# CHAPTER I

# INTRODUCTION

## 1.1 Research Background

The information technology (IT) industry is one of the sectors that plays an important role in digital transformation in Indonesia. This is marked by the rapid development of information and communication technology and increasing investment in technology by economic actors (Bachtiar et al., 2020). As one of the countries with the largest number of internet users in the world with more than 220 million users (Haryanto, 2024), the need for access to technology and information in various sectors continues to increase, ranging from education, trade, government and other sectors.

The IT industry has become the main driving force of digital transformation in Indonesia by helping rapid industrial growth, driving efficiency in government and business operations, and developing an important foundation towards a technology-based economy (Badan Pusat Statistik, 2023). This is evidenced by the increase in Indonesia's ICT Development Index (IDI) from 5.76 in 2021 to 5.85 in 2022 (Badan Pusat Statistik, 2023), which shows that improvements in Indonesia's ICT development are driven by the increasing use of ICT by the community (Badan Pusat Statistik, 2023). This illustrates how the level of information and communication technology development, the digital divide,

and the potential for ICT development in Indonesia are increasingly growing, thus showing how important this industry is in Indonesia in the future.

*Table 1 Indonesia ICT Development Index and Subindex, 2021—2022*

| **Subindex** | **ICT Development Index** | | **Increase (Points)** | **Growth (%)** |
|---|---|---|---|---|
| | **2021** | **2022** | | |
| ICT Access and Infrastructure | 5.76 | 5.80 | +0.04 | 0.69 |
| ICT Use | 5.66 | 5.82 | +0.16 | 2.83 |
| ICT Skills | 5.97 | 6.00 | +0.03 | 0.50 |
| **ICT Development Index** | **5.76** | **5.85** | **+0.09** | **1.56** |

*Source: (Badan Pusat Statistik, 2023)*

As a large and growing industrial ecosystem, the IT industry has various types of sub-sectors that have different business activities, but still have a main focus on the development, implementation, and commercialization of technology (Amartha, 2024). Among the many sub-sectors in the IT industry, there are Tech Hardware, Software-as-a-Service (SaaS), Cloud Solutions Provider (CSP), Independent Software Vendor (ISV), Data Center, IT Consultant, Software House, Social Media, and E-commerce (Balius, 2023).

As one of the sub-sectors in the IT industry, software houses or software development companies have an important contribution in driving digital transformation in various other industrial sectors, because various companies

rely on software houses as technology partners to implement the transformation process (Triyani et al., 2024). Software houses here play a role in providing application and web development services, custom software, and technology solutions tailored to the specific needs of clients in each project. Typically, this type of company consists of a team of software developers, UI/UX designers, system analysts, and other IT professionals who work together to design, develop, and maintain various types of software, from desktop applications to web and mobile applications. This makes human resources the most valuable asset in a software house (Małachowski, 2024).

In the midst of the important role of software houses in the development of the IT industry, they also face various challenges in operating in an increasingly competitive business environment. Among these challenges can come from within the company or from market competition conditions, such as inadequate development team expertise, a system of cooperation with various partner vendors in project development, to a constantly changing business environment that requires companies to respond to these changes quickly (Nayda, 2024). In addition, Springer & Miler (2022) explain that there are various problems that are often experienced by this software house, namely determining the value of the product needed by customers, company strategies and priorities that often change and are unclear, inappropriate team management, and lack of user research.

Various challenges, both from the internal and external environmental conditions of this company, can hinder the development of this software house,

so an appropriate strategic approach is needed to face these challenges. Vigfússon et al. (2024) explained that the resource-based view (RBV) and market-based view (MBV) are the dominant and most successful theoretical perspectives in the field of strategic management. This resource-based view perspective emphasizes the importance of internal resources in achieving competitive advantage by providing a structural approach to analyzing a company's resources and capabilities (Lin & Wu, 2014). El Shafeey & Trott (2014) explained that this resource-based view perspective also refers to the VRIO model, which analyzes a company's internal resources and capabilities based on valuable, rare, inimitable, and exploited by the organization (Barney, 2002).

The market-based view is a perspective that offers a perspective and achievement of competitive advantage that refers to Porter's Five Forces Model (Vigfússon et al., 2024). This model analyzes the company's position in the market based on five competitive forces that can shape strategy, namely the threat of new entrants, bargaining power of suppliers, bargaining power of buyers, threat of substitute products or services, and rivalry among existing competitors (Porter, 2008). The market-based view assumes that external factors are the main drivers of company performance to gain competitive advantage.

