Cross-Cultural Comparison of

Global Strategic Information Systems Management in

the Multinational Investment Banking Industry

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Declaration

I hereby declare that the dissertation, entitled *"Cross-Cultural Comparison of Global Strategic Information Systems Management in the Multinational Investment Banking Industry"* and submitted in fulfillment of the requirements for the degree of Doctor of Philosophy, represents my own work and has not been previously submitted to this or any other institution for any degree, diploma, or other qualification.

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Acknowledgement

Abstract

Establishment of global information systems (IS) is a significant management challenge in multinational investment banks. When they implement global IS beyond national borders, they often prefer to install a standardised and uniform IS worldwide to realise economies of scale. Strategic IS has a significant impact not only on the short-term, but also on the long-term profit of multinational investment banks.

However, it is difficult for them to globally connect network lines one by one between different countries because of economic, political and cultural issues. Although IS strategies have become increasingly important to the success of banks, many multinational investment banks fail to fully realise the benefits of IS investment probably because of mismatches between business strategy and IS strategy.

Thus, it is important, but difficult for them to strategically manage global IS. The national culture of a bank's origin is seen as a key element shaping the bank's global IS strategy. A comparison of IS management in multinational investment banks from different cultural origins, in North America, Europe and Asia, will give insight for cross-cultural IS research.

An overarching question is identified as *"What similarities and differences in the cultures of organisations and financial markets affect global strategic IS management in the multinational investment banking industry?"*

This research discovered a *Cross-Cultural Comparison Model of Global Strategic IS Management (CCCM-GSISM)* and a *Fixed Sponsor Model (FSM)* through inductive theory building.

List of Contents

9

List of Figures

List of Tables

Chapter 1 Introduction

In the early 12th century, the banking business originally emerged in Italy. In the 13th century, the Italian bankers launched the securities business (Weatherford, 1997; Day, 1999; Davies, 2002). Between the end of the 18th century and the beginning of the 19th century, a modern style of investment banking business emerged as a consultative service for financial investors (Ferguson, 1998; Davies, 2002; Nanda, Delong and Roy, 2002).

> *"The last 30 years have witnessed profound changes in strategy, structure, culture, management and technology in global private and public sector organisations"* *(Currie, 2000; pp. 1).*

> *"Today, investment banks are facing an intensely competitive environment, fostered by regulatory changes, globalisation and technological advances. As a result, most investment banks have expanded to comprise all major capital market activities"* *(Liaw, 2006; pp. 25).*

During the 1980s, some investment banks adopted a multinational style by utilizing information technology (IT) to enact real time communications worldwide (Freeman and Sanger, 2000; Roberts, 2004; Liaw, 2006). Those multinational investment banks almost continuously take up challenges to maintain, reinforce, improve and strengthen their globally networked information systems (IS) in order to increase the volume and speed of correspondence and transactions in their business across national borders (Davies, 2002; Roberts, 2004; Liaw, 2006).

1.1 Introduction

In order to create advantages in global competition, new ideas in business models, organisational forms, human resource management and operational processes emerge in response to advances of Information Technology/Information Systems (IT/IS) (Boddy, 1995; Sampler, 1995; Marshall and McKay, 1999; Shipps and Zahedi, 1999; Currie, 2000; Murphy and Platt, 2002).

Global strategic IS management impacts not only on the short-term but also on the long-term profit of multinational corporations (Remington, Moores, Swanson and Folts, 1999).

However, global strategic IS planning led by global business strategy is important (Earl, 1995; Earl and Feeny, 1995; Chan, 1999; Presley and Meade, 1999; Willcocks and Sykes, 2000; Lederer and Johnson, 2003; Axelsson and Goldkuhl, 2005), but rare and difficult to achieve (Earl and Feeny, 1995; Presley and Meade, 1999).

While a global competitive business model is one of the most powerful drivers to IT/IS innovation, IS specialists often focus on short-term and small-range solutions (Couger, 1995) as a result of micro-level discourse with system users (Axelsson and Goldkuhl, 2005).

From such backgrounds, many researchers (Earl, 1995; Earl and Feeny, 1995; Chan, 1999; Presley and Meade, 1999; Currie, 2000; Willcocks and Sykes, 2000; Lederer and Johnson, 2003; Axelsson and Goldkuhl, 2005) emphasise the importance of macro-oriented communications between business strategists and IS strategists in multinational organisations.

Consideration of a) different social and technological infrastructures, b) conflicting standards, c) different regulatory structures, and d) multiple vendors between different nations (Earl and Feeny, 1995; Santos and Fjermestad, 2002) are key elements for activating global IS.

Another element is sensitivity to the differences in cultural factors such as customs, traditions, religions, gender roles and languages between different nations (Johnson, Elmallah, Crow and Gezi, 1998). In order to minimise negative obstacles preventing successful global IS management, an adjustment of management structure at an international level is required (Raisinghani, 1999).

Significant changes are occurring in the scope of global strategic IS management in the investment banking industry due to incremental competitiveness in the international financial market (Freeman and Sanger, 2000; Davies, 2002; Roberts, 2004; Liaw, 2006). Since the 1980s, some of the investment banks seem to improve business structure by innovatively utilizing global IS, whilst others seem to miss this opportunity.

Through inductive theory building using collected data from eight selected cases, this research discovered a *Cross-Cultural Comparison Model of Global Strategic IS Management (CCCM-GSISM)* (Matsumoto, 2005a; Matsumoto and Wilson, 2005a) and a *Fixed Sponsor Model (FSM)* (Matsumoto, 2006a; Matsumoto and Wilson, 2006a) which visualises similarities and differences in the cultures of organisations and financial markets affecting global strategic IS management in the multinational investment banking industry.

This chapter, an introductory summary, firstly reviews the history of the investment banking industry and discusses the context of global IS in the industry. Secondly, the overarching research questions are justified. Thirdly, the chapter identifies a research method deployed for the research. Fourthly, the history of the research is explained. Fifthly, the research structure is described before the conclusion of this chapter.

1.1.1 History of European Investment Banks

In the early 12th century, Italian merchants travelled from market to market throughout Europe. They used tables or benches not only for trading their goods but also for exchanging money, making loans, collecting debts and organising other related financial services. The word *"bank"*, which originally meant *"table"* or *"bench"*, came to represent the way which those Italian merchants conducted their business (Weatherford, 1997; Day, 1999; Davies, 2002).

Later, the centre of the European financial market was relocated from Italy to the United Kingdom (U.K.) through France, Spain, Portugal and Holland (Davies, 2002; Nanda, Delong and Roy, 2002). At the same time, the words *"bank", "banco"* and *"banque"* spread into other European countries (Weatherford, 1997; Davies, 2002).

In the late 18th and the early 19th centuries, the business model of investment banks transferring capital beyond national borders using information networks emerged based on private partnerships accompanying the relocation and restructuring of financial markets in Europe. By the late 19th century, the City of London became the dominant financial centre in the European region (Ferguson, 1998; Davies, 2002; Nanda, Delong and Roy, 2002).

In Switzerland, the banking industry with its characteristic of very high levels of banking secrecy in global terms was one of the most profitable industries. In the late 1980s, the Swiss government relaxed financial regulation and highly significant mergers of large financial institutions commenced immediately.

In the 1990s, the European market moved towards a single market because of its fragmentation and the trend towards globalisation. The introduction of a new currency, the *"Euro"* on January 1st, 1999 accelerated the breakdown of national market borders and the reassessment of banking business strategies (Fulmer, 1999; Davies, 2002; Liaw, 2006).

1.1.2 History of U.S. Investment Banks

By the middle 1830s, New York became the largest securities market in United States (U.S.). After the American Civil War, the financial power of the U.S. grew. The U.S. investment banks emerged as the principal financial counsellors for corporations, because the Glass-Steagall Act required the investment banking industry to be separate from the commercial banking industry. By the 1940s, there were four powerful investment banks: Morgan Stanley, First Boston, Dillon Read and Kuhn Loeb.

After World War II, the financial service was one of the most regulated industries in the U.S. During the 1980s, however, the regulatory structure weakened the U.S. banks' competitive advantage in the globally competitive financial environment. The U.S. government agencies began to relax control of the separation between the investment banking industry and the commercial banking industry.

The Glass-Steagall Act repeal enabled investment banks and commercial banks to jump into each other's markets. In the 1990s, the U.S. investment banks significantly invested in advanced IT/IS in order to a) operate increased international securities transactions, b) reduce operational costs, c) establish new markets, d) develop new financial products, and e) activate real time information networks (Davies, 2002; Nanda, Delong and Roy, 2002; Roberts, 2004; Liaw, 2006).

1.1.3 History of Japanese Investment Banks

After World War II, the Japanese finance industry was protected and controlled by the Japanese government. Aiming at economic revival, the Japanese government established three new long-term credit banks in order to supply financial capital to industries such as spinning, steel, automobiles and electricity.

The reforms of the Japanese finance industry by the U.S. Occupational Forces were minor compared to other areas of Japanese society. The former *"Zaibatsu"* (as the Japanese call large loosely connected conglomerates which are a feature of East Asian business; *Hongs* in Hong Kong, e.g. Jardines, World Wide, Cheung Kong; *Chaebol* in Korea, e.g. Samsung, Hyundai) banks, e.g. Mitsubishi, Mitsui and Sumitomo, remained (Schaede, 1999).

The Japanese *Zaibatsu* banks became major shareholders of domestic corporations aiming at protection from foreign capital. Using cross shareholding schemes, the *Zaibatsu* strengthened group relations with a great deal of vertical integration and severe top down hierarchical organisational structures.

Horizontally, the *"Keiretsu"* structures were organised in which group companies would hold significant portions of each other's shares. The Japanese banks were located at the peak of the *Zaibatsu* and the *Keiretsu* pyramid-shaped structures.

From the 1950s to the 1970s, the Japanese economy kept growing. As financial capital accumulated in the domestic financial market, the Japanese banking industry remained stable generating high profits until the 1980s.

In the middle and late 1980s, a financial bubble grew, because of low interest rate policy by the Japanese government.

From the beginning of the 1990s, the Japanese government adopted a tight monetary policy and raised interest rates for the Japanese yen. This change of monetary policy seriously affected the financial markets and the banking industry. Consequently, the banking sector experienced a number of bankruptcies.

In 1996, the response of the Japanese government came with the announcement of a five-year deregulation plan for the financial system aiming at restructuring and revitalising the Japanese finance industry. Because of these changes to the financial system, the banking industry moved to seek large-scale mergers (Schaede, 1999; Davies, 2002; Liaw, 2006).

1.1.4 Context of Investment Banks

Full service investment banks compete in all securities product lines of business, providing a comprehensive set of financial services. They act as consultants to mergers, acquisitions, restructuring, venture capital and private placement, conduct underwriting, market making, asset securitisation, money management and proprietary trading, perform financing, financial engineering and investment research. They need strong capital fundamentals to deal with large-scale financial transactions (Nanda, Delong and Roy, 2002).

By organizing separate divisions performing specialised sets of functions, many investment banks adopted the multinational style around the 1980s, because of both advances in IT/IS and globalisation trends (Holland and Westwood, 2001; Roberts, 2004; Liaw, 2006).

1.1.5 Globalisation, Global IS and Investment Banks

Adaptation to globalisation trends is one of the most important issues for any business (Earl and Feeny, 1995). Many researchers discuss globalisation from various aspects.

Some researchers widely examine globalisation from the view of economic, political and cultural aspects (e.g. Currie, 2000; Giddens, 2000; Avgerou, 2002; Williamon, 2002; Held and McGrew, 2003; Micklethwait and Wooldridge, 2003; Benghozi, 2003; Ramsaran and Price, 2003; Seabrook, 2004), whilst others narrowly focus on an expansion of multinational corporations (e.g. Morgan, 1976; Herman, 1999; Gray, 2000; Ramsaran and Price, 2003; Venkat, 2003), a role of transnational institutions from the view of global governance (e.g. Gray, 2000; Ramsaran and Price, 2003), and languages (e.g. Tagliabue, 2002; Tardif, 2002).

However, few researchers express opposition to the general view that IT/IS is a core driver of globalisation. For example, Gray (2000) explained that a globalising process was derived from the interaction between human beings and new technologies such as the transatlantic telegraphy cables connected in the 19th century and the emergence of the World Wide Web on the Internet, distributed in the late 20th century.

According to the IMF (2000), the word globalisation became common around the 1980s because of significant increment in international flow of goods, services and money. Consequently, global strategic IS management is becoming increasingly important for many global businesses (Earl and Feeny, 1995; Chan, 1999; Presley and Meade, 1999; Currie, 2000; Willcocks and Sykes, 2000; Lederer and Johnson, 2003; Axelsson and Goldkuhl, 2005).

Global IS coordination in multinational enterprises needs to be across a) business entities, b) functional boundaries, and c) national borders (Earl and Feeny, 1995; Johnson, Elmallah, Crow and Gezi, 1998). Challenges for global IS are complex and solutions are complicated, but there are a number of potential benefits of global IS management, such as a) global efficiency, b) achieving local responsiveness, and c) transfer of learning (Earl, 1995).

With advances in IT/IS and cooperation among financial regulators, the global financial markets such as New York, Chicago, London, Frankfurt, Paris, Zurich, Tokyo, Hong Kong, Singapore and Sydney have closely linked to each other (Roberts, 2004).

In accordance with an expansion of financial products and services which the investment banks provide, some investment banks are geographically expanding their reaches to become *"financial supermarkets to the world" (Liaw, 2006).* By adopting a multinational style, investment banks serve their clients worldwide and obtain benefit from the international financial market (Roberts, 2004; Liaw, 2006).

1.2 Research Questions

Global IS management research is taking up the challenge to break through from research in a single country to research in multiple countries (Tan and Gallupe, 2004). However, there is no acceptable systematic framework for global IS management research to a) visualise discussion points, b) identify research questions, and c) examine the importance of research to stakeholder audiences.

In order to alleviate those issues, the research developed the Seven Domains Model (SDM) (Matsumoto, 2006b/2006d), explained in Chapter 3, in reference to the previous discussion of globalisation. The following main research question, scrutinised in Chapter 4, has been identified through the analytical lens of the SDM.

> *Main question; "What similarities and differences in the cultures of organisations*
> *and financial markets affect global strategic IS management in the multinational*
> *investment banking industry?"*

Elements of the research, i.e. a) cross-cultural study from the cultural dimension, b) multinational investment banks from the economic dimension, and c) financial markets from the political dimension, are respectively important.

The question is, therefore, located in the centre of the globalisation debate, and the research is valuable not only for business managers in the multinational companies but also for academic researchers in the global IS field.

In addition, a sub-question, also discussed in Chapter 4, has been identified through the analytical lens of the SDM. The research initially focuses on multinational investment banks. Although some of U.S. and European investment banks seem to successfully activate global IS around the 1980s and the 1990s, other investment banks seem to miss this opportunity.

From this, the research recognises the importance of examining activators and inhibitors of global IS in multinational investment banks, and the following sub-question is clarified.

Sub-question; "What cultural factors of organisations activate or inhibit global IS in multinational investment banks?"

1.3 Research Method

Many cross-cultural IS researchers have adapted Hofstede's five dimensions model (Hofstede, 1991; Hofstede, 2005) to qualitative studies (e.g. Kwok, Lee and Turban, 2001; Bangert and Doktor, 2002), and quantitative studies (e.g. Anderson and Hiltz, 2001; Kersten *et al.*, 2002; Reinig and Mejias, 2002; Bagchi, Cerveny, Hart and Peterson, 2003; Heales and Cockcroft, 2003/2004; Navarrete and Pick, 2003).

However, the research recognises three major limitations of the Hofstede model to cross-cultural IS research.

Firstly, the Hofstede model deductively focuses on five dimensions which are indexes of a) power distance, b) individualism, c) masculinity, d) uncertainty avoidance, and e) long-term orientation (Hofstede, 1991; Hofstede, 2005). The limitation to Hofstede's five dimensions inhibits the understanding of the cultural differences in other dimensions which might be more significant and important than those five dimensions.

Secondly, cross-cultural IS researches are often criticised in terms of lack of theory building (Karahanna, Evaristo and Srite, 2004). Though the Hofstede model indicates the score of each of the five dimensions based on the analysis of a large amount of data which were a) related to employees value, b) collected between 1967 and 1973, and c) covered IBM branches in more than 70 countries (Hofstede, 1991; Hofstede, 2005), its legitimacy to found a theory describing cause and effect between the dimensions is questionable.

Thirdly, the Hofstede model focuses on quantitative scoring. While a) cultural homogenisation (Norchi, 2000; Benghozi, 2003), b) cultural hybridisation (Gray, 2000; Halliday, 2000), and c) multiculturalism (Tardif, 2002) are critical debates of globalisation, it seems to be difficult for the research to interpretatively visualise complex phenomena in the globalisation era (Giddens, 2000; Held and McGrew, 2003) through the theoretical lens of the Hofstede model.

Grounded Theory alleviates some of those problems. This is because, firstly, Grounded Theory enables continuous comparison in various types of business researches including a) cross-cultural studies (Strauss and Corbin, 1997; Goulding, 2002), and b) IS studies (Orlikowski, 1993; Myers, 1997; Avison and Myers, 2005).

Secondly, Grounded Theory enables inductive theory building by a) identification of central categories from newly collected data, b) demonstration of causal relationship between the categories, and c) integration and refinement of emerged theories through its coding process (Haig, 1995; Pandit, 1996; Myers, 1997; Strauss and Corbin, 1998; Creswell, 1998; Locke, 2001; Goulding, 2002; Goede and Villers, 2003; Douglas, 2003).

Thirdly, Grounded Theory enables interpretative explanation of complex phenomena in the globalisation era (Giddens, 2000; Held and McGrew, 2003) by visualisation (Orlikowski, 1993). For these reasons, continuous comparison during the Grounded Theory coding process is thought to bring about interpretative visualisation of similarities and differences in the cultures affecting global strategic IS management in the multinational investment banking industry. The selection of the research method is explained in Chapter 5.

1.4 Research Publication History

The major method of validation of Grounded Theory is publication and discourse with knowledgeable groups. A high level of publication has been pursued and interaction through conferences has been enacted.

In September 2004, the research draft was presented to an IS conference (Matsumoto, 2004). In December, the research framework was presented to an IS Academic workshop (Matsumoto and Wilson, 2004).

In March 2005, the *Cross-Cultural Comparison Model of Global Strategic IS Management (CCCM-GSISM)* was presented to a national IS conference (Matsumoto, 2005a; Matsumoto and Wilson, 2005a) whilst the adapted research method was presented to a Research Method conference in April (Matsumoto and Wilson, 2005b).

The emerged theories were demonstrated at a Pacific Region IS conference in July (Matsumoto, 2005c; Appendix H-1) from the view of Japanese traditional culture and at a Global IS Outsourcing conference in September (Matsumoto, 2005d/2005e; Appendix H-2) from the view of Singapore as a destination of global outsourcing.

In December 2005, the inductive theory building process to visualise differences in cultures between a Japanese and a Swiss/American multinational investment bank from the perspective of global strategic IS management was demonstrated at a Special Interest Group on Cross-Cultural Research in Information Systems (Matsumoto and Wilson, 2005c). In addition, a detected fundamental difference was explained to an IS Academic workshop (Matsumoto, 2005f).

In February 2006, the theoretically saturated theory, the *Fixed Sponsor Model (FSM)* was introduced to a local workshop of Computer Scientists and IS Academics (Matsumoto, 2006a). The theory and practice of Grounded Theory in the Cross-cultural comparative IS research was explained to a national IS conference in April (Matsumoto and Wilson, 2006a).

The activators and inhibitors of successful global IS in the strategic management cycle was demonstrated to a major European IS conference in June (Matsumoto and Wilson, 2006c; Appendix H-3).

1.5 Thesis Structure

In order to examine the research topic discussed in Section 1.1, the research question identified in Section 1.2 using the research method discussed in Section 1.3, the thesis is structured in the five parts after this introduction. Figure 1.5 gives the overall structure of the thesis.
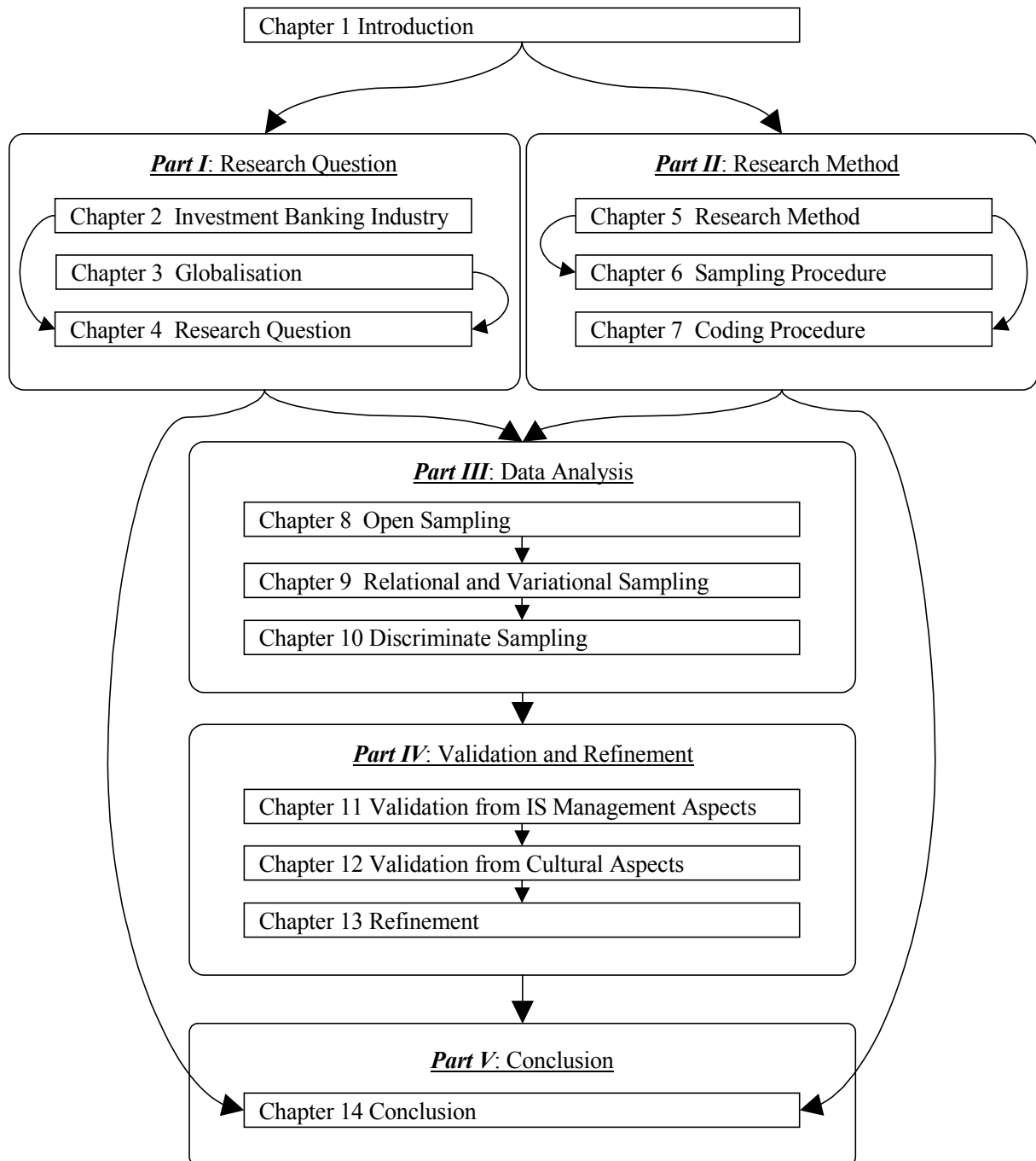
Figure 1.5: Structure of the Thesis

Chapter 1: Introduction

This chapter, an introductory summary, firstly a) reviews the history of the banking industry and b) clarifies the context of global IS in the industry. Secondly, the research questions are identified. Thirdly, the research method adopted for the research is explained. Fourthly, it explains the history of the research and the structure of the research.

1.5.1 Part I: Research Question

Part I, from Chapter 2 to Chapter 4, describes the identification of research questions through a newly developed analytical lens, the Seven Domains Model (SDM), for global IS management research.

Chapter 2: Investment Banking Industry

Chapter 2 firstly reviews the history of financial markets which are continuously relocated in accordance with the restructuring of the global economy. Secondly, the history and context of investment banking industry in Europe, U.S. and Japan are examined. Thirdly, the roles, scope and organisational structure in the investment banking industry are discussed.

Chapter 3: Globalisation

Chapter 3 focuses on the *Seven Domains Model (SDM)*. This chapter firstly reviews previous work for globalisation debates from cultural, economic and political dimensions. Secondly, the importance of IT/IS is examined in the scope of globalisation debates.

Chapter 4: Research Question

Chapter 4 identifies the main and sub research questions of the research, *"Cross-Cultural Comparison of Global Strategic IS Management in the Multinational Investment Banking Industry"*. This chapter firstly examines the importance of the research through the SDM demonstrated in Chapter 3. Secondly, the main and sub-question of the research are clearly identified.

1.5.2 Part II: Research Method

Part II justifies Grounded Theory as a research method in Chapter 5, justifies the cases and sites selected in Chapter 6, and explains the formalisation of the coding procedure in Chapter 7.

Chapter 5: Research Method

As stated, Chapter 5 justifies the research method adopted for the research. This chapter firstly clarifies a) audiences for the research, b) definitions of comparison and culture, c) the context of cross-cultural IS and global IS management researches, and d) the philosophical standpoint of the research. Secondly, the research method selection is justified in comparison with other candidate methods. Thirdly, a structure of the research is described.

Chapter 6: Sampling Procedures

Chapter 6 discusses sampling procedures. This chapter firstly examines the characteristic and structure of theoretical sampling procedures for Grounded Theory. Secondly, the context of two selected organisations, which are a Japanese traditional *Zaibatsu* financial group and a Swiss/American financial group, is demonstrated. Furthermore, three selected sites of the two organisations are identified.

Chapter 7: Coding Procedures

Chapter 7 explains the formalisation of the coding procedures. This chapter firstly summarises statistics of developed templates and diagrams. Secondly, newly formalised templates and diagrams in a) open coding, b) axial coding, and c) selective coding are examined in the review of the explanations of coding activities in the Grounded Theory literature.

1.5.3 Part III: Data Collection and Data Analysis

Part III, from Chapter 8 to Chapter 10, describes the discovery of theories of cross-cultural comparison of global strategic IS management following the theoretical sampling processes.

Chapter 8: Open Sampling

Chapter 8 describes the process of discovering the Four Central Categories Model of Global IS Management (FCCM-GSISM), which contains a) business model, b) organisational structure, c) human resource management, and d) IS management. In the open sampling process, IS project data and official corporate information are collected from the two selected organisations.

Chapter 9: Relational and Variational Sampling

Chapter 9 describes the process of discovering the Cross-Cultural Comparison Model of Global IS Management (CCCM-GSISM) by indicating a) cause, b) change, and c) consequence to represent the relationship between the four central categories of the FCCM-GSISMs. In the relational and variational sampling process, unstructured interviews with various types of employees in both selected organisations are conducted to obtain data not only for global IS management but also other business issues.

Chapter 10: Discriminate Sampling

Chapter 10 describes the analysis of discriminate sampling data collected from three American, two British and another Japanese financial groups through unstructured and semi-structured interviews, and describes other four CCCM-GSISMs in order to maximise opportunities for comparative analysis.

1.5.4 Part IV: Validation and Refinement

Part IV validates and refines the theories discovered in Part III. A theoretically saturated theory is demonstrated in Chapter 13 after validation of the emerged theories from the perspective of IS management in Chapter 11 and the perspective of national culture in Chapter 12.

Chapter 11: Validation from the perspective of IS Management

Chapter 11 validates the CCCM-GSISM with similar and conflicting Strategic Information Systems Planning (SISP) models in the literature review in order to reinforce the objectivity,

consistency and transferability, and to improve internal and external validity of the CCCM-GSISMs.

Chapter 12: Validation from the perspective of National Culture

Chapter 12 validates the CCCM-GSISM from the perspective of national culture, especially focusing on a) the human resource management, b) the organisational management style, and c) the IT outsourcing mechanism in the Japanese investment banks. The investigation enables reinforcement of the objectivity, consistency and transferability of the emerged theories.

Chapter 13: Refinement

Chapter 13 refines the CCCM-GSISMs and describes the theoretical saturated Fixed Sponsor Model (FSM), which indicates similarities and differences in the cultures impacting on global strategic IS management between Swiss/American, U.S., British and Japanese investment banks.

1.5.5 Part V: Conclusion

Chapter 14 in Part V concludes the research.

Chapter 14: Conclusion

Chapter 14, as the concluding part of the research, discusses a) findings, b) strength, c) weakness, and d) limitations of the research, and indicates further research.

1.6 Conclusion

Global strategic IS management is increasingly becoming important for multinational investment banks which originally utilised the information networks crossing national borders for profit making purposes. Following relocating and restructuring in international financial markets, significant changes have occurred to the scope of strategic management of IS in modern investment banks.

This chapter explained a) the research topic, b) the research questions, c) the selection of the research method, d) the history of the research, and e) the structure of research before the conclusion of this chapter. Chapter 2, as an initial investigation of the research questions at the beginning of Part I, discusses the history and context of financial market and investment banks.

Part I: Research Question

In the early 12th century, the banking business emerged in Italy. In the 13th century, Italian bankers commenced securities business. Between the late 18th and the early 19th centuries, investment banks emerged in Europe.

In Switzerland, the banking industry has been one of the most profitable businesses in the country. The U.S. investment banks firstly utilised the advanced IT/IS to activate real time communications during the 1980s (Nanda, Delong and Roy, 2002).

However, the Japanese banking industry had not been in the technology vanguard, perhaps because it had been more protected by the government than other industries after World War II (Schaede, 1999; Davies, 2002). In global economic terms, Japan was the best performer in the 1980s, but became the worst performer in the 1990s (Thurow, 2003).

According to Porter, Takeuchi and Sakakibara (2000), problematic industries in Japan include knowledge-based businesses that require highly specialised human resources. The finance industry is squarely a member of this set.

Many investment banks became multi-nationals around the 1980s. Multinational investment banks are involved in a continuous process of implementing, maintaining, improving and strengthening globally networked IS.

Currently, bank reach is strongly associated with the national origin of the banks (Berger, Dai, Ongena and Smith, 2002). National culture is seen as one of the key elements of global IS management (Johnson, Elmallah, Crow and Gezi, 1998; Santos and Fjermestad, 2002). A comparison of strategic IS management in different cultures in North America, Europe and Asia is important for cross-cultural IS researchers (Huff and Enns, 1997).

From these factors, the research recognises the importance of cross-cultural comparison of global IS management in the multinational investment banking industry. This part selects a research method deployed for the research, along with an initial consideration of the research topic at the beginning of the research, and clarifies research questions.

Chapter 2 Investment Banking Industry

Through introduction of the research topic, questions, method and structure in Chapter 1, it is clarified that the research focuses on differences in culture which affect global strategic IS management in the multinational investment banking industry. Chapter 2 focuses on the history and context of a) financial markets and b) investment banks.

> *"Global investment banks emerged in the 1990s. The process began with the overseas expansion of the leading Wall Street investment banks, which targeted particularly London and Tokyo" (Roberts, 2004; pp. 102).*

This chapter reviews the history of financial markets. Next, it clarifies the origin of investment banks before delineating the histories of the European, U.S. and Japanese banks. Finally, the chapter identifies the roles, scope and organisational structure of the investment banks before drawing a conclusion.

