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The Contribution of Absorptive Capacities to New Innovative Product Development Performance: A Conceptual Framework

The wave of Covid-19 has forced the industry to transform so that the products produced can remain competitive in the market. Old products in the period before Covid-19 certainly no longer have the same competitive performance as today, so the industry is required to be able to develop new product innovations that can excel in the market. To be able to produce innovative new products, the industry requires sufficient knowledge. The ability of industries to be able to acquire and implement knowledge is called absorptive capacity. In various previous studies, absorptive capacity has four aspects including acquisition capacity, assimilation capacity, transformation capacity and exploitation capacity. In this article the conceptual framework for the relationship between aspects of absorptive capacity and the performance of new products is presented. We hypothesize that there are interesting correlations between aspects of absorptive capacity and new product development performance.

Keywords: Absorptive Capacity, New Product Development Performance, Conceptual Framework

1. INTRODUCTION

The big wave of the 4.0 industrial revolution made all business people have to be willing to change following the very fast market developments towards the digital era. Changes in consumer behaviour are more demanding so that business people are able to seize existing business opportunities. As a result, many of the world's big companies have collapsed as a result of changes and shifts in markets and consumer behaviour.

The hit of the first wave has not received much response from the business world, there has been a further bigger wave of blow which has a profound impact on the strength of the world economy. The second big wave is the impact of the recession due to the Corona Disease Virus 19 (Covid-19) which began in early 2020. This second major wave not only resulted in a decrease in people's purchasing power for certain industrial products but also formed different consumer behaviour due to restricted human movements. In an effort to stop the spread of the SarsCov-2 virus (known as the name of the virus that causes Covid-19). Changes in human behaviour as a result of appeals to work from home, school from home, social distancing, washing hands, wearing masks and others can certainly also have an impact on human behaviour related to fulfilling life's needs to the process of purchasing a product.

The above phenomenon requires business actors to transform their business direction to suit market developments and targeted consumer behaviour. One form of business transformation that is carried out is in the process of designing new products that will be sold to consumers. The character of a new product that will be released in the market must be able to meet the expectations of the completely new consumer behaviour. In the process of designing new products, business people need sufficient knowledge so that the products produced are innovative and able to meet expectations of consumer behaviour.

In this article, we will discuss hypothetical factors to become a conceptual framework related to the correlation between absorptive capacities and new product performance. In this article, we will discuss the literature review and the rationale for the construction process of hypothetical factors to become a conceptual framework. This article can contribute at a strategic to operational level for business people in facing a time full of uncertainty like today.

2. LITERATURE REVIEW

2.1 Innovation

The discourse of innovation has long been echoed by experts as one of the factors in winning the increasingly competitive market competition [1]. Ancona & Caldwell, (1987) in their paper also mentioned that innovation ability signals how an organization can also predict the sustainability of its life cycle. Higgins, (1995) also reports how innovation ability can determine success in achieving the goals of an organization. For MSMEs, innovation ability also turns out to be very important in supporting MSMEs to be able to win the market (Handiwibowo, 2019). In the context of innovation, there are 2 main streams of research by researchers in the field of strategic management [5]. The two main streams are the exploitation of technology and human resource capabilities. In the study of technological exploitation, the factor of technological mastery and the strength of research and development (R&D) are the main factors in how an organization develops its innovative capabilities [6], [7]. While the study of the human resource aspect emphasizes how the factors of organizational structure and organizational culture have an impact on the ability of organizational innovation as the results of research by [8] and [9] which conclude the correlation that occurs in human aspects and organizational structure in the innovation success of an organization.

The innovation action of the organization is the result of organizational policy. Organizational policies provide the direction and goals of innovation action. Prajogo & Ahmed (2007) emphasized how skills and strengths in R&D and mastery of technology determine the innovation capacity of an organization. The conclusion that can be drawn is that innovation is the core of the internal reform process in the organization as well as a foundation for competitive strategic decision skills.

2.2 Absorptive Capacity

The concept of absorptive capacity was first introduced in 1990 as the ability of a company to identify knowledge needs to absorb and exploit them to become the company's competitiveness [10]. Scholars agree that absorptive capacity is a form of multi-dimensional construction. Where absorptive capacity can be explained as dynamic capabilities that form new resources through the search process to find the intended knowledge which then assimilates, transforms and exploits knowledge from outside with a combination of internal resources and acts as a framework for the innovation process [11]. New knowledge is very important for business organizations to always be up to date with the surrounding environment. Other organizations and the business environment in which these organizations exist often provide new knowledge for the organization. If this new knowledge is managed properly, it can have a positive impact on the organization and can increase its competitive advantage. The organization's ability to identify information from external organizations which then applies it in a business context is defined as absorptive capacity [12].