Other studies show that internal and external factors are important for creating competitive advantage (Steininger et al., 2011), which can also be a solution to various challenges for competition and business development. Vigfússon et al. (2024) explained that internal and external factors should

not be separated because these two perspectives offer complementary viewpoints to develop strategic theories in creating competitive advantage. However, the perspective from the resource-based view actually uses external and internal knowledge to improve company performance by optimizing opportunities and reducing uncertainty and risk for the company (Kero & Bogale, 2023).

The resource-based view itself emerged as a response to the market-based view theory by Porter (1980). Barney (1991) argued that the resource-based approach is a better way to explain why some companies continue to survive in the long term. He criticized Porter's (1980) opinion which only focused on external environmental factors. Therefore, Barney (1991) proposed the resource-based view perspective as an evolution of the market-based view by Porter. In addition, (Estensoro et al., 2022; Ozdemir et al., 2023) explained that this resource-based view can also analyze the company's internal and external factors to achieve its competitive advantage. This shows that these two perspectives are closely related, and using the resource-based view perspective alone already covers the perspective of the market-based view.

The use of this resource-based view perspective is also in accordance with the context of software houses, where based on the explanation of the challenges faced by this sub-sector, it shows that there are internal and external factors that influence the development of this business, such as development team resources, team management, company strategy, and industry knowledge as strategic assets that can create competitive advantage. In addition, there is also the ability to

respond to external market dynamics, such as the ability to adapt to market developments, competitor analysis, and business development potential viewed from a resource-based view perspective. The use of this resource-based perspective provides a balanced approach in facing internal challenges while responding to external pressures, thus becoming an effective strategy for software houses to create their respective competitiveness.

In the midst of the relevance of this perspective to the development of software house businesses, more attention needs to be paid to the local context, such as the IT ecosystem in Padang City. As the center of the economy and education in West Sumatra, Padang City has great potential to develop the IT industry, including software house companies. Badan Pusat Statistik (2023) describes the development data of the Information and Communication Technology Development Index (IDI) in West Sumatra which is increasingly growing, where the figure reached 5.92 in 2021 and 6.01 in 2022. This figure is around 2.7 percent higher than the index figure in Indonesia in general.

*Table 2 West Sumatra ICT Development Index and Subindex, 2021—2022*

| **Subindex** | **ICT Development Index** | | **Increase** | **Growth** |
|---|---|---|---|---|
| | **2021** | **2022** | **(Points)** | **(%)** |
| ICT Access and Infrastructure | 6.07 | 6.11 | +0.04 | 0.66 |
| ICT Use | 5.43 | 5.61 | +0.18 | 3.31 |
| ICT Skills | 6.59 | 6.6 | +0.01 | 0.15 |

| | | | | |
|---|---|---|---|---|
| **ICT Development Index** | **5.92** | **6.01** | **+0.09** | **1.52** |

*Source: (Badan Pusat Statistik, 2023)*

In addition, Badan Pusat Statistik Sumatera Barat (2024) also explains the potential sectors in West Sumatra that must be developed to boost the regional economy. The report explains that the information and communication sector is the second most potential sector in West Sumatra, after transportation and warehousing, where Padang City is the most potential area compared to other areas in West Sumatra for this sector. This is also supported by data from Badan Pusat Statistik Sumatera Barat (2024) where the percentage of Padang City's Gross Regional Domestic Product in the information and communication sector reached 32.38 percent, the highest among 19 cities/regencies in West Sumatra. The existence of other potential supporting sectors in Padang City also strengthens the phenomenon of the growth of the IT industry, especially the software house sub-sector to continue to grow.

Amidst the phenomenon of the growing potential of the IT industry, including the software house subsector in Padang City, PT Metro Indonesian Software is present as one of the important players in the development of this industry, which competes with other software house companies in Padang City. Established since 2023, PT Metro Indonesian Software has successfully completed dozens of IT projects for various companies, ranging from micro-sector businesses,

educational institutions, government institutions, to startups in Padang City. However, the development of the company is certainly not without challenges. This company had difficulty in finding qualified IT talent due to limited technical resources in the area. However, it turns out that this phenomenon does not only occur in the company or in Padang City, but also in Indonesia in general, where Indonesia lacks IT talent of around 4 million people in 2023 according to the Ministry of Communication and Information (Mumpuni, 2024).

PT Metro Indonesian Software also experiences several other obstacles in general, such as a relatively limited local market, especially for clients from the small and medium sectors who have limited budgets in developing the IT sector. The low adoption of technology by MSMEs in this area is also a challenge that needs to be overcome in the development of this software house business, including PT Metro Indonesian Software. In addition, as a company that has only been running for almost 2 years, PT Metro Indonesian Software also experiences challenges in competing with other software house companies that have been operating for longer and already have a big name. To face these challenges, of course, this company needs to develop the right strategy so this company can take advantage of the development of the IT sector in Padang City in particular.