2.1 Introduction

The modern financial and monetary mechanisms of capitalism were structured between the mid-13th century and the mid-14th century in Italy, following the emergence of the banking and securities industry (Day, 1999).

The European financial centre moved from Italy to Portugal, Spain, France, and then to Amsterdam where there was a major securities exchange in the 17th century. By the late 19th century, the City of London had become the dominant financial centre in Europe, largely because of Britain's expansion of property rights to foreigners (Davies, 2002; Nanda, Delong and Roy, 2002).

By the middle of the 1830s, New York was the largest securities market in the U.S., though Philadelphia had been the U.S. financial centre until 1825. After World War II, Tokyo, London and New York were the world's three main global financial centres.

"Investment banks face competition from both domestic and foreign firms. Large sums of money are moving across borders, and more countries have access to the global capital market" (Liaw, 2006; pp. 5).

The size of the financially oriented workforce in London and New York is now similar, and those two markets are considerably larger than that of Tokyo. Tokyo and New York possess large wholesale financial markets, which are reflected in the scale of the U.S. and Japanese economies. However, London surpasses Tokyo and New York in international transaction volume of foreign exchange, equities and bonds.

These three main global financial centres have tight connections with each other, as well as strong linkage to other international financial centres, such as Chicago, Los Angeles, Frankfurt, Paris, Zurich, Hong Kong and Singapore (Davies, 2002; Roberts, 2004).

2.2 European Banks

Between the late 18th and the early 19th centuries, European investment banks initially emerged based on private partnerships. The Rothschild's business model was one of the most successful family based investment banks.

The Rothschild family established a complex information network radiating from London to Frankfurt, Paris, Vienna and Naples in order to increase a) correspondence with central banks and newspapers, and b) transactions with other banks and stockbrokers.

The five brothers of the family were able to a) utilise their information network beyond national borders, b) expand the geographical range of their business, and c) differentiate their financial activities from other investment bankers (Ferguson, 1998; Davies, 2002).

Today in the City of London, there are three notable British independent investment banks. N.M. Rothschild is an investment bank which succeeded to the assets of Rothschild family. Cazenove is a leading independent broker dealer. Lazard Brothers, which is the last of the City merchant banks, have established investment banking functions.

There are also medium sized investment banks owned by major European commercial banks. They are a) Barclays Bank, Royal Bank of Scotland and HSBC from the U.K., b) Deutsche Bank and Dresdner Bank from Germany, c) BNP Paribas and Societe Generale from France, and d) ABN Amro and ING from the Netherlands.

In addition, there are many small boutique-style investment banks and broker dealers (Freeman and Yap, 2000; Davies, 2002; Roberts, 2004).

2.3 Swiss Banks

Switzerland is outstanding in the European financial market. Switzerland has been a prosperous country despite having few natural resources and a small population.

Historically, the banking industry has been one of the most profitable industries in Switzerland, partly because of its characteristic of banking secrecy that was built into the constitution proclaimed in 1874.

In the late 1970s and the early 1980s, the socialists who had a strong anti-banking sentiment pushed to eliminate the banking secrecy. This led to increased debate about the banking business structure that applied fixed prices within the banking industry in Switzerland for a long period.

In the late 1980s, the Swiss government finally abolished the fixed price structure. Accompanying this deregulation process, consolidation in the banking industry started immediately. In 1993, Credit Suisse (CS) merged with Swiss Volksbank.

In 1998, Union Bank of Switzerland (UBS) and Swiss Bank Corporation (SBC) merged. In 1999, the new UBS was the market share leader in both private banking and retail banking, and CS was the second largest bank in the Swiss financial market.

The European market moved towards a single market, because of its regionally tight connections and the globalisation trend. The introduction of a new currency, the *"Euro"* on January 1st, 1999, accelerated the breakdown of national market borders and the reassessment of banking business strategies. Switzerland is historically well known for its political neutrality.

In 1959, Switzerland joined the European Free Trade Association, but rejected United Nations (UN) membership in 1986 and European Union (EU) membership in 1992, and is now still undecided on joining the EU (Fulmer, 1999; Davies, 2002) whilst enjoying a special relationship with the EU in several aspects.

2.4 U.S. Banks

After the American Civil War, the financial power of the U.S. grew. By 1900, the U.S. had surpassed Great Britain as the pre-eminent industrial power. At that time, private banks such as the House of Morgan and the commercial banks such as the First National Bank of Boston were established.

The U.S. investment banks emerged as principal counsellors for corporations in U.S., because the Glass-Steagall Act required the investment banking industry to separate from the commercial banking industry. By the 1940s, four powerful investment banks, which were Morgan Stanley, First Boston, Dillon Read and Kuhn Loeb, emerged.

After World War II, financial services was one of the most regulated industries in the U.S., because of strict regulations that had been made during the depression and maintained until the 1970s. In the early 1980s, the regulations became unworkable due to the increasingly globally competitive financial environment. At that time, the large global investors wanted to deal with the large global financial advisors.

In the mid 1980s, the U.S. government agencies began to relax control of the separation between the investment banking industry and the commercial banking industry. The repeal of the Glass-Steagall Act enabled investment banks and commercial banks to jump into each other's markets. In the 1990s, U.S. investors increased international securities transactions.

The U.S. investment banks significantly invested in advanced technology which enabled a) the reduction in operational cost, b) the establishment of new markets, c) the development of new financial products, and d) the provision of real time links among global financial markets (Davies, 2002; Nanda, Delong and Roy, 2002).

The so-called Wall Street investment banks are different in their business structure from investment banks established by other American or European commercial banks, which moved into the investment banking business through mergers and acquisitions (M&A) in the 1990s and the early 2000s.

The Wall Street investment banks are pure investment banks without any combination with commercial banking business. Their business expansions largely depended on organic growth rather than large M&A (Davies, 2002; Roberts, 2004).

The top three Wall Street investment banks, which are Morgan Stanley, Goldman Sachs and Merrill Lynch (Freeman, Sanger and Chotimongkol, 2001), have strong international presences and have established leading positions in core financial products.

Although the top three have already established the functionality to execute large and complex cross-border transactions, many other Wall Street investment banks are also pursuing global business strategies (Freeman and Sanger, 2000; Davies, 2002; Liaw, 2006).

The U.S. investment banks have adopted a global management style and earned a significant portion of their revenues from global transactions (Liaw, 2006).

2.5 Japanese Banks

Modern banking business in Japan was firstly commenced after the Meiji restoration in 1868. The most powerful banks were established by large loosely conglomerates which are typical of Asian business. In Japan, they are known as *"Zaibatsu"*.

In 1876, the Mitsui group firstly reorganised their money exchange business to the Mitsui Bank. In 1880, the Mitsubishi Bank and the Yasuda Bank were established in Tokyo. In 1895, the Sumitomo Bank was formed in Osaka.

From the beginning of their establishment, those *Zaibatsu* banks were financially much stronger than most of the other banks. They grew to absorb many of the non-*Zaibatsu* banks (Davies, 2002).

After World War II, the Japanese finance industry was more protected and controlled by the Japanese government than other industries. The former *Zaibatsu* banks remained and the Japanese government established three new long-term credit banks.

The reforms of the Japanese finance industry by the U.S. Occupational Forces were minor compared to other industries and areas of Japanese society. The Japanese banks could earn fixed margins on loans and became major shareholders of corporations aiming at protection from foreign capital, especially U.S. firms' heavy investment in Japan.

From cross shareholding schemes, also common in other parts of North East Asia (e.g. *Chaebol* in Korea and *Hongs* in Hong Kong), the *Zaibatsu* had been established with much vertical integration and a top down pyramid shape. Under the umbrella of the *Zaibatsu*, the *"Keiretsu"* had been organised through horizontal relationships with other group companies holding shares in each other.

The Japanese banks were located at the peak of the *Zaibatsu*. As main banks, the six *Zaibatsu* banks played the dual function of shareholder and lender to the corporations in these six big *Zaibatsu* and *Keiretsu* structures.

Between the 1950s and the 1970s, the Japanese economy kept growing. As financial capital accumulated in the Japanese domestic financial market, the banking industry remained stable generating high profits until the 1980s. In the middle and late 1980s, because of low interest rates on the Japanese yen, a financial bubble had been created (Schaede, 1999; Davies, 2002).

From the beginning of the 1990s, tight monetary policy finally began to affect the financial markets. The banking sector experienced a number of bankruptcies of small and local banks as well as of some major city banks. In 1996, the Japanese government announced a five-year deregulation plan for the financial system.

In accordance with this change to the financial system, foreign capital started to invade the Japanese markets, and the finance industry saw many mega mergers (Schaede, 1999; Liaw, 2006). The economic problems were carried from the 1990s to the 2000s. Stock prices in the Japanese market continued to fall and reached a 20-year low level in April 2003 (Liaw, 2006).

2.6 Role and Scope of Investment Banks

Securities brokers basically focus on the equities and bonds trading in secondary markets. Commercial banks operate the intermediary role between applicants and sources of financial funds. They deal with deposits and loans of cash money as a primary business.

Investment banks conduct the intermediary role between securities issuers and financial investors. Securities issuers are public or private companies, or any other entities that sell financial assets. Financial investors are companies, institutions or individuals that buy these assets (Nanda, Delong and Roy, 2002).

Core functions of the investment banks include a) transferring economic resources, b) management of risk, and c) clearance and settlement of transactions across different time zones beyond national borders. Investment banks significantly expand the menu of products and services which are a) cash money lending, b) structured finance, c) fund management, and d) securities transactions to retail and institutional clients (Liaw, 2006).

The cost of entering the investment banking industry is high, because new entrants need to establish cross-border information and communication networks and hire bright and energetic specialists. The profitability of the investment banking business depends on its ability to reduce operational costs in the continuous flow of a large number of transactions.

It is important for investment banks to a) obtain high market share in the key business functions such as M&A, advisory and securities issuance, and b) develop a broad range of products in order to activate cross-selling to various clients (Roberts, 2004).

Investment banking companies organise some specific styles. Full service investment banks a) consult mergers, acquisitions, restructuring, venture capital and private placement, b) conduct underwriting, market-making, asset securitisation, money management and proprietary trading, c) perform financing, financial engineering and investment research along with the core functions.

They compete in all securities product lines of business, providing a comprehensive set of financial services as well as having strong capital fundamentals to deal with the large scale of securities transactions (Nanda, Delong and Roy, 2002).

2.7 Organisational Structure of Investment Banks

Investment banks organise separate divisions which perform a specialised set of functionality.

The front office, which is located at the surface of the company's organisational layer as a profit centre, interacts with internal and external clients or counterparties in order to generate revenue. Activities of the front office include a) selling securities products, b) trading financial products, c) origination of new business, d) analysis of financial markets, e) management of client accounts, f) development of new products, and g) advising on corporate strategy (Roberts, 2004).

The middle office, which is located at the middle corporate layer as a cost centre, conducts a) risk management, b) regulatory reporting, c) compliance control, d) legal and tax issues, e) human resource management, f) accounting, and g) IT/IS management. It mostly focuses on internal management, control and administration rather than external communications. Although it does not generate revenue, its activities, maintaining and improving the support functions are very important for revenue generation by the front office (Roberts, 2004).

The back office, which is located on the bottom of the layer as another cost centre, conducts a) account opening and maintenance of clients and counterparties, b) trade confirmation, c) reconciliation, d) static data maintenance, e) settlements which are cash payments, securities deliveries and clearing house operations, f) internal audit, and g) call centres operation and claims processing. Most of its processes are normally routine work (Roberts, 2004).

2.8 Conclusion

Chapter 2 clarified a) the origin of investment banks, the histories of European, U.S. and Japanese banks, and b) the role, scope and organisational structure of investment banks.

As analysed, the investment banking business originally emerged through the development of cross-border information networks to transfer capital in Europe. Investment banks, which have adopted the multinational style after the 1980s, are now attempting global utilisation of IS in competitive business circumstances. In order to establish communication networks between global financial markets by utilising advanced IS, strategic thinking about global IS is required.

In order to identify the importance of the research to particular audiences, Chapter 3 explains the *Seven Domains Model (SDM)* which was developed for this research as an analytical lens through reconsideration of previous work on globalisation debates from the perspective of economic, political and cultural dimensions.

Chapter 3 Globalisation

Chapter 2 reviewed the context of the finance industry and investment banks. Chapter 3 focuses on a) the globalisation debate which is one of the most significant ongoing debates in both the academic and business worlds, and b) the Seven Domain Model (SDM) which has been developed for this research as an analytical lens through conceptualising previous work on globalisation debates from the perspectives of the economic, political and cultural dimensions.

Following a brief introduction, this chapter firstly explains the reason why the SDM was developed. Secondly, all seven domains in the SDM are examined. Thirdly, the chapter identifies that IT/IS is located in the centre field of the SDM before a chapter conclusion is given.

3.1 Introduction

Globalisation is an extremely complex phenomenon (Currie, 2000; Gray, 2000; Held and McGrew, 2003). The globalisation debate is one of the most important discussions currently ongoing (Giddens, 2000; Avgerou, 2002).

All businesses are facing the trend of global competition, and adaptation to the globalising society is one of the most important issues for nearly all organisations (Newell *et al.*, 2001).

> *"Globalisation represents a significant shift in the spatial reach of social relations and organisation towards the interregional or international scale"* *(Held and McGrew, 2003; pp. 3).*

What elements determine victory or defeat in globally competitive circumstances?

According to the IMF (2000), globalisation became a frequently used word in relation to increased trade volumes in international markets during and after the 1980s. Between the late 18th and early 19th century in Europe, as discussed in Chapter 2, the investment banking industry originally emerged following the construction of telecommunication networks which allowed capital to be transferred beyond national borders.

After the 1980s, investment banks established a global information network utilizing innovative global IS to expand profitable business opportunities. Most have become multinational companies forming large global financial groups (Freeman and Sanger, 2000; Davies, 2002; Roberts, 2004; Liaw, 2006).

While effective global IS are thought to bring a) economies of scale, b) local adaptability, c) knowledge sharing through integration and connection of IS between various locations worldwide, it is difficult and complex to implement global IS to enable maximisation of economical value (Earl and Feeny, 1995).

One of the difficulties of globally activating IT/IS is the necessity of sensitivity to cultural elements such as difference of language, custom and tradition in various places during the design, construction and maintenance stages of the global IS (Johnson, Elmallah, Crow and Gezi, 1998).

However, cross-cultural IS research and global IS management research are not yet fully mature. In order to examine the importance of this research to particular audiences, the Seven Domains Model (SDM) was developed as a lens for the examination of the importance of global IS management research to audiences through the review of previous work on globalisation debates.

3.2 The Seven Domains Model (SDM)

In order to understand the various domains of the globalisation debates, the research reviewed previous publications of a) academic literature (e.g. Palvia and Palvia, 1997; Currie, 2000; Held and McGrew, 2003; Held, McGrew, Goldblatt and Perraton, 2003), b) transcripts of panel discussions (e.g. Giddens *et al.*, 2000), c) publications from transnational organisations (e.g. IMF, 2000; UN, 2001; EC, 2002), d) articles in newspapers (e.g. Acande, 2002; Norchi, 2000) and e) articles in magazines (e.g. Venkat, 2003).

As described in Table 3.2, the research identified that globalisation debates contain various combinations of a) viewpoints; subjective or objective, b) timescales; long-term, medium-term or short-term, c) analytical approaches; static or fluid, and d) philosophical standpoints; positivistic, critical or interpretive.

Table 3.2: Globalisation Debates

Factors	Characteristics	Examples
Viewpoints	Subjective	Norchi, 2000; Acande, 2002; Tardif, 2002; Benghozi, 2003; Venkat, 2003; Porter, 2005
	Objective	Palvia and Palvia, 1997; Herman, 1999; Giddens, 2000; Gray, 2000; Halliday, 2000; Currie, 2000; Kaldor, 2000; Avgerou, 2002; Tardif, 2002; Williamon, 2002; Held and McGrew, 2003; Held, McGrew, Goldblatt and Perraton, 2003
Timescales	Long-term	Gray, 2000; Ramsaran and Price, 2003
	Middle-term	Williamon, 2002
	Short-term	Herman 1999; IMF, 2000
Analytical Approaches	Static	Acande, 2002; Porter, 2005
	Fluid	Widastomo, 2002
Philosophical Standpoint	Positivistic	Herman, 1999; Giddens, 2000; Gray, 2000; Halliday, 2000
	Critical	Norchi, 2000; Acande, 2002; Benghozi, 2003; Venkat, 2003; Porter, 2005
	Interpretative	Palvia and Palvia, 1997; Currie, 2000; Kaldor, 2000; Avgerou, 2002; Tardif, 2002; Williamon, 2002; Held and McGrew, 2003; Held, McGrew, Goldblatt and Perraton, 2003

From those publications, it was discovered that there are many aspects to the globalisation debates. Examples are a) economic globalisation (e.g. Herman, 1999; Gray, 2000; Avgerou, 2002; Williamon, 2002; Held and McGrew, 2003; Held, McGrew, Goldblatt and Perraton, 2003; Ramsaran and Price, 2003; Venkat, 2003), b) financial globalisation (e.g. Held and McGrew, 2003; Held, McGrew, Goldblatt and Perraton, 2003; Venkat, 2003; Davies, 2002; Roberts, 2004; Liaw, 2006), c) educational globalisation (e.g. Lee, 2004), d) cultural globalisation (e.g. Gray, 2000; Halliday, 2000; Norchi, 2000; Akande, 2002; Avgerou, 2002; Tardif, 2002; Benghozi, 2003; Held and McGrew, 2003; Held, McGrew, Goldblatt and Perraton, 2003; Porter, 2005), e) socio-cultural globalisation (e.g. Lee, 2004), f) political globalisation (e.g. Avgerou, 2002; Held and McGrew, 2003; Held, McGrew, Goldblatt and Perraton, 2003; Kaldor, 2000), g) politico-economic globalisation (e.g. Lee, 2004), h) socio-economical globalisation (e.g. Herman, 1999; Akande, 2002; Benghozi, 2003; Ramsaran and Price, 2003; Venkat, 2003), i) socio-political globalisation (e.g. Tardif, 2002), j) technological globalisation (e.g. Avgerou, 2002; Venkat, 2003) and k) informational globalisation (e.g. Palvia and Palvia, 1997; Herman, 1999; Currie, 2000; Avgerou, 2002).

From this, it was noted that few researchers confine their discussion to one domain and many researchers move around various domains of discourse. Clearly the globalisation debates are very complex (Currie, 2000; Giddens, 2000; Avgerou, 2002; Held and McGrew, 2003; Held, McGrew, Goldblatt and Perraton, 2003).

In order to clarify the complex domains of the globalisation debates, the research attempted to visually categorise the domains from the perspective of three particular dimensions, i.e. economic, political and cultural in preference to other candidate dimensions. This is because these are dimensions that are a) defined by the transnational institutions in the panel session report (UN, 2001) and the working document (EC, 2002), b) defined in the academic

literature (Lee, 1999; Potter, 2002), and c) demonstrated in the subtitle of the published academic book *"Global Transformations"* (Held, McGrew, Goldblatt and Perraton, 2003). Hence, the research developed the *Seven Domains Model (SDM)* in Figure 3.2.

The SDM is a diagrammatic representation, which is expected to enable a) visualisation of discussion points, b) identification of research questions, c) examination of the importance to audiences for global IS management research, and d) navigations of analysis throughout the research project.
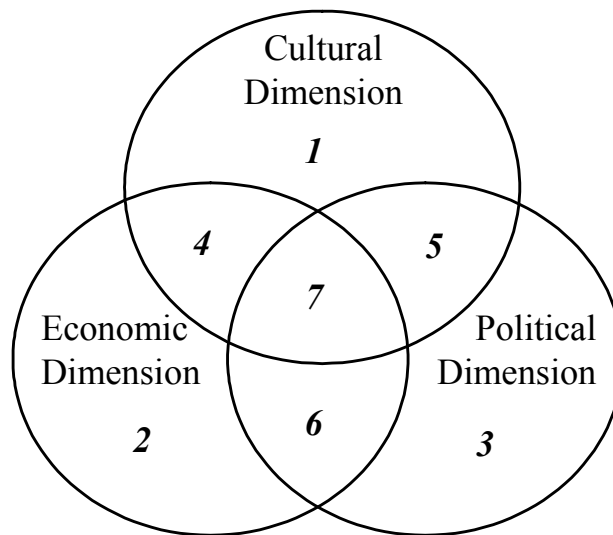
Figure 3.2: The Seven Domains Model (SDM) of Globalisation Debates

3.2.1 Cultural Dimension

"A key question in the literature of globalisation is what happens to the cultural differences among social groups as a global economy emerges and as the power of the nation state to command and inspire its citizens and order their social affairs is under challenge. ... The issue is whether the cultural processes of globalisation

imply the preservation, lessening, or disappearance of differences among social groups, including organisations" (Avgerou, 2002; pp. 112).

Globalisation debates from the perspective of cultural dimension, in the area of *"1"* in the SDM, focus on the question of how the culture will be transformed in the future.

There are various views such as a) a profound restructuring at the global level (Giddens, 2000), b) homogenisation of cultures (Norchi, 2000; Benghozi, 2003), c) hybridisation of cultures (Gray, 2000; Halliday, 2000), d) multiplication of culture (Tardif, 2002), e) imposition of Western culture on other regions (Norchi, 2000; Akande, 2002), and f) imposition of American culture at the global level (Porter, 2005).

Akande (2002), Ramsaran and Price (2003), and Seabrook (2004) identified that resistance to globalisation is occurring in various places in the world, because the originality and diversity of traditional lifestyles in various locations and regions are imposed upon, violated or destroyed according to the increased traffic in international communications.

Akande (2002) identified that the multi-nationalised information broadcasting and media, which continuously introduce Western culture beyond national borders worldwide, have accelerated the trend of Western culture's invasion of non-Western regions.

On the contrary, Gray (2000) and Halliday (2000) emphasised the importance of the intentionally corporative effort to maintain the uniqueness of each culture and explained that each individual culture will never be homogenised or uniformed, but will be hybridised by mixing different characteristics of many cultures according to increased mutual communication between distantly separated regions through advanced technologies such as the internet and satellite television.

3.2.2 Economic Dimension

"The basic observation regarding globalisation in the economic arena is that national borders, which have traditionally determined a pattern of distinct economic territories on the globe, are gradually losing their significance and economic activities are conducted in a way that defies geographic distance" *(Avgerou, 2002; p. 101).*

Globalisation debates from the perspective of economic dimensions, in the area of *"2"* in the SDM, are consolidated into two categories which are a) the origin of globalisation, and b) economic inequality brought by globalisation.

There are some views (Gray, 2000; Ramsaran and Price, 2003) that modern globalisation originally emerged around the 14th century. When the East India Company began to conduct international business in the 17th century and monopolised export and import trading in the Asian region, global economic trade was dramatically increased. Globalisation, therefore, is not a new phenomenon (Ramsaran and Price, 2003), but a profound historical transformation in the process of industrialisation (Gray, 2000).

The world economy has been internationalised in accordance with the expansion of territories where multinational companies acted beyond national borders. After the 1960s, the international markets grew rapidly in concert with developments of new business concepts in financing, credit creation and entrepreneurship.

In the latter half of the 1990s, the speed of globalisation was accelerated by IT/IS innovations (Herman, 1999). Because of this rapid development in intelligent communications technology, the term Information and Communication Technology (ICT) threatens the displacement of the term IT/IS.

Through the advanced information networks, transaction volumes in the major financial markets such as New York, London and Tokyo are continuously increasing (Ramsaran and Price, 2003).

There are two conflicting views of economic inequality, which is thought to be brought about by globalisation. As examples of the affirmative view, the IMF (2000) explains that the living conditions in most poor countries have been improved according to the acceleration of globalisation.

Giddens (2000) has shown that economic inequality in poor-opened countries (e.g. Malaysia, Thailand and Ghana) has been more resolved than in poor-closed countries (e.g. Myanmar, Somalia and Sudan). Venkat (2003) explained that long-term economic growth in the international markets enables a) improvement of technology, b) enlargement of trading, and c) elimination of poverty in developing countries, although painful changes could occur in the short-term.

Negative views, which suggest that globalisation is unable to eliminate poverty from the world, are also proffered. Williamon (2002) identified that the income gap between rich countries and poor countries has been continuously expanding over several decades, although the average income per capita in the world largely increased in the 20th century.

Globalisation, therefore, possesses the potential to bring about economic wealth for all human beings worldwide, but only a small number of people receive the benefit created by economic globalisation, because no mechanisms exist to control economic inequality.

Herman (1999) identified that nations without strong economic power are possibly threatened by advanced enterprises such as hedge fund style companies which manage large capital movement. An example is the Asian monetary crisis in the latter half of the 1990s.

3.2.3 Political Dimension

"Since the late eighteenth century, the world has been perceived as composed of autonomous monolithic nation states, empowered with legal authority and institutional mechanisms to govern the people on their territory. Increasingly, the neat structure of the world as a set of interrelated state actors is complicated by developments both internationally and within states" (Avgerou, 2002; p. 109).

Globalisation debates at *"3"* in the SDM from the perspective of the political dimension include a) the origin of globalisation which is also discussed in the economic dimension, b) the field of human rights issues affected by globalisation, and c) the revival of nationalism and security management of nation states.

From the perspective of the dual separation between the ruling side and the ruled side which is thought to have existed during the several centuries of the colonial period after the *"Age of Discovery"*, colonial imperialism theoretically disappeared in the 20th century.

Though some assert its continuance (e.g. Akande, 2002), others assert that a new kind of imperialism, driven by globally operating corporations (e.g. Google, Microsoft, McDonalds, Toyota), is emerging within the accelerating trend of globalisation (e.g. Widastomo, 2002).

Contrary to this, Kaldor (2000) explains that various types of citizens are increasingly demanding many requirements from various standpoints of their governments, because many nations are now becoming more democratic than before.

However, it is extremely difficult for the governments to respond to highly diversified demands. In addition, increasingly governmental decisions are made at intergovernmental level.

Consequently, a) complaints and dissatisfaction from citizens are increasing, b) anti-globalisation networks are expanding, and c) new resistance to nations and the structured of nations states and interstate alliance, e.g. the EU, is visibly or invisibly being activated.

In order to meet this perceived threat, it is important for nation states to cooperate with each other at the international level. They increasingly find it necessary to a) strengthen international law, b) revitalise transnational organisations, and c) establish civic groups which correspond to new demands from citizen worldwide (Kaldor, 2000).

3.3. Relationship between Three Dimensions

The globalisation debate has become a complex controversy because the discussion points are not only a) limited to the narrow fields of economic, political and cultural dimensions, but also b) expand to the ranges where the three dimensions overlap each other.

3.3.1 Cultural Dimension and Economic Dimension

The international activity of a multinational company is the main topic in area *"4"* in the SDM where cultural and economic dimensions overlap. Various definitions of a multinational company exist.

For example, a multinational company may be a company a) which is a parent company of *"very large families of corporations, described as conglomerates, which are encountered in some countries" (United Nations, 1993),* b) which is *"registered and operating in more than one country at a time" (Thomson Gale, 1998; Houghton Mifflin Company, 2002; Britannica, 2006),* c) which is *"a business enterprise with manufacturing, sales, or service subsidiaries in one or more foreign countries" (Colombia University Press, 2003),* d) which *"typically*

develops new products in its native country and manufactured them abroad" (Colombia University Press, 2003), e) which has *"its facilities and other assets in at least one country other than its home country" (Investopedia, 2000; Barron's, 2000),* f) which has offices and/or factories in multiple countries (Investopedia, 2000; Barron's, 2000), and g) which has a common global management strategy (Investopedia, 2000; Barron's, 2000).

Economic structure have been internationalised by the global business strategy of multinational companies (Herman, 1999). Benghozi (2003), Ramsaran and Price (2003), and Venkat (2003) identified that multinational companies sell goods and services which embody cultural meanings through globally networked distribution channels beyond national borders using market mechanisms.

Benghozi (2003) identifies the threat imposed upon traditional culture in each location and region, because multinational companies distribute homogenised and standardised, but culturally imbued goods at the global level. Although various cultures have different economic mechanisms of distribution and production of goods, they are threatened and may disappear under globalising *"steamroller"* intent on economics of scale and labour arbitrage.

Venkat (2003) identified that multinational companies perform extensive sales of large numbers of homogeneous and low price goods and services in the market including the district markets in developing countries.

Multinational companies utilise strong weapons such as capital power and IS, and more insidiously the aura of success and achievement whilst moving the production base to areas with low labour costs and relaxed regulations aimed at improvement in productivity.

Consequently, multinational companies gain large-scale predominance from small-scale producers and take work from developing countries to ultimately sway the world economy at large.

Akande (2002) strongly criticised Western multinational companies, which act in the logic of a simplified capitalistic theory and destroy local cultures in non-Western countries. Apart from this, focusing on language, which is the basis of culture, Tardif (2002) identified that there is a cultural problem of globalisation to the point where many European enterprises apply English as the official corporate language when they participate in global markets.

3.3.2 Cultural Dimension and Political Dimension

Controversially, Tardif (2002) also emphasised that policies should be implemented to control the racial proportion of populations in order to artificially maintain the cultural identity in each nation from the pressures of multicultural phenomena.

Thus, in relation to the various views for the further changes of culture such as a) cultural homogenisation (Norchi, 2000; Benghozi, 2003), b) cultural hybridisation (Gray, 2000; Halliday, 2000), and c) multiculturalism (Tardif, 2002) which were discussed in the field of the area *"1"* of the SDM, what political policy should be taken to protect cultural identity is the main topic in the field of the area *"5"* of the SDM where cultural and political dimensions overlap.

3.3.3 Economic Dimension and Political Dimension

The complex causal relationship between free competition and inequality of human rights (Micklethwait and Wooldridge, 2003) is the main topic in the field of the area *"6"* in the SDM where economic and political dimensions overlap.

Williamon (2002) explained that economic inequality has occurred through artificial and political dynamics. Because economic prosperity in the entire world, including poor countries, can be brought about by a so-called invisible hand, because investors and companies can act based on simplistic capitalistic theory without political regulation. Poor countries obtain economic profits by increasing international trade, if protective regulations in developed nations can be removed.

Giddens (2000) takes the opposite standpoint to the view that globalisation itself brings about economic inequality. He indicated that the causal relationship between expansion of free trade and expansion of an economic inequality is unclear, and explained that economic inequality originates from differences in a) political corruption, b) speed of technological innovation, c) a demographical structure, and d) even infection and disease.

On the contrary, Gray (2000) asserts that the current circumstance of globalisation is similar to the anarchical situation in the initial stage of the Industrial Revolution, because there are no organisations which perform management, government and direction of globalisation.

Halliday (2000) pointed out that globalisation had a potential power to essentially bring about economic inequality. If nations and corporations will not corporately control the most advanced fields such as financial markets, global IS or genetic engineering that can produce large amount of profits, globalisation cannot bring about prosperity and stability in the long-term.

3.3.4 IT/IS as a Core Driver for Globalisation

Many standpoints, opinions and interpretation of globalisation exist in the field of the area *"7"* in the SDM where economic, cultural and political dimensions overlap.

Examples are a) the global process of structural transformation (Giddens, 2000), b) the global process of industrialisation (Gray, 2000), c) the unstoppable process of value creation (Herman, 1999), and d) significant shift of social relations towards international, interregional and intercontinental scale (Held and McGrew, 2003).

