraising and investment products, as well as improve market access to a broader spectrum of issuers and investors. Crowd funding is envisioned to provide financing opportunities for SMEs, starts-ups ad innovative businesses seeking liquidity in a more efficient and transparent manner. This enabling environment will in return be further strengthened by providing a clear framework for risk mitigation and management.

4.2 Efforts to enhance strategic management of technology and innovation processes in SMEs

In order to plan and implement an effective strategic management of technology and innovation processes in Malaysian SMEs for wealth creation, there should be greater effort on training especially in the formulation and implementation of strategic plan to SMEs so that they can adopt it and see its good achievement. It is crucial that these operators in this sector be equipped with necessary information concerning the process for them to make the best use of it. There must be proper implementation of the well formulated strategic plans. This is because most of SMEs normally maintain a lower level of resources, have more limited access to human, financial and customer capital, and lack a well-developed administration and these must be taken care of in the formulation and implementation of the strategic plan. The GoM should emphasize on effectiveness of strategic management of technology and innovation in SMEs because considerable evidence shows that it leads to increased firm performance.
Thus, to make SMTI plan in Malaysian SMEs worthwhile, the respective instruments have to be aligned with the cultural, organisational and financial conditions of the enterprise in order to be successful. The formulation and implementation of strategic plan requires personnel who are experts in the process at every organisational level in all the categories of SMEs. Hence, to be successful in the application of strategic management there is a need of having adequate experts in SMEs who will be in charge of the day to day adoption and implementation activities. It is therefore recommended that efforts should be taken by the GoM and the respective enterprises to train their people on effective strategic planning techniques so that they may become competent and conversant and in return participate actively on the whole process. Finally the study recommends that the enabling legal framework work together with the development of internal experts for SMEs to ensure that they adopt and become able to continuously develop and apply effective strategic management for improved and sustainable performance of their ventures.

4.0 CONCLUSION

As Malaysia envisions achieving a high-income and advanced nation by 2020 as well as to inculcate a culture of entrepreneurship in order to drive this sector to contribute 50 per cent to the nation’s Gross Domestic Product by 2030, it is important to support the government strategies and programmes which have been developed and highlighted in the Eleventh Malaysian Plan (EPU, 2015), set to unlock the productivity of the country, while at the same time transform the innovation into wealth creation. The development and expansion SMEs will play a major role in helping the transformation of Malaysia from a middle-income economy to a high income and innovation-led economy. SMEs will remain a source of growth for wealth creation to drive economic development. With globalisation, liberalisation as well as emerge of IR 4.0, the business landscape is heading into steeper and more challenging. Hence it is definitely crucial to understand, develop, leverage, further develop and nurture Malaysian SMEs into dynamic, globally competitive and resilient organisations for long term strong performance and enterprise success in business and growth. SMEs are encouraged to improve productivity through established techniques, and innovation through technology and research and development.

REFERENCES