Therefore, seeing these problems, this study focuses on PT Metro Indonesian Software as one of the software house companies in Padang City and is expected to contribute to the development of the company in particular and business development in this sub-sector in general. Previous studies tend to discuss the IT

industry in general without paying special attention to the dynamics of sub-sectors such as software houses in particular. In fact, this sector is a very dynamic sector in its development so a resource-based view perspective is needed that highlights the unique advantages of each company. This study aims to fill this gap by developing a strategic framework based on the application of a resource-based view that is relevant to PT Metro Indonesian Software in particular.

This study also starts from two main questions, namely regarding the influence of internal resources and external environmental factors on the competitive advantage of PT Metro Indonesian Software as one of the software house companies in Padang City and regarding the challenges faced by the company in utilizing internal resources and responding to existing external market dynamics. The answers to these questions are expected to provide relevant strategic direction, both for PT Metro Indonesian Software in particular and other software house companies with similar conditions, as well as trying to contribute to the growth of the local IT industry as part of the wider Indonesian digital ecosystem. Therefore, based on the explanation of the background, the researcher would like to raise this study with the title **"Applying Resource-Based View for Competitive Advantage in the IT Industry: A Case Study on PT Metro Indonesian Software."**

## 1.2 Problems Formulation

Based on the background explanation above, the formulation of the problem in this study is:

1. How does PT Metro Indonesian Software utilize internal resources and respond to external environmental factors in its efforts to form a competitive advantage?
2. What are the challenges faced by PT Metro Indonesian Software in utilizing internal resources and responding to external environmental factors?

## 1.3 Research Objectives

This study was conducted with the objectives:

1. To describe how PT Metro Indonesian Software utilizes internal resources and responds to external environmental factors to form a competitive advantage.
2. To identify and describe the challenges faced by PT Metro Indonesian Software in utilizing internal resources and responding to external environmental factors.

## 1.4 Research Benefits

### 1.4.1 Theoretical Benefits

This study is expected to contribute to the academic literature by providing a deeper understanding of how software house companies utilize internal resources and respond to external environmental factors in their efforts to form competitive advantages, especially in PT Metro Indonesian Software, and software house companies in general, especially in developing regions. By applying the resource-based view (RBV) framework, this study can offer new insights into the synergy between internal and external factors in creating competitive strategies. Furthermore, this study can be a reference for future studies exploring the application of RBV in the technology sector or other industries with similar challenges and opportunities, both regionally and internationally.

### 1.4.2 Practical Benefits

Practically, this study aims to provide actionable insights for PT Metro Indonesian Software in particular, and other software companies in general, to better understand how to utilize their company resources, while adapting to external challenges. By identifying what challenges these companies face and how they can overcome them, this study can help business leaders in formulating strategies that enhance competitiveness. In addition, these findings can inform local governments and industry stakeholders in designing policies or programs that support the growth and

sustainability of the IT industry, especially software companies, thereby contributing to regional economic development.

## 1.5 Research Scope

This research focuses on PT Metro Indonesian Software located in Padang City, West Sumatra. This study examines how this company utilizes internal resources and responds to external environmental factors in its efforts to form its competitive advantage. This research approach uses a qualitative approach with a single case study method. This study also identifies the challenges faced by the company in utilizing internal resources and responding to external dynamics. The scope of this study is limited to aspects of business strategy based on the resource-based view (RBV) theory, without discussing the technical aspects of software house company operations in more detail.

## 1.6 Writing System

Overall, the systematics of writing this thesis consists of five chapters arranged as follows:

**CHAPTER I INTRODUCTION**

This chapter contains an explanation of the background, problem formulation, research objectives, research benefits, and research scope.

**CHAPTER II LITERATURE REVIEW**

This chapter discusses the theoretical basis and concepts that are relevant to the problems to be studied. This chapter also discusses previous research and the framework of thinking used in this study.

**CHAPTER III RESEARCH METHOD**

This chapter discusses the research design, research informants, population and research samples, sources and methods of data collection, and data analysis methods.

**CHAPTER IV RESEARCH RESULTS AND DISCUSSION**

This chapter contains an overview of the research results based on the analysis methods used, as well as a discussion of the research results obtained.

**CHAPTER V CONCLUSION**

This chapter contains conclusions, implications, research limitations, and suggestions for further research in order to obtain better research results.