However, there are few researchers who indicate opposition to the common opinion that the core driver of globalisation is *"IT/IS"*. Therefore, this research locates IT/IS in the centre field of the SDM.

Gray (2000) indicated that the retrogression of globalisation is becoming impossible, because globalisation was strongly promoted by utilizing new IT/IS such as the telecommunication network cable crossing the Atlantic Ocean constructed in the 19th century.

It is continuously progressing in a more profound and insidious dimension in the 20th and 21st centuries to every desktop, home and human place of *"being"*.

3.4 Conclusion

In order to demonstrate the SDM, this chapter examined the dimensions of globalisation from the view of economics, politics and cultures, and identified the relationship between these three elements. When the research analysed the previous work for globalisation debates, firstly Giddens (2000) was reviewed.

In order to maintain the balance of opinion between the European region and the non-European region, other views from various regions were added. Chapter 4 clarifies the main and subsidiary research questions of the Cross-Cultural Comparison of Global Strategic IS Management in the Multinational Investment Banking Industry.

In addition, the importance of the research is examined through the analytical lens of the SDM. This process of examination is believed to be potentially usable for other management research.

Chapter 4 Research Question

Chapter 2 reviewed the history and context of the investment banking industry. Chapter 3 explained the Seven Domains Model (SDM) from the perspective of globalisation.

This chapter focuses on a) the identification of the main and sub research questions of the Cross-Cultural Comparison of Global Strategic IS Management in the Multinational Investment Banking Industry, and b) the examination of the importance of the research through the analytical lens of the SDM.

This chapter firstly explains the main question for the research. Secondly, the sub-question is clarified. Thirdly, the chapter discusses the contribution of the research before a chapter conclusion is provided.

4.1 Introduction

Globalisation has recently accelerated through the expansion of multinational corporations (Herman, 1999; Venlat, 2003), and advanced technology (Currie, 2000; Gray, 2000; Held and McGrew, 2003).

Between the mid-1990s and the mid-2000s, investment banks, which have established cross-border information networks (Reddy, 1995; Davies, 2002; Roberts and Kynaston, 2002; Nanda, Delong and Roy, 2002; Roberts, 2004), are continuously maintaining, reinforcing, improving and strengthening those networks (Liaw, 2006).

In order to activate global IS, an organisation's top management team should have a shared business vision to integrate business and IS strategy (Earl, 1995; Earl and Feeny, 1995; Chan, 1999; Presley and Meade, 1999; Willcocks and Sykes, 2000; Lederer and Johnson, 2003).

"Information technology has been a significant factor in improving the overall efficiency of investment banks. Computerised and electronic trading is both more efficient and more accurate. Management now has real-time information on the firm's operations worldwide. Not only has globalisation been made possible but also better decision making and improvement in the firm's competitive edge have taken place" (Liaw, 2006; pp. 392).

However, differences in cultural elements seem to have influenced strategic global IS management in this area of business activity.

4.2. Research Question

All seven fields in the SDM were explained in Chapter 3 in reference to the various fields of discussions concerning globalisation.
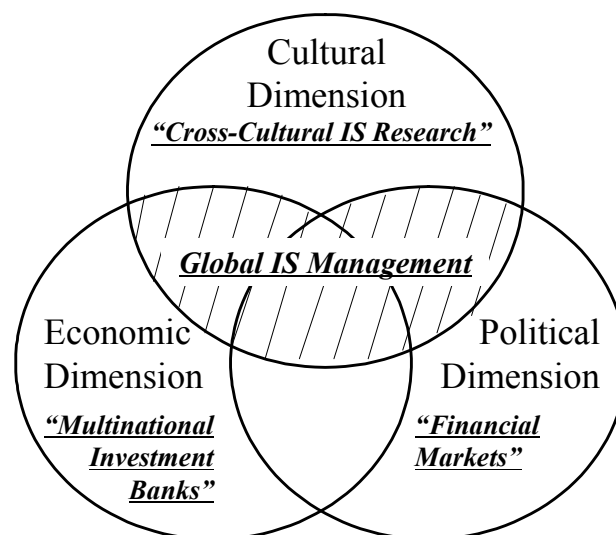
Figure 4.2: Cross-Cultural Comparison of Global IS Management

"We urge our global information management (GIM) research colleagues to embark on more investigations into the impact of IT on the global supply chain, human resource, marketing, manufacturing and distribution management. This aspect of GIM research may not be within the traditional scope of IS research, but we believe it is equally compelling as organisations grapple with the management of their functional operations as they establish and compete globally" (Tan and Gallupe, 2004; pp. 199).

Critical issues of cross-cultural comparison of global IS management in the multinational investment banking industry are detected in this section using Figure 4.2 indicating the position of a) multinational investment banks, b) cross-cultural IS, c) financial markets, and d) global IS management.

4.2.1 Cross-Cultural IS

Firstly, the research is categorised as cross-cultural IS research. From the 18th century to the beginning of the 19th century, the word and concept of *culture* was born when heterogeneity a) between European countries in the European region, and b) between the European region and other regions (many the subject of colonial expansion) was recognised. In other words, the word *culture* emerged from the feeling of difference by *"the discoverers"* from *"the discovered"*.

Since the definition of the word *culture* was ambiguous until the middle of the 20th century, two anthropologists, Kroeber and Kluckhohn, identified the definitions by collecting, analysing and classifying the word *"culture"* used in more than 200 references.

Using the six definitions of culture that they categorised, Berry *et al.* (2002) restate with complex organisational focus a) a historical definition as a tradition taken over from the past, throughout the present and into the future by the organisation, b) a normative definition as shared rules among the organisations, c) a psychological definition as an invisible sense of business values in the organisations, d) a structural definition as a pattern of business process, and e) a genetic definition as the origin of the business model.

Because any nation, corporation or organisation possesses something cultural (Toynbee, 1947; 1957), all financial markets and investment banks can be asserted to display cultural dimensions.

4.2.2 Global IS Management

Because of a) the growth of the global economy and international financial markets, and b) increase of cross-border trade and capital flows, demands of global financial services are continuously expanding (Davies, 2002; Roberts and Kynaston, 2002; Nanda, Delong and Roy, 2002; Roberts, 2004; Liaw, 2006).

Establishment of global IS that maximises economies of scale, enables local adaptability, utilises knowledge sharing by integration and connection of IS between various locations worldwide, has become a significant management challenge for multinational companies.

When they implement global IS, they often prefer to install a standardised and uniform IS worldwide to realise economies of scale. Strategic IS has a significant impact not only on the short-term but also on the long-term profit of the companies (Remington, Moores, Swanson and Folts, 1999).

Liaw (2006) indicates that many changes are taking place in the business process of the investment banking industry aided by the advance of IT/IS and the connection of the Internet. Although IT/IS strategies have become increasingly important to the success of companies (Lunce, 1999), many companies fail to fully realise the benefits of IT/IS investment because of mismatches between business strategies and IS strategies (Presley and Meade, 1999).

In addition, it has become difficult work to globally connect network lines one-by-one between different nations which have differing social infrastructure, laws, regulations, standards and vendors (Earl and Feeny, 1995) as well as differing cultural elements such as languages (including alphabetical and non-alphabetical scripts), religion, customs, manners and traditions (Johnson, Elmallah, Crow and Gezi, 1998).

As discussed in Chapter 2, investment banks, which originally emerged with the establishment of information networks to transfer capital beyond national-borders, largely became multinational corporations after the 1980s.

In order to maximise the profit by trading financial products through globally connected communication networks between the global financial markets, investment banks are now taking up the challenge to strategically activate global IS. It is, therefore, important for multinational investment banks to manage global IS at the strategic level.

4.2.3 Main Research Question

Based on the previous discussion, this research recognises the importance of cross-cultural comparative study of global IS management in the multinational investment banking industry, and the following main research question was described.

Main question; "What similarities and differences in the cultures of organisations and financial markets affect global strategic IS management in the multinational investment banking industry?"

4.2.4 Subordinate Research Question

After clarification of the main research question in Section 4.2.3, a sub-question is identified using the analytical lens of the SDM. This is from area *"4"* of the SDM (Figure 3.2) - the overlapped view of cultural and economic dimensions; *"do cultural factors of organisations activate or inhibit global IS in multinational investment banks?"*
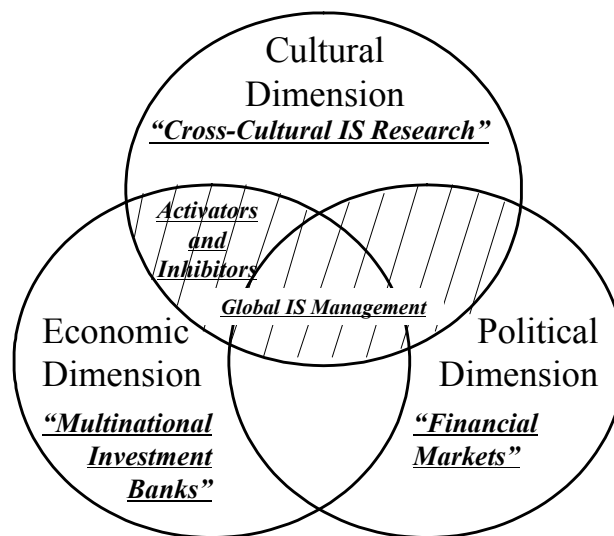
Figure 4.2.4: Activators and Inhibitors of Global IS

The research initially focuses on multinational investment banks. Accompanying the relocation and restructuring of financial markets, as discussed in Chapter 2, the business model of the investment bank transferring capital beyond national borders using information networks emerged in the 18th century.

Information is the lifeblood of the finance industry (Roberts and Kynaston, 2002; Roberts, 2004). IT/IS management is increasingly becoming important for the core functions of front, middle and back offices in investment banks (Roberts, 2004). Between the mid 1990s and the mid 2000s, advances of IT/IS significantly affected the system architectures of investment banks.

In the mid-1990s, Reddy (1995) emphasised that the changes would be driven by a) cultural changes in society such as demanding experienced managers, further developing knowledge workers, and their demographically shifting, or b) technological changes such as increasing hardware capacity, improving software user friendliness, further developing micro-computers, and advancements in telecommunications worldwide.

Reddy (1995) especially emphasised that the system architecture of the future would provide more useful functionalities for users with greater data accuracy. Investment banks, therefore, needed to analyse their present technology in the production environment and review their business strategies in order to migrate to a new system architecture which would meet with their business objectives.

Currently, about 10 years later, the front office in many investment banks utilises the Internet and e-commerce in order to a) present research reports, b) indicate real-time pricing, and c) execute transactions online.

The middle office in most investment banks has software linked to financial market information on a real-time basis in order to monitor and analyse their underlying market and credit risks.

The back office in many investment banks reengineers system structure and improves data accuracy in their computer systems in order to shorten the settlement cycle (Liaw, 2006). Thus, the advances of IT/IS permitted investment banks to operate anywhere in the world.

The U.S. and European investment banks have improved their business structure by innovatively utilizing global IS since the 1980s (Freeman and Sanger, 2000; Davies, 2002).

The Japanese banking industry received special consideration from the Japanese government after World War II and played an important role as a central entity in the *Keiretsu/Zaibatsu* relationships common during Japan's high economic growth period until the end of the 1980s (Schaede, 1999; Davies, 2002).

However, it experienced a financial crisis when several large-scale financial institutions went bankrupt following the burst of the bubble economy in the latter half of the 1990s (Schaede, 1999; Porter, Takeuchi and Sakakibara, 2000; Thurow, 2003). Although some U.S. and European investment banks seem to achieve success by activating global IS, other investment banks seem to miss this opportunity.

From this, the research recognises the importance of examining activators and inhibitors of globally networked IS in the multinational investment banks from the perspective of global strategic IS management. The following sub-question is clarified.

Sub-question; "What cultural factors of organisations activate or inhibit global IS in multinational investment banks?"

4.3 Contribution of the Research

Examination of the research questions in relation to cultures in investment banks and financial markets is valuable for the business world (Usunier, 1998), especially business managers (Easterby-Smith, Thorpe and Lowe, 1991) in the multinational investment banking industry.

In addition, as Karahanna, Evaristo and Srite (2004) explained, currently cross-cultural IS research has weaknesses of a) theory development and verification, b) investigation of culture as an antecedent, and c) poorly developed research methods.

Moreover, the field of global IS research has not broken through a) from researches in only one country to researches in multiple countries, and b) from traditional research techniques to newly applied research techniques (Tan and Gallupe, 2004).

The study of the research questions in multiple countries analysing culture as an antecedent using a theory building method, which is discussed in Chapter 5, is rare in both cross-cultural IS research and global IS research. It is, therefore, thought to be valuable to IS academics.

4.4 Conclusion

In this chapter, the research questions are identified through the analytical lens of the SDM.

It is confirmed that the research question is located in the centre of the globalisation debate. It is also confirmed that each element of the research, which are a) cross-cultural study from the cultural dimension, b) multinational investment banking from the economic dimension, and c) financial markets from the political dimension is respectively important.

The research, therefore, is valuable not only for business managers in the multinational companies but also for the academic researchers in the global IS management field. As a systematic framework to examine the importance of global IS management research, the SDM is potentially applicable for other global IS management projects.

In order to answer the research questions identified in this chapter, Chapter 5 discusses the research method deployed for the research and why it was selected.

Part II: Research Method

As discussed in Part I, multinational investment banks are now taking up the challenges to strategically utilise global IS as a competitive business weapon. Since an establishment of the cross-border IS network is difficult, a study of the global IS management from the cross-cultural aspects is important for business managers and IS research.

However, the cross-cultural IS research projects to date have displayed weaknesses in theory development, ignored culture as an antecedent and failed to develop appropriate research methods. Hence it is asserted that the field of global IS research has not yet been fully cultivated.

In order to answer the questions clarified in Chapter 4, this research selected Grounded Theory analysis, as it is thought to enable visualisation of differences in cultures affecting strategic management of global IS. This part discusses a) the selection of the research method, b) the sampling process, and c) the coding process.

Chapter 5 Research Method

As discussed in Chapter 2, 3 and 4, investment banks, which have been multi-nationalised, are now taking up the challenges to strategically utilise global IS in globally competitive business circumstances. In order to answer the research questions identified in Chapter 4, this chapter focuses on selection of a research method.

> *"In summary, we suggest that there are mainly three points where the management information systems (MIS) cross-cultural research is lacking: lack of theory base (testing or building); inclusion of culture as antecedents of constructs; and general improvement in methodologies used. All three points are related, although to different extents, to methodological issues. The conclusion is that… cross-cultural MIS research needs to seriously attend to cross-cultural methodological issues"* (Karahanna, Evaristo and Srite, 2004; pp. 174).

It discusses inductive theory development through Grounded Theory with validation from the perspective of IS management and national culture.

> *"There are very few researchers who break out of the traditional mould and conduct studies using techniques like ethnography, interpretive epistemology, or grounded theory. … We therefore challenge global information management (GIM) scholars to consider using alternative qualitative techniques in GIM research"* (Tan and Gallupe, 2004; pp. 198).

In this chapter, the audiences for the research are firstly examined. Secondly, the definitions of terminologies in the cross-cultural comparison of global IS study are reviewed. Thirdly, contexts of cross-cultural IS research and global IS management research are reviewed. Fourthly, candidate research methods are enumerated. Fifthly, the selection of the research method and the structure of the research are explained before the chapter conclusion.

5.1 Introduction

As discussed in Chapter 2, the banking industries of different nations have different backgrounds and histories. Investment banks are now taking up the challenge to utilise global IS because of their internationalising business models.

However, it is very difficult to establish a cross-border IS network that enables production of a profit (Earl and Feeny, 1995). When they build global IS networks, it is necessary for business/IS managers to take into consideration cultural elements, such as languages, religion, customs, tradition and cultures (Johnson, Elmallah, Crow and Gezi, 1998).

From these perspectives, it is important for the field of IS research to study global IS management in the multinational investment banking industry from the cross-cultural view. The following main and sub-question were identified in Chapter 4.

Main question; "What similarities and differences in the cultures of organisations and financial markets affect global strategic IS management in the multinational investment banking industry?"

Sub-question; "What cultural factors of organisations activate or inhibit global IS in multinational investment banks?"

5.2 Audiences for the Research

Before actually performing cultural comparative studies of global IS management in the multinational investment banking industry, it is necessary to clearly define the audiences for the studies (Usunier, 1998). The research assumes two categories of audiences.

A first category of the audience for the study is researchers and students in the academic world (Easterby-Smith, Thorpe and Lowe, 1991). There are few IS researches that analyse strategic management of global IS from the view of cultural comparison in the multinational investment banking industry.

However, if the research completes only within the academic interests, it is of little value to the world of practitioners (Usunier, 1998). Therefore, a second audience for the study is business managers (Easterby-Smith, Thorpe and Lowe, 1991) including a) chief executive officers (CEOs), b) chief information officers (CIOs), and c) senior IS managers who are engaged in the construction of global IS networks.

The business area of the second audience is believed not to be limited to the investment banking industry, but includes global business such as finance, trading and manufacturing industries.

5.3 Definition and Context of the Cross-Cultural/Global IS Research

Cross-cultural IS research is defined as the study to understand cultural homogeneity and heterogeneity through comparison of more than two cases (Usunier, 1998; Karahanna, Evaristo and Srite, 2004).

In order to clearly define the cross-cultural comparison of global IS research, it examines four components in the research field explained below. These are a) comparison, b) culture, c) cross-cultural IS research, and d) global IS management research.

5.3.1 Definition of Comparison

Firstly, the act of comparison needs to be clearly defined. The act is performed under the hypothesis that something heterogeneous exists in the field, like a) A versus B, b) 1 versus 2, and c) U.S. versus U.K. However, since a) A and B are the alphabet, b) 1 and 2 are numbers, and c) U.S. and U.K. are nations, the heterogeneities of the subjects which are compared can be detected because the subjects possess something homogeneous and belong to the same categories.

For example, Weber's well known relational sociological study, *"the Protestant Ethic and the Spirit of Capitalism"* (Weber, 1905), compared Catholicism and Protestantism to detect the heterogeneity which was latent in the two religious categories. The study compared the two religious categories from a homogeneous view which was the action of individual employees in the companies.

In the field of the IS research, Orlikowski (1993) compared internal organisational change of two software companies undertaking implementation of Computer Aided Software Engineering (CASE) tools. In this case, analysis in the software companies was performed in homogeneous projects which were the implementation of CASE tools to understand heterogeneous elements of the companies.

Thus, the researchers can understand phenomenological heterogeneity in the selected groups through comparison of homogeneous views, aspects, fields and industries.

Therefore, the main objective of this research is to understand heterogeneous phenomena that are influenced by heterogeneous cultural elements of different national origin from the view of the homogeneous industry of multinational investment banking as well as the homogeneous field of global information management.

5.3.2 Definition of Culture

The word *"culture"* as used in the research needs to be clearly defined, because it has very wide implications. The concept of culture emerged in Europe between the end of the 18th century and the beginning of the 19th century when the heterogeneity inside Europe and the heterogeneity between European countries and colonial countries were widely recognised, and the word became widely used in Europe (Berry *et al.*, 2002).

Since the definition of the *"culture"* was ambiguous until the middle of the 20th century, two anthropologists, Kroeber and Kluckhohn, identified the definitions by collecting, analysing and classifying the use of the word in more than 200 references. Consequently, they clearly defined the word in use by describing six categories of a) descriptive, b) normative, c) historical, d) psychological, e) structural and f) genetic meanings (Berry *et al.*, 2002).

Descriptive definition attempts to list all aspects of activity encompassed by the word *"culture"*. Historical definition of culture tends to emphasise heritage of tradition from past and present to future. Normative definition of culture represents shared rules for governance of the people's activity in a group. Psychological definition of culture describes notions including habits, learning, adjustment and problem solution. Structural definition of culture describes organisation or patterns of culture. Genetic definition concerns the genesis or origin of culture (Berry *et al.*, 2002).

Since the research sets out to be a cultural comparison of global strategic IS management in the multinational investment banking industry, it focuses on detection of similarities and differences within a) historical, b) normative, c) psychological, d) structural, and e) genetic definitions of cultures.

5.3.3 Context of Cross-Cultural IS Research

The Hofstede model cannot be disregarded in the field of cross-cultural studies. Hofstede collected data concerning the values of employees who worked in more than 70 IBM branches worldwide between 1967 and 1973 and computed numeric values which are asserted to indicate national characteristics in four dimensions.

These were a) power distance; focusing on the degree that equality or inequality exists between people in the particular society, b) individualism; focusing on the degree that the society reinforces or does not reinforces interpersonal relationships, c) masculinity; focusing on the degree that the society maintains or does not maintain the traditional male's power, control and achievement, and d) uncertainty avoidance; focusing on the degree that ambiguity and uncertainty exist in the society.

After conducting an additional international research, Hofstede added a fifth dimension, which is e) long-term orientation; focusing on the degree that the society embraces or does not embraces long-term devotion to traditional values (Hofstede, 1991; Hofstede, 2005).

Many cross-cultural IS researches adapt the Hofstede model. For example, a) Kwok, Lee and Turban (2001), Bangert and Doktor (2002) are conducting qualitative investigation, and b) Anderson and Hiltz (2001), Kersten *et al.* (2002), Reinig and Mejias (2002), Bagchi, Cerveny, Hart and Peterson (2003/2004), Heales and Cockcroft (2003), Navarrete and Pick (2003) are conducting quantitative investigation.

The criticism of Hofstede's model are summarised in the following three points. Firstly, there is the cultural unification principle which supposes a single nation has a single culture. Secondly, the model does not describe the relationship between the five dimensions. Thirdly, the scores collected more than 30 years ago have been superannuated (McCoy, 2003). The most obvious example of this being is the ostensible repositioning on power dimensions in various societies of gender positions.

Further, Hofstede's hypothesis might not be as widely acceptable as it is often portrayed or deployable in this research for the following three reasons.

Firstly, the model deductively focuses on only five dimensions. The limitation to five dimensions might inhibit interpretatively understanding similarities and differences in the cultures of organisations and financial markets affecting global strategic IS management in other dimensions that may well be more significant and important than Hofstede's five dimensions.

Secondly, though the model indicates the score of each of the five dimensions based on the analysis of a large data set, its ability to discover or explain a) activating or inhibiting cultural factors of organisations and b) supportive and preventive cultural factors of financial markets by describing causal relationship between the factors is questionable.

Thirdly, the model focuses on quantitative scoring. While the research focuses on globalisation which is a complex phenomenon (Giddens, 2000; Norchi, 2000; Gray, 2000; Halliday, 2000; Norchi, 2000; Tardif, 2002; Akande, 2002; Benghozi, 2003; Porter, 2005), it might be difficult for the research to interpretatively understand the complex phenomenon (Giddens, 2000; Held and McGrew, 2003) in the current globalisation era in the multinational investment banking industry through the theoretical lens of Hofstede model.

Karahanna, Evaristo and Srite (2004) pointed out three weak points of current cross-cultural IS researches. Firstly, theoretical construction and theoretical verification from the analysis are missing. Secondly, culture as an antecedent is missing from the research result. Thirdly, improvement of research methods for cross-cultural IS is due.

5.3.4 Context of Global IS Management Research

The research belongs to the field of global IS management research, which has not been fully cultivated yet. Most global IS management research in the first generation analysed single variables in single countries using traditional research methods, because it was easy for the researchers to collect and analyse the data from the viewpoint of single valuables in a particular country.

Consequently, the breakthrough from research in single countries to researches in multiple countries, i.e., over two or more countries, has not yet been achieved, although the phenomena of globalisation has been continuously discussed from the various aspects (e.g. Giddens, 2000; Norchi, 2000; Gray, 2000; Halliday, 2000; Norchi, 2000; Tardif, 2002; Akande, 2002; Benghozi, 2003; Porter, 2005).

In addition, there are few global IS management researches which analyse IS from the view of global corporate management, although multi-nationalised organisations are required to differently manage global IS from domestic IS (Tan and Gallupe, 2004).

In order to alleviate this context, Tan and Gallupe (2004) emphasise that researches are required to use research methods such as ethnography, epistemology or Grounded Theory that have seldom been used until now, because the global IS management researches which are not bounded by the traditional research methods are rare.

5.3.5 Philosophical Standpoint

It is important for the researchers to clarify the philosophical standpoint in the IS studies, because IS research is performed from a certain philosophical standpoint (Myers, 1997). Guba and Lincoln (1994) classified the philosophical standpoint of IS research into positivism, post-positivism, criticism theory and structuralism.

Apart from this, Myers (1997) clarified the following positioning of qualitative IS research by application of the three classifications which Orlikowski and Baroudi (1991) originally categorised as positivism, criticism and interpretative research.

Positivist researchers assume that it is possible to measurably describe reality which is objectively given. Positivistic researches set up finite assumptions beforehand and verify reasoning in connection with phenomena.

The assumption of interpretative researchers is that it is possible to access reality only through social constructions such as shared meaning, languages and consciousness. Interpretative researches do not predefine dependent and independent variables to understand complicated phenomena.

The assumption of critical researchers is that reality is historically constituted and continuously reproduced in society, culture, politics and economy by people. Critical researches focus on inconsistencies in modern society (Myers, 1997) and may be suspected of promoting an egalitarian agenda.

The research is the cross-cultural researches of IS management studies in the vortex of the globalisation which is a very complicated phenomenon as above-mentioned. Firstly, since the research does not regard the phenomenon of globalisation as a point of contradiction, it does not turn into critical research.

Secondly, if the research takes the positivistic view as a philosophical standpoint, it is considered to decrease the value of the research, because a) it is very difficult to establish a hypothesis with reference to the limited number of results of results of similar research in the past, and b) the prejudice of the researcher might impose upon the developed hypothesis.

The audiences for this research are intended to be not only researchers in the academic world but also business managers who have limited time. One of the objectives for the research is that business managers can take action to resolve issues based on the visualised framework through which they can speedily understand a phenomenon in the real business world (Kosaka, 2003).

Therefore, the research aims at interpretive understanding and visualising phenomenon in connection with the specific context i.e. global IS management in the multinational investment banking industry.

5.4. Candidates of Research Methods

So far this chapter has identified a) the audiences for the research, b) the status and the outstanding issues in cross-cultural IS research and the global IS management research, and c) the philosophical standpoint of the research. However, the qualitative research methods applied for IS research are not determined solely by the philosophical standpoint of positivism, interpretative and criticism (Myers, 1997).

In other words, it is necessary to clarify which specific research method must be chosen for the research apart from a philosophical standpoint. In order to select the research method for the research, the candidate research methods which can be potentially applied for the context are enumerated in this section.

5.4.1 Action Research

Action research was created by a social psychologist, Kurt Lewin. It aims at improvement of real world activities by discovering relationships between causes which are intentionally changed and results which are affected by the changes. Action research, which has been widely utilised in organisational action studies and in the educational field, has also been applied in IS research especially since the late 1980s (Myers, 1997; Hunter, 2004).

5.4.2 Phenomenology

Between the end of the 19th century and the beginning of the 20th century, phenomenology was developed by philosopher, Edmund Husserl, from the critical view to the psychology principle and historicism which were the mainstream of the Europe philosophy at that period. Since then, phenomenology has been a source of controversy between Husserl's successors and his critics.

Phenomenology was constructed based upon the fundamental concept that experiences in man's everyday life constitute profound correlation. It aims at scrutinising the essential portion of phenomena that cannot be discovered through simple observation. In phenomenological research, data should be directly collected from participants. Data collection is conducted after clarification of the method and objective of the process (Goulding, 2002).

5.4.3 Ethnography

Ethnography, which is a field of cultural anthropology, seeks to understand a traditional culture and a thinking style through analysis of faith, customs and tradition.

Ethnography has been applied to research not only in the fields of business administration but also in the fields of IS research such as the relationship between an organisational structure and IS, the project management of IS development and human resources in relation to IS management (Myers, 1997).

Ethnography describes detailed explanations through analysis of the data collected by field surveys over a long period. As compared with phenomenology, ethnography differs in the domain of data collection which includes not only internal participants in the research but also various types of external data (Goulding, 2002; Hunter, 2004).

5.4.4 Actor Network Theory

Actor Network Theory (ANT), which was developed by Michel Callon and John Law and advanced by Bruno Latour, differs from the conventional social network theory at the point that ANT includes not only human beings but also non-living objects and organisations as elements for constitution of a social network.

ANT is recognised as a strong research method to clarify the whereabouts of political power by expressing the relationship between all *"actors"* including human beings, non-living objects and organisations. ANT is used for IS researches to analyse the network to understand the phenomenon such as IS success and failure.

However, ANT is criticised from the view that non-living objects influence the network too much although only human beings can intentionally conduct action and human beings fundamentally differ from other elements in this view (Carlsson, 2004).

5.4.5 Case Study

Case Study, which emerged at the beginning of the 20th century, is a systematic research technique which consists of collecting data, analysing information, understanding phenomenon and reporting results.

Case study research is conducted based on the premise that a) causal relationships can be understood through the analysis of causes and effects in the limited cases, b) findings of the limited cases can be identified in other cases under similar situations, and c) therefore, generalisation can be valid for specific scenarios (Yin, 1994; Dalcher, 2004).

5.4.6 Grounded Theory

Grounded Theory is a research method originally established in 1967 from similar concepts to case study. Grounded Theory performs theoretical construction from continuous comparisons between data and theory (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002; Douglas, 2003). In the 20th century, there were many *"grand"* theories, which attempted to grasp ideas concerning the whole of society, such as a) Weber's rationalisation, b) Marx's class struggle theory, c) Tonnies's Gemeinschaft and Gesellschaft, and d) Parsons' structural functionalism.

Glaser and Strauss claimed it was important to purely go back to data in order to inductively produce new theories rather than to prove the theories which were deductively produced (Goulding, 2002). Grounded Theory started from the medical and nursing fields, and expanded to a) education, politics, cultural anthropology, and psychology (Haig, 1995; Strauss and Corbin, 1997), b) business administration (Strauss and Corbin, 1997; Goulding, 2002; Douglas, 2003), and c) IS researches (Orlikowski, 1993; Myers, 1997; Goede and Villers, 2003).

Grounded Theory is different from other qualitative methods in terms of the theory emerged from data through closely coupled interaction between collection and analysis of data (Glaser and Strauss, 1967; Strauss, 1987; Haig, 1995; Pandit, 1996; Strauss and Corbin, 1997; Myers, 1997; Strauss and Corbin, 1998; Creswell, 1998; Locke, 2001; Goulding, 2002; Goede and Villers, 2003; Douglas, 2003).

The strength of Grounded Theory is a) the development of context based explanations of phenomena (Myers, 1997), b) the exploration of a broad range of management issues about behaviour, relationships and communication of people (Creswell, 1998; Locke, 2001; Goulding, 2002), and c) the suitability for emerging concepts through comparison (Goulding, 2002).

5.4.7 Structuration Theory

Structuration Theory, which was advocated by Antony Giddens in *"Social Structure"* in 1984, tried to combine the individual and social elements such as action and organisations, subjectivity and objectivity, micro view and macro view which were dualistically divided until then. Structuration theory is applied for IS research focuses on the relationship between technology and social structures (Poole and DeSanctis, 2004).

5.5 Selection of Research Method

The importance of the research was discussed in Chapter 4, and the audiences for the research were clarified at the beginning of this chapter. In addition, the candidates of the research methods were enumerated in the previous section in this chapter.

