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SMEs' Innovative and Diversification Capabilities: Leveraging IT to Achieve Sustainable Performance

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Abstract: In this paper we explore SMEs' innovative and diversification capabilities, and how they contribute to sustained performance. We identify strategies customized exclusively for SMEs to build a resilient strategy by wisely reallocating resources and leveraging new technology for attaining sustainability. SMEs, due to limited resources compared to their larger counterparts, cannot afford to diversify by shifting to entirely new business activities as they lack the assets to be invested. Instead, they should focus on gradually improving existing services and innovating delivery using IT. Diversification should be well-thought, thoroughly planned, discussed among company members, tested and provide expected return on investment. It is a multistage process, and each phase should logically follow from the previous. Identifying characteristics and best practices could help more severely affected sectors to become more innovative and resilient during a time of crisis. To counteract decrease and maintain consistent growth, organizations should focus both on maintaining the existing business and gradually improving existing services and innovating the way services are provided to customers.

Keywords: SMEs, sustainable performance, innovation, diversification, crisis management, sustaining innovation, SMEs diversification, diversification strategy, organizational sustainability

1. Introduction

Sustainable economic performance has been studied from the perspective of companies (Waiganjo, 2021), and on national level (Saif, 2021) in recent years. In a time of instability, SME owners are to be careful when assuming major risks as they may have scarcity of human and financial resources to back the operation (Obrenovic et al., 2021). As only a limited amount of resources is available and market demand is unstable, it is strategically wiser to execute minor changes to the existing offering than invest all assets into technology and processes that cannot be analyzed and whose success is unverifiable in advance. Still the entrepreneurial intention is shaped by risk (Walid and Peng, 2022), and entrepreneurs are likely to engage in innovative behaviors. While some startups initially conceive their main activity to be bringing in disruptive innovations, volatile external conditions call for defense strategies to stabilize the disturbances rather than entering entirely unfamiliar territory. Disruptive innovations are often introduced by small companies when they release new technology that is by default inferior in quality or performance in comparison to large corporations' technologies, hoping to make up with lower prices or convenience.

Considering disruptive innovation is dynamism, there is no way of predicting its effectiveness beforehand, and thus, there is no guarantee that the novelty will become a success. Not having sufficient resources and relying on the government's financial aid poses a counter-argument against investing in major disruptions. As only a limited amount of resources is available and market demand is unstable, it is strategically wiser to execute minor changes to the existing offering than invest all assets into technology and processes that cannot be analyzed and whose success is unverifiable in advance.

In our model, we identify strategies customized exclusively for SMEs to build a resilient strategy for attaining sustainability. This is in line with previous studies emphasizing that many prominent organizations tend to aggressively invest in radical innovation by overinvesting free cash flows into radical ideas yet fail to profit from such actions (Shaikh and O'Connor, 2020). Businesses were changed by the healthcare disaster drastically, and they continue to innovate to stay competitive. Innovation in service delivery provides a safe haven for entrepreneurs. Industrial champions have already framed challenges prompted by the economic crisis as opportunities for reshaping and refining, and even making necessary changes, undergoing a digital transformation that was overdue, and helps shape their future activity. To counteract decrease and maintain consistent growth, organizations should focus both on maintaining the existing business and considering potential growth domains.

2. Theoretical Background

2.1 Key Concept Overview

Innovation

Innovation is often a result of a complex system that consists of various stakeholders (Maxamadumarovich et al., 2012). Innovations are essential to sustain productivity (Basu, 2017) and economy (Obrenovic and Jalilov, 2014). Disruptive innovations are often introduced by small companies when they release new technology that is by default inferior in quality or performance in comparison to large corporations' technologies, hoping to make up with lower prices or convenience. It differs from incremental innovation, that is, from strategy focusing on a sequence of small and gradual improvements of existing products. Incremental and radical innovations are undertaken to improve offerings across the historically valued dimensions (Yunus, 2018).

Product Diversification

There are three essential motives for diversification. Most ambitions reflect managers' goals, including their desire for empire-building and managerial entrenchment, i.e., a diversification strategy conducted to boost the demand for organizational skills (Montgomery, 1994; Purakayastha and Lahiri, 2020). This also helps to decrease the unemployment risk as diversification of products and entering new industries renders firms less dependent on a single market (Amit and Livnat, 1988). Depending on the industry and business orientation, managers can opt for concentric, horizontal, or conglomerate diversification. While conglomerate diversification is recommended for large corporations with extensive resources, concentric diversification is best suitable for SMEs. Depending on the nature of the core business activity, at times, small-scale interventions are more efficient and appropriate for acquiring additional revenue streams than substantial product line re-conceptualizations. This especially holds for SMEs with limited finances as they are more vulnerable to risk and less likely to recover in the case of faulty demand estimations.

