

Chapter 1 Introduction

1.1 Research Background and Motivation

Financial service industry has depended on information technology (IT) for a long time. Compared with other industries (except for manufacturing-related industry), it not only begins IT implementation early but also has a better IT infrastructure. Nevertheless, it still spends a lot of money on IT investment owing to the fierce competition in the financial market. For example, advanced technology is often utilized to enhance its customer service and attract new customers because the financial services are easy to be replaced. The following lists some reasons that influence the demands upon IT in the financial service industry.

➤ *The reformation of domestic policy*

In order to avoid excessive competition in the financial market, our government promoted a financial reform bill in 2001. It encourages domestic financial firms to implement across-industry mergers and establish financial holding companies in order to strengthen the financial market and reduce the impacts and threats to the national financial market after accession to the WTO. For most companies, adopting the path of merger and acquisition (M&A) will not only increase the size of their channels but also expand market share. Hence, across-industry merger and acquisition have gradually become the financial industry's current trend. According to statistics, 14 financial holding companies have been founded as of February 2005.

Although across-industry mergers and acquisitions can bring new markets and opportunities to financial firms, some problems still need to be solved, such as the integration and update of IT systems. For example, branch application systems, ATMs, and the network banks in the front-end will need to be adjusted after a merger or acquisition. In other words, financial service firms have to spend more money on IT investment to integrate the original IT Infrastructure.

➤ *The growth of The Internet*

The growth of the Internet also provides financial firms with new competitive markets and opportunities. For example, on-line transactions, which are unlike traditional transaction modes, have no time and location constraints; hence, financial firms can trade with customers anytime and anywhere by accessing the Internet. It provides financial service firms with a new channel to attract new customers, expand their market, and offer new services and products, such as e-ATM. In another word, the growth of the Internet not only brings new opportunities but also increases the demand for IT for online transactions as well.

➤ *The importance of information security*

The financial service industry is an information-intensive business. Therefore, it is very important for them to protect the customer information from being intentionally destroyed or disclosed or used unscrupulously. In addition, financial firms have provided new Internet-related services one after another in recent years; hence, how to prevent on-line transaction information from being stolen or altered also becomes an important issue of concern. Thus it can be seen that financial service firms must pay more attention to information security issues and relevant IT applications that also indirectly stimulate the demand for IT.

As mentioned above, in order to maintain the industry's competitive advantage and service levels, IT investment in the financial service industry is growing continuously. Thus, it is important for IT managers to understand how to assess IT investment and to avoid unnecessary expenses. However, not all IT contribution and capability can be seen immediately. Some need to be formed from continuous accumulation over a long period of time and through the collaboration with each department and the interplay with other organizational factors. Some need to spend a lot of time, which may be several months or years, on the implementation and construction. The true contribution is always ignored or evaluated incorrectly. In order to avoid misinterpreting the IT contribution and making poor decisions, taking the assessment of tangible and intangible IT assets into account at the same time is also needed.

1.2 Research Issue

It is very important for companies to understand the relationship between IT investment and firm performance so that they can find an approach to assess IT assets and effectively control IT spending. However, traditional accounting methods, such as financial statement, or other performance measurements are not enough to show the true value of IT assets. Osborne (1998) considered that they could not accurately evaluate the true value of the firms due to the existence of intangible assets. Despite the fact that some researchers have studied the research of IT assessment from different angles, such as resource-, capability-, and contingency-oriented views, they did not propose any concrete approach to assess IT assets.

With the coming of the knowledge-based economy, many researchers discovered that the value that intangible assets created has substantially exceeded the value that tangible assets have brought. Thus, the issue of intelligence capital (IC) arose and developed. It is mainly used to explain the value gap between market value and book value (Galbraith, 1969; Masoulas, 1998). However, most researchers focus on the

essence of intellectual capital (IC) and ignore the contribution of IT to IC.

In addition, most studies focus on the relationship between IT investment and firm performance but not IT assessment. Furthermore, many previous researches in IT assessment either focus on manufacturing and high-tech industry or pay attention to the whole industry. Therefore, the need to do a study on IT assessment in the financial industry is needed. Therefore, this research expects to develop an approach upon the capital-oriented views to help financial service companies to assess the IT investment and to better understand the relation between IT investment and firm performance.

1.3 Research Objective

This research attempts to discuss IT assets, including tangible and intangible assets, within the enterprises upon a capital-oriented view and to find an evaluation method and tool to help enterprises assess the value of IT. Based on the view of IT capital, we develop the research dimensions and performance indicators, and verify the method through in-depth case study. According to the further analysis and discussion, this research also seeks to explain the status of IT capital in the financial service industry and to study the relationship between IT investment and firm performance.