In order to analyse the topic, the research has judged selecting *"the inductive theory building through Grounded Theory with validation from the perspective of IS management and national culture",* which is believed to enable breakthroughs that is not available with traditional research method (Tan and Gallupe, 2004), and improve the research methods in the cross-cultural context (Karahanna, Evaristo and Srite, 2004).

This section will explain a) the inapplicability of the other research methods, b) the inductive theory development through Grounded Theory, and c) the validation from the perspective of IS management and national cultures.

5.5.1 Inapplicability of Research Methods except for Grounded Theory

Firstly, action research cannot be adopted for the research which compares the cultural mechanisms between multiple nations in the large-scale multinational investment banks, because it requires intentionally changing something in the real business world, which the researcher cannot achieve.

Secondly, phenomenology is not suitable for the research, because it is weak in visualisation of the cultural mechanisms for business managers in spite of the strength of the long detailed description of findings for academic researchers. Further, the limitation of data used for the analysis is problematic.

Actor Network Theory has strength of visualisation for the whereabouts of power, and Structuration Theory has strength of visualisation for the relationship between technology and social structure. However, the ability of those theories to a) detect differences in cultures as an antecedent, b) build a visualised theory, c) analyse multiple values, and d) investigate national cultures in multiple nations is questionable.

5.5.2 Inductive Theory Development through Grounded Theory

The following factors have been identified as the applicability of Grounded Theory for the first half of the research. Firstly, Grounded Theory is a research technique of visualisation through inductive theoretical development. The developed theory is thought to enable visual explanation of the cultural elements that impact on global strategic IS management to the business managers who are audiences for the research as discussed at Section 5.2.

Secondly, since Grounded Theory is the technique of continuous comparative analysis, it is thought to enable interpretive detection of the heterogeneous phenomena of the cultures in the context from a homogeneous viewpoint. Thirdly, Grounded Theory is thought to enable the breakthrough of the research from single countries to multiple countries.

In addition, Grounded Theory research makes three important contributions, which are generation, application and integration (Orlikowski, 1993) of the emerged theory. Firstly, it is hoped that the research will generate a saturated theory of the cultural elements associated with the phenomenon through analysing various types of data to identify similarities and differences in the context. Secondly, the emerged theory in the research might indicate the interaction, relationship, enactment and inhabitancy of elements in the context; in this case, global strategic IS management. It is thought to support the understanding of the outstanding similarities and differences in the cultures between different national origins.

Especially, it is hoped that there will be the possibility of generalisability of identified constructs for the international management not only for the finance industry but also for other industries in global competition. Thirdly, the research may integrate an emerged theory to explain the traditional and invisible custom extant for many years in the different cultural domains.

5.5.3 Validation from the perspective of IS Management and National Culture

The theory emerged through Grounded Theory becomes firm and vigorous through validation from the perspective of IS management and national culture. In order to analyse transferability and fit (Gasson, 2004) of the emerged theories in the research domain, the external validity of the emerged theories are investigated through comparison with similar or conflicting theoretical frameworks and theories (Pandit, 1996; Gasson, 2004).

The process of the validation from the perspective of IS management is thought to enable the strengthening a) internal consistency of emerged theories through comparison with similar frameworks, and b) external consistency of emerged theories through comparison with conflicting frameworks (Pandit, 1996).

The process of validation from the perspective of national culture is thought to enable examination of the culture from the perspectives as were given before at Section 5.3.2 (e.g. historical, normative, psychological, structural and genetic) as well as culture as antecedents which were discussed at Section 5.3.3. The process also enables the development of detailed interpretive explanations for academic researchers who are the other audiences for the research as discussed at Section 5.2.

5.6 Structure of the Research

In order to achieve credibility and reinforce internal validity of the research design (Gasson, 2004), the structure of the research was organised with reference to previous work by various authorities (Pandit, 1996; Strauss and Corbin, 1998; Creswell, 1998; Goulding, 2002; Goede and Villers, 2003; Douglas, 2003; Gasson 2004) who explain the process of Grounded Theory.

5.6.1 Phase 1: Research Design

In this phase, the research follows two major steps (Pandit, 1996), which are a) defining the research questions (Strauss and Corbin, 1998; Locke, 2001; Goulding, 2002), and b) selecting cases (Pandit, 1996; Strauss and Corbin, 1998; Locke, 2001).

At the beginning of the research, the research questions are broadly stated with flexibility and freedom in order to discover a phenomenon in depth (Strauss and Corbin, 1998). The questions are narrowed during the research that progressively discovers concepts and their relationships (Haig, 1995; Pandit, 1996; Strauss and Corbin, 1998; Locke, 2001; Goulding, 2002). Selecting cases employ theoretical sampling procedures (Strauss and Corbin, 1998; Locke, 2001) based on the contribution to theory development from a homogeneous to a heterogeneous sample (Creswell, 1998) to identify the similarities and differences amongst the selected cases.

5.6.2 Phase 2a: Data Collection

In this phase, the research method again follows two major steps. These are developing the data collection procedure and entering the field to collect the data (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002). The researcher enters the field to collect the data only after a process of a) defining the data collection procedures, b) analysing the data, and c) adjusting the collection procedure to take advantage of emerged topics and unique case characteristics (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002).

5.6.3 Phase 2b: Data Analysis

In this phase, the research follows three steps, which are a) open coding, b) axial coding, and c) selective coding. The coding process is the central mechanism to transform the data into a

theory (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002; Goede and Villers, 2003; Douglas, 2003; Gasson 2004).

In the open coding process, the researcher focuses on discovering categories through conceptualisation of blocks which are broken down from collected data. In the axial coding process, the researcher focuses on discovering relationship between categories and subcategories. In the selective coding process, the researcher focuses on integration and refinement of the emerged theories (Pandit, 1996; Myers, 1997; Strauss and Corbin, 1998; Creswell, 1998; Locke, 2001; Goulding, 2002; Goede and Villers, 2003; Douglas, 2003).

The process enacts the visualisation of difference in cultures affecting global strategic IS management from cross-cultural views for the use of business managers.

5.6.4 Phase 2c: Validation

In this phase, the research validates the emerged theory through comparison with extant literature from the perspective of IS management and national culture, because the inductively discovered theory becomes more firm and vigorous through the verification. Comparison with conflicting frameworks enables the improvement of internal consistency whilst comparison with similar frameworks enables the improvement of external consistency of emerged theories (Pandit, 1996).

The external validation process enables the researchers to examine the culture from the historical, normative, psychological, structural and genetic views as well as viewing culture as the antecedent. The process also enacts the inscription of the detailed interpretive explanation for the use of other academic researchers.

5.6.5 Phase 3: Refinement

In this phase, emerged theories are refined through selection and integration of central categories until theoretical saturation is achieved. Theoretical saturation is the milestone when *"a) no new or relevant data seem to emerge regarding a category, b) the category is well developed in terms of its properties and dimensions demonstrating variation, and c) the relationships among categories are well established and validated" (Strauss and Corbin, 1998).*

In short, theoretical saturation is the point when no new categories, concepts, dimensions or incidents emerge during the theory development process. At the end of data analysis, the analysis can reach closure when the researcher judges that all categories are theoretically saturated (Strauss and Corbin, 1998). The research questions identified in phase 1 are narrowed during the research, and the data collection, data analysis, validation and refinement in phase 2 and 3 are reiterated until theoretical saturation is reached.

5.6.6 Phase 4: Discovery and Conclusion

In this phase, discoveries and limitations of the research are demonstrated. Discoveries might be a) strengths or weaknesses of the research method, b) benefits or penalties of the process of the research, c) limitations in the process of data collection, d) findings in the process of data analysis, d) supportive or opposing views emerged in the process of presenting the research to critical groups, and e) generalisability, objectivity and transferability of emerged theories. Following those discoveries, limitations of the research are identified. Finally, further research can be described.

5.6.7 Structure of the Research

The following Figure 5.6.7 and Table 5.6.7 graphically depict the structure of the research in abstract and specific terms respectively.
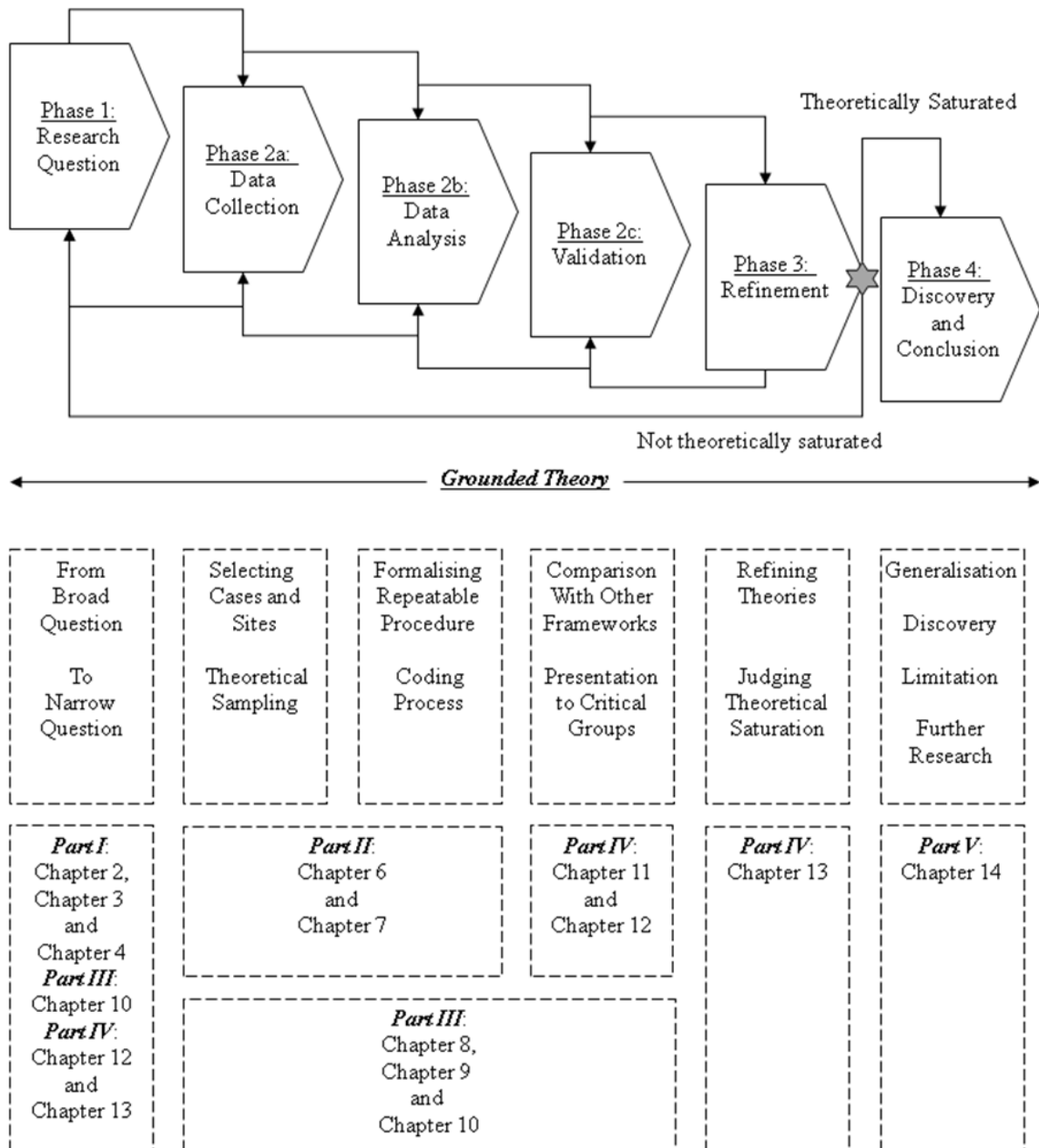
Figure 5.6.7: Structure of the Research

Table 5.6.7: Structure of the Research

Phase	Step	Activity		
Phase 1	Research Design Phase			
	Step 1	Defining research questions		
	Step 2	Selecting cases		
Phase 2a	Data Collection Phase			
	Step 1	Developing and adjusting data collection procedure		
	Step 2	Data collection	a	Open sampling
			b	Relational and variational sampling
			c	Discriminate sampling
Phase 2b	Data Analysis Phase			
	Step 1	Developing and adjusting repeatable coding procedures		
	Step 2	Theory development	a	Open coding
			b	Axial coding
			c	Selective coding
Phase 2c	Validation Phase			
	Step 1	Comparison with similar and conflicting framework from the perspective of IS management and national culture		
	Step 2	Presentation of findings to critical groups		
Phase 3	Refinement Phase			
	Step 1	Refinement of theories through selecting and integrating central categories		
	Step 2	Judgment of theoretical saturation		
		Case 1	Going back to Phase 1, 2 and 3, if the theory is not saturated.	
		Case 2	Going forward to Phase 4, if the theory is saturated.	
Phase 4	Demonstration of discoveries and limitations of the research, and identification of further research			

5.7 Conclusion

This chapter firstly identified the audiences for the research, and clarified the definition of terminologies of cross-cultural IS and global IS management researches. Secondly, the research methods which can be potentially adapted for the research were enumerated. Thirdly, inductive theoretical development through Grounded Theory with validation from the perspective of IS management and national culture was selected and justified as the research method deployed for the research. Chapter 6 examines the sampling procedures adopted for the research.

Chapter 6 Sampling Procedures

Chapter 5 structured the inductive theory building through Grounded Theory with validation from the perspective of IS management and national culture as a research method. Chapter 6 focuses on the sampling procedures applied for the research.

> *"Theoretical Sampling: Data gathering driven by concepts derived from the evolving theory and based on the concept of 'making comparisons,' whose purpose is to go to places, people, or events that will maximise opportunities to discover variations among concepts and to densify categories in terms of their properties and dimensions"* (Strauss and Corbin, 1998; pp. 201).

This chapter firstly explains characteristics and initial consideration of the theoretical sampling process of Grounded Theory. Secondly, details of open, relational and variational, and discriminate sampling are examined. Thirdly, selected cases and sites are explained before the chapter's conclusion.

6.1 Introduction

"Theoretical sampling" (Glaser and Strauss, 1967; Orlikowski, 1993; Pandit, 1996; Creswell, 1998; Strauss and Corbin, 1998; Locke, 2001; Goulding, 2002; Douglas, 2003) is the data collection process for theory generation. Grounded Theory sampling is an ongoing process of data collection and analysis which directs the researcher to obtain further samples (Goulding, 2002).

The logic of theoretical sampling emerged from the idea that the researcher develops a theory about a substantive area through the sampling process throughout the research (Locke, 2001). The triangulation of data collection in theoretical sampling is extremely beneficial for theory development (Orlikowski, 1993; Strauss and Corbin, 1998).

In order to identify the similarities and differences amongst the selected cases, the research starts from a homogeneous sample and moves to a heterogeneous sample. In this phase, the research follows two major steps (Creswell, 1998). These are a) developing the data collection procedure, and b) entering the field to collect the data.

6.2 Characteristics of Theoretical Sampling

In the theoretical sampling process, the researcher usually collects data through interviews or observation for Grounded Theory coding analysis. When the researcher uses special types of documents, the reason to use them must be justified.

Regarding the number of data, it is natural that the more interviews, observations and documents the researcher obtains, the more opportunities the researcher has to discover accumulated incidents and significant variation.

The adequacy of theoretical sampling is judged by the wideness and diversity of data which the researcher selects for building theory. The theoretical sampling process cannot be planned before starting the analysis, and the specific sampling decisions are made during the research process. This inductive process is different from deductive and/or statistical sampling processes.

Though statistical sampling aims to obtain accurate evidence on distributions, theoretical sampling aims to discover categories and their properties to emerge a theory. When categories are saturated, the theoretical sampling process is completed (Strauss and Corbin, 1998).

Validation of emerged products throughout the research is an important part of theory building. Validation mechanisms are built into each step of the data analysis and each process of the theoretical sampling. The researcher constantly a) compares emerged products against actual data, b) makes modifications or additions if necessary, and c) validates the modifications or additions against newly incoming data.

In short, the researcher constantly validates emerged products and incoming data throughout the research. From this, theoretical sampling represents not only the data collection mechanism but also the validation mechanism in the theory building process (Strauss and Corbin, 1998).

6.2.1 Initial Considerations of Theoretical Sampling

Strauss and Corbin (1998) emphasise the importance of the following initial considerations for data collection at the beginning of the research.

Firstly, directed by the main research question, the researcher must choose organisations, sites or groups to be analysed. At this stage, it is important for the researcher to obtain permission to access the sites from the appropriate authorities.

Secondly, depending on the potential of capturing the desired information, the researcher must identify the types of data to be collected.

Thirdly, the researcher must consider the length of the investigation. Fourthly, depending on a) accessibility and availability of resources, and b) goals, energy and schedule of the research, the researcher must decide the number of sites, observations and interviews to be analysed (Strauss and Corbin, 1998).

6.2.2 Initial Considerations of Interviews

When the researcher initially conducts interviews, it is important to give the interviewees wide freedom to answer during the interviewing process. Questions for initial interviews could be prepared based on concepts derived from preliminary research.

However, if the researcher asks questions with a structured questionnaire, the interviewees may be inhibited and only answer the identified questions without elaboration.

Since the interviewees are likely to have other complex information, unstructured interviews with general guidelines will give the interviewees flexibility to answer elaborately during the process of the interviews (Strauss and Corbin, 1998).

Typically, the researcher conducts from 20 to 30 interviews to saturate the categories (Creswell, 1998).

6.3 Structures of Theoretical Sampling

Theoretical sampling is structured as three processes which are a) open sampling, b) relational and variational sampling, and c) discriminate sampling (Strauss and Corbin, 1998).

6.3.1 Open Sampling

In the open sampling process, the researcher should collect samples as widely as possible to discover concepts in various situations, and as flexibly as possible to code any interesting events of the research (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002; Goede and Villers, 2003).

The open sampling process focuses on gathering data as widely as possible until the discovery of core variables and categories reoccurs constantly in the data (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002). This process is explained in Chapter 8.

There are a number of different approaches to open sampling. The researcher may systematically or purposefully gather data, or focus on specific areas related to unexpected events or theoretically relevant concepts.

A combination of different approaches, i.e. triangulation (Orlikowski, 1993), is advantageous for the researcher in this process, because each approach has positive and negative aspects (Strauss and Corbin, 1998).

6.3.2 Relational and Variational Sampling

The researchers should conduct the relational and variational sampling process to define the properties and dimensions of categories and subcategories as well as the relationships between them (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002; Goede and Villers, 2003).

The relational and variational sampling focuses on identifying relations and variations of concepts. The researcher seeks for incidents that represent relationship among concepts and variation of concepts in this sampling process. This process is explained in Chapter 9.

It is important for the researcher to a) have unlimited access to various samples, and b) know places to go to maximise opportunity for comparative analysis to identify similarities and differences.

In this process, the researcher continuously identifies attributes of concepts through comparison of incidents and events (Strauss and Corbin, 1998).

6.3.3 Discriminate Sampling

The researchers should conduct the selective sampling process to strengthen the theory and maximise opportunities for comparative analysis (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002; Goede and Villers, 2003).

The discriminate sampling process is deliberate. The researcher selects persons, sites and documents in order to maximise opportunities for comparative analysis. This process aims at gathering necessary data to saturate categories to finalise the research. This process is explained in Chapter 10.

The researcher constantly a) compares the products through the analysis against actual data, b) makes modifications based on these comparisons, and c) validates the modifications to incoming data. Therefore, it is important for the researcher to obtain negative data in this process (Strauss and Corbin, 1998).

6.4 Case Selections

Following the theoretical sampling in this research, the researcher selected two organisations in order to observe differences in the cultures of multinational investment banks.

One is a Japanese traditional *Zaibatsu* financial group (JPFG1), with headquarters in Tokyo. The other is a Swiss/American financial group (SAFG), which has co-headquarters in Zurich and New York.

While some researchers may believe that small numbers of cases are not enough to generate theory, Grounded Theorists assert that the researcher can learn a lot from the investigation of one organisation, because happenings, events, incidents, actions and interactions in the organisation are likely to occur in similar forms in other organisations (Strauss and Corbin, 1998).

6.4.1 SAFG

A Swiss commercial bank was originally established in 1856. Until the end of World War I, they expanded by building domestically networked branches in Switzerland seeking out middle-class customers.

After World War I, they expanded their market share by setting up new branches and subsidiaries and by acquiring other financial institutions. However, before World War II, expansion of the branch network for the bank was limited because of the severe effects of the depression in 1929.

After World War II, they cautiously expanded the branch network with a similar conservative strategy as before. Between the end of World War II and the 1960s, they fell behind other Swiss financial institutions because of slow growth, although they opened a London branch in 1954. In the 1970s, they stimulated business growth by building an international network aiming at expanding market share and increasing profits.

Accompanying the announcement of the partnership between the Swiss commercial bank and a U.S. investment banking corporation in July 1978, the Swiss commercial bank continued to manage Switzerland.

Another financial company was formed in London to manage the company's interests in the rest of the world, and the U.S. investment banking corporation commenced management of the partnership's interests in North America, Australia and Japan.

From the late 1970s to the middle of the 1980s, the U.S. investment corporation, which was one of the four most powerful investment banks in New York by the 1940s, had grown rapidly from low profit to be a market leader in New York through a wide range of activities such as trading, underwriting and business consulting.

The entrepreneurial culture of the corporation led to innovations in financial products, but the culture also bred a star system within the organisation that inhibited internal harmony and teamwork.

They faced economic difficulties between 1986 and 1988 with various types of trading losses. By the end of the 1980s, the Swiss commercial bank had become the first European bank to be a major shareholder of an investment bank in New York by gaining a twenty-five percent of the shares in the U.S. investment corporation.

In 1989, they underwent restructuring to simplify the complex global organisation structure. A Swiss bank shareholding company became an umbrella parent company, operating private and commercial banking business. The newly merged Swiss American Corporation (SAFG) operated the investment banking business.

In the early 1990s, the shareholding company a) conducted acquisitions of private banking institutions and life insurance companies, and b) installed a new management structure. The newly formed derivative business organisation in 1990 expanded from 30 to 500 staff over the next three years.

In the 1990s, the Swiss American Corporation continued to be beset with internal squabbles, though the global financial market was bullish and financial market opportunities blossomed.

In 1996, the Swiss American Corporation underwent another reorganisation that structured the organisation into four global business units; a) a domestic retail bank in Switzerland, b) a global networked private bank, c) an investment bank, and d) an institutional asset management company (Fulmer, 1999).

In 1997, the shareholding company of the Swiss American Financial Group purchased the second largest Swiss insurance company. In 2000, they purchased another Internet based U.S. investment bank.

In addition, they merged the investment banking division with a corporate banking division to enable access to a huge pool of capital for securities transactions. During this period, they faced internal cultural conflict between the Swiss/American Group's investment bankers, the Swiss bank's corporate bankers and the newly acquired Internet based U.S. investment bank's investment bankers.

A senior manager, who had stepped down from the post of Chief Operating Officer (COO) of another U.S. investment bank in March 2001, joined as a Chief Executive Officer (CEO) of the Swiss American Financial Group in July 2001. He was appointed co-CEO of the shareholding company on January 1st, 2003.

Another senior manager, who was appointed CEO of another financial service company in 2002, was also appointed co-CEO of the Group Holding on the same day, January 1st, 2003 (Nanda and Morrell, 2003).

Currently, the official co-headquarters of the Group are located in Zurich and New York (from the official corporate information in the SAFG's web home page, 2004).

6.4.2 JPFG1

A Japanese bank was established in 1880, the middle of the Meiji period. The bank's founder established a *Zaibatsu* group. Though group companies have historically maintained cross shareholdings and frequently organise gatherings of their chairpersons and presidents, they have been managed and operated independently.

More than twenty group companies conducting a wide range of business including banking, insurance, manufacturing, trading, natural resources exploitation, real estate and transportation, are publicly listed on the Japanese stock exchanges.

The *Zaibatsu* Bank plays the role of the main banker for group companies within the *Zaibatsu* and their *Keiretsu* relationships.

In 1880, another bank was established to deal with foreign exchange in Yokohama. After World War II, since the Japanese government needed to establish a special financial institution to deal with foreign trade financing, the Japanese Foreign Exchange Bank was established in 1946 as a successor to that bank.

They became the only bank licensed under the foreign exchange bank law of 1954, which was linked to the foreign exchange and foreign trade law of 1949.

They received special consideration from the Japanese government in establishing overseas offices such as special licenses and monopoly in many other aspects of foreign exchange and international finance.

They established the most extensive worldwide network in the Japanese banking industry. This network enables a full range of commercial banking activities worldwide.

In April 1996, one of the largest banking business corporations in Japan was formed through the merger of the *Zaibatsu* Bank and the Japanese Foreign Exchange Bank.

The holding company of this entity, the Japanese *Zaibatsu* financial group (JPFG1), is one of the largest financial groups in Japan and provides a broad range of banking services in Japan and around the world (from the official corporate information in the JPFG1's web home page, 2004).

Their investment banking business unit provides a broad range of investment banking services such as corporate advisory capital markets, derivatives, structured finance, securities and global service through investment banking subsidiaries in Hong Kong, Singapore, New York and London.

Because of a) recent deregulation, b) increased demand of cross border transactions, and c) direct financing in Japan, the investment banking unit implemented a new management system, which assigned global heads for each particular business category, and aligned all subsidiaries and affiliates to them.

In 2002, they changed the shareholding scheme and transferred the investment-banking unit from the banking business corporation to the securities business corporation which was established to promote global securities and investment banking.

In 2003, the securities business corporation acquired three overseas subsidiaries in Hong Kong, Singapore and New York from the banking business corporation.

In 2004, they additionally acquired a subsidiary in London (from the official corporate information in the JPFG1's London office web home page, 2006).

6.5 Site Selections

The three organisations of two financial groups, SAFG and JPFG1, were selected for their similarities and differences.

6.5.1 SAFG

As explained, SAFG has co-headquarters in Zurich and New York. SAFG's two sites in Singapore and Tokyo were selected as initial case study sites. After the centralisation activity from 1995, SAFG's Singapore office has expanded the business as a central operational processing centre in the Pacific region.

The capacity of the business in the Singapore office has been continuously growing since the events of the European Monetary Union (EMU) in 1998 and the Year 2000 Computer Problem (Y2K) in 1999.

In 2004, SAFG announced the internal outsourcing of IT activities from offices in London and New York to the Singapore office. SAFG's Tokyo office is a local organisation in Japan (from the official corporate information in the SAFG's web home page, 2004).

The origin of the Tokyo office was a representative office established in 1972, which became a branch of SAFG in 1985 and a licensed member of Tokyo Stock Exchange in 1988 (from the official corporate information in SAFG's Tokyo office web home page, 2005).

6.5.2 JPFG1

As identified, JPFG1 has headquarters in Tokyo. One site in London was selected as an initial case study site.

JPFG1's London office, which is a subsidiary in the City of London, acts as the central hub of the investment banking business unit in the European market by taking care of the subsidiaries in Germany, Switzerland and Spain, and as the central processing of securities business in the European markets (from the official corporate information in JPFG1's London office web home page, 2006).

Table 6.5 summarises the selection of initial cases and sites.

Table 6.5: Selections of Initial Cases and Sites

Site Selection			
Financial Group and Code	A Swiss/ American Financial Group		A Japanese Financial Group
	SAFG		JPFG1
Head Quarter Location	Zurich and New York		Tokyo
Entity Location	Singapore	Tokyo	London

6.6 Conclusion

Chapter 6 firstly explained characteristics and initial consideration of the theoretical sampling process applied for the research. Secondly, details of open, relational and variational, and discriminate sampling were demonstrated. Thirdly, selected cases and sites were examined.

The next step of the research will be formalisation of the Grounded Theory coding process. Although Grounded Theory can a) eliminate the prejudice of a researcher by simply going back to data, b) perform theoretical construction based on the inductive technique, and c) interpret the phenomenon in which the cause and effect intricately entangle each other, Grounded Theory has a weakness of repetitive possibility.

It needs to formalise a coding process before actual analysis of collected data. Chapter 7 discusses the formalisation.

Chapter 7 Coding Procedures

Chapter 5 identified the research method deployed for the research, and Chapter 6 outlined and discussed the theoretical sampling procedures, and explained the selection of organisations and sites for the research.

In order to improve reproducibility for the findings (Gasson, 2004), the research developed formalised templates and diagrams for the Grounded Theory coding processes that are the central mechanisms to generate theories.

> *"The way in which a study is conducted should be consistent across time, researchers, and analysis techniques. To ensure dependable and authentic findings, we need to establish clear and repeatable procedures for the way that we perform our research. ...Network Diagrams are models that make explicit the relationship between various categories, subcategories, and category properties. Multiple network diagrams can be used to understand different parts of a theory. Relationships may indicate causality, association, process sequences, or any pattern that the researcher finds useful"* (Gasson, 2004; pp. 94 - pp. 95).

In order to demonstrate the formalisation of coding procedures, this chapter firstly summarises the statistics of templates and diagrams developed for the coding process. Secondly, details of the open coding are identified and two developed templates are described.

Thirdly, details of axial coding are examined and a template and a diagram are described. Fourthly, details of selective coding are described and a developed diagram is described before the chapter's conclusion.

7.1 Introduction

As discussed in Chapter 5, cross-cultural IS research projects are often criticised because of their lack of theory building and testing, lack of inclusion of culture as antecedents of constructs, and lack of general improvement in their research method (Gasson, 2004; Karahanna, Evaristo and Srite, 2004). In addition, it is important for cross-cultural research to achieve equivalence and to prevent bias of research method and sample data because of the comparative nature (Karahanna, Evaristo and Srite, 2004) and the inevitable embeddedness of the researcher.

In spite of similarities across qualitative research methods, Grounded Theory differs from other qualitative methods in terms of a) the emphasis on theory emerged from data, b) the inductive nature of this process, and c) the continuous interaction between data collection and data analysis to understand phenomena (Glaser and Strauss, 1967; Strauss, 1987; Haig, 1995; Pandit, 1996; Strauss and Corbin, 1997; Myers, 1997; Strauss and Corbin, 1998; Creswell, 1998; Locke, 2001; Goulding, 2002; Goede and Villers, 2003; Douglas, 2003).

However, the formality of the coding process is weak (Gasson, 2004). In order to avoid this risk, this research develops clear repeatable procedures of the coding process to reinforce reliability and rigour.

7.2 Statistics of Formalised Templates and Diagrams

Computer applications are extremely helpful for the coding process. Graphic network diagrams help to visualise the relationships amongst and within memos, storylines, categories, as well as properties and are extremely helpful for the coding process (Strauss and Corbin, 1998; Gasson, 2004).

Using computer applications i.e. developing new tables in Microsoft Word and drawing new diagrams in Microsoft Power Point, the research developed totally four templates and two diagrams through the coding process. Table 7.2 summarises the statistics of templates and diagrams which have been developed for the coding process.

Table 7.2: Statistics of Developed Templates and Diagrams

	Templates	Diagrams
Open Coding	Three types of templates	N/A
Axial Coding	One type of template	One type of diagram
Selective Coding	N/A	One type of diagram

7.3 Open Coding

Open coding is defined as the analytic process to identify concepts and properties through comparative analysis (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002; Douglas, 2003; Gasson 2004).

The aim of the open coding process is discovery, naming and categorising of phenomena according to their properties, dimensions and incidents. There are two phases of conceptualising and discovering categories in the open coding process (Pandit, 1996; Strauss and Corbin, 1998).