Use of New Technology

A transition from a physical to a digital environment broadened the horizon of opportunity for business expansion beyond geographic borders. Companies are now focused on using

diversification for business expansions and enlarging profitability, increasing competitiveness, more efficient utilization of resources and increase of risk capacity while simultaneously seeking development opportunities in different markets (Phung et al. 2016; Mehmood et al 2019). Furthermore, there are many available options on the market to support the digital supply network. Managers should rethink their existing products and novel ways they can be delivered in a virtual "normal" now that IoT, cloud computing, 5G and AI are at their disposal (Lillie et al. 2020). McKinseyandCompany lists a diversity of reactions in organizational response to changing demand. Bloomberg reports how restaurants switched to supplying takeaway in cooperation with delivery providers, and their numbers are off the chartFord, General Electric and 3M entered a coalition to manufacture medical equipment, while beauty product manufacturers and high-end fashion brands entered into a business of producing hand-sanitizers and protective face masks. The example of virtual reality can illustrate the point in a case. VR was a major innovation in the tech industry, changing the standard of gaming and design. An innovation such as this requires an immense amount of talent and resources, significant research and development capacity and personnel, technological capacity, proficiency and investment. However, when the technology is readily available on the market, businesses can easily pick it up and incorporate it into their current processes and ways the service is delivered to customers, thus innovating their business models.

3. Research Model Development

3.1 The Relationship Between Product Diversification and Resource Reallocation Ability

Accounting for the core activity specialization, organizations differ in the optimal levels of diversification; therefore, a company with more general resources gains more from diversification, while a company with more specific resources has less to gain (Alves et al. 2020). According to Collis and Montgomery, problems with diversification arise when one overestimates the transferability of specific resources and the value of general resources in gaining a competitive edge (Falconer et al. 2018). Underpinning our assumption on diversification strategy for SMEs is a Resource-Based Theory (RBT) first outlined in studies by Falconer (2020) and Brier (2020) and elaborated in Penrose's The Theory of the Growth of the Firm (1959) (National Academies of Sciences et al. 2020; Brier and Danny, 2020). While it may be challenging for the organization to sell the excess on the market, it is relatively easy to allocate it to related activity within the organization due to low marginal costs (National Academies of Sciences et al. 2020; Lillie et al. 2020; Morgan and Blake, 2020). Therefore, they should never undergo, and according to RBT, they cannot diversify by fully reinvesting all the assets and reserves to pursue disruptive innovation during adversity, as risks are too high and disruptive innovation almost exclusively implies attending to completely unfamiliar and unrelated activity.

Proposition 1: Resource reallocation has a positive effect on a product diversification

3.2 Innovation and Sustainable Performance

Not having sufficient resources and relying on the government's financial aid poses a counter-argument against investing in major disruptions. Organizational innovation and leadership are among key factors that bring about sustainable performance (Alsharif et al., 2021, Faulks et al. 2021). Radical innovation occurs when introducing a new technology disrupts the existing operation, thus generating a new business model. One of the most famous examples of radical innovation was the introduction of SaaS (software as a service) following Salesforce's launch of CRM software. The new software transformed the tech industry primarily by changing the organization's business model. Product enhancement may exceed the rate of improvement that is demanded in an established market, which is when an entrant can attack the

established industry leaders (Christensen and Rosenbloom, 1993). Radical innovation was defined by O'Connor and Rice (2013) as inventing a product, process, or service with revolutionary features or drastic transformation in common characteristics that enable the growth of brand-new application domains.

Main evaluative criteria for assessing the innovation originality include tests of value, rarity and distinctiveness in capabilities, resources and knowledge (Slater et al., 2014). The main innovations SMEs can consider are disruptive and sustaining. While the former is more effective and feasible during stability, the other is more fitting during adversity. Disruptive innovation concerns a concept, product, or service generating a new value network by disrupting current markets or generating an entirely new market. Disruptive innovations include processes, technologies, services and business models enabling organizations to shift the market balance and change the rules of competition (Thomond et al. 2003). Unlike the disruptive, organizations focusing on sustaining innovation are gradually improving how their products and services available at existing markets are delivered, catering to customers' needs by continuously introducing enhanced and upgraded versions of core products and services. Research on the difference between the two types of innovation was conducted by Reinhard and Gurtner (2015), (Reinhardt and Gurtner, 2015). Their results show that early adopters of disruptive innovations possess more knowledge of the product domain, while early adopters of sustaining innovations are more engaged in the product domain.