1.4 Research Flow

There are six steps to complete this research. First, we confirm the research motivation and determine the scope of the research. Second, we study the literatures related to the relationship between IT investment and firm performance as well as IT assessment in financial industry. This would help us more understand the relationship between IT and organizational performance and how researchers assess IT investment in the past. Third, we develop the research dimensions and indicators of IT capital and decide case study to be the research method. Then, we interview five benchmark companies in the financial industry. After that, the result of the interview and other relevant information gathered through Internet are organized and analyzed. Finally, we propose some managerial implications and conclude the future research directions. The research flow of this research is as shown in Figure 1.1.

1.5 Organization of Thesis

The thesis is organized as follows. Chapter 1 introduces the research background, motivation, issue, objective, flow, and organization of thesis. Chapter 2 reviews the literatures of IT Assessment, IT investment and firm performance. Chapter 3 defines IT capital and describes the research dimensions and indicators of IT Capital. Chapter

4 details the case study. Chapter 5 shows further discussions and managerial implications. Chapter 6 concludes the research with the summary and future research work.

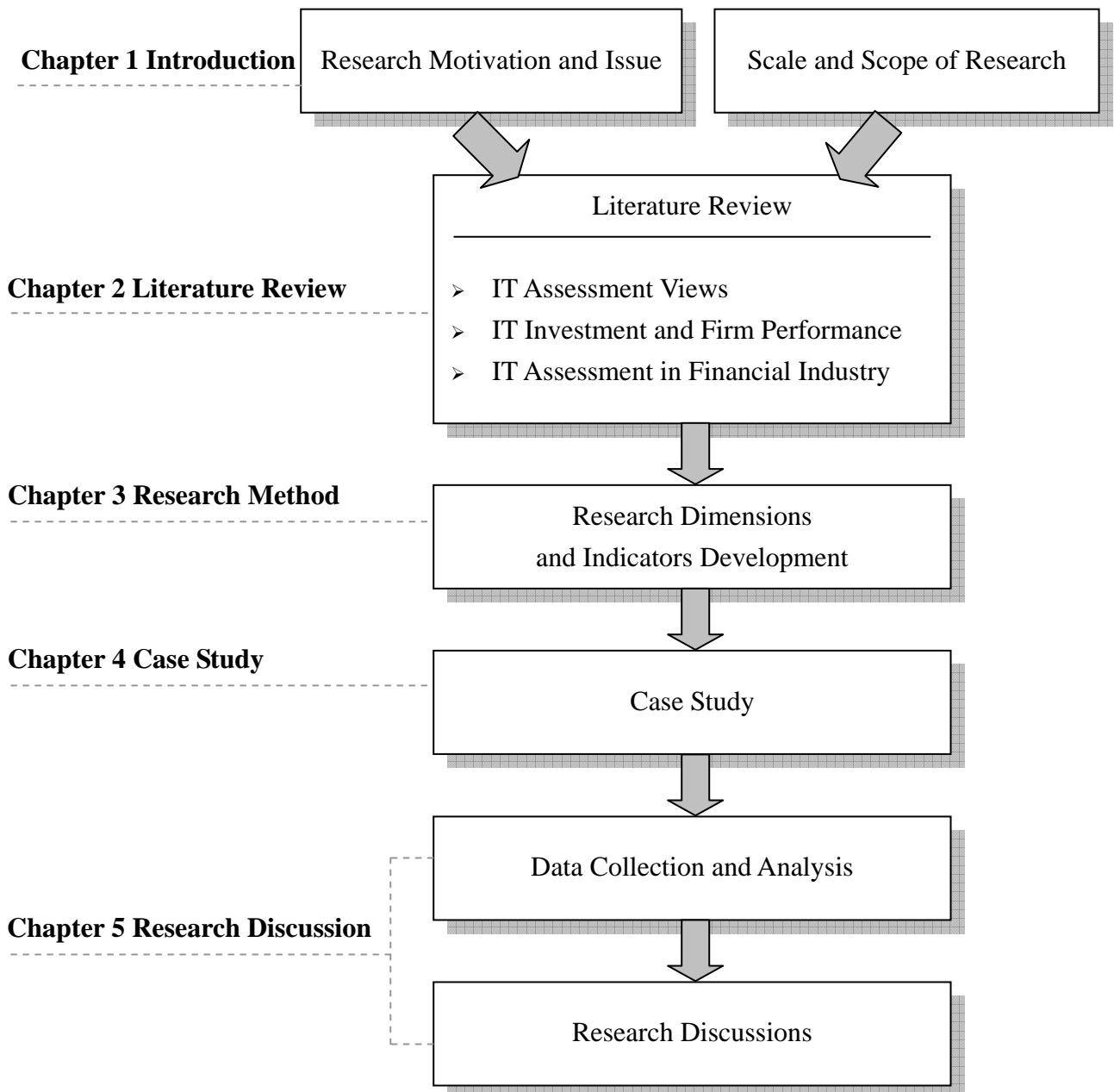


Figure 1.1 Research Flow