7.3.1 Step One - Conceptualising

Conceptualising is the first step of theory building (Haig, 1995; Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002; Douglas, 2003). Data are initially broken down into actions, events, incidents and ideas by asking simple questions such as what, where, when and how

much. Data are then given a representative name (Pandit, 1996; Strauss and Corbin, 1998; Creswell, 1998). This process requires analysis word-by-word, line-by-line and phrase-by-phrase (Douglas, 2003).

There are two open coding methods. Firstly, *In Vivo* Coding requires investigation of literally recorded data (Creswell, 1998; Douglas, 2003). Secondly, Open Label Coding requires analysis of concepts conveyed in collected data (Creswell, 1998; Douglas, 2003).

Phenomena are the important central ideas emerged from the data and represented as concepts to describe the matter, issues, problems and concerns (Haig, 1995; Pandit, 1996; Strauss and Corbin, 1998) to describe what is happening in the situation entered (Strauss and Corbin, 1998). Through comparatively analysing the data by labelling phenomena, concepts emerge as the basic building blocks of the theory (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002). Figure 7.3.1 describes the process of conceptualising, the first step of open coding.

Relationship between Data, Phenomena and Concept
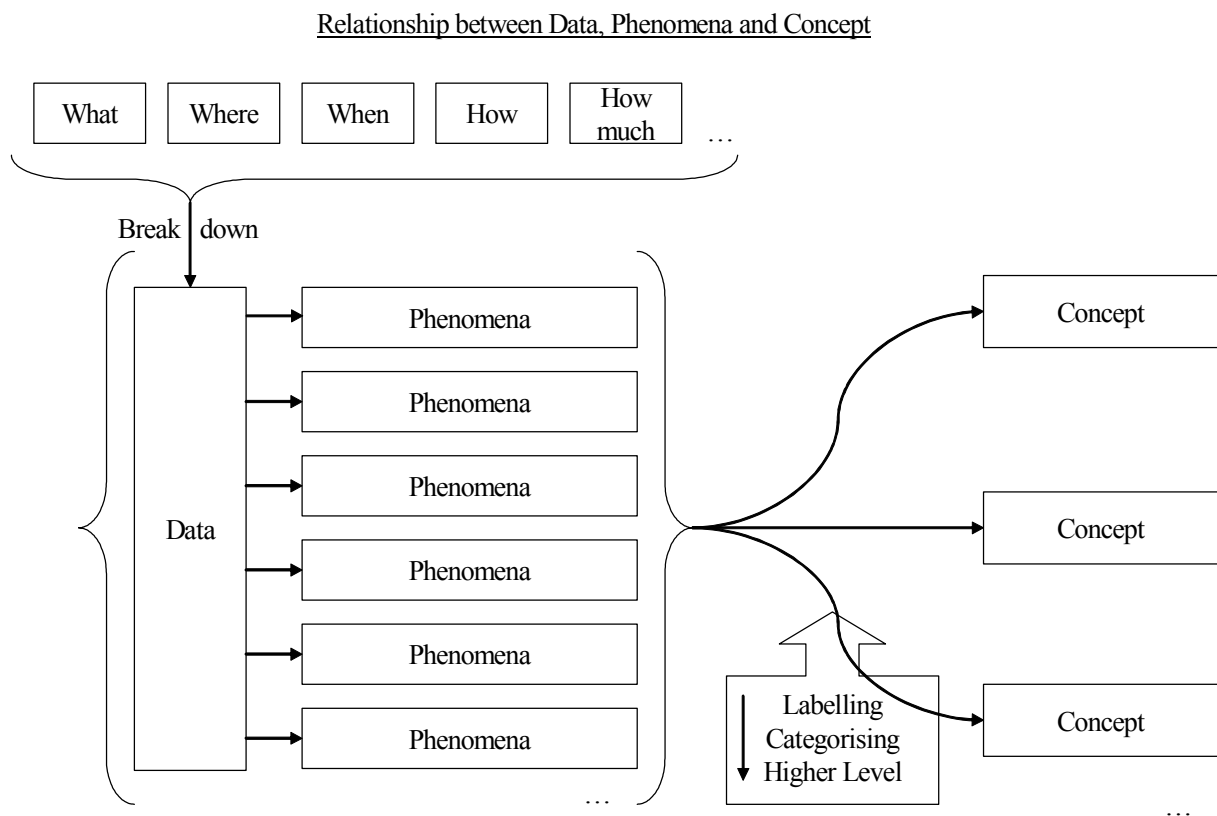
Figure 7.3.1: Open Coding Step One: Conceptualising

7.3.2 Step Two - Discovering Categories

The next step of open coding is an abstraction process to categorise concepts into categories. Categories are concepts derived from the process of grouping concepts at a higher and more abstract level (Pandit, 1996; Strauss and Corbin, 1998; Creswell, 1998; Goulding, 2002).

Properties a) define the meanings of a category, and b) explain the general or specific characteristics and attributes of a category. Dimensions a) define the varying range of general properties of a category, b) give the specification to a category, and c) identify the location of a property.

Categories are discovered through comparative analysis of properties and dimensions (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002, Goede and Villers, 2003). Incidents represent the relationship between properties and dimensions, and support the researcher to identify categories through comparative analysis of incidents (Strauss and Corbin, 1998; Goede and Villers, 2003). Figure 7.3.2 describes the process of this step, the second step of open coding.
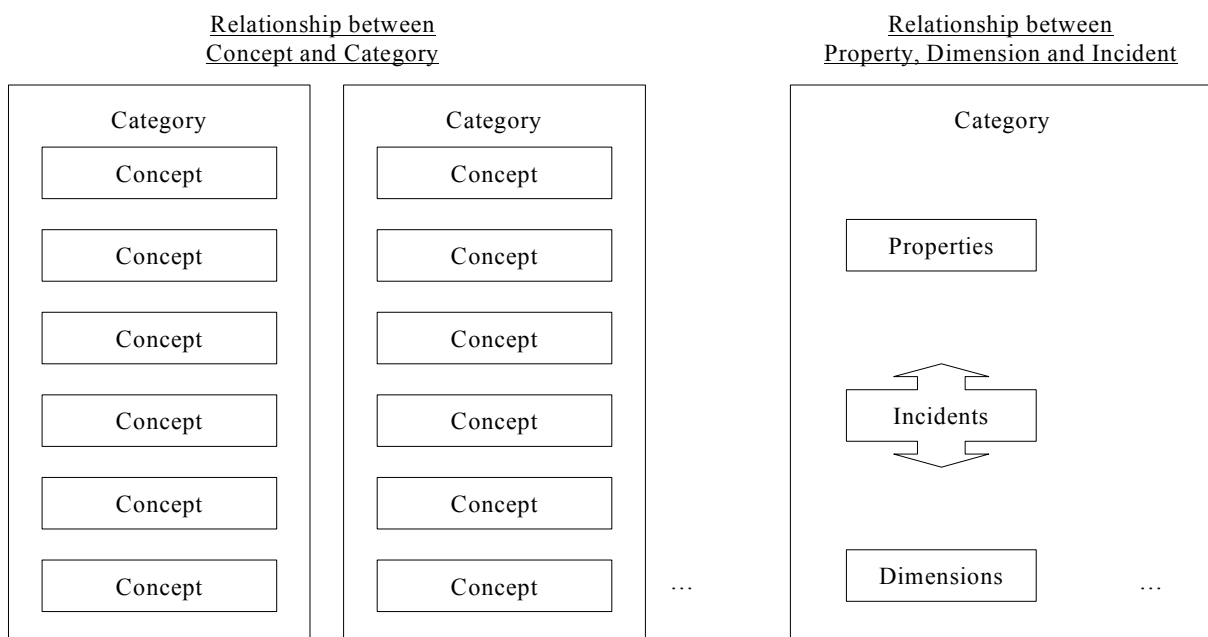
Figure 7.3.2: Open Coding Step Two: Discovering Categories

126

7.3.3 Templates for Open Coding

Table 7.3.3a and Table 7.3.3b show the forms of the templates developed consisting of identified phenomena and concepts. Table 7.3.3c is a developed template for discovering categories from concepts. The details of concepts are carried forward from conceptualisation.

Table 7.3.3a: Template for Open Coding Step 1

No.	Phenomena	Code Type
1	Broken data 1	Open Label or *In Vivo* Code
2	Broken data 2	Open Label or *In Vivo* Code
3	Broken data 3	Open Label or *In Vivo* Code
…	…	…

Table 7.3.3b: Template for Open Coding Step 2

No.	Concepts
1	Detail of concepts 1
2	Detail of concepts 2
3	Detail of concepts 3
…	…

Table 7.3.3c: Template for Open Coding Step 3

Category 1	Detail of category	
Concepts	1	Detail of concepts 1
	2	Detail of concepts 2
	3	Detail of concepts 3
	…	…
Dimensions	Detail of dimensions	
Properties	Detail of properties	
Incidents	1	Detail of incidents 1
	2	Detail of incidents 2
	3	Detail of incidents 3
	…	….

7.3.4 Diagram for Open Coding

Because the relationships between concepts have not yet emerged in the open coding process, Strauss and Corbin (1998) suggest that the researcher may use category lists that provide the foundation of the logical diagrams identified in the axial coding process as well as possibly a small number of diagrams in the early stage of the open coding process. In this research, no diagram for open coding was used.

7.4 Axial Coding

Axial coding is the process of finding relationships between categories and subcategories (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002; Goede and Villers, 2003; Douglas, 2003). The aim of the axial coding process is discovering how categories relate to subcategories in terms of their properties, dimensions and incidents (Strauss and Corbin, 1998).

7.4.1 Subcategory

Subcategories are categories a) which possess properties, dimensions and incidents, and b) which stand for a phenomenon (Strauss and Corbin, 1998). As for categories, subcategories possess answers about the phenomenon such as what, when, where, who, why and how (Strauss and Corbin, 1998).

7.4.2 Paradigm

In Strauss and Corbin's terms, a paradigm is an analytical tool which supports researchers to integrate structure and process.

The basic components of the paradigm are conditions, actions/interactions and consequences. Since categories are coded from phenomena, they can be described by paradigms that consist of conditions, actions/interactions and consequences (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002; Goede and Villers, 2003).

7.4.3 Conditions

Conditions explain the situation in which a phenomenon occurs (Pandit, 1996; Strauss and Corbin, 1998). They are components of events or happenings that a) organise the problems, situations, issues pertaining to a phenomenon, and b) explain why and how groups or persons respond in certain ways. They can be causal, intervening and contextual (Strauss and Corbin, 1998).

Causal conditions usually explain components of events or happenings that affect phenomena. Intervening conditions migrate the effect of causal conditions on phenomena. Contextual conditions are the specific components between causal and intervening conditions that organise some problems or circumstances to which groups or persons react through actions and interactions (Strauss and Corbin, 1998).

7.4.4 Actions/Interactions

Actions/interactions, which are examined by the questions *how* and *by whom,* are strategic or routine reaction which are made by groups or persons to happenings, events, problems or issues which occur under those conditions (Pandit, 1996; Strauss and Corbin, 1998; Goede and Villers, 2003).

In Strauss and Corbin's terms, strategic actions represent purposeful or deliberate activities to solve problems, whereas routine actions represent every day activities to respond to happenings in everyday life (Strauss and Corbin, 1998).

7.4.5 Consequences

Consequences are defined as outcomes of actions/interactions which have properties of duration, scope, predictability and visibility, and need to be identified to understand phenomena (Pandit, 1996; Strauss and Corbin, 1998; Goede and Villers, 2003). Figure 7.4.5 describes the process of axial coding.

Relationship between Category, Subcategory and Paradigm

| What | Where | When | How | How much | ... |

Answer

Category	→ Subcategory
	Subcategory
	Subcategory

...

Category	→ Subcategory
	Subcategory
	Subcategory

...

Each Category and Subcategory

Paradigm

Condition

| Casual | Intervening | Contextual |

Action/Interaction

| Strategic | Routine |

Consequence

| Properties |
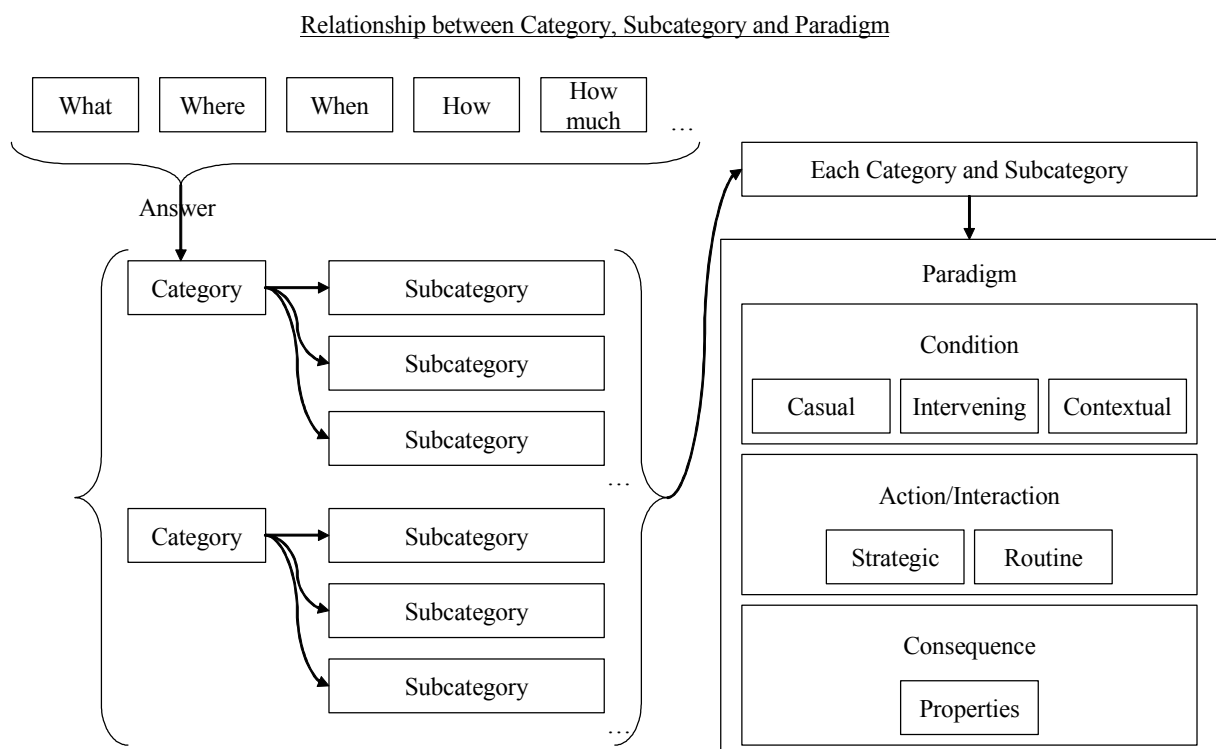
Figure 7.4.5: Axial Coding: Relating Categories and Subcategories

7.4.6 Template for Axial Coding

Table 7.4.6 is a developed template for axial coding.

Table 7.4.6: Template for Axial Coding

Category			Detail of category	
	Paradigm			
		Condition	Causal, Intervening, Contextual	
		Why		
		Where		
		When		
		Action/Interaction	Routine or Strategic	
		By whom		
		How		
		Consequences	Intended or Unintended	
		Duration	Short, Medium or Long-Term	
		Visibility	Visible or Invisible	
		Impact	Strong or Weak	
		Predictability	Predictable or Unpredictable	
		Scope	Wide or Narrow	
	Memo			

The detail of category is carried from the open coding. In the paradigm, the condition can be causal, intervening or contextual. The action/interaction can be routine or strategic. Consequences can be intended or unintended. Duration should be short, medium or long-term. Visibility can be visible or invisible. Impact can be strong or weak. Predictability can be predictable or unpredictable. Scope can be wide or narrow.

7.4.7 Diagram for Axial Coding

Because the researchers begin the puzzle of fitting the data during the axial coding process, Strauss and Corbin (1998) suggest that they can begin to form diagrams. Initial logic diagrams, which describe early relationships between categories and subcategories, can be

useful to sort out the various relationships (Strauss and Corbin, 1998). Figure 7.4.7 is a developed diagram for axial coding to discover relationships between categories and subcategories.
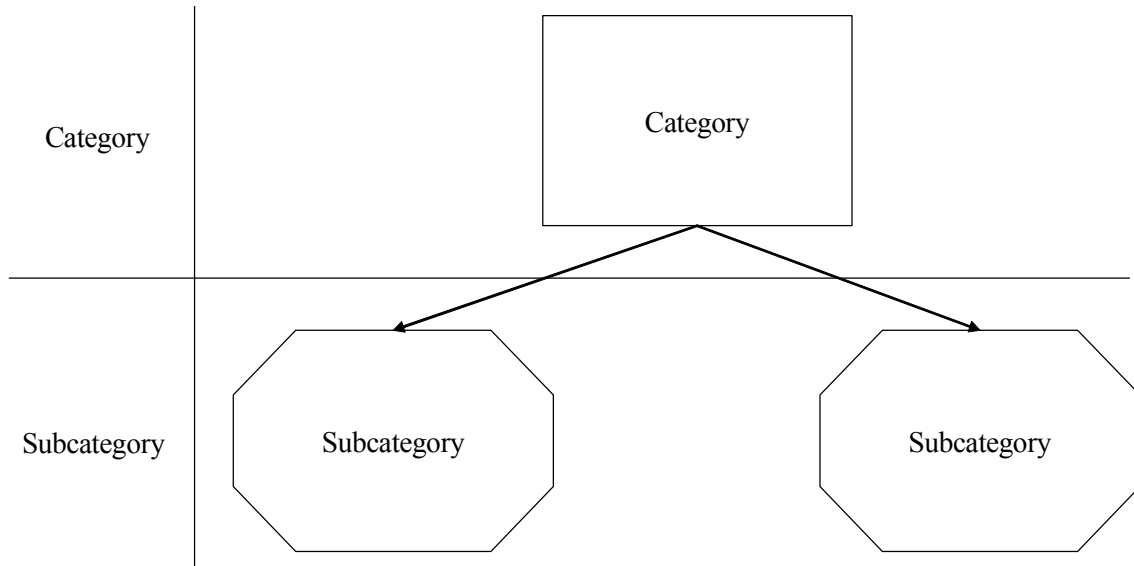
Figure 7.4.7: Diagram for Axial Coding

7.5 Selective Coding

Selective coding is the process of integration and refinement of the emerged theories. The aim of the selective coding process is integration of categories at the dimensional level in order to a) discover a theory, b) validate the relationship between concepts, and c) detect any categories which need in further refinement (Strauss and Corbin, 1998).

Since categories identified in the open and axial coding process are descriptions of data and not the theoretical framework, various types of categories need to be integrated to develop the theoretical framework (Pandit, 1996; Strauss and Corbin, 1998; Creswell, 1998; Goulding, 2002; Goede and Villers, 2003). Selective coding has three steps, which are a) discovery of central categories, b) integration of central categories, and c) refinement of a theory (Strauss and Corbin, 1998).

7.5.1 Central Category and Storyline

The first step of the selective coding process is deciding on a central category, which represents the main topic of the research (Strauss and Corbin, 1998; Goede and Villers, 2003) because interaction between all important categories need to be found (Pandit, 1996; Strauss and Corbin, 1998; Creswell, 1998; Goulding, 2002; Goede and Villers, 2003).

The central categories a) enable consolidation of other categories to explain a whole, and b) represent considerable variety of all categories (Strauss and Corbin, 1998). Several techniques, which are a) writing storylines, b) drawing diagrams, and c) sorting memos by hand or by computer program, exist to determine the central category (Strauss and Corbin, 1998; Goulding, 2002; Goede and Villers, 2003). Figure 7.5.1 illustrates the process of selective coding.

Relationship between Central Category, Integration and Refining theory
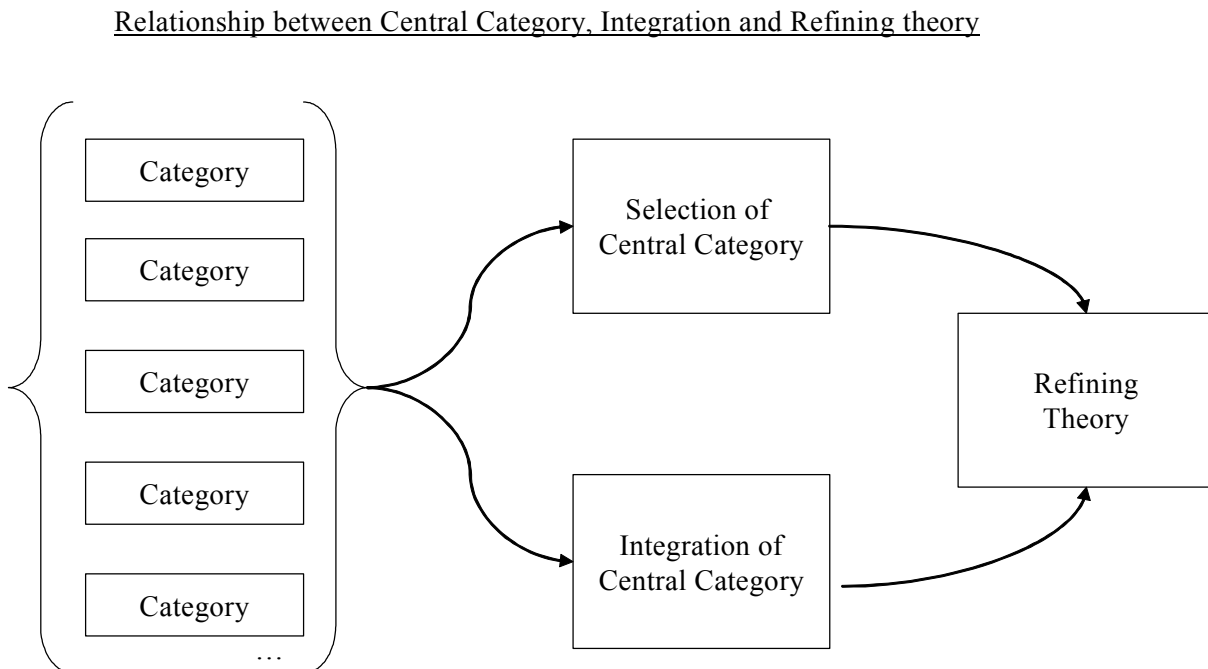
Figure 7.5.1: Selective Coding: Integrating and Refining Theory

7.5.2 Diagram for Selective Coding

Though it is often difficult to transcribe the theory from words into a precise graphic form, Strauss and Corbin (1998) emphasise the importance of a clear and graphic version of the diagrams that integrate the major concepts and their relationships and connections. This is because the use of diagrams in the selective coding process can show the complexity and destiny of the theory (Strauss and Corbin, 1998). Figure 7.5.2 is a developed diagram for selective coding process.
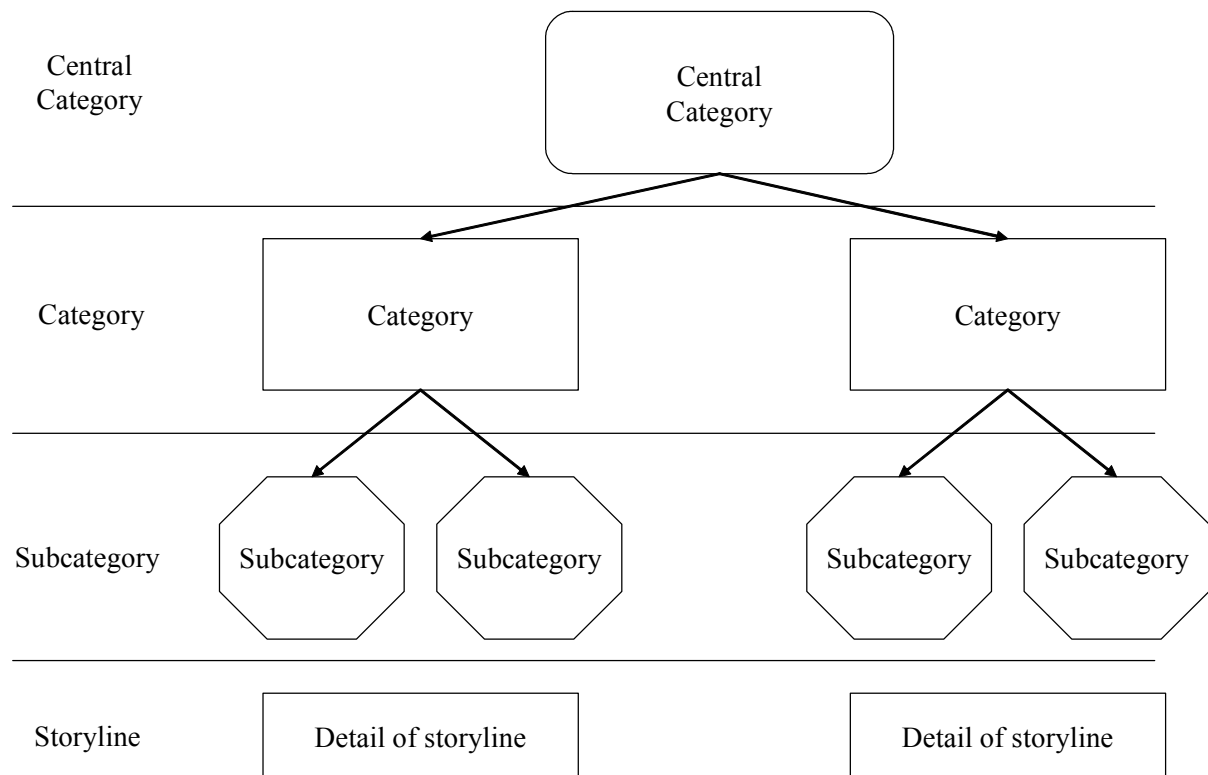
Figure 7.5.2: Diagram for Selective Coding

7.6 Conclusion

Chapter 7 demonstrates the repeatable formalised coding procedures, which are thought to enable improvement of repeatability in the Grounded Theory coding process. The next step of the research is data analysis. In order to detect cultural similarities and differences in multinational investment banks, various types of data were initially collected from SAFG's Singapore and Tokyo offices, and JPFG1's London office.

Many IS projects in SAFG and JPFG1 were regionally or globally coordinated. Many interviewees had experience of communicating with the head offices and other group companies. The collected data, therefore, contained phenomena related to the head office, overseas subsidiaries and affiliates within SAFG and JPFG1. In addition, discriminate samples were collected in six additional organisations. Chapter 8 and 9 demonstrates theory building using the repeatable coding procedures formalised in this chapter.

Part III: Data Collection and Data Analysis

As discussed in Part I, many investment banks found it necessary to become multi-national corporations as the players in this highly competitive market widely adopted information and communications technology (ICT) for global interaction during the 1980s. Such banks continue to develop and implement sophisticated globally networked IS.

However, it is observed that bank reach is still strongly associated with the national origin of a bank in most cases. The national culture of a bank's origin is seen as a key element shaping the bank's global IS strategy. A comparison of IS management in banks from different cultural origins in North America, Europe and Asia will give insight for cross-cultural IS research.

In order to answer the research questions discovered in Part I, Part III has discovered the Four Central Categories Model of Global Strategic IS Management (FCCM-GSISM) and the Cross-Cultural Comparison Model of Global Strategic IS Management (CCCM-GSISM) through analysis of the two selected cases identified in Chapter 6 using the formalised Grounded Theory coding process delineated in Chapter 7. This part explains the process of discovering the FCCM-GSISMs and the CCCM-GSISMs.

Chapter 8 Open Sampling

Chapter 6 selected the case organisations and sites to be initially analysed. Chapter 7 formalised templates and diagrams for the coding process, which is a central method in the transformation of the data to a theory in Grounded Theory analysis (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002; Goede and Villers, 2003; Douglas, 2003).

As explained in Chapter 5, the inductive theory building through Grounded Theory with validation from the perspective of IS management and national culture was selected as a research method, because Grounded Theory is a strong strategy for cross-cultural research due to its comparative nature (Goulding, 2002).

However, it is still unclear whether the formalised templates and diagrams enable visualisation of similarities and differences in the cultures affecting global strategic IS management in the multinational investment banking industry. The objectives of the open sampling discussed in this chapter are, therefore, a) assessing the applicability of the formalised coding procedure discussed in Chapter 7, and b) visualising the fundamental differences in the culture of organisations selected in Chapter 6.

In order to demonstrate the theory building in the open sampling process, this chapter firstly explains the data collection concerning IS projects and demonstrates a primitive emerged theory after an introductory section. Secondly, the data collection of corporate official information is explained. Thirdly, similarities and differences of global IS management between Japanese and Swiss/American banks are demonstrated. Fourthly, emerged theories in the open sampling are described before the conclusion of this chapter.

8.1 Introduction

The objective of the research is, as discussed in Chapter 4, an identification of cultural similarities and differences affecting global strategic IS management in the multinational investment banking industry through comparative analysis. As discussed in Chapter 6, in order to achieve the objective, the research initially selected two organisations. One was SAFG with co-headquarters in Zurich and New York, and the other was JPFG1 with headquarters in Tokyo.

Following the theoretical sampling (Glaser and Strauss, 1967; Pandit, 1996; Strauss and Corbin, 1998; Douglas, 2003), data were collected from three selected sites, which were a) SAFG's Singapore and Tokyo offices and b) JPFG1's London office. In the open sampling process, the researcher should collect data as widely and flexibly as possible to discover various and interesting events for the research (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002; Goede and Villers, 2003). In addition, the triangulation of data collection is beneficial for theory development (Orlikowski, 1993; Strauss and Corbin, 1998).

> *"During open sampling, selection of interviewees or observational sites is relatively open in the sense that one could choose every third person who came through the door or could systematically proceed down a list of names, times, or places. No concepts yet have proven theoretical relevance, so one does not know where to go to look for variations of them along the lines of their properties and dimensions. At first, the investigator is open to all possibilities during interviews, during observations, when reading documents, and so on and will want to take full advantage of every opportunity that comes up, exploring each as much as is feasible" (Strauss and Corbin, 1998; pp. 206).*

Data in the open sampling phase of the research were, therefore, widely collected from internally used documents regarding IS projects and externally published company regarding business model and management style in both SAFG and JPFG1.

8.2 Historical Context of IS Projects

Because the researcher should officially obtain approval from the selected organisations for accessing internal data, as discussed in Chapter 6, the researcher contacted a) a director of the operations department in SAFG, and b) directors of legal, compliance and IT departments in JPFG1 to obtain permission to access their internal documents. Appendix A and B are the corresponding details from SAFG and JPFG1.

Before moving on to the coding process, the researcher reviewed the historical context of IS projects in SAFG and JPFG1 which were identified in the collected data. Table 8.2 sequentially summarises the context of IS projects conducted in SAFG's Singapore and Tokyo offices, and JPFG1's London office.

Table 8.2: Historical Context of IS Projects

Financial Groups	SAFG		JPFG1
Site Location	Singapore	Tokyo	London
1998	European Monetary Union (EMU)		
2000	Business Process Technical Architecture (BPTA)		
	Business Continuity Project (BCP)	Legal Document Project (LDP)	
2002			Business Process Reengineering (BPR)
2003			Derivative Systems Strategy Review (DSSR)
2004			System Infrastructure Project (SIP)

This review is beneficial not only for a) the open sampling process discussed in this chapter, but also for, b) the relational and variational sampling discussed in Chapter 9, and c) the discriminate sampling discussed in Chapter 10, because many interviewees who participated in the unstructured and semi-structured interviews gave their comments for these projects.

8.2.1 SAFG's IS Projects

The European Monetary Union (EMU) project was a financial market driven project with a fixed cut over date on January 1st, 1999, when a new European currency, the *"Euro"* was introduced into the global financial market. In 1998, most financial institutions including SAFG marked it as their highest priority project at that time. The Business Process Technical Architecture (BPTA) was a company driven global project at SAFG.