Proposition 2: Sustaining innovation has a positive effect on sustainable performance

3.3 Diversification and Organizational Performance

As businesses progress technologically, new tools for gathering and processing valuable information on competition and market trends are invented daily, accompanied by relevant investigations on optimization, enhancement, and profiting from implementing knowledge management systems and enterprise resource management systems. It is relevant to consider how technological diversification relates to novelty and translates into sustaining innovation. Using smart technology, new ways of delivering service to consumers can be made, providing a solution resulting in running cost minimization in the long run. For instance, fitness and sports facilities, networking and event organizers and education providers have embraced popular platforms Skype, Facebook Live, Instagram Live and Zoom for conferences, courses, classes and meetings and are already in process of designing a new solution intended specifically for the online segment. Neat feature consumers would surely appreciate and consider modest but nevertheless welcome innovation, that would facilitate the delivery during the disruption of normal distribution channels, which is for organizations to use drones to fly smaller packages to customers (National Academies of Sciences et al. 2020). It is a useful option during lockdowns and economic break-downs, and if it proves to be fast and cost-effective, later on, may be incorporated into regular business practices. Kook, Kim and Lee (2017) have conducted an empirical analysis of technological diversification's impact on innovation capabilities, depending on the organizational financial capacity. They found that organizations should diversify by focusing on a specific technology to bolster their competitive advantage (Kook et al. 2017). In line with their findings, we posit that the diversification strategy should be custom-tailored to dynamically fit the organizational potential. Therefore, we theorize the following:

Proposition 3: The use of technology has a positive effect on innovation

Certain scholars believed that by further diversifying into unrelated business lines, benefits would decrease while the costs will increase, and relationships will turn negative (Le, 2019; Lee et al. 2008). This is to attest that managing diversification is heterogeneous among

enterprises (Mackey et al. 2017). However, Mendonca and Las Casas (2013) found diversification to be an excellent strategy for organizational sustainability, as it generates growth, reduces risks, increases the organization's market share and provides a competitive edge by increasing the sales volume by up to 85% (Mendonça and Las Casas, 2013). Previous studies established that pursuing diversification technique from the inception of business throughout the maturation cycle is essential for performance and survival and that firms may, due to knowledge transfer, benefit from the combined effect of geographic diversification and product diversification (Mendoza-Abarca and Gras, 2019; Jiao et al. 2020).

Proposition 4: Product diversification has a positive effect on sustainable performance during the crisis

4. Discussion

Based on our investigation, we found that for SMEs, there are several conveniences associated with product diversification. These include tax reliefs, wise reallocation of essential resources, and risk reduction in times of volatility, especially when employed in synergy with institutional cooperation on service innovation. Provoked by sudden restrictions and implementation of remote work, entrepreneurs jumped on the opportunity to overthrow geographical barriers and tap into new market segments. In response to the COVID-19 outbreak, different diversification schemes were utilized. Evidence drawn from a sample of 82,742 observations on the product diversification strategy' impact on the organizational financial performance shows that a universally valid nature of the diversification strategy–performance linkage does not exist (Bausch and Pils, 2009).

In case of disruption in normal business activities, a plan must be devised concerning how the services should be delivered. Different case scenario testing is the next logical step – small-scale risk analysis focused on identifying opportunities and challenges and speculating about all possible hindrances. Although the entrepreneurial spirit is considered an asset for survival during catastrophes and prolonged uncertainty, business owners should not unrealistically and recklessly rush into untapped territory counting on the imminent success of the conceived idea when the unsystematic risk is high, especially during initial product development stages. The prototype may be ingenious, but there are many parameters one should account for, and they are even more paramount when there is a high probability of supply chains, manufacturing, or distribution channels being cut off, as was the case during all major health and economy crises, and that they gain from diversification. Diversification should be well-thought, thoroughly planned, discussed among company members, tested and provide expected return on investment. It is a multistage process, and each phase should logically follow from the previous.

5. Conclusion

We conclude that SMEs, due to limited resources compared to their larger counterparts, cannot afford to diversify by shifting to entirely new business activities as they lack the excess to be invested. Instead, they should focus on gradually improving existing services and innovating the way services are provided to customers. The current paper is limited as it only conceptually explores the topic, and focuses on few narrow elements. Thus future studies should focus on empirically testing the propositions made. Additionally, a richer exploration of the topic is warranted with many elements worth exploring that can be introduced into the model.

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