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### **CHAPTER I**

## INTRODUCTION

This chapter explains the context of this study. Also, it describes the research problem, objectives, and benefits of research. The following are explained briefly in succession.

### 1.1 Background

The food industry contributes to national economic expansion. This is reinforced by the Ministry of Industry which projects the food and beverage industry to grow above 5 percent throughout 2021 (Lestari, Reni;, 2021). To support it, the government provides intensive import duties borne by the government for the import of several raw materials.

The food industry in Indonesia, especially during the pandemic, is experiencing a downward trend (Figure 1). The decline in this trend can be caused by several things, one of which is the lack of product innovation carried out by food industry companies during the pandemic. After the pandemic, people's consumption patterns have changed, so the food industry is required to be more active in innovating (Kementerian Perindustrian Republik Indonesia, 2021).



with distinctive products, procedures, and customer services (Hidayat et al., 2021).

One of the ways to increase the competitive advantage is to carry out product innovation which means launching new products according to market needs.

Innovation is one of the most important components underlying a company's long-term competitive advantage (Cheng & Nasurdin, 2010). Also, product development is necessary because of the nature of consumers who tend to get bored easily. There are three types of development in developing food products, namely: making new products, modifying existing products, and imitating other products (Ilmayana, 2021). In conducting product innovation, the food industry is currently investing in its internal resources, such as the research and development (R&D) team. In today's quickly changing business world, a strong R&D operation is seen as a fundamental enabler of competitive advantage (Cho, 2018). To be a success in developing the product, a good knowledge resource is needed.

Knowledge and technology are becoming more widely recognized as strategic assets and main sources of competitive advantage (Lai & Lin, 2012). Therefore, currently, several companies are working hard to implement knowledge management. Knowledge management is a management function that involves the generation of knowledge, the management of knowledge flow throughout the organization, and the effective and efficient application of knowledge for the long-term benefit of the business (Cheng & Nasurdin, 2010). The improvement in organizational performance will be achieved, when the management of knowledge is done properly (Victoria et al., 2020).

Currently, the food industry is trying to implement knowledge management to improve organization performance through product development. Applying knowledge management in companies aims to have systematic data, thus enabling companies to make better decisions. To be useful for the organization, the knowledge management in the organization must run well. Knowledge management includes its components, namely knowledge creation, knowledge sharing, and knowledge application.

However, in research on knowledge management, product innovation, and product development, there is a research gap. Research (Rajapathirana & Hui, 2018) entitled The Relationship Between Knowledge Management and Innovation Performance demonstrates that knowledge management activities have direct and indirect effects on innovation and organizational performance via a rise in innovation capability. Additionally, it was discovered that knowledge creation, knowledge integration, and knowledge application enhance innovation and performance. This contrasts with the research conducted by (Victoria et al., 2020). In their article titled Knowledge Management and Performance of Organizations: A Case Study of Selected Food and Beverage Firms, they demonstrate that knowledge creation has a significant negative impact on innovation, whereas knowledge sharing has a significant positive impact on innovation.

The differences in the results of these studies are also seen in the current food industry R&D. In the data obtained from interviews with 7 respondents from 7 different companies, there are results as shown in the following table:

| No | Respondent | Organization | Product<br>Launch<br>per<br>year | Recording<br>Experimental<br>Results<br>Manually | Recording<br>Experimental<br>Results<br>Digitally | Doing<br>project<br>progress<br>sharing |
|----|------------|--------------|----------------------------------|--|---|---|
| 1  | А          | PT. ABC      | 2                                | Yes  | No  | Yes                                     |
| 2  | В          | PT. BCD      | 5                                | Yes  | No  | Yes                                     |
| 3  | С          | PT. CDE      | 1                                | Yes  | No  | Yes                                     |
| 4  | D          | PT. DEF      | 7                                | Yes  | No  | Yes                                     |
| 5  | E          | PT. EFG      | 10                               | Yes  | No  | Yes                                     |
| 6  | F          | PT. FGH      | 2                                | Yes  | Yes   | Yes                                     |
| 7  | G          | PT. GHI      | 1                                | Yes  | Yes   | Yes                                     |