In 1999, most IT development projects in the finance industry were frozen, because of the preparation process for the Year 2000 (Y2K) rollover weekend on January 1st, 2000. Before Y2K, the BPTA started in SAFG's London office with the aim of developing a global IS strategy for the group. After Y2K, the BPTA was delivered into SAFG's Singapore office and Tokyo offices.

In 2000, the Business Continuity Planning (BCP) project commenced in the Singapore office aiming at the consolidation of business continuity planning strategy in the Asia-Pacific region. In the same year, the Legal Document Project (LDP) commenced in the Tokyo office with the aim of improving the accuracy of regulatory reports. Both the BCP and the LDP were company driven local projects.

8.2.2 JPFG1's IS Projects

At JPFG1 in London, the projects studied were a) the Business Process Reengineering (BPR) project in 2002, b) the Derivative Systems Strategy Review (DSSR) project in 2003, and c) the System Infrastructure Project (SIP) in 2004. These three projects were tightly linked to each other.

In 2002, the BPR commenced as a first trial to find ideal IS architectures. The BPR initially focused on analysis of systems structures as well as operational processes aiming at the identification of the ideal business process and IT architecture across various business functions. Most of the project activities concerned building process flow charts differentiating human activities from automated activities.

In 2003, the DSSR commenced as part of the BPR and as a first trial to discover the system solution for the specific business area. The DSSR focused on high-level development of the derivative transaction processing systems. The DSSR project was seen as urgent as it was recognised that its operating system was obscelescent. However, during the analysis, important strategic issues concerning derivative business area as well as others emerged.

In 2004, the System Infrastructure Project (SIP) was driven by the CEO of the London office with the aim of developing local strategic IS planning, because the DSSR's findings were expanded into a wider area than had been expected. The SIP was recognised as a first trial to develop the strategic IS planning in JPFG1.

8.3 Pilot Study for IS Projects

In July 2004, a pilot study was conducted. One of the main objectives of the pilot study was a confirmation of the workability and applicability of the templates and diagrams developed in Chapter 7. Through the pilot study, it was confirmed that the formalised templates and diagrams could identify a) phenomena, concepts and categories in the open coding process, b) relationship between categories and subcategories in the axial coding process, and c) the central category in the selective coding process. This section explains the processes and findings of the pilot study.

8.3.1 Data Collection for IS Projects

Strauss and Corbin (1998) explain that the researcher must decide the types of data to be used from the view of accessibility, availability and applicability of the data in the open sampling process.

In accordance with the review of the historical context of IS projects in the two selected organisations, the research selected SAFG's BPTA project and JPFG1's SIP project as initial data sources for the open sampling process.

This was because these two IS projects are their major IS projects to perform business process reengineering through a) clarification of bottlenecks of their business process, b) establishment of new technology architectures, c) identification of implementation plan, and d) delivery of IS solutions.

Table 8.3.1 summarises the detail of the data collection, coding process and the outcome of the pilot study in the open coding process.

Table 8.3.1: Statistics of Data Collection for the IS Projects

Financial Group	SAFG		JPFG1	Total
Site Location	Singapore	Tokyo	London	
Data source	Business Process Technical Architecture (BPTA)	Business Process Re-engineering (BPR)	Systems Infrastructure Project (SIP)	
Year of data	2000	2001	2004	
Size of data	65 words	191 words	135 words	391 words
Phenomena	9	14	15	38
Concepts	6	13	14	33
Categories	4	4	4	12

8.3.2 Data Analysis of IS Project in SAFG's Singapore office

Data Source

The following is the originally collected statement in the BPTA project presentation from SAFG's Singapore office.

Table 8.3.2a: Data Source of IS Project in SAFG's Singapore Office

SAFG, 2000, "BPTA Forum 9th October, 2000"
"Message from a global head of the function of administration and operations (FA&O)
BPTA reconfirmed as a major firm priority post a major merger project
Likely to be the only way to help us permanently realise the savings we need
Will bring data quality up to required standards for regulatory reporting purposes
A managing director of the project office to lead Release 2 (in addition to his Product Control responsibilities)
A director to chair GRD steering committee"

Open Coding

The following is the outcome of open coding process.

Table 8.3.2b: Identification of Phenomena

No.	Phenomena	Code Type
1	Message from a global head of the FA&O	*In Vivo* code
2	A major firm priority	*In Vivo* code
3	Post a major project of merger	*In Vivo* code
4	Only way	*In Vivo* Code
5	Permanently realise the savings	*In Vivo* Code
6	Bring data quality up to required standards	*In Vivo* Code
7	Regulatory reporting purposes	*In Vivo* Code
8	A managing director to lead a particular project phase	Open Label Code
9	A director to chair a specific steering committee	Open Label Code

Table 8.3.2c: Identification of Concepts

No.	Concepts
1	Top-Down message from a global head of the FA&O to employees in Singapore office
2	Clear prioritisation
3	Emphasises importance of the BPTA project
4	Cost conscious
5	Improvement up to industrial standards
6	Clear responsibilities in the BPTA project team

Table 8.3.2d: Discovering Categories from Concepts

Category 1	Top-Down management style	
Concepts	1	Top-Down message from a global head of the FA&O to employees in Singapore office
Dimensions	Management style	
Properties	Top-Down style	
Incidents	1	BPTA project
	2	High priority and critical project

Category 2	Responsibility in the project team	
Concepts	6	Clear responsibilities in the BPTA project team
Dimensions	Project management	
Properties	Clarifying responsibility	
Incidents	1	BPTA project
	2	High priority and critical project

Category 3	Prioritisation of the project	
Concepts	2	Clear prioritisation
	3	Emphasises importance of the BPTA project
Dimensions	Project management	
Properties	Clarifying prioritisation	
Incidents	1	BPTA project
	2	High priority and critical project

Category 4	Objectives of the project	
Concepts	4	Cost conscious
	5	Improvement up to industrial standards
Dimensions	Project management	
Properties	Clarifying objectives	
Incidents	1	BPTA project
	2	High priority and critical project

Axial Coding

The following is the outcome of axial coding process.

Table 8.3.2e: Paradigm Analysis

Category 1			Global and Top-Down management	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to achieve a successful project implementation	
		Where	The project team and departments in the FA&O	
		When	Initiating the project	
		Action/Interaction	Routine or Strategic	Strategic
		By whom	The global head of the FA&O	
		How	Management Style	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Short-Term
		Visibility	Visible or Invisible	Visible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Unpredictable
		Scope	Wide or Narrow	Wide
	Memo		The global head managing the whole FA&O departments	
Subcategory 1.1			Message from a global head of the FA&O	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Causal
		Why	In order to manage the project	

		Where	The project team and departments in the FA&O	
		When	Initiating the project	
	Action/Interaction	Routine or Strategic	Strategic	
		By whom	The global head of the FA&O	
		How	Management Style	
	Consequences	Intended or Unintended	Intended	
		Duration	Short, Medium or Long-Term	Short-Term
		Visibility	Visible or Invisible	Visible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Unpredictable
		Scope	Wide or Narrow	Wide
Memo			The global head managing the whole FA&O departments	

Category 2			Responsibility in the project team	
	Paradigm			
	Condition		Casual, Intervening, Contextual	Contextual
		Why	In order to achieve a successful project implementation	
		Where	The project team and departments of the FA&O	
		When	Initiating the project	
	Action/Interaction		Routine or Strategic	Strategic
		By whom	The global head of the FA&O	
		How	Clarifying the responsibility in the project team	
	Consequences		Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Short-Term
		Visibility	Visible or Invisible	Visible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Unpredictable
		Scope	Wide or Narrow	Narrow
	Memo		Responsibilities in the project team are clarified.	
Subcategory 2.1			A responsibility of the project leader	
	Paradigm			
	Condition		Casual, Intervening, Contextual	Intervening
		Why	In order to manage the project	
		Where	The project team and departments of the FA&O	
		When	Initiating the project	
	Action/Interaction		Routine or Strategic	Strategic
		By whom	The global head of the FA&O	
		How	Clarifying the responsibility in the project team	
	Consequences		Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Short-Term
		Visibility	Visible or Invisible	Visible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Unpredictable
		Scope	Wide or Narrow	Narrow
	Memo		A responsibility of the project leader is clarified.	

Category 3			Prioritisation of the project	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
			Why	In order to achieve a successful project implementation
			Where	The project team and departments of the FA&O
			When	Initiating the project
		Action/Interaction	Routine or Strategic	Strategic
			By whom	The global head of the FA&O
			How	Clarifying the priority of the project
		Consequences	Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Short-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo		A priority of the project is clarified.	
Category 3.1			Prioritisation of the previous project	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Casual
			Why	In order to manage the project
			Where	The project team and departments of the FA&O
			When	Initiating the project
		Action/Interaction	Routine or Strategic	Strategic
			By whom	The global head of the FA&O
			How	Clarifying the priority of the previous project
		Consequences	Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Short-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo		Priority of the previous project is clarified.	
Category 3.2			Prioritisation of the present project	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Casual
			Why	In order to manage the project
			Where	The project team and departments of the FA&O
			When	Initiating the project
		Action/Interaction	Routine or Strategic	Strategic
			By whom	The global head of the FA&O
			How	Clarifying the priority of the present project
		Consequences	Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Short-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable

			Scope	Wide or Narrow	Narrow
	Memo			Priority of the present project is clarified.	

Category 4				Objectives of the project	
	Paradigm				
		Condition		Casual, Intervening, Contextual	Contextual
			Why	In order to manage the project	
			Where	The project team and departments of the FA&O	
			When	Initiating the project	
		Action/Interaction		Routine or Strategic	Strategic
			By whom	The global head of the FA&O	
			How	Justifying the objectives of the project	
		Consequences		Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Short-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo			Objectives of the project are clarified.	
Category 4.1				Cost reduction	
	Paradigm				
		Condition		Casual, Intervening, Contextual	Casual
			Why	In order to justify the project	
			Where	The project team and departments of the FA&O	
			When	Justifying the project	
		Action/Interaction		Routine or Strategic	Strategic
			By whom	The global head of the FA&O	
			How	Justifying the objectives of the project	
		Consequences		Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Short-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo			A cost reduction is one of objectives of the project.	
Category 4.2				Improvement up to industrial standard	
	Paradigm				
		Condition		Casual, Intervening, Contextual	Casual
			Why	In order to justify the project	
			Where	The project team and departments of the FA&O	
			When	Justifying the project	
		Action/Interaction		Routine or Strategic	Strategic
			By whom	The global head of the FA&O	
			How	Justifying the objectives of the project	
		Consequences		Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Short-Term

		Visibility	Visible or Invisible	Visible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Unpredictable
		Scope	Wide or Narrow	Narrow
Memo			An improvement up to industrial standard is one of objectives of the project.	

8.3.3 Data Analysis of IS Project in SAFG's Tokyo office

Data Source

The following is the originally collected statement in the BPR project presentation from SAFG's Tokyo office.

Table 8.3.3a: Data Source of IS Project in SAFG's Tokyo Office

SAFG Japan, 2001, "Business Process Re-Engineering, Process Scoping, Fixed Income, Domestic - Operations Front to Back Processes"

Overview
The Business Architecture Team has been approached to facilitate the reengineering of the Domestic Fixed Income Operations process in Tokyo, using the Business Process Reengineering (BPR) Methodology. The Scoping Workshop (Phase 1) took place on 24th April 2001. This document details the scope of the project that has been discussed at the workshop.

Objectives
The objectives of this project can be split into the five Strategic Drivers for FA&O:

Strategic Driver

Objective

Control
Improve controls surrounding the Fixed Income Domestic FtB Operations processes focusing on complete and accurate upfront data passed from Front Office processes

Efficiency and Cost
Eliminate manual processes from initial Trade Capture through to Settlement processes
Eliminate internal reconciliation, data enrichment and manual workarounds

System and Process
Straight through processing of Fixed Income Domestic transactions
Eliminate legacy systems/processes

Client/Audience/Service
Improve reputation/credibility with BOJ and clients through increased efficiency and minimal errors

People
Reduce working hours through elimination of non-value added work (reconciliation/data enrichment)

Increase morale
Processes in Scope Domestic Fixed Income Operations processes from Front to Back. This includes:- (i) Trade capture (ii) Settlements (iii) Custody (iv) Fail control

Open Coding

The following is the outcome of open coding process.

Table 8.3.3b: Identification of Phenomena

No.	Phenomena	Code Type
1	Project team	Open Label Code
2	Facilitate the reengineering	*In Vivo* Code
3	Specific operations process in the location	Open Label Code
4	Using the BPR Methodology	Open Label Code
5	Workshop took place	Open Label Code
6	Improvement of controls in a location	Open Label Code
7	Efficiency and cost	*In Vivo* Code
8	Straight through processing	*In Vivo* Code
9	Eliminate legacy systems/processes	*In Vivo* Code
10	Improve reputation/credibility with authority and clients	Open Label Code
11	Reduce working hours	*In Vivo* Code
12	Elimination of non-value added work	*In Vivo* Code
13	Increase morale	*In Vivo* Code
14	Specific operations processes from Front to Back	Open Label Code

Table 8.3.3c: Identification of Concepts

No.	Concepts
1	Project team
2	Facilitation of reengineering

3	Specific operations processes from Front to Back
4	Globally standardised BPR methodology
5	Workshop
6	Improvement of controls in a location
7	Efficiency and cost
8	Straight through processing
9	Elimination of legacy systems/processes
10	Improvement of reputation/credibility with authority and clients
11	Reduce working hours
12	Elimination of non-value added work
13	Increase morale

Table 8.3.3d: Discovering Categories from Concepts

Category 1	Local Facilitator	
Concepts	1	Project team
	2	Facilitation of reengineering
	5	Workshop
Dimensions	Project management style	
Properties	Facilitating management	
Dimensions	1	BPR project
	2	High priority and critical project

Category 2	Global standardisation	
Concepts	4	Globally standardised BPR methodology
Dimensions	Project management approach	
Properties	Globally standardised methodology	
Incidents	1	BPR project
	2	High priority and critical project

Category 3	Localisation	
Concepts	3	Specific operations processes from Front to Back
	6	Improvement of controls in a location
	9	Elimination of legacy systems/processes
	10	Improvement of reputation/credibility with authority and clients
Dimensions	Project management approach	
Properties	Localisation	
Incidents	1	BPR project
	2	High priority and critical project

Category 4		Objectives of the project
Concepts	7	Efficiency and cost
	8	Straight through processing
	11	Reduce working hours
	12	Elimination of non-value added work
	13	Increase morale
Dimensions		Project Management style
Properties		Clarifying objectives
Incidents	1	BPR project
	2	High priority and critical project

Axial Coding

The following is the outcome of axial coding process.

Table 8.3.3e: Paradigm Analysis

Category 1			Local facilitator	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to localise globally standardised approach	
		Where	The operations department in the Tokyo office	
		When	Initiating the project	
		Action/Interaction	Routine or Strategic	Routine
		By whom	Local Management	
		How	Assigning a local facilitator	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Short-Term
		Visibility	Visible or Invisible	Visible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Unpredictable
		Scope	Wide or Narrow	Narrow
	Memo		A local management assigns a local facilitator.	
Subcategory 1.1			Workshop	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Casual
		Why	In order to facilitate the project	
		Where	The operations department in the Tokyo office	
		When	Initiating the project	
		Action/Interaction	Routine or Strategic	Strategic
		By whom	Local facilitator	
		How	Organising a workshop	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Short-Term
		Visibility	Visible or Invisible	Visible

			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo			A facilitator organises a workshop.	

Category 2				Global standardisation	
	Paradigm				
		Condition		Casual, Intervening, Contextual	Contextual
			Why	In order to globally standardise the BPR methodology	
			Where	Entire company	
			When	On and after of the project	
		Action/Interaction		Routine or Strategic	Strategic
			By whom	The global BPR team	
			How	Deploying global standardised approach	
		Consequences		Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Long-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Wide
	Memo			The global BPR team globally standardise the approach.	
Subcategory 2.1				Globally standardised methodology	
	Paradigm				
		Condition		Casual, Intervening, Contextual	Causal
			Why	In order to globally standardise the BPR methodology	
			Where	Entire company	
			When	On and after of the project	
		Action/Interaction		Routine or Strategic	Strategic
			By whom	The global BPR team	
			How	Standardising global BPR methodology	
		Consequences		Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Long-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Wide
	Memo			The global BPR team globally standardise BPR methodology.	

Category 3				Localisation	
	Paradigm				
		Condition		Casual, Intervening, Contextual	Contextual

			Why	In order to localise globally standardised BPR methodology	
			Where	The operations department in the Tokyo office	
			When	Coordinating the BPR project	
		Action/Interaction		Routine or Strategic	Strategic
			By whom	The local facilitator	
			How	Deploying the globally standardised BPR methodology	
		Consequences		Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Short-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo			Local facilitator is localising globally standard approach.	
Category 3.1				IS and business processes in the local office	
	Paradigm				
		Condition		Casual, Intervening, Contextual	Intervening
			Why	In order to improve IS and business processes in the local office	
			Where	The operations department in the Tokyo office	
			When	Coordinating the BPR project	
		Action/Interaction		Routine or Strategic	Routine
			By whom	The local management in the Tokyo office	
			How	Managing the BPR project and routine work	
		Consequences		Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Long-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Wide
	Memo			The local management is responsible for IS and business process in the local office.	
Category 3.2				Reputation and credibility in the local office	
	Paradigm				
		Condition		Casual, Intervening, Contextual	Intervening
			Why	In order to improve reputation and credibility in the local office	
			Where	The operations department in the Tokyo office	
			When	Coordinating the BPR project	
		Action/Interaction		Routine or Strategic	Routine
			By whom	The local management in the Tokyo office	
			How	Managing the BPR project and routine work	
		Consequences		Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Long-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Wide

	Memo		The local management is responsible for reputation and credibility in the local office.		

Category 4			Objectives of the project		
	Paradigm				
		Condition	Casual, Intervening, Contextual	Contextual	
			Why	In order to manage the project	
			Where	The operations department in the Tokyo office	
			When	Initiating the project	
		Action/Interaction	Routine or Strategic	Strategic	
			By whom	The local facilitator	
			How	Delivering the objectives of the project	
		Consequences	Intended or Unintended	Intended	
			Duration	Short, Medium or Long-Term	Short-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo		Objectives of the project are delivered by the local facilitator.		
Category 4.1			Cost reduction		
	Paradigm				
		Condition	Casual, Intervening, Contextual	Casual	
			Why	In order to justify the project	
			Where	The operations department in the Tokyo office	
			When	Initiating the project	
		Action/Interaction	Routine or Strategic	Strategic	
			By whom	The local facilitator	
			How	Delivering the objectives of the project	
		Consequences	Intended or Unintended	Intended	
			Duration	Short, Medium or Long-Term	Short-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo		A cost reduction is one of the objectives of the project.		
Category 4.2			Improvement up to full automation		
	Paradigm				
		Condition	Casual, Intervening, Contextual	Intervening	
			Why	In order to justify the project	
			Where	The operations department in the Tokyo office	
			When	Initiating the project	
		Action/Interaction	Routine or Strategic	Strategic	
			By whom	The local facilitator	
			How	Delivering the objectives of the project	
		Consequences	Intended or Unintended	Intended	

			Duration	Short, Medium or Long-Term	Short-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo			Improvement up to full automation is one of the objectives of the project.	
Category 4.3				Increasing morale	
	Paradigm				
		Condition		Casual, Intervening, Contextual	Intervening
			Why	In order to justify the project	
			Where	The operations department in the Tokyo office	
			When	Initiating the project	
		Action/Interaction		Routine or Strategic	Strategic
			By whom	The local facilitator	
			How	Delivering the objectives of the project	
		Consequences		Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Short-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo			Increasing morale is one of the objectives of the project.	

8.3.4 Data Analysis of IS Project in JPFG1's London Office

Data Source

The following is the originally collected statement in the System Infrastructure Project (SIP) presentation from JPFG1's London office.

The following is fragment of a project presentation transcription from SIP project of JPFG1.

Table 8.3.4a: Data Source of IS Project in JPFG1's London Office

JPFG1 (2004), "Systems Infrastructure Project Steering Committee 1st Meeting" BPR - Complementing commercial activity in revenue generation by optimising support procedures

DSSR - Identification of the most appropriate software for JPFG1's Derivative Business

A Consultation - Third Party's Assessment of JPFG1's System Infrastructure

SIP Objective
To develop a systems infrastructure strategy for the coming years including an analysis of the options available to the company

To evaluate procedures for processing transactions and the related organisation
In achieving these objectives within 6 month,
developing process so as to minimise operational risk
developing a robust system infrastructure which was both efficient and reliable in view of the transition to the new parent
expanding the capability to develop and implement new products and processes
evaluating procedures for transaction processing
assessing within this framework the respective resource allocations

Open Coding

The following is the outcome of open coding process.

Table 8.3.4b: Identification of Phenomena

No.	Phenomena	Code Type
1	Complementing commercial activity in revenue generation	*In Vivo* code
2	Optimising support procedures	*In Vivo* code
3	Identification of the most appropriate software	*In Vivo* code
4	Scope of business area	Open Label Code
5	Third Party's Assessment	*In Vivo* code
6	Develop a systems infrastructure strategy for the coming years	*In Vivo* code
7	Including an analysis of the options available to the company	*In Vivo* code
8	Evaluate procedures for processing transactions and organisation	*In Vivo* code
9	Within 6 month	*In Vivo* code
10	Developing process so as to minimise operational risk	*In Vivo* code
11	Developing a robust system infrastructure	*In Vivo* code
12	Both efficient and reliable in view of the transition to the new parent	*In Vivo* code
13	Expanding the capability to develop and implement new products and processes	*In Vivo* code
14	Evaluating procedures for transaction processing	*In Vivo* code
15	Assessing within this framework the respective resource allocations	*In Vivo* code

Table 8.3.4c: Identification of Concepts

No.	Concepts
1	Complementing commercial activity in revenue generation
2	Optimising support procedures
3	Identification of appropriate software
4	Scope of business area
5	External consultant
6	Systems infrastructure strategy in the future plan
7	Efficiency and cost
8	Available options
9	Evaluation of procedures for process and organisation
10	Target date of a project
11	Minimisation of operational risk
12	Robust system infrastructure
13	Capital relationship change
14	Respective resource allocations

Table 8.3.4d: Discovering Categories from Concepts

Category 1	Consensus building	
Concepts	5	External consultant
	8	Available options
	9	Evaluation of procedures for process and organisation
Dimensions	Project management style	
Properties	Consensual management	
Dimensions	1	Strategic IS planning project
	2	Critical project

Category 2	Systems infrastructure strategy	
	2	Optimising support procedures
	3	Identification of appropriate software
	7	Systems infrastructure strategy in the future plan
	12	Robust system infrastructure
Dimensions	Systems Infrastructure	
Properties	Strategy	
Dimensions	1	Strategic IS planning project
	2	Critical project

Category 3	Resource allocations strategy	
Concepts	14	Respective resource allocations
Dimensions	Resource management	

Properties	Strategy	
Dimensions	1	Strategic IS planning project
	2	Critical project

Category 4	Objective of the project	
Concepts	1	Complementing commercial activity in revenue generation
	4	Scope of business area
	10	Target date of a project
	11	Minimisation of operational risk
	13	Capital relationship change
Dimensions	Project Management style	
Properties	Clarifying objective	
Dimensions	1	Strategic IS planning project
	2	Critical project

Axial Coding

The following is the outcome of axial coding process.

Table 8.3.4e: Paradigm Analysis

Category 1			Consensus Building	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
			Why	In order to identify strategic IS planning
			Where	London office
			When	Initiating the project
		Action/Interaction	Routine or Strategic	Strategic
			By whom	CEO as a leader of the project
			How	Building the consensus
		Consequences	Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Long-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Predictable
			Scope	Wide or Narrow	Wide
	Memo		Consensual building for strategic IS planning	
Subcategory 1.1			External consultation	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Casual
			Why	In order to reinforce strategic IS planning
			Where	London office

			When	Before initiating the project	
		Action/Interaction		Routine or Strategic	Strategic
			By whom	External consulting firm	
			How	Consulting strategic IS planning	
		Consequences		Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Short-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo			CEO requests an external consultation.	
Subcategory 1.2				Internal consultation	
	Paradigm				
		Condition		Casual, Intervening, Contextual	Contextual
			Why	In order to reinforce strategic IS planning	
			Where	London office	
			When	Before initiating the project	
		Action/Interaction		Routine or Strategic	Strategic
			By whom	Internal consulting team	
			How	Consulting strategic IS planning	
		Consequences		Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Short-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo			CEO requests an internal consultation.	

Category 2				Systems infrastructure strategy	
	Paradigm				
		Condition		Casual, Intervening, Contextual	Contextual
			Why	In order to improve environment of IS	
			Where	London office	
			When	Before decision-making of IS strategy	
		Action/Interaction		Routine or Strategic	Strategic
			By whom	Internal consulting team	
			How	Consulting strategic IS planning	
		Consequences		Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Long-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Wide
	Memo			The internal consulting team prepares system infrastructure strategy before decision-making.	
Category 2.1				Software infrastructure strategy	

	Paradigm			
		Condition	Casual, Intervening, Contextual	Casual
			Why	In order to improve environment of IS
			Where	London office
			When	Before decision-making of IS strategy
		Action/Interaction	Routine or Strategic	Strategic
			By whom	Internal consulting team
			How	Consulting strategic IS planning
		Consequences	Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Long-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo		The internal consulting team prepares software infrastructure strategy before decision-making.	
Category 2.2			Hardware infrastructure strategy	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Casual
			Why	In order to improve environment of IS
			Where	London office
			When	Before decision-making of IS strategy
		Action/Interaction	Routine or Strategic	Strategic
			By whom	Internal consulting team
			How	Consulting strategic IS planning
		Consequences	Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Long-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo		The internal consulting team prepares hardware infrastructure strategy before decision-making.	

Category 3			Resource allocation strategy	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
			Why	In order to improve environment of IS
			Where	London office
			When	Before decision-making of IS strategy
		Action/Interaction	Routine or Strategic	Strategic
			By whom	Internal consulting team
			How	Consulting strategic IS planning
		Consequences	Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Long-Term
			Visibility	Visible or Invisible	Visible

			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Wide
	Memo			The internal consulting team prepares resource allocation strategy before decision-making.	
Category 3.1				Human resource allocation strategy	
	Paradigm				
		Condition		Casual, Intervening, Contextual	Casual
			Why	In order to improve environment of IS	
			Where	London office	
			When	Before decision-making of IS strategy	
		Action/Interaction		Routine or Strategic	Strategic
			By whom	Internal consulting team	
			How	Consulting strategic IS planning	
		Consequences		Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Long-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo			The internal consulting team prepares human resource allocation strategy before decision-making.	
Category 3.2				System Resource allocation strategy	
	Paradigm				
		Condition		Casual, Intervening, Contextual	Casual
			Why	In order to improve environment of IS	
			Where	London office	
			When	Before decision-making of IS strategy	
		Action/Interaction		Routine or Strategic	Strategic
			By whom	Internal consulting team	
			How	Consulting strategic IS planning	
		Consequences		Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Long-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo			The internal consulting team prepares system resource allocation strategy before decision-making.	

Category 4				Objectives of the project	
	Paradigm				
		Condition		Casual, Intervening, Contextual	Contextual
			Why	In order to manage the project	
			Where	London office	
			When	Initiating the project	

		Action/Interaction	Routine or Strategic	Strategic
			By whom	CEO as a leader of the project	
			How	Clarifying objectives of the project	
		Consequences	Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Short-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo		Objectives of the project are presented by CEO as a leader of the project to the project steering committee.
Category 4.1			Cost reduction
	Paradigm		
		Condition	Casual, Intervening, Contextual	Intervening
			Why	In order to justify the project	
			Where	London office	
			When	Initiating the project	
		Action/Interaction	Routine or Strategic	Strategic
			By whom	CEO as a leader of the project	
			How	Clarifying objectives of the project	
		Consequences	Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Short-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo		A cost reduction is identified as one of the objectives of the project by CEO as a leader of the project to a project steering committee.
Category 4.2			Improvement up to full automation
	Paradigm		
		Condition	Casual, Intervening, Contextual	Intervening
			Why	In order to justify the project	
			Where	London office	
			When	Initiating the project	
		Action/Interaction	Routine or Strategic	Strategic
			By whom	CEO as a leader of the project	
			How	Clarifying objectives of the project	
		Consequences	Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Short-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Narrow
	Memo		Improvement plan up to full automation is identified as one of the objectives of the project by CEO as a leader of the project to a project steering committee.
Category 4.3			Minimisation of operational risk

	Paradigm			
	Condition		Casual, Intervening, Contextual	Intervening
		Why	In order to justify the project	
		Where	London office	
		When	Initiating the project	
	Action/Interaction		Routine or Strategic	Strategic
		By whom	CEO as a leader of the project	
		How	Clarifying objectives of the project	
	Consequences		Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Short-Term
		Visibility	Visible or Invisible	Visible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Unpredictable
		Scope	Wide or Narrow	Narrow
Memo			Minimisation plan of operational risk is identified as one of the objectives of the project by CEO as a leader of the project to a project steering committee.	

