

## ARE WE CAPABLE ENOUGH TO INNOVATE?: A CASE STUDY OF HS TECH SDN. BHD

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**ABSTRACT** – Innovation is at the heart of company activity, based on the continuous technological development of products and services. However, a few only consistently measure their innovation capabilities to ensure sustainability in competitiveness. Through a single case study, an innovation fitness assessment was used to evaluate the innovation capabilities, and interviews has been conducted to determine how they further manage their innovation. The themes that emerged were quality assurance, culture and climate, structures and systems, organizational intelligence, harnessing the competence base, and research and development. In general, all scores of the innovation assessment are over average, except for processes. Areas of improvement should be more focused on the innovation process. It is recommended for companies that are engaged in the innovation management process, and the importance of conducting their innovation fitness. Focusing on these 6 dimensions of innovation capability will increase their competitiveness.

### ARTICLE HISTORY

Received: 11-11-2022

Revised: 17-11-2022

Accepted: 18-11-2022

### KEYWORDS

*Innovation Capabilities*

*Strategy*

*Learning*

*Linkages*

*Processes*

## INTRODUCTION

Innovation capability is a crucial element in the organization's aim for improved competitive performance. An organization's innovation capability is influenced by its internal efforts to develop its human, technological, and organizational resources as well as its ability to collaborate with the outside world to seek out resources, knowledge, and skills that can be embedded into the organization to develop new technologies and procedures that are recognized by partners (da Silva & Silva Cirani, 2020). Innovation capability provides insight into an organization's innovation potential areas and assets, leading to the identification of the firm's strongest and weakest points, as well as places where the firm should expand (Rajapathirana & Hui, 2018). The organization's innovation capability is then responsible for creating highly innovative outcomes.

In recent decades, innovation has emerged as a critical component of business and a contentious issue in academic research. Companies are subjected to worldwide competitive pressures in a setting that is highly dynamic, resulting in many unanticipated changes (Beig, 2020). Therefore, many organizations prioritize innovation to remain competitive and verify that they have potential options and the ability to remain on the market (Benaim, 2015). The ability to learn new skills is referred to as innovation capability (Beig, 2020). Managers can use innovation audits to assess their strengths and weaknesses (Frishammar et al., 2019). Through expansion, an innovation audit enables businesses to gain and maintain a viable edge through the development of new skills (Björkdahl & Holmén, 2016).

The most complicated aspect of establishing an innovative firm is to innovate frequently, discover new products and market routes across a versatile strategy, and try out new and present contributions through operational excellence (Benaim, 2015). Business managers need to assure that their companies are innovative and that they are on the right track to becoming particularly innovative. One method is to consider the main aspects of innovation measurement, which can serve as a road map for defining innovation-linked activities. Organizations need to match strategic thinking with their innovation efforts by increasing their understanding of the reality of the company's existing degree of innovative capabilities. Most studies are focusing on measuring innovation capabilities quantitatively, but fewer are measured using qualitative research design.

This study mainly focuses on assessing innovation capabilities through a single case study. Thus, the objectives of this study are to; evaluate how innovation is managed and assess the innovation capabilities. These questions will be measured through qualitative research design by case study approach, and quantitative research design using a questionnaire survey.

## LITERATURE REVIEW

### Innovation Capability Assessment

Hintama (2021) mentioned that innovation capability is usually divided into technological innovations and managerial innovations. Particularly, the expansion of an organization's competence for controlling innovation, such as innovation capability, has piqued the concern of researchers because it is a critical aspect of a firm's development and

accomplishment (Chang, 2017). Meanwhile, Foroudi (2016) claimed that innovation capability is the ability of a corporation to develop a strong position in a high-potential market by supplying a product or service.

Understanding the multidimensional nature of innovation capability aids in understanding the essential factors that represent exporting organizations' total potential to develop innovative outcomes and achieve outstanding performance (Maqsood Ahmad Sandhu, Ahm Shamsuzzoha, 2018). According to the review, the amount of innovation capability is determined by a variety of factors (Saunila, 2020). Top management leadership, knowledge growth, entrepreneurial orientation, and an external network are among the determinants (Kim, 2018).