Table 1. Data evidence of Knowledge Sharing and Knowledge Creation in the Food Industry

Source: Developed by researcher (2021)

The table shows that all respondents have been active in sharing knowledge in the R&D department, by holding sharing sessions regarding project progress in each R&D team. In the sharing session, each individual R&D shared about the progress of the project being carried out, along with the problems they face in developing new products. However, the majority of respondents have not implemented knowledge creation in the R&D department. This can be seen from the majority of respondents who do not store research results in the company system. In the absence of data stored in the company's system (for products that have not been launched), it will hinder the exchange of information in the event of an employee exchange, because the research data is only known by researchers. In addition, It can also be seen in the table that the R&D of each company issues a different number of new products each year. This identifies that there are obstacles in product development.

Based on field observations, not all products developed by R&D will be launched in the market. One of the factors is the changing market trends. This delay in launch time can be caused by the length of time required for product development, which is due to the lack of information obtained about market trends.

Because knowledge is one of the most essential aspects in the formation of a new product or process concept, the organization must manage knowledge creation for the process of developing new products or processes to continue (Indriartiningtias et al., 2017). Knowledge is created by each individual and the organization creates an environment that can encourage individuals to be creative and to produce new knowledge. Therefore, organizations need to provide a good and structured platform for individuals within the company, so that the company and others can use the knowledge.

### **1.2 Research Problem Statement**

Based on the results of interviews that have been conducted (can be seen in Table 1), it can be seen that the majority of R&D departments have not implemented knowledge creation. This is indicated by the fact that experimental data have not been stored in the company's system. In addition, the table also shows that there are variations in the number of launch products from the seven respondents.

Based on field observations, out of 100% of the total products developed by the R&D team, only 50-60% will be launched in the market. Of the products launched, not all of them will be successful in the market. One of the contributing factors is the lack of information about market trends, resulting in delays in product development and product launch in the market.

Knowledge creation and knowledge sharing in the R&D team is one factor that influences product development. In the meantime, previous research has produced contradictory findings regarding the impact of knowledge creation and knowledge sharing on product development and innovation. Thus, questions arise which will then be investigated to find answers.

The research questions include:

- 1. Does knowledge sharing affect product development?
- 2. Does knowledge creation affect product development?
- 3. Does knowledge creation affect product innovation?
- 4. Does knowledge sharing affect product innovation?
- 5. Does product innovation affect product development?
- 6. Does product innovation mediate the relationship between knowledge creation and product development?
- 7. Does product innovation mediate the relationship between knowledge sharing and product development?

### 1.3 Research Objective

Penelitian ini bertujuan untuk:

- Mengetahui pengaruh knowledge sharing terhadap product development
- Mengetahui pengaruh knowledge creation terhadap product development
- Mengetahui pengaruh knowledge creation terhadap product innovation
- Mengetahui pengaruh knowledge sharing terhadap product innovation
- Mengetahui pengaruh product innovation terhadap product development
- Mengetahui pengaruh product innovation sebagai mediator terhadap hubungan knowledge creation dengan product development
- Mengetahui pengaruh product innovation sebagai mediator terhadap hubungan knowledge sharing dengan product development

### **1.4 Research Benefits**

By conducting the research, it is intended that it can improve knowledge in the scientific aspect, researcher aspect, and managerial aspects of the food industry:

a. Theoretical (scientific) aspects, This study is anticipated to contribute to the growth of knowledge creation and knowledge

sharing in product innovation and product development. And, can provide academic insight, particularly in the field of knowledge management for product innovation and product development.

- Managerial aspect, This research is expected to be a reference in applying knowledge management, especially knowledge creation and knowledge sharing at the managerial level in the food industry.
- Researcher aspect, This research adds to the insight of researchers on knowledge creation and knowledge sharing in product development and product innovation.

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