8.3.5 Visualisation for IS Projects

Using the formalised templates and diagrams discussed in Chapter 7, the research visualises the phenomena in the business process reengineering projects. The process developed three selective coding diagrams and discovered a primitive theory for management style to detect similarities and difference in management style between SAFG and JPFG1. Figure 8.3.5a is a selective coding diagram of the pilot study in SAFG's Singapore office, Figure 8.3.5b in SAFG's Tokyo office, and Figure 8.3.5c in JPFG1's London office.
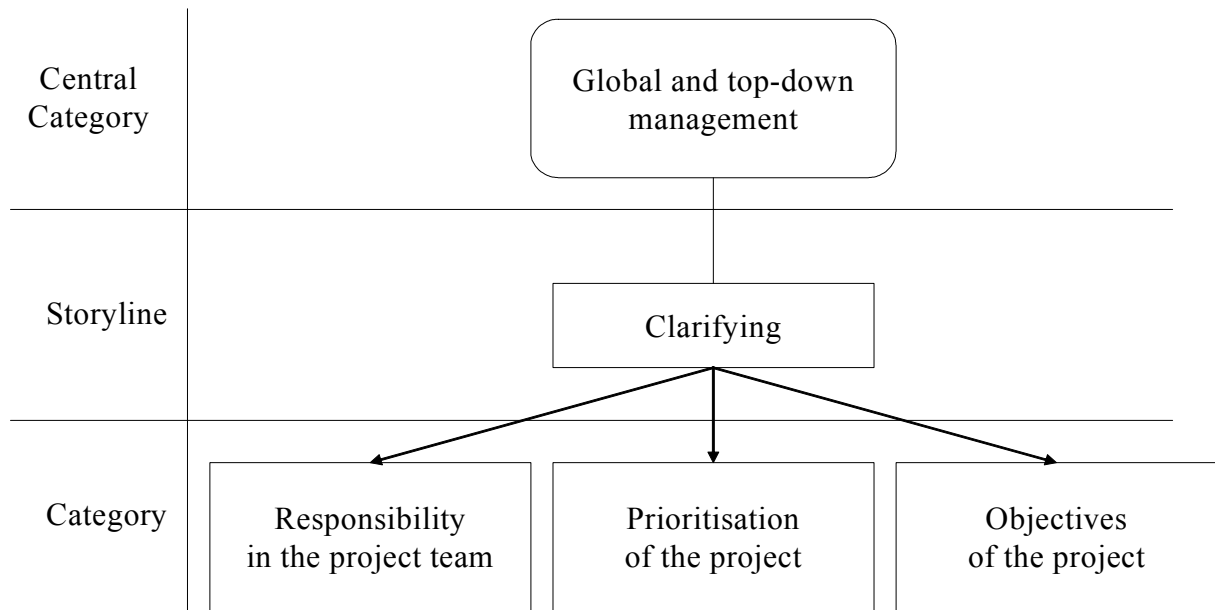
Figure 8.3.5a: Management Style in the IS Projects of SAFG's Singapore Office
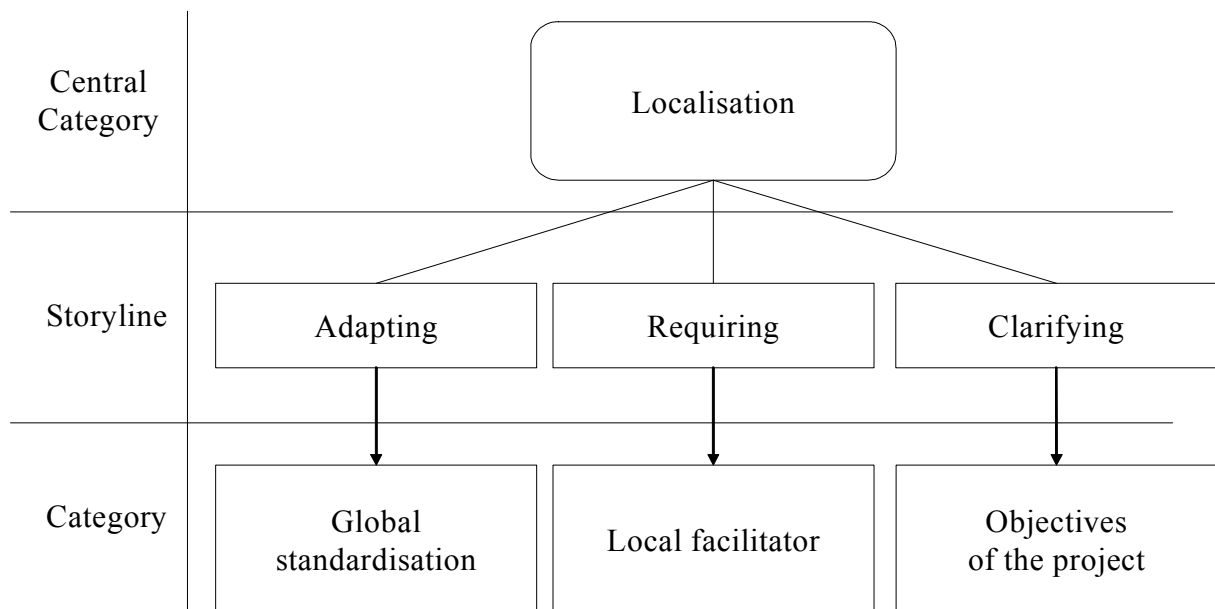
Figure 8.3.5b: Management Style in the IS Projects of SAFG's Tokyo Office
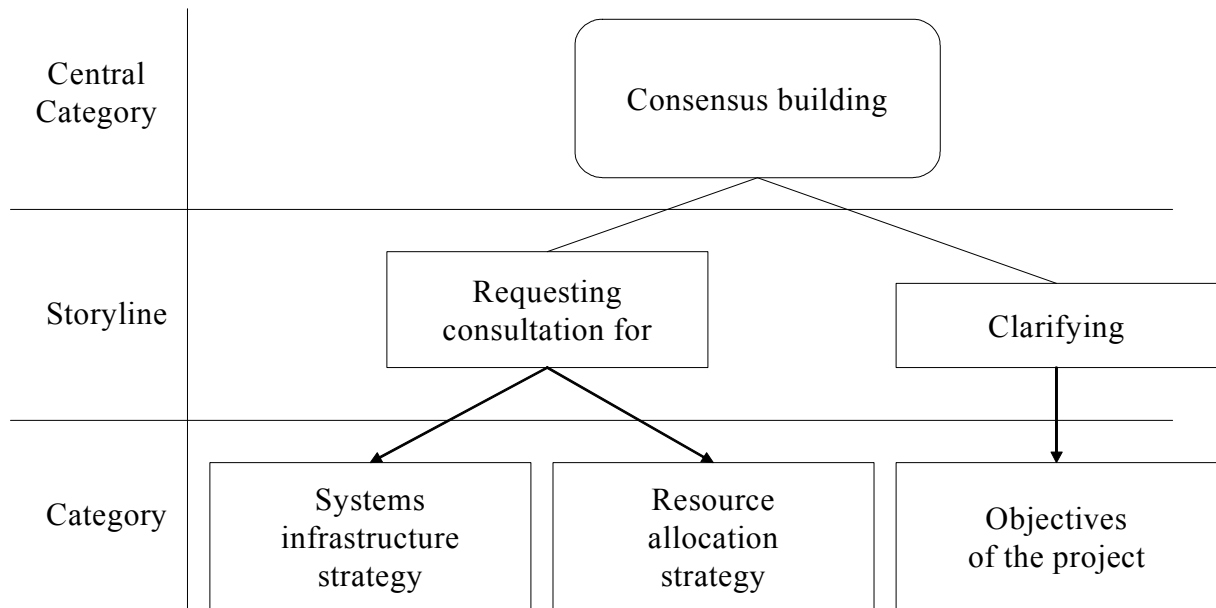
Figure 8.3.5c: Management Style in the IS Projects of JPFG1's London Office

8.3.6 Integration of Findings for IS Projects

The Top-Down management in SAFG's Singapore office and the consensual management in JPFG1's London office are integrated under the management style which is an emergent central category. Figure 8.3.6 is a primitive integrated emerged theory of the pilot study.
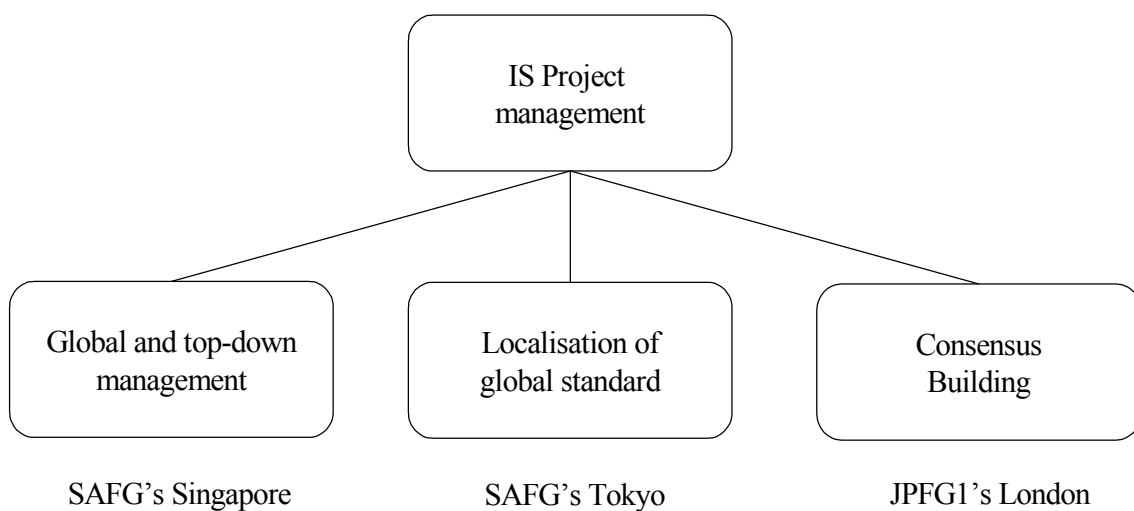
Figure 8.3.6: The Integrated Theory of the Pilot Study

8.3.7 Findings for IS Projects

SAFG's Singapore Office

In the case of the Singapore office in SAFG, the entity operates the central processing centre for the Asia-Pacific region. Global business/IS strategy is directed from the London office, the global head's office. In 2000, the BPTA project document identified a) objectives, b) priorities and c) responsibilities of the project. Thus, the global and top-down style of IS management is detected as a central category.

SAFG's Tokyo Office

In the case of the Tokyo office of SAFG, the office in Japan reports to the Singapore regional control centre. In order to cope with the globally standardised IS directed by the London head office through Singapore centre, the Tokyo office assigns a local facilitator to a) clarify the objective of the project, and b) enable localisation in the Tokyo office. Thus, the localising global standardised methodology of strategic IS management is detected as a central category.

JPFG1's London Office

In the case of the SIP in JPFG1, the CEO who led the project, requested an external consulting company to join the project in order to build a consensus not only in the project team but also in other affected departments. Strategies of system infrastructure and resource allocation were indicated through the consulting company as a third party. Thus, consensus building in the strategic IS planning is detected from Grounded Theory coding data analysis.

8.3.8 Benefits of the Pilot Study

The benefits of the pilot study were limited. The research could confirm the workability of the formalised templates and diagrams. The initially collected data were broken down through the open coding templates into blocks in order to identify a) phenomena, b) concepts, and c) categories. In the axial coding, the relationship between categories and subcategories were identified through the lens of paradigm analysis. In the selective coding process, a model emerged by integrating the visualised models in the axial coding process.

8.3.9 Limitations of the Pilot Study

Because of the quantity of selected IS project cases was small, the integrated theory of the pilot study (Figure 8.3.6) a) indicated a temporary phenomenon. In other cases from the same organisations, consensual building might be found in SAFG's other strategic IS planning projects, localising the globally standardised methodology in JPFG1, or top-down management style might be found in JPFG1's other BPR projects. Thus, the pilot study could not deeply examine differences in cultures affecting strategic IS management. Table 8.3.9 summarises the limitation of the pilot study.

Table 8.3.9: Summary of the limitation for the Pilot Study

Number	Limitation
1	Small range of selected cases
2	Temporary phenomena
3	Only one central categories, i.e. IS management
4	No relationship between central categories
5	No identification of similarities and differences in the cultures affecting global IS management
6	No answer questions to Main and sub-question

The research, therefore, defined the findings from the pilot study as a primitive finding, and moved to collect other data from official corporate information in order to understand the characteristics of the selected organisations.

8.4 Analysis for Official Corporate Information

Strauss and Corbin (1998) emphasise that a number of different approaches in the open sampling process is advantageous. Creswell (1998) recommends that data collection begin with a homogeneous sample. In order to achieve a profound analysis of the cross-cultural aspects, data regarding company policy and organisation structure were collected from SAFG's and JPFG1's official web sites. The comparison of the collected data could detect similarities and differences of their investment banking business.

8.4.1 Data Collection for Official Corporate Information

Table 8.4.1 summarises a) data collection, b) coding process, and c) outcome of analysis for the official corporate information.

Table 8.4.1: Statistics of Data Collection for the Official Corporate Information

Financial Group		SAFG	JPFG1	
Company Policy	Data source	Company Policy	Corporate Philosophy	Total
	Year of data	2004	2004	
	Size of data	929 words	322 words	1251 words
	Phenomena	37	31	68
	Concepts	15	20	35
	Categories	7	7	14

Employee Develop-ment	Data source	Employee Development	Employee Training	Total
	Year of data	2004	2004	
	Size of data	84 words	257 words	341 words
	Phenomena	8	16	24
	Concepts	4	3	7
	Categories	1	1	2
Organi-sational Structure	Data source	Structure and Management	Organisation Chart	Total
	Year of data	2004	2004	
	Size of data	198 words	116 words	314 words
	Phenomena	28	18	46
	Concepts	8	9	17
	Categories	2	2	4

8.4.2 Data Analysis of SAFG's Official Corporate Information

Table 8.4.2a is the collected data regarding SAFG's company policy, and Table 8.4.2b is the

collected data regarding SAFG's organisational structure.

Table 8.4.2a: SAFG's Company Policy

SAFG's Corporate Information (From the web site of SAFG, 2004)
"Overview
SAFG Global Capabilities SAFG is a leading global investment bank serving institutional, corporate, government and high net worth clients. SAFG's businesses include securities underwriting, sales and trading, investment banking, private equity, financial advisory services, investment research, venture capital and asset management. SAFG is a proven leader across the spectrum of investment banking, capital markets and financial services, ranking in the top

tier in virtually all major business segments. SAFG's organizational structure focuses on providing the highest quality of client-centric services. SAFG serves institutional clients, with expertise in: Equities, Fixed Income, Prime Services, and Research. SAFG meets corporate clients' needs in: Mergers & Acquisitions, Equity Capital Markets, Debt Capital Markets, Private Placement, Leveraged Finance, Industry Experience, Regional Presence and Private Equity. SAFG serves institutional and individual clients: Private Client Services, Asset Management and Transaction Services & Solutions. SAFG is a truly global institution. It operates in more than 68 locations across more than 33 countries on five continents. Powered by a strong local presence, global vision and a seamless ability to execute transactions in and across all markets, SAFG deploys its capital base and global perspective to offer a full range of products, services and capabilities. The Firm is a business unit of Zurich-based SAFG, a leading global financial services company. In addition to the business unit SAFG, SAFG also includes the SAFG Financial Services business unit, which provides private clients and small and medium-sized companies with private banking and financial advisory services, banking products, and pension and insurance solutions from Winterthur.

Commitment to Diversity
In our increasingly global marketplace, diversity is critical to our success. Delivering the most innovative solutions to clients worldwide takes a team that includes the widest array of ideas, backgrounds and experiences. That is why SAFG is creating a corporate culture that is dedicated to attracting, developing and retaining the best employees. We are building an inclusive workplace where everyone is treated with dignity, consideration and respect; and where every individual has the opportunity to realize his or her full potential.

Building an Inclusive Workplace
At SAFG, diversity means developing a team of highly talented people with various backgrounds, experiences, perspectives and approaches. We are bringing together persons of different genders, races, ages, religions, nationalities, ethnic backgrounds, sexual orientations and disabilities to enable the firm to effectively serve the broadest spectrum of clients — both locally and globally — through people who can best understand and meet their diverse needs. Our goal is to become the employer of choice in the financial services industry by implementing best practices in three key areas — corporate culture, employee development and recruitment. Helping to achieve these goals is the responsibility of every employee in the firm. Each division within SAFG has developed its own diversity strategic plan with specific initiatives designed to broaden these three areas. At the same time, SAFG has formed a Diversity Advisory Board — a firm-wide council of line managers — to oversee the alignment of all initiatives, and to provide ongoing policy direction and resource allocation. The firm's Office of Global Diversity works closely with the board, as well as with the divisional teams, to ensure that diversity, dignity, consideration and respect for every employee are part of the fabric of SAFG's culture.

Corporate Culture
By continuing to build a firm-wide culture where all employees feel welcome, valued and comfortable expressing their ideas and beliefs, we are better able to encourage diversity of thought and approach; and more likely to discover innovative ways to serve our clients. SAFG has also developed a series of programs that foster inter- and intra-divisional networking, help employees balance their work and personal lives and assist them in investing in their communities.

Employee Networks
SAFG's Employee Networks provide a forum for employees to share common interests and experiences to further their professional development. Activities include sponsoring panel discussions, lecture series, seminars, presentations and study groups, as well as informal mentoring and workplace support groups that raise awareness of a wide array of diversity issues. The Networks are inclusive and open to all SAFG employees who wish to participate. (From the web site of Case A and Case B, 2004)

Work/Life Balance
SAFG recognizes that an effective balance between an employee's personal and work life results in greater productivity. Initiatives at the firm that enhance our employees' work/life balance include an employee assistance program that helps employees and their families cope with personal issues; honeymoon, maternity/paternity and adoption leave; emergency back-up child care; and up to three months of paid leave for those who are approved by their managers after working a minimum of five years. In recognition of SAFG's efforts, the firm has been named by Working Mother magazine as one of the "100 Best Companies for Working Mothers." Working Mother selected SAFG for its ongoing efforts to help employees effectively balance their work and personal lives " (From the web site of SAFG, 2004).

Community Relations
SAFG has established relationships with industry and not-for-profit organizations that support financial literacy and career opportunities for diverse populations. The firm also works with these groups to identify and develop future leaders, provide career forums and help further other SAFG diversity goals.

Dignity at Work Training
Every SAFG employee participates in this training program, which focuses on the importance of treating all employees with dignity, consideration and respect, and on complying with the firm's Dignity at Work policy. (From the web site of SAFG, 2004)

Employee Development
SAFG's long-term success rests on the ability of our employees to change and grow as our firm, our industry and our markets do. To encourage this growth, SAFG provides a broad range of resources to assist eligible employees at all levels to explore internal opportunities for personal development. Every division also provides training for new hires, as well as both formal and informal mentoring programs designed to pair new professionals with more experienced colleagues.

Table 8.4.2b: SAFG's Organisation Structure

SAFG's Management Structure (From the web site of SAFG, 2004)
Structure & Management of SAFG
Person A Chief Executive Officer
Division Group X: Institutional Securities
X1: Securities Division
X1-1: Equities
X1-2: Fixed Income
X2: Investment Banking Division

Division Group Y: Finance, Administration and Operations
Division Group Z: Wealth & Asset Management
Z1: Asset Management Company
Z2: Alternative Capital Division
Z3: Private Client Services
SAFG's Operating Committee
Person A: Chief Executive Officer of SAFG
Person B: Chairman and Chief Executive Officer of Asia-Pacific Region
Person C: Chairman of European Region
Person D: Co-Head of Equity Division (X1-1)
Person E: President
Person F: Head of Alternative Capital Division (Z2)
Person G: Co-Head of Fixed Income Division (X1-2)
Person H: Chairman and Global Chief Executive Officer of Asset Management Company (Z1)
Person I: Co-Head of Equity Division (X1-1)
Person J: General Counsel, Vice Chairman of Research and Legal (Under Division Group Y)
Person K: Head of Global Technology, Operations, and Product Control (Under Division Group Y)
Person L: Head of Investment Banking (X2)
Person M: Global Head of Human Resources (Under Division Group Y)
Person N: Vice Chairman of the Executive Board
Person O: Co-Head of Fixed Income Division (X1-2)

Open Coding

By deploying the same data analysis method as the pilot study, the collected data indicated in

Table 8.4.2a and Table 8.4.2b were analysed.

Table 8.4.2c: Identification of Concepts

No.	Concepts
1	A leading global investment bank
2	A full service investment bank
3	Strong local presence
4	Global vision across all markets
5	Zurich based group
6	High quality of client-centric services
7	Diversity of thought and approach
8	Innovative solutions
9	Highly talented people
10	Open Networking of employees and division
11	Balance between work lives and personal lives
12	Share common interests and experiences

13	Greater productivity
14	Healthy relations to community and society
15	Treat employees with dignity, consideration and respect
16	Long-term success by talented employees
17	Growth of employees by broad range of resources
18	Equal opportunities for employees
19	Short-term professional development
20	Hierarchy of management
21	Balance of profit centre and cost centre
22	Global market focus
23	Regional market management
24	Product line management
25	Management of IS with other department
26	Global head of IT
27	Sharing business vision with IS management

Axial Coding

The paradigm analysis of the discovered categories was conducted. In addition, similar categories were integrated using the visualising diagrams discussed in Chapter 7. Figure 8.4.2a, b, c, d and e describe the integration.

Table 8.4.2d: Paradigm Analysis

Category 1			Investment bank	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
			Why	In order to organise their business model	
			Where	Financial Market	
			When	Managing their business	
		Action/Interaction	Routine or Strategic	Strategic
			By whom	The large financial group	
			How	Clarifying their business model	
		Consequences	Intended or Unintended	Intended
			Duration	Short, Medium or Long-Term	Long-Term
			Visibility	Visible or Invisible	Visible
			Impact	Strong or Weak	Strong
			Predictability	Predictable or Unpredictable	Unpredictable
			Scope	Wide or Narrow	Wide
	Memo		Leading full service global investment bank	
	Subcategories			
		Subcategory 1	Full service investment bank	
		Subcategory 2	Leading investment bank	

Category 2			Globalised business	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to organise their business model	
		Where	Financial Market	
		When	Managing their business	
		Action/Interaction	Routine or Strategic	Strategic
		By whom	The large financial group	
		How	Clarifying their business model	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Visible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Unpredictable
		Scope	Wide or Narrow	Wide
	Memo		Zurich based group	
	Subcategories			
		Subcategory 1	Global vision	
		Subcategory 2	Local presence	
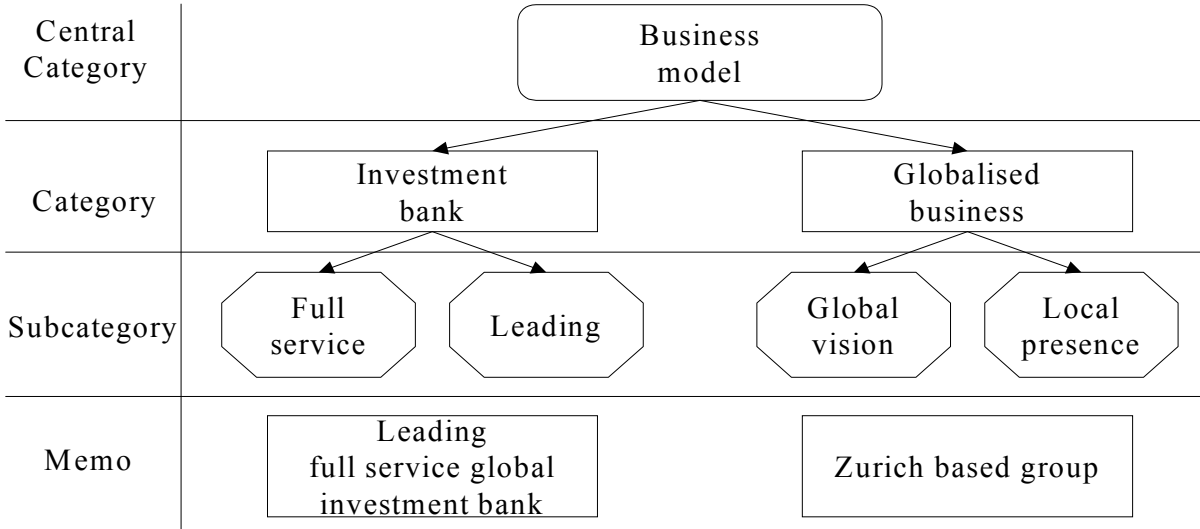
Figure 8.4.2a: SAFG's Business Model

Category 3			High quality service	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to maintain and expand their business	
		Where	Financial Market	
		When	Managing their business	
		Action/Interaction	Routine or Strategic	Strategic
		By whom	The large financial group	
		How	Clarifying their business strategy	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Visible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Unpredictable
		Scope	Wide or Narrow	Narrow
	Memo		Aiming at high quality and high productivity	
	Subcategories			
		Subcategory 1	By sharing experience	
		Subcategory 2	By talented people	

Category 4			Diversity	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to improve their business model	
		Where	Financial Market	
		When	Managing their business	
		Action/Interaction	Routine or Strategic	Strategic
		By whom	The large financial group	
		How	Clarifying their business strategy	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Invisible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Unpredictable
		Scope	Wide or Narrow	Wide
	Memo		Aiming at innovative solutions	
	Subcategories			
		Subcategory 1	Diversity of thought	
		Subcategory 2	Diversity of approach	
		Subcategory 3	Open network	
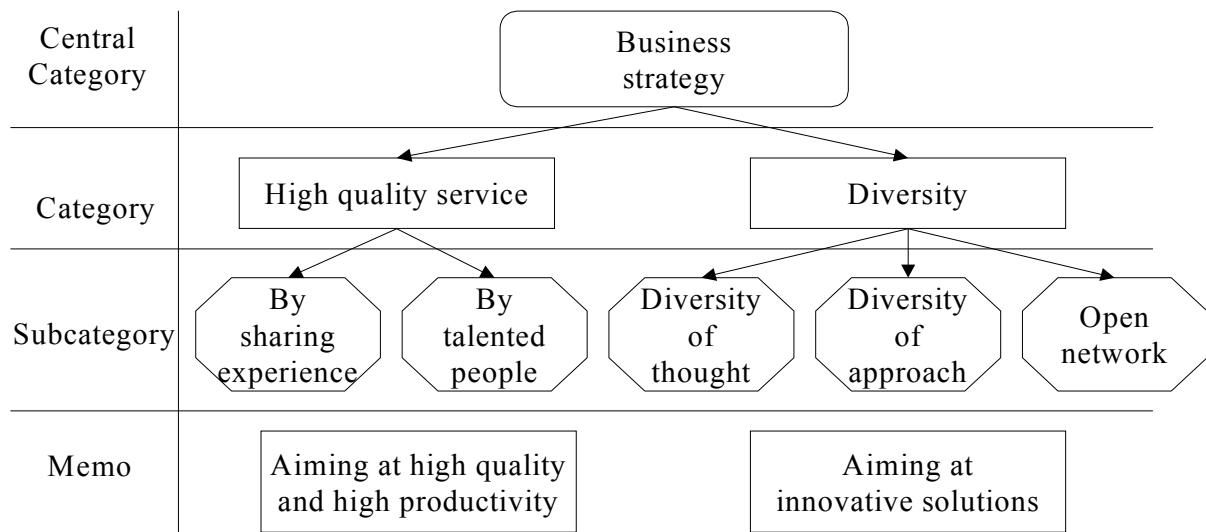
Figure 8.4.2b: SAFG's Business Strategy

Category 5			Working environment	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to manage their organisation	
		Where	Internal organisation of the large financial group	
		When	Managing their business	
		Action/Interaction	Routine or Strategic	Routine
		By whom	The large financial group	
		How	Organising their internal environment	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Invisible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Predictable
		Scope	Wide or Narrow	Wide
	Memo		Aiming at balance between work lives and personal lives.	
	Subcategories			
		Subcategory 1	Balance of work and life	
		Subcategory 2	Respecting employees	

Category 6			Relation to society	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to maintain their reputation	
		Where	Financial market and society	
		When	Managing their business	
		Action/Interaction	Routine or Strategic	Routine
		By whom	The large financial group	
		How	Communicating with their external environment	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Invisible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Predictable
		Scope	Wide or Narrow	Wide
	Memo		Aiming at healthy relations with community and society	
	Subcategories			
		Subcategory 1	Relation to community	
		Subcategory 2	Relation to society	
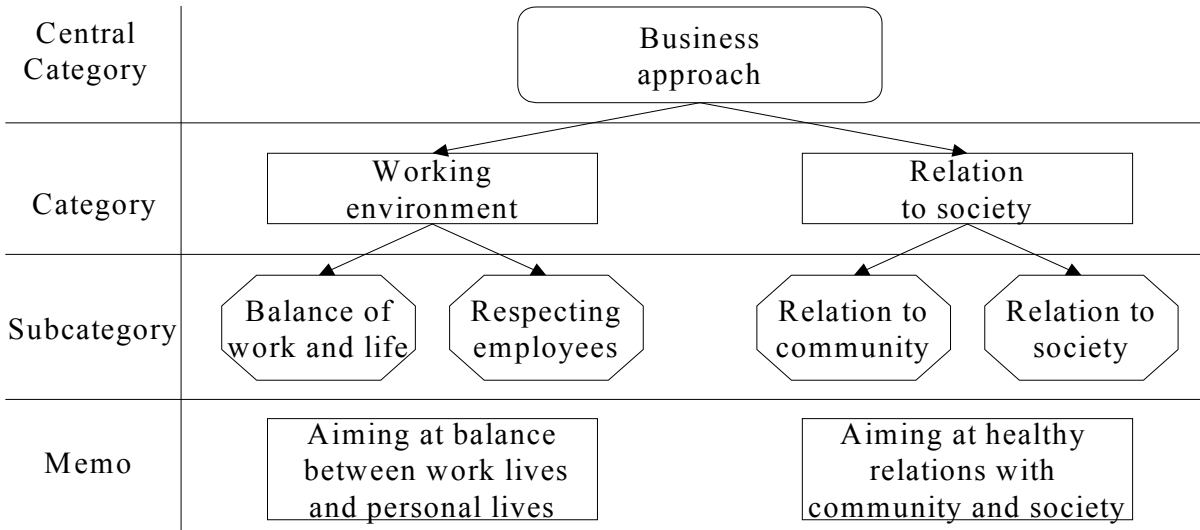
Figure 8.4.2c: SAFG's Business Approach

Category 7			Human resource management	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to develop their human resources	
		Where	Internal organisation of the large financial group	
		When	Managing their business	
		Action/Interaction	Routine or Strategic	Routine
		By whom	The large financial group	
		How	Managing human resources	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Invisible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Predictable
		Scope	Wide or Narrow	Wide
	Memo		Following liquid and flexible human resource management	
	Subcategories			
		Subcategory 1	Equal opportunity	
		Subcategory 2	Broad range of resources	
		Subcategory 3	Short term employees development	
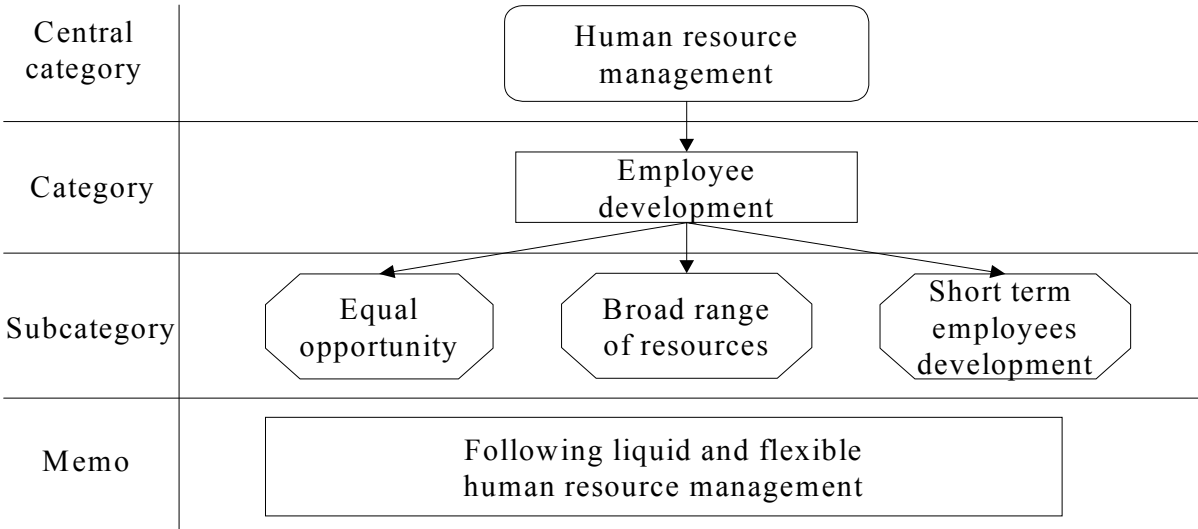
Figure 8.4.2d: SAFG's Human Resource Management

Category 8			Matrix business management	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to develop their organisational structure	
		Where	Internal organisation of the large financial group	
		When	Managing their globalised business	
		Action/Interaction	Routine or Strategic	Routine
		By whom	The large financial group	
		How	Structuring the organisation	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Visible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Predictable
		Scope	Wide or Narrow	Wide
	Memo		Following matrix business management, segregation between profit centre and cost centre, balance of product line, and balance of global and regional management are emphasised.	
	Subcategories			
		Subcategory 1	Segregation between profit centre and cost centre	
		Subcategory 2	Balance of product line	
		Subcategory 3	Balance of global and regional	

Category 9			Matrix IS management	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to develop their organisational structure	
		Where	Internal IS function of the large financial group	
		When	Managing their globalised business	
		Action/Interaction	Routine or Strategic	Routine
		By whom	The Investment bank	
		How	Structuring the IS management	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Visible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Predictable
		Scope	Wide or Narrow	Narrow
	Memo		Following matrix business management, global head of IT is appointed to share business vision and to keep the balance of global and regional management.	
	Subcategories			
		Subcategory 1	Global head of IT	
		Subcategory 2	Sharing business vision	
		Subcategory 3	Balance of global and regional	
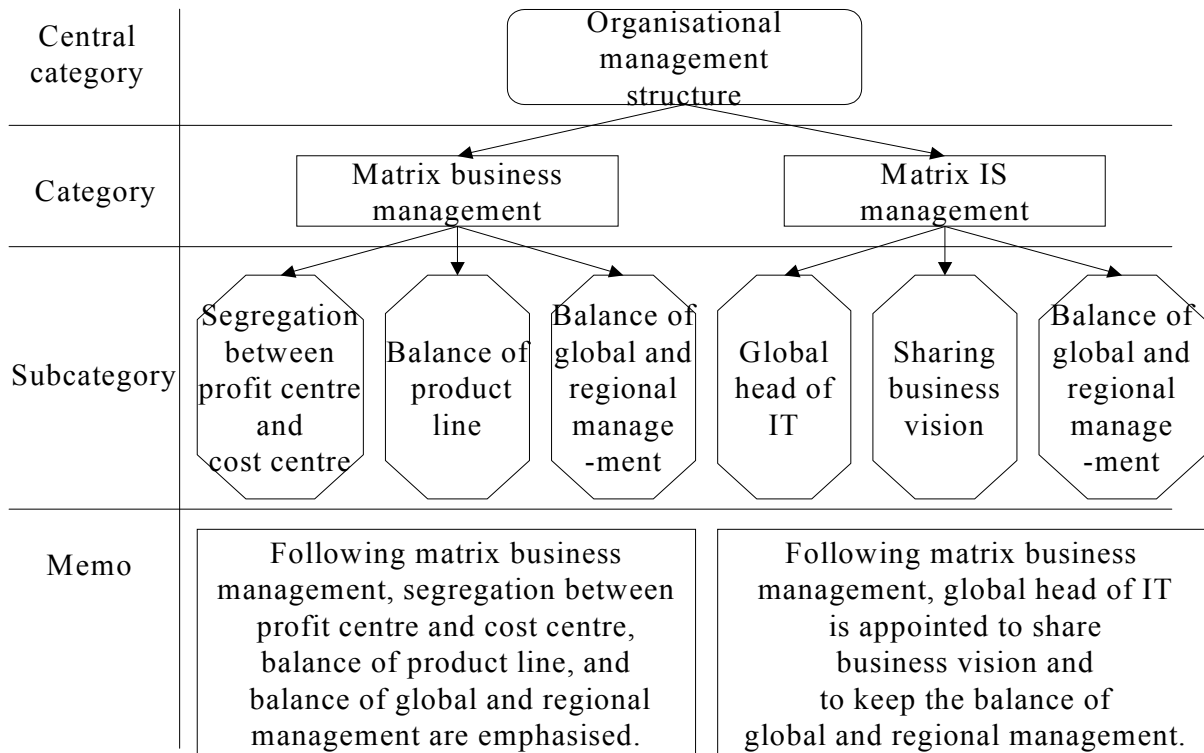
Figure 8.4.2e: SAFG's Organisational Management Structure

8.4.3 Data Analysis of JPFG1's Official Corporate Information

Table 8.4.3a is the collected data regarding JPFG1's corporate philosophy, and Table 8.4.2b

is the collected data regarding JPFG1's organisational chart.