In the theory of absorptive capacity, it is explained how company performance can be improved from the ability of innovation and organizational agility as a result of the process of absorbing and applying new knowledge. Matusik & Heeley (2005) reported an increase in the efficiency of an organization as a result of the organization's absorptive capacity. [14] In their paper also provide an overview of where the knowledge possessed by an organization can be of economic value as a result of its absorptive capacity.

2.3 New Product Performance

Innovative performance in the context of the innovative firm's theory emphasizes the importance of organizational processes and management that occur in a business organization [15]. Innovation performance will have a positive effect on other performance that is more operational in nature. The expected form of innovative performance is the success of new products from the company in capturing market share and increasing sales [4]. The direct impact of innovative performance in the eyes of customers is customer satisfaction and the acquisition of new customers. Strategically, the ability to innovate is a fundamental instrument of strategy to enter a relatively new market or to increase the existing market share [4], [16].

Several factors contribute significantly to the success of a new product in order to win the competition in the market. Effective communication factors have an impact on good product awareness. The product characteristics of the product have a good impact on the identity of the product. Meanwhile, the organization of work is able to have an impact on the process of imputing values to the product. These three factors are identified as capable of having a real impact on new product performance [17].

A good new product will be able to have an impact on job availability, increase economic growth, technological progress to increase the standard of living higher within the company. New products are also able to contribute to profit structure, profit performance and future business planning [18], [19].

3. HYPOTHESIS & CONCEPTUAL FRAMEWORK

3.1 Proposed Hypothesis

The four dimensions suggested by [12] to form the concept of absorptive capacity. The four dimensions are the dimensions of acquisition, assimilation, transformation and exploitation. The acquisition dimension is the ability of the company to obtain external knowledge which is crucial for the company [12]. The assimilation dimension is the ability of the company to absorb and fit the knowledge obtained to the company [20]. These two dimensions (absorptive capacity & assimilation capacity) are better known as potential absorptive capacity. The transformation dimension is a company's ability to change the knowledge that has been absorbed in the organization into a corporate culture [21]. And the last dimension is exploitation and this dimension is the ability of the company to create new things with transformed knowledge to improve existing competencies [12]. The last two dimensions (transformation capacity & exploitation capacity) are better known as realized absorptive capacity.

In developing new products, companies have two main reasons [22]. First, the new product is developed to fulfil customer needs, so that it becomes more of a business objective. This reason was developed primarily as a result of the process of identifying consumer needs through market research [23]. Thus, the measure of the objectives of the new product, among others, is to achieve market share, sales growth, to obtain company profits and the performance objectives of the product [24]. Meanwhile, the second reason for the new product is as a presents an atmosphere of competition for similar products developed by competitors [25]. Comparative aspects with competitors such as the level of product success compared to competitors, the speed of the product development cycle time and product quality are the basis for determining the performance of the product [26].

With the literature review above, a hypothetical relationship between aspects of absorptive capacity and new product development performance (NPD Performance) is drawn up as follows:

- H1 : Acquisition Capacity has a positive impact to NPD Performance to Competitor.
- H2 : Assimilation Capacity has a positive impact to NPD Performance to Competitor.
- H3 : Transformation Capacity has a positive impact to NPD Performance to Competitor.
- H4 : Exploitation Capacity has a positive impact to NPD Performance to Competitor.
- H5 : Acquisition Capacity has a positive impact to NPD Performance as Business Objective.
- H6 : Assimilation Capacity has a positive impact to NPD Performance as Business Objective.
- H7 : Transformation Capacity has a positive impact to NPD Performance as Business Objective.
- H8 : Exploitation Capacity has a positive impact to NPD Performance as Business Objective.

3.2 Proposed Conceptual Framework

Figure 1: Conceptual Framework.

This study suspects that there is a correlation between absorptive capacity factors and the new product development process. This assumption is very important to provide an understanding of how the concept of absorptive capacity has an impact on the new product development process. Based on the results of the review

and hypotheses that have been developed, a research framework is prepared which is presented in Figure 1.

4. CONCLUSION

Through a review of several literature related to absorptive capacity, it is found that the aspects of absorptive capacity are thought to have an impact on the performance of new products. To be able to empirically prove this hypothesis, a conceptual design was compiled which was then tested using a questionnaire. The questionnaires are then distributed and answered by the officers in charge of the company's new product. But it is necessary to limit that the new product must already be on the market in order to identify the performance of the new product. The empirical test results will show quantitatively the aspects of absorptive capacity that contribute to the performance of new products. The results of quantitative identification can be coherent information for the company to be able to emphasize strategies and actions to strengthen each aspect of the absorptive capacity.

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