The framework for the innovation capability measurement tool is designed to reflect a collection of characteristics of innovation work that firms can translate into action plans based on the assessment's findings. This evaluation aims to determine the organization's level of innovation readiness, identify innovation bottlenecks, comprehend the five innovation drivers—Strategy, Organization for Innovation, Processes, Linkages, and Learning—and pinpoint how the company may become genuinely innovative (Tidd & Bessant, 2013).

The framework created was then operationalized and turned into a tool for assessing capabilities. There are 5 dimensions of innovation capability assessment as below.

### Strategy

Nader (2015) argued that the process of developing an innovation strategy, like the creation of any good strategy, should begin with a clear knowledge and elaboration of specific objectives related to assisting the company in achieving a sustainable competitive advantage. Firms use innovation strategy to match organizational-driven demands and enhance innovation capabilities for brand-new processes, products, or business models (Velazquez-Cazares, 2021).

### Processes

Some factors such as company size, variations on a theme, the company's geographical coverage, and the connections of the companies can affect the behavior of the organizational innovation process (Tidd ve Bessant, 2009). Pisano (1997) stated that process development could be "a vital weapon" for firms to obtain a competitive advantage because if the process development is embedded, this helps them to get the ideal position for an innovative company, to develop the dynamic capabilities, effectively use these capabilities, and gain the status of a learning organization. In addition, processes are the backbone of other innovation activities, in other words, are the skeleton of the innovation system. Therefore, when a company's processes are weak, becoming an innovative or learning organization maybe more difficult for it (Pisano, 1997; Garratt, 1987).

### Organization

The organizational structure represents a set of expectations for organizational members' behavior, including which rules must be followed, how decisions are made, and which control system should be used. The development of learning and innovation is influenced by organizational structure. As a result, the learning process must be considered in the organizational structure, especially since the structure is essentially an information base, which allows it (Velazquez-Cazares, 2021).

### Linkages

Corporations can encounter significant growth in innovativeness when they externally collaborate across collaborative preparation, shared processes and expertise, and shared data (Iddris, 2016). According to Björkdahl and Börjesson (2012), this element is associated with activities aimed at establishing associations, partnerships, and connections with external factors such as consumers, competitors, and colleges, as well as the ability to attract external expertise and expose the firm to new incentives and experiences, i.e., the ability to operate with open innovation.

However, Rothwell and Dodgson (1991) debated that, external technological linkage management is a difficult problem to solve. The classification of sections for the association, the choice of collaborators, the conduct and daily management of the linkage, and confirming that benefits grow from joint activities are all major endeavors that necessitate a significant amount of management resources and expertise.

### Learning

A company's organizational culture is a complex set of values, beliefs, assumptions, and symbols that shape how it does business (Wang, 2019). In addition to that, collaborative culture is critical for fostering innovation capabilities. Because of the uncertainty and complexity of tasks, innovation necessitates collaborative problem-solving (Wang, 2019). Chang (2017) has suggested that high-performing firms share many common organizational culture qualities, but that each organization benefits differently from those traits. Organizational culture is an important factor in achieving an organization's mission and strategies, improving organizational effectiveness, and managing change.

Learning has to remain identified as the most critical aspect of innovation capability (Tidd & Bessant, 2013). Iddris (2016) described that learning activities should be present in an organization's culture to allow for the utilization of internal and external capabilities required to foster innovation. Velazquez-Cazares (2021) argued that organizational learnings are cultures that develop values related to learning, and learning organizations are organizations that develop organizational learning

## METHODOLOGY

The self-assessment form was used to address the second study goal, which is to evaluate HS Tech Sdn Bhd.'s capacity for innovation. It concentrates attention on a few crucial components of innovation management. The statements that explain "the way we do things around here"—the pattern of behavior that describes how the organization approaches the issue of innovation—can be found below. Respondents simply assigned a score between 1 (not true at all) and 7 (very true) for each statement. This scale was modified from Tidd, Bessant, and Pavitt's (2005) work. While the first research objective is to determine how innovation is managed in HS Tech Sdn Bhd., a case study approach is suited for this research objective. The information gathered was meant to help with a better understanding of the topics under consideration. A case study is also used to explain causal relationships in real-life circumstances when most research approaches, such as experiments, are either too complicated, too sophisticated, or too impractical to apply. In such cases, the data collected is more detailed than that obtained through a survey among a demographic sample (Creswell, 2007). The interview's audio recorded and conducted together among the managers and project executives from 4 different departments to ensure consistency. The audio recording was transcribed into text and analyzed using thematic analysis. The researcher develops related codes according to the interview and then creates grouping in dedicated themes to simplify the analyzing process.

## RESULTS AND DISCUSSION

### Background of Participants

The participants were 2 managers and 2 project executives. The interview session took 1 hour and 30 minutes depending on the participants' capability to answer the questions. The researcher also provided a set of questions to the participants beforehand for them to prepare. The interview focuses on the research objectives to keep the participant within the research subject and gather as much information for the benefit of the research. Rank and position did not affect the quality of responses as they are working across boundaries and multitasking. Table 1 shows the demographic profile of the participants.

**Table 1.** Participants' Demographic Characteristics

Respondent	Gender	Position	Department
A1	Female	Manager	Admin & Finance
A2	Male	Manager	Operation
A3	Male	Project Executive	Grease
A4	Male	Project Executive	Catfood

### Findings

This study set out with the aim of evaluating how innovation is managed in HS Tech Sdn. Bhd. HS Tech Sdn. Bhd. manages innovation well and consistently beat its competitors in terms of quality assurance, culture and climate, structures and systems, organizational intelligence, harnessing the competence base, and research and development. These findings further support the idea of Dereli (2015) that integrity and coherence across several categories are essential for effective innovation management. Regarding the themes related to innovation management, the thematic analysis was demonstrated as depicted in Table 2.

**Table 2.** Summary of Themes

Themes	Subthemes	Number of Times Mentioned	Interviewee ID
<b>Quality Assurance</b>	Guidelines	5	A1, A2
	Standards	6	A1, A2
	Certificates	4	A1, A2
<b>Culture and Climate</b>	Tolerance of ambiguity	7	A1, A2, A4
	Collaboration	4	A2, A4
<b>Structures and Systems</b>	Organizational structure	2	A1
	Rewards System	3	A1
	Leadership	4	A1, A2

<b>Organizational Intelligence</b>	Learning about client	3	A2
	Learning about competitors	4	A1
<b>Harnessing the Competence Base</b>	Resource management	4	A1, A2, A3
	Variety of funding channels	4	A3
	Business Model Innovation	5	A2, A3
<b>Research and Development</b>	Research and Development	7	A1, A2, A3
	Experts of Green Technology	3	A1, A2

### Theme 1: Quality Assurance

It was found that most of the interviewees described quality assurance currently implemented as guidelines. As stated by the participants:

*“In for our product, for our formulations, we are striving to go to the premium formulation and then we refer to the AFCO guideline.” (A1)*

*“First of all, our Malaysian, KPT, and MOSTI mostly have a set-up guideline to know the level of our in the level of innovation that we made. Which they call it technology readiness level. To measure our innovation, which part? So, the TRL, then all call it technology readiness level, they have up to 9 from 1 to 9.” (A2)*

Standards also need to comply as stated by the participants:

*“Analysis for this wastewater, he needs to have a standard approved by the Department of Environment. Either standard A or Standard B.” (A1)*

*“The things that we always emphasize, and our HS Tech Sdn Bhd. is that everything that we do must have SOP Standard Operating Procedure which is because like our company is not a big company which is we are a startup company.” (A2)*

The company also obtained certificates to improve consistent quality, as stated by the participants:

*“And then we are applying the eco-labels certificate from SIRIM, so it is what I can say that it is our commitment to the Ecolabel and also biodegradable to save the environment and then on top of that.” (A2)*

*“The raw material itself, we have like a supplier from China and also from local Malaysia and then once the raw material arrives, we need, and we have to make sure that the raw material itself is in terms of the spec and then the quality and the same with the Certificate of Analysis [COA] that we got from the supplier.” (A1)*

Our findings align with Zeng (2015), highlighting that through the cumulative impact of higher quality, quality assurance can influence innovation performance both directly and indirectly. Results reveal that HS Tech Sdn. Bhd. has guidelines, standards, and certificates that play an essential role in determining innovation performance. Studies have generally found favorable relationships, such as the supportive role of quality in innovation management, which suggests serving as the foundation for innovation (Antunes, 2017).

### Theme 2: Culture and Climate

Based on the interviews, culture, and climate were explained by interviewees in two main areas such as tolerance of ambiguity and collaboration to overview the practice of innovation. According to the participants:

*“So, we contact the supplier, so we explain everything, and then the supplier acknowledges that so they request for us to resend the raw material back to them and then they will resend the new one because it's not from our side.” (A1)*  
*“For biodegradable grease. So, we. Uh, we must fulfill the deadline to meet the deadline by the end of October. So, we left like one month and a half two and then if we are facing problem with the types of equipment or with the manpower and so on. So, we must have, we must have our mitigation plan which is we have plan A and then we have Plan B.” (A2)*

Collaboration is also very important in our culture and organizational climate:

*“What for this we also collaborate with the marketing team or market, you know, like a company that works in the market in marketing, we ask their help and also we also collaborate with the lecturers and also a student to help us to get the real data from the ground.” (A2)*

*“About our innovation, so we collaborate with the audit firm to, you know, like to confirm whether we have this innovation or not.” (A4)*

Success with innovation also heavily depends on HS Tech Sdn. Bhd.’s culture and climate. This finding supports previous research into this brain area which high-tech companies are more likely to innovate and have more opportunities to improve product innovation performance, which opens more room for the growth of an inventive culture and climate (Kearney, 2019). HS Tech Sdn. Bhd. tolerates ambiguity. When failure and mistakes happen, they learn from it and not keeping them from the corporate viewpoint. More recently, literature has emerged that offers contradictory findings about a project that involves collaboration is always at risk of failing, but it must first be determined whether any of the partners would have been seriously "damaged" by that failure (Lager, 2015). However, HS Tech Sdn. Bhd. is also widely aware that without collaboration, innovation is merely a concept that never materializes.

### Theme 3: Structures and Systems

Based on the interviews, the research found that interviewees repeatedly stressed the importance of strong structures and systems that can align with the company’s goals for innovation. Organizational structure is where everyone knows their role very well as stated by the participants:

*“OK, because now our company is not a big company. We just started in 2017. So, we are not very big. Most of the workers here, we need to multitask.” (A1)*

*“And then we focus on grease, so each of us will know the information of each project in our company.” (A1)*

They also do realize the importance of rewarding their employees, as stated by the participants:

*“We still growing. Once it's big, and there's a demand, we'll add more workers. Later we do have the plan to reward and reward outstanding employees monthly.” (A1)*

Leadership is also one of the most focused while managing innovation. As stated by the participants:

*“So, we have like around 40 formulations for the cat food. So, we need to choose which formulation is the best to represent the client. Now, because the client will give like this and then they said then list what kind of cat food that they want and the level of the nutrients, so leadership is how to make decisions is very important.” (A1)*

*“Ohh, of course, we will accept, but we will see the pros and cons. When we decide, and then others give ideas, we will look at the pros and cons. If it's okay to proceed, we proceed. Because I will not decide based on, I have my thoughts. I will decide based on my company. What's good for the company.” (A1)*

The researcher believes that structures and systems are the main drivers to engage in innovation management at HS Tech Sdn. Bhd. Since HS Tech Sdn. Bhd. is a new startup company in 2017, the crew is multitasking among departments due to a shortage of employers. However, the findings of the current study do not support the previous research which mentioned that by establishing flexible corporate borders that help dissolve the barriers between functions, product groups, and businesses, high-performing enterprises encourage and support innovative behavior (Lawson & Samson, 2001). Other than that, reward systems are essential to effective innovation because they are strong behavior motivators. For example, even though HS Tech Sdn. Bhd. does not practice a reward system as they are still growing, instead, they do celebrate workers’ birthdays every month as a token of appreciation. A leader must have a set of leadership qualities, such as being a competent designer, master, mentor, challenger, and integrator, along with having a clear, enduring shared vision, for a company to become innovative (Liao, 2017). This finding confirms the association between leadership and innovation. For example, the Operation Manager at HS Tech Sdn. Bhd. is using decision-making as a leadership skill to analyze an issue and decide how the organization should move forward such as choosing the type of formulations among 40 options. In addition, the manager also reinforces this mindset by including workers in decisions that are important to them.

### Theme 4: Organizational Intelligence

Based on the interviews, the research found that interviewees repeatedly emphasized the importance of strong organizational intelligence and their curiosity about the aspects that enable them to select a growth strategy that capitalizes on both company's strengths and the deficiencies of the competition. The statements are supported as below:

The participants learned a lot from the clients:

*“Uh, for that part. What we did is we identified the problem statement, which is the problem statement from the market. Uh, so we received the feedback. We do the fieldwork and then ask the people on the ground that use that product, what is the problems, what in terms of ingredients, in terms of price, and so on.” (A2)*

*“A lower price and then a good quality, high quality. We fulfill the needs of the people.” (A2)*

Competing is by innovating, according to the participants:

*“Our formulation is a premium line is premium formulation but outside there are a lot of formulations that claim they are premium, but when we do the analysis, we send it to the third-party lab. So, when we see the ingredients and, we do the proximal analysis, see the all the like the protein level and also the fat level, it's actually like the standard, the standard formulation now. But they claim themselves as a premium so. In for our product, for our formulations, we are striving to go to the premium formulation and then we refer to the AFCO guideline.” (A1)*

*“So, I mean like lots of greases outside, so they have like certain chemicals that good for the grease but it's harmful to the human. So even the fact like our skin. So, we'll have skin irritations. So. So what's different in our product is that we didn't include all the carcinogenic materials into our formulations” (A1)*

The ability of an organization to gather information, innovate, create knowledge, and execute successfully based on that knowledge is known as organizational intelligence. Staškevičiūtė Butienė (2016) added that organizational innovation is directly related to organizational intelligence since it is the driver of organizational innovation capabilities. In the case of HS Tech Sdn. Bhd., the main goal of organizational intelligence is learning about clients and competitors. Focusing on their most demanding clients, HS Tech Sdn. Bhd. trying to innovate to address their concerns and provide goods and services that are likely to be valuable to the great majority of clients with less demanding needs. For an instance, they produce premium formulations for each product and offer them at low prices and high quality to fulfill the client's needs. Very little was found in the literature on the question of how learning about competitors could help innovation management. HS Tech Sdn. Bhd. is comparing and doing a little research on the ingredients added into grease and its harms to the client compared to the competitors.

#### **Theme 5: Harnessing the competence-base**

Based on the interviews, harnessing the competence base explained by interviewees in a few areas such as resource management, variety of funding channels, and business model innovation offers a common method to coordinate, choose, and develop talent. According to the participants on how they manage their resources:

*“What about the cylinder oil from all the Perodua in Malaysia then we process, we treat the cylinder oil from vehicles, lorries, cars, the dirty oil, and we treat, treat and we sell back.” (A1)*

*For your information, the university alone has over 700 patents. Then, from these patents, only a few products were commercialized. (A3)*

They actively obtain several funds from the opportunities given by the government.

*“So, to get a grant from the Superb Teraju ministry. Superb Teraju is under the Prime Minister's Department. So, there you won RM 500,000.00.” (A3)*

*“So, for the cat food project, we are applying for a grant from the Malaysian Technical University Network (MTUN).” (A3)*

*They do have a unique business model to manage their innovation, as stated by the participants.*

*“At the same time, for example, we have water treatment services right, we receive a lot of water samples from LHDN, TNB Malaysia, Lanjut Beach & Golf Resort, and many companies.” (A2)*

*“Like this grease, we have two clients. The only one from BG Sdn Bhd. They said, “You made grease for me, but the brand and logo are mine.” So, there is no HS TECH logo there” (A2)*

Harnessing the competence-base entails HS Tech Sdn. Bhd.'s skills to effectively manage and allocate resources in the necessary areas, which is essential to guaranteeing innovative production. Another important finding was that HS Tech Sdn. Bhd. assumes every waste has value for it. For example, the company collects aqua waste to create cat food with a premium formulation. Next, HS Tech Sdn. Bhd. stressed finding funding channels to support innovative ideas. Since innovation in business models is the conceptualization and application of new business models (Geissdoerfer,

2018), HS Tech Sdn. Bhd. changed its business model to OEM (Original Equipment Manufacturing) to offer components for another company's final goods.

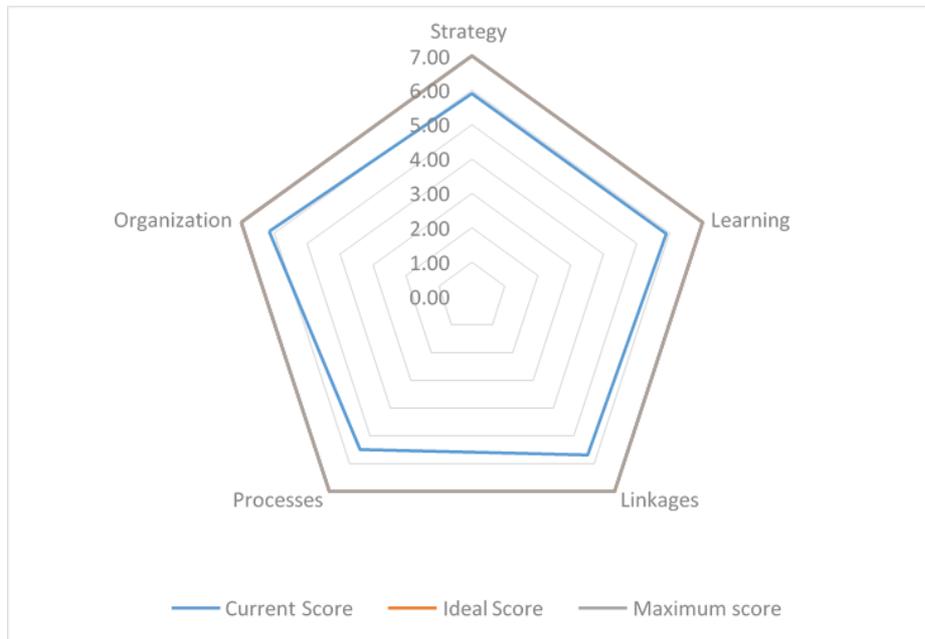
**Theme 6: Research and Development**

The majority of those who responded to the interview felt that Research and Development is the backbone of the company's innovation strategies. As stated by the participants:

*“For innovation projects, actually HS TECH is an R&D company, since we do the research and development for each project and also new project and then for innovation in, for now, we have HS TECHg-Treat a product.” (A1)*

*“Currently we are developing biodegradable food grade grease, which means it's a combination for the food industry and also biodegradable friendly which is eco-friendly.” (A2)*

80% of those who were interviewed indicated that research and development is the backbone of the company's innovation management system. World-class green technology products, research, technical services, and consultancy are offered by HS Tech Sdn. Bhd. for the benefit of the environment. In some instances, HS Tech Sdn. Bhd. chooses to collaborate on R&D with universities projects with an emphasis on learning difficulties with a multipurpose that involves novel scientific research and lasting advantages. This finding is in agreement with Maietta's (2015) findings which showed companies partner with academic institutions and government research facilities to gain access to fresh concepts and financing from the government, build internal knowledge, and accelerate the time to market for innovative technologies, particularly those that support process innovation and market expansion. Figure 1 depicts the innovation capabilities based on the spider chart.



**Figure 1.** Innovation capabilities of HS Tech Sdn Bhd

**Table 2.** Innovation capability score in HS Tech Sdn Bhd

Score	Innovation Capability Score				
	Strategy	Learning	Linkages	Processes	Organization
	5.91	5.91	5.69	5.50	6.16

The organization scored the highest ranking of 6.16 in this assessment. The growth of HS TechSdn Bhd. is directly impacted by its organizational structure. This company's capacity for innovation is demonstrated by the innovative ways in which they utilize resources and technologies. Innovation arises from the collaborative power and concepts of an organization. Through their direct control over an organization's structure, organizational decision-makers can affect innovation within their company (Kalay, 2016). For an instance, the company are welcoming ideas and suggestions from the workers regardless of their position in the company. This is supported by previous findings mentioning that ideas provide the foundation of organizational innovation, and people introduce, alter, and put ideas into practice (Dedahanov,

2017). Since it is a new start-up company, all the workers are multitasking among the departments, and this makes every worker have the same knowledge and skills for each project idea. This contributes to the success of the company's project.

Both strategy and learning scored 5.91 which indicates that both dimensions are contributing equally to the innovation capability of HS Tech Sdn. Bhd. Effective innovation management requires an understanding of the relationship between vision, strategy, and innovation (Mendoza-Silva, 2020). HS Tech Sdn. Bhd. took an offensive stance and aimed to shape the future (instead of preserving the past) and tend to be more inventive. Meanwhile, HS Tech Sdn. Bhd. collaborates with other companies to share their knowledge and expertise to learn from them and improve their operations. Even though they do collaborate with various sectors, all of them are from Malaysia, and the company is not gaining or sharing their expertise with multinational companies. This is the reason why external linkage scored 5.69. This is aligned with the finding that firms use their internal innovation to harness external information and improve their innovation performance by expanding the boundaries of their innovation activity (Wang, 2020). This company is a successful start-up back in 2017 and has made its mark in providing low-cost, premium formulation products customized to customers' needs. They have been successful in fusing mainstream management techniques with an innovative business model which is OEM which has completely changed their sector.

From this data, it can be seen that processes resulted in the lowest value of 5.50 compared to other dimensions. There is a risk that projects will overrun in cost and time, resources may be poorly utilized, and innovation becomes something of a gamble rather than a managed risk. In HS Tech Sdn. Bhd. the processes are conducted by a 'one-man show which is only by the Operation Manager. Hence, the researchers found that it is inefficient to manage innovation, especially with this competitive edge. The manager only focuses on adhering to the guidelines and standards to align with quality specifications but failed to set performance metrics and targets for innovation internally. They only blindly depend on Technology readiness levels (TRL) to measure innovation level overall. By the present results, previous studies have demonstrated that innovation performance evaluation is essential for raising a company's worth and strengthening the decision-making process (Ponta, 2021). This shows the reason why processes scored the lowest.

Hobday et al. (2004), in their interesting study on Korean firms, distinguished 4 different groups of firms according to innovation capability depending on their awareness of the need to change and preparedness and ability to change in practice. Firms with low awareness and low ability to change are unaware and passive and thus constitute the non-innovator group. Firms having mediocre or high awareness and ability constitute the innovator's group. Ad hoc innovators introduce innovations from time to time and can be the followers (they introduce it following the leaders) and thus have reactive strategies or can be the leaders themselves. Thus, they can behave in a strategic manner assuming the role of a leader and gaining first mover advantage). Highly innovation-aware firms, introduce innovations constantly and they are referred to as creative. HS Tech Sdn. Bhd. is therefore a forward-thinking organization for innovation. However, this company is not the best.

For greater performance, integration techniques must result in the development of practical capabilities that allow the company to profit from ongoing collaboration efforts, such as understanding market needs and the competitive evolution of the industry. Integration in NPD demands special attention to the growth of firm-level innovation skills because integration is insufficient on its own (Johnson & Filippini, 2009)

The company's innovation procedures need to be upgraded based on the innovation capacity evaluation. Post-project reviews could be used to outline the innovation activities and pinpoint areas for improvement. Cost increases on time and/or money are frequently a sign that there are not many processes in place, or there are processes that are ineffectively managed. To implement best practices on tools and approaches, it is advised that cross-functional teams and early involvement be used. They might also use the quality function deployment (QFD) strategy to make sure that everyone is aware of the needs of the customer and how their innovation efforts can help to meet those needs (Tidd, Bessant & Pavitt, 2005).

## CONCLUSIONS

The six dimensions of innovation capability could assist companies in prioritizing the relevance of the six dimensions, rather than ignoring any of them to make the most use of their limited resources. If there is a possibility and sufficient sources, attention should be given to all five dimensions simultaneously. According to the results, companies will know their poorest sub-dimensions along with the other dimensions directly affecting their weakest one, although each of the five sub-dimensions should be seen as important as the others and businesses should focus on all five sub-dimensions. Companies can therefore focus their efforts, at least initially, on the most problematic ones before moving on to others. This would allow more innovative strategies to increase their competitiveness.

From a theoretical standpoint, the current study will add new knowledge to the body of literature, and more understanding of important dimensions that increase the capability of their innovation. The limitation of this study is that it is conducted through a single case. Further investigation of various levels of industries in various nations would be valuable to construct a map of these diverse industries and nations in a competitive strategy map. The validity or falsity of every existing classification of innovation may also be determined by using a sample of diverse nations and businesses. Therefore, conducting this kind of research may be of interest to future researchers

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## CONFLICT OF INTEREST

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