Table 8.4.3a: JPFG1's Corporate Philosophy

Corporate Philosophy (From the web site of JPFG1, 2004)

Corporate Vision
1, JPFG1 aims to contribute to the prosperity of society and of the economy by creating superior value throughout activities in the securities, financial, and capital markets.

2, JPFG1 aims to materialise the prosperity of our customers, increased shareholder value, and improved employee welfare all at the same time.

3, JPFG1 aims to be the leading company with a global vision in the securities and investment banking industry in the new millennium.

Share Values
1, JPFG1's most important value is the trust of our customers and of society. Our motto is to be earnest, honest and sincere. All our business activities are conducted in full compliance with laws, regulations and business ethics.

2, JPFG1's business begins with customer needs, then products follow. We do our utmost to serve the diverse needs of our customers in the most effective ways possible, and to provide high-quality solutions promptly and responsively.

3, JPFG1 purposes high profitability from the creation of value for the prosperity of our customers, shareholders and employees for their prosperity. We will never stop improving ourselves to be lean and efficient.

4, JPFG1 values innovation, creativity and entrepreneurship. The challenge of value creation is the essence of the securities and investment banking industry. We respect people who constantly challenge to explore innovations to develop new products and new ways to create value for our customers and shareholders.

5, JPFG1 implements fair personnel practices. We evaluate employees fairly. We place the right person in the right position to provide a work environment in which one can fully develop his/her skills, and can function to the maximum.

6, JPFG1 works in teamwork, respecting individual values at the same time. We realise an open and transparent corporate culture with teamwork spirit. We encourage open discussions, and dynamic, vivid thinking.

Employee training

Basic training
The programme are an introductory training at the new hiring period, an on the job training by trainers for new hires, and follow up training at the ending period of year 1, 2 and 3.

Introductory training at the new hiring period
It aims at learning the basic knowledge of business, which are the role of the securities companies, the organisation structure, the knowledge of financial products and the method of business communication. In addition, the outdoor training is provided for team building.

Follow up training
The company defines that the training period for new hires are three years. In this period, the follow up training is provided for new hires to grow up as core employees in the departments. It takes three yeas for new hires to learn the necessary basic ability for business, and the following programme is planned.

Year 1: The trainees recognise the strength and weakness of themselves, and understand the thinking way and actions for businessman. In addition, the trainees learn the usability of information and the basic conversation skills. The further target is set up after one year training.

Year 2: The trainees review the business flow of the current job to improve the management skill. In addition, the training is conducted to strengthen the theoretical thinking and the ability for questioning.

Year 3: The trainees recognise the intention to improve the outcome of team working through self improvement and collaboration. The training is conducted to strengthen the explanation and presentation ability.

Table 8.4.3b: JPFG1's Organisation Chart

JPFG1's Organisation Chart ((From the web site of SAFG, 2004)
Person A: Chairman
Person B: President
Person C: Deputy President
Person C1: Head of Investment Banking Group
Person C2: Head of Corporate Advisory Group
Person C3: Head of Fixed Income Group
Person C4: Head of Derivative & Structured Products Group
Person C5: Head of Equity Group
Person C6: Head of Research Group
Person D: Managing Director & Senior Executive Officer
Person D1: Head of Retail Business Group
Person D2: Head of Corporate & Institutions Business Group
Person D3: Financial Institutions Division, Investment Trust Division, Corporate Service Division
Person E: Deputy President
Person E1: Corporate Centre
Person E2: Compliance
Person E3: Audit and Inspections

Open Coding

The collected data indicated in Table 8.4.3a and Table 8.4.3b were analysed using the same data analysis method as the pilot study.

Table 8.4.3c: Identification of Concepts

No.	Concepts
1	Contribution to the prosperity of society and of the economy
2	Value creation
3	Investment banking
4	Increasing shareholder value
5	Improving employee welfare
6	Prosperity of customers

7	Aiming to be a leading company with a global vision
8	Trust of our customers and of society
9	Motto is to be earnest, honest and sincere
10	Most effective ways possible
11	High-quality solutions promptly and responsively
12	High profitability from the creation of value for the prosperity
13	Improvement for lean and efficient
14	Develop new products and new ways to create value
15	Fair personnel practices
16	Right person in the right position
17	Human resource development
18	Works in teamwork, respecting individual values
19	Open and transparent corporate culture
20	Open discussions, and dynamic, vivid thinking
21	Introductory training of new graduates from basic
22	Standard training procedure for new graduates
23	Long-term professional development
24	Hierarchy of management
25	Profit Centre driven
26	Domestic market focus
27	No overseas market management
28	No information technology department
29	Outsource to *Keiretsu* IT company
30	No global head of IT
31	IS planning section under corporate centre
32	Many planning sections in various department

Axial Coding

The same approach of paradigm analysis as the SAFG's corporate information was applied.

Figure 8.4.3a, b, c, d and e describe the integration of the similar categories.

Table 8.4.3d: Paradigm Analysis

Category 1			Investment Bank	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to organise their business model	
		Where	Financial Market	
		When	Managing their business	
		Action/Interaction	Routine or Strategic	Strategic
		By whom	The large financial group	
		How	Clarifying their business model	
		Consequences	Intended or Unintended	Intended

		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Visible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Unpredictable
		Scope	Wide or Narrow	Wide
	Memo		Leading full service global investment bank	
	Subcategories			
		Subcategory 1	Full service investment bank	
		Subcategory 2	Leading investment bank	

Category 2			Globalising business	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to organise their business model	
		Where	The large financial group	
		When	Managing their business	
		Action/Interaction	Routine or Strategic	Routine
		By whom	The large financial group	
		How	Clarifying their business model	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Visible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Predictable
		Scope	Wide or Narrow	Wide
	Memo		Tokyo based group	
	Subcategories			
		Subcategory 1	Global vision	

Figure 8.4.3a: JPFG1's Business Model

Category 3			High quality service	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to maintain and expand their business	
		Where	Financial Market	
		When	Managing their business	
		Action/Interaction	Routine or Strategic	Routine
		By whom	The large financial group	
		How	Clarifying their business strategy	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Invisible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Predictable
		Scope	Wide or Narrow	Wide
	Memo		Aiming at prosperity of whole society	
	Subcategories			
		Subcategory 1	Shareholder value	
		Subcategory 2	Employee welfare	
		Subcategory 3	Prosperity of customers	

Category 4			Value creation	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to improve their business model	
		Where	Financial Market	
		When	Managing their business	
		Action/Interaction	Routine or Strategic	Routine
		By whom	The large financial group	
		How	Clarifying their business strategy	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Invisible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Predictable
		Scope	Wide or Narrow	Wide
	Memo		Aiming at value creation	
	Subcategories			
		Subcategory 1	Prompt manner	
		Subcategory 2	Responsive way	

Figure 8.4.3b: JPFG1's Business Strategy

Category 5			Working environment	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to manage their organisation	
		Where	Internal organisation of the large financial group	
		When	Managing their business	
		Action/Interaction	Routine or Strategic	Routine
		By whom	The large financial group	
		How	Organising their internal environment	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Invisible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Predictable
		Scope	Wide or Narrow	Wide
	Memo		Fair personnel practice and team work	
	Subcategories			
		Subcategory 1	Fair personnel practices	
		Subcategory 2	Team work	
		Subcategory 3	Open and transparent	

Category 6			Relations to society	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to maintain their reputation	
		Where	Financial market and society	
		When	Managing their business	
		Action/Interaction	Routine or Strategic	Routine
		By whom	The large financial group	
		How	Communicating with their external environment	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Invisible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Predictable
		Scope	Wide or Narrow	Wide
	Memo		Contribution and trust between society	
	Subcategories			
		Subcategory 1	Contribution to society	
		Subcategory 2	Trust in society	

Figure 8.4.3c: JPFG1's Business Approach

Category 7			Human resource management	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to develop their human resources	
		Where	Internal organisation of the large financial group	
		When	Managing their business	
		Action/Interaction	Routine or Strategic	Routine
		By whom	The large financial group	
		How	Managing human resources	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Invisible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Predictable
		Scope	Wide or Narrow	Wide
	Memo		Following solid life time employment system	
	Subcategories			
		Subcategory 1	Introductory training for new graduates	
		Subcategory 2	Standardised training procedure	
		Subcategory 3	Long term professional development	
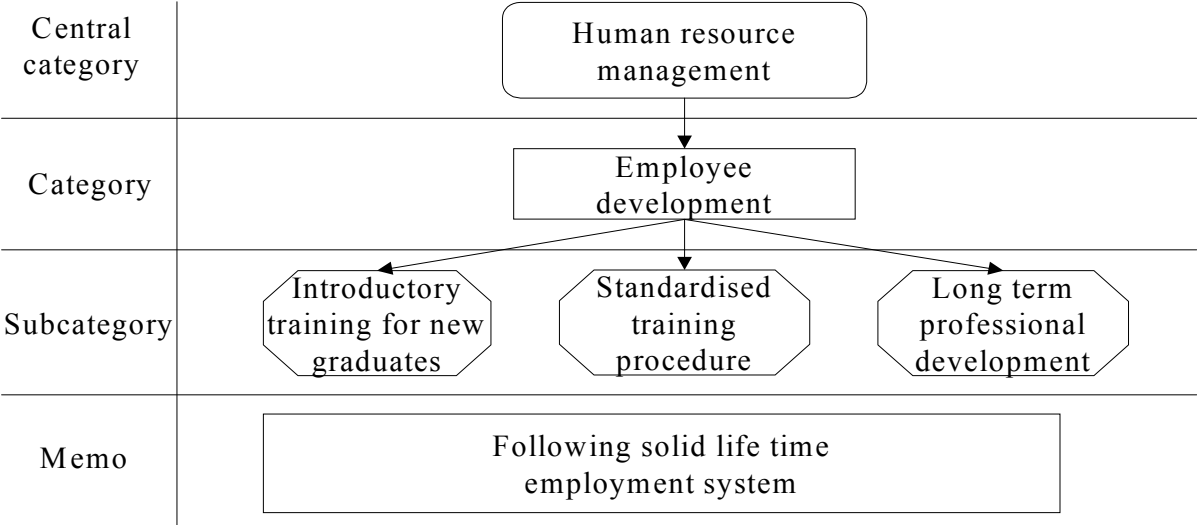
Figure 8.4.3d: JPFG1's Human Resource Management

Category 8			Single dimensional management	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to develop their organisational structure	
		Where	Internal organisation of the large financial group	
		When	Managing their business	
		Action/Interaction	Routine or Strategic	Routine
		By whom	The large financial group	
		How	Structuring the organisation	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Visible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Predictable
		Scope	Wide or Narrow	Wide
	Memo		Following single dimensional business management, profit centre driven is emphasised, many planning section exist and domestic market is focused.	
	Subcategories			
		Subcategory 1	Profit centre driven	
		Subcategory 2	Many planning sections	
		Subcategory 3	Domestic market focus	

Category 9			IT outsource to *Keiretsu* company	
	Paradigm			
		Condition	Casual, Intervening, Contextual	Contextual
		Why	In order to develop their organisational structure	
		Where	Internal IS function of the large financial group	
		When	Managing their business	
		Action/Interaction	Routine or Strategic	Routine
		By whom	The Investment bank	
		How	Structuring the IS management	
		Consequences	Intended or Unintended	Intended
		Duration	Short, Medium or Long-Term	Long-Term
		Visibility	Visible or Invisible	Visible
		Impact	Strong or Weak	Strong
		Predictability	Predictable or Unpredictable	Predictable
		Scope	Wide or Narrow	Narrow
	Memo		Following IT outsourcing to *Keiretsu* company, no global Head of IT is appointed, no IT department exists and IS planning section exists under the corporate centre.	
	Subcategories			
		Subcategory 1	No global head of IT	
		Subcategory 2	No information technology department	
		Subcategory 3	IS planning section under corporate centre	

Central category: Organisational management structure

Category: Single dimensional management | IT outsource to Keiretsu company

Subcategory: Profit centre driven | Many planning sections | Domestic market focus | No global head of IT | IS Planning section under corporate centre | No information technology department

Memo:
Following single dimensional business management, profit centre driven is emphasised, many planning section exist and domestic market is focused..

Following IT outsourcing to Keiretsu company, no global Head of IT is appointed, no IT department exists and IS planning section exists under the corporate centre.

Figure 8.4.3e: JPFG1's Organisational Management Structure

8.4.4 Comparison

Since constant comparison is one of the essences of Grounded Theory (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002; Douglas, 2003), similarities and differences in their business model and management style are detected as follows.

Business model, business strategy and business approach

SAFG identifies its business as globalised, but JPFG1 emphasises global business as its target. This is only one detected difference between SAFG and JPFG1. However, many similarities were identified in their business models, strategies and approaches. Firstly, they both state that they are leading and full service investment banks. Secondly, they emphasise the importance of providing high quality service to their customers aiming at creating value

through innovative solutions. Thirdly, they manage internal organisations through respecting employees, fair personnel practices and teamwork. Fourthly, they strive to maintain healthy relations with the community and society.

Table 8.4.4a: Comparison of Business Models

SAFG		JPFG1	
1	Leading and full service	1	Leading and full service
2	Globalised investment bank	2	Aiming at global business
3	High quality service	3	High quality service
4	Diversity	4	Value creation
5	Balance between work lives and personal lives	5	Fair personnel practice and team work
6	Healthy relations to society	6	Contribution to society

Human Resource Management

Significant differences in the human resource management between SAFG and JPFG1 were detected. SAFG manages human resources from the view of short-term and flexible employee development, but JPFG1 applies long-term and standardised employee development.

Table 8.4.4b: Comparison of Human Resource Management

SAFG		JPFG1	
Short-term and flexible employees development		Long-term and standardised employees development	
1	Equal opportunity	1	Introductory training for new graduates
2	Broad range of resources	2	Standardised training procedure

Organisational Management Structure

Significant differences in the organisational management structure between SAFG and JPFG1 were detected. SAFG applies a matrix and global management structure for business management as well as IS management. On the other hand, JPFG1 applies the single dimensional organisational structure focusing on the domestic market, and outsources IT activities to *Keiretsu* companies.

Table 8.4.4c: Comparison of Organisational Management Structure

SAFG		JPFG1	
Matrix and global business management		Single dimensional business management	
1	Balance of profit centre and cost centre	1	Profit centre driven
2	Balance of product line	2	Many planning sections
3	Balance of global and regional	3	Domestic market focus

Table 8.4.4d: Comparison of IS Management Structure

SAFG		JPFG1	
Matrix and global IS management		IT outsource to *Keiretsu* company	
1	Global head of IT	1	No global head of IT
2	Sharing business vision	2	No information technology department
3	Balance of global and regional	3	IS planning section under corporate centre

8.5 Integration and Refinement

Diagrams are valuable for integration, because diagramming helps the researchers to a) gain distance from the data, b) enable concentration on concepts rather than details of data, and c) give deep insight of logical relationships in the theory (Strauss and Corbin, 1998). Based on the similarities and differences identified in the previous section, the research a) integrates similar categories, b) maintains important categories, and c) segregates categories which contain significant differences from the perspective of IS management.

8.5.1 Integrated Categories

Categories of business model, business strategy and business approach were integrated, and business model became a new central category which represents business strategy and business approach, because many similarities exist in SAFG and JPFG1. In order to describe detected differences between SAFG and JPFG1, the new category of business model differentiates a) globalised business for SAFG and b) globalising business for JPFG1.

8.5.2 Maintained Categories

Human resource management was maintained as a central category, because significant differences were detected between SAFG and JPFG1.

8.5.3 Segregated Categories

As described in Table 8.4.4d, IS management between SAFG and JPFG1 indicated significant differences. IS management is, therefore, segregated from organisational management structure, and becomes a new central category. Organisational management structure is maintained as a central category.

8.5.4 Refinement and the FCCM-GSISMs

By integrating, maintaining and segregating central categories identified in the axial coding, a) business model, b) human resource management, c) organisational management structure, and d) IS management were identified as central categories. Figure 8.5a and Figure 8.5b describe *the Four Central Categories Model of Global Strategic IS Management (FCCM-GSISM),* which has been discovered through comparative analysis of the official corporate information between SAFG and JPFG1.
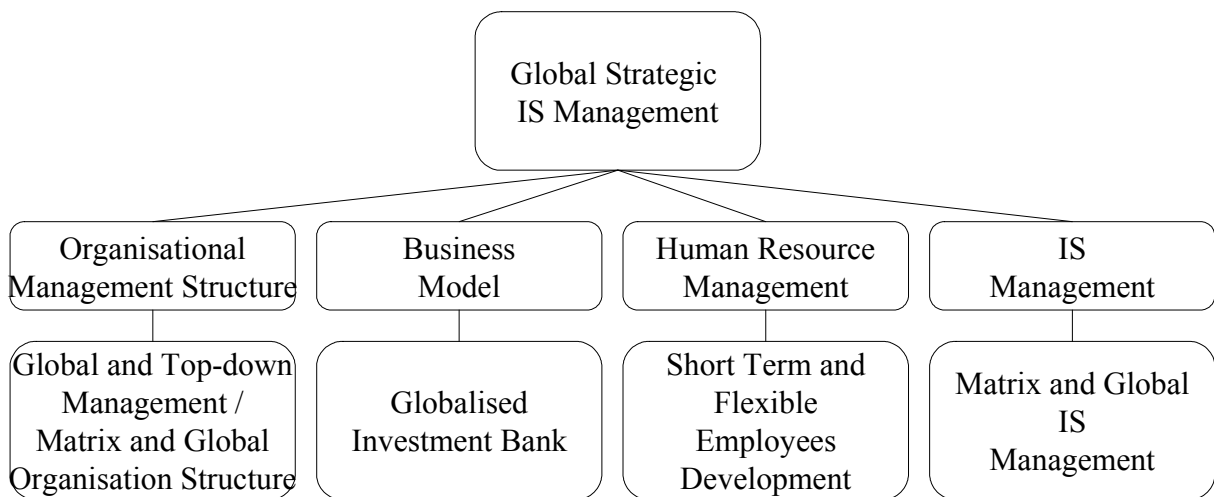
Figure 8.5a: The FCCM-GSISM: Matrix and Global IS Management of SAFG

Figure 8.5b: The FCCM-GSISM: IT Outsourcing to *Keiretsu* Companies of JPFG1

8.5.5 Benefits of Analysis for the Official Corporate Information

The FCCM-GSISM clearly visualises differences in the four categories between SAFG and JPFG1. This is a major benefit of discovering the model through the data analysis of the official corporate information.

8.5.6 Limitation of Analysis for the Official Corporate Information

However, there is a major limitation of the FCCM-GSISMs, because the collected data are concerning business and management in the selected cases. By analysing them, it is general and not surprising that the discovered categories are limited to those four categories i.e. a) business model, b) human resource management, c) organisational management structure, and d) IS management.

The discovered four categories in the model, therefore, have potentials to a) combine with each other, b) segregate into multiple central categories, or c) identify other significant categories in further research. Potentialities of combination and segregation are shown in the following tables.

Table 8.5.6a: Examples of Combination

Central categories 1	Central categories 2	A new central category
Business Model	IS Management	Business/IS Strategy
Business Model	Organisational Management Structure	Business Management
Organisational Management Structure	Human Resource Management	Management Structure

Table 8.5.6b: Examples of Segregation

Central categories	A new central categories 1	A new central categories 2
Organisational Management Structure	Organisational Structure	Reporting Lines
IS Management	Strategic IS Planning	IS Project Management
Human Resource Management	Human Resource Development	Human Resource Allocation

Based on the discussion of benefits, limitation and examples of integration and segregation of the discovered four categories of the FCCM-GSISMs, Table 8.5.6c summarises the limitation carried forward to the next step of the research.

Table 8.5.6c: Summary of the Limitation for the FCCM-GSISMs

Number	Limitation
1	Small range of selected cases
2	Temporary phenomena
3	Four central categories - Possibility for combining or segregating
4	No relationship between central categories
5	No answer questions to main and sub-question

8.6 Conclusion

Chapter 8 firstly assessed the workability and applicability of the templates and diagrams formalised in Chapter 7. Secondly, it described the outcome of the open coding data analysis in selected cases. Thirdly, it demonstrated the Four Central Categories Model of Global Strategic IS Management (FCCM-GSISM) which emerged by integrating emerged theories of the IS projects and the official corporate information in SAFG and JPFG1. The FCCM-GSISMs consist of a) business model, b) organisational management structure, c) human resource management, and d) strategic management of global IS.

By indicating cause, change and consequence of the four central categories, Chapter 9 demonstrates the emerged theories which visualise similarities and differences of cultural elements affecting global strategic IS management in the multinational investment banks.

Chapter 9 Relational and Variational Sampling

Chapter 8 demonstrated the findings from the open sampling process. The next step of the theoretical sampling is the relational and variational sampling process which focuses on discovering relations and variations of emerged categories in the open sampling process (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002; Goede and Villers, 2003).

In order to describe the findings from the relational and variational sampling, this chapter firstly summarises statistics of unstructured interviews. Secondly, the newly discovered cross-cultural comparison models of global strategic IS management (CCCM-GSISMs) are explained with a review of the interview manuscripts as well as a review of external literature concerning global IS. Thirdly, similarities and differences in the cultures between SAFG and JPFG1 are discussed before conclusions are drawn.

9.1 Introduction

In the relational and variational sampling process, the researcher seeks incidents that represent relationships among concepts and variation of the concepts. It is important for the researcher to have unlimited access to samples and know places to go to maximise opportunities for comparative analysis to identify similarities and differences.

> *"During relational and variational sampling, the researcher is looking for incidents that demonstrate dimensional range or variation of a concept and the relationships among concepts. ... Contrary to what one might think, the act of purposefully choosing sites or persons based on potential of maximising differences among emerging concepts is a deductive process. ... Until the persons get there, the*

researcher does not know for certain that the place actually will maximise those similarities and differences" (Strauss and Corbin, 1998; pp. 210).

At the same time, the researcher continuously identifies attributes of concepts through comparison of incidents and events (Strauss and Corbin, 1998). In the relational and variational sampling process, the research conducted unstructured interviews focusing on identifying relations and variations of concepts (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002; Goede and Villers, 2003).

9.2 Unstructured Interviews and the CCCM-GSISMs

The unstructured interviews were conducted with various types of employee including the senior management and the junior staff in SAFG and JPFG1. Questions asked in the interviews were widely set to obtain the data not only for global strategic IS management but also for other business issues, because the interviewees might have other important information for the research.

Thus, giving interviewees wide room to answer during interviews, the unstructured interviews were conducted in English and Japanese, according to the preference of the respondent. The coding processes of the unstructured interviews were conducted using the formalised templates and diagrams explained in Chapter 7.

Although some of the interviews had been conducted in Japanese, in all cases the interview manuscripts were written in English and all manuscripts were verified as accurate summaries of the substance of the interviews by the interviewees. This process allowed the avoidance of a possible nonsensical situation where two Japanese might be required to speak to each other in English solely for the constructs of the research process. As noted above, verification of

the English version of the summaries avoided loss in translation in this case from language to language but also in the case noted by Strauss and Corbin (1998) from interview enactment to summary. The following Table 9.2 gives statistical details of the unstructured interviews. Appendix C gives the details of the interviews.

Table 9.2: Statistics of Data Collection for the Relational and Variational Sampling

Financial Groups	SAFG		JPFG1	Total
Entity Location	Singapore	Tokyo	London	
Year of Interviews	2004	2004	2004	
Number of Interviewees	3	6	6	15
Number of Interviews	3	9	9	21
Length of Interviews	3 hours	5 hours 40 minutes	3 hours 35 minutes	12 hours 15 minutes
Size of data in Interview Manuscripts	2301 words	4480 words	1587 words	8368 words
Phenomena	114	198	76	388
Concepts	52	116	56	224
Categories	24	52	36	112

Many interviewees identify history, background, trigger, condition, cause, effect, process and consequence for strategic global IS management from various aspects.

For example, an interviewee widely explained the context of the regulatory requirement in the global financial market that the Bank of International Settlement (BIS) set for some rules for the international settlements. Recently they are focusing on the operational risk. Basel II, a committee under BIS, set a revised framework for the International Convergence of Capital Measurement and Capital Standards (Appendix C; Interviewee A).

Another interviewee emphasised that there have been three major trends to which multinational investment banks need to respond and react. They are a) general standardisation in technological platforms, b) mechanical standardisation including computer systems in financial markets, and c) standardisation from financial regulatory bodies (Appendix C; Interviewee C).

Based on working experiences both in a Japanese financial institution and in Western financial groups (SAFG, USFG1 - see 10.3.1 and GBFG1 - see 10.3.5), a different interviewee made suggestions for Japanese financial institutions regarding their business model, that European and U.S. financial groups have expanded their profitable business in Japan by deployment of the business scheme adopted in European and U.S. financial markets. Applying the same approach as the European and U.S. financial groups, Japanese financial group should introduce global financial products to domestic investors in the Japanese market (Appendix C; Interviewee B).

Based on working experiences in a U.S. financial group (USFG3 - see 10.3.3) and SAFG, another interviewee elaborated a critical success factor of global IS projects from the comparative view of two organisations that the decentralisation of business process and IS function by the centralised authority is not as complex as might be intuitively thought. However, the centralisation or global co-ordination by the decentralised authorities is difficult (Appendix C; Interviewee K).

Through the formalised Grounded Theory procedure discussed in Chapter 7, this research analysed the collected data from the relational and variational sampling and discovered the Cross-Cultural Comparison Models of Global Strategic IS Management (CCCM-GSISMs) which represent the four central categories for business model, organisational management structure, human resource management and global IS management.

9.3 Successful Regional Centralisation of IT Support in SAFG

SAFG's business model driven approach (Figure 9.3) describes the successful regional centralisation of IT support in the Singapore office. In order to activate a new global business model, the organisational management structure deployed matrix and global style. In addition, new human resources were hired. Consequently, IT support functions were successfully centralised in the Asia-Pacific region.

Cause	Change		Consequence
Business Model	*Organisational Management Structure*	*Human Resource Management*	IS Management
Application of New Global Business Model	Implementation of New Matrix and Regional/Global Organisation Structure	Hiring New Human Resources	Successful Regional Centralisation of IT Support
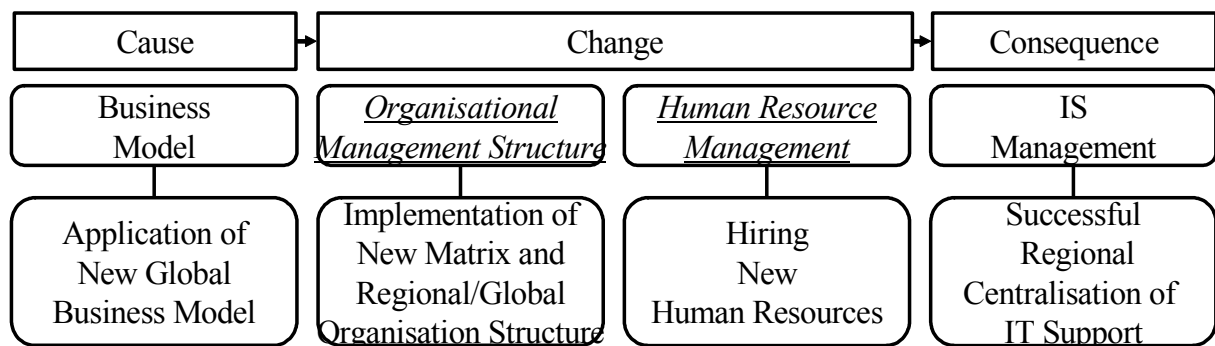
Figure 9.3: The CCCM-GSISM: Successful Regional Centralisation of IT Support in SAFG

9.3.1 Application of the New Global Business Model

A particular trader and his team played a significant role with respect to IS decisions when SAFG were migrating and specialising the global business model of another U.S. investment bank (USFG1).

In 1992, a trader, who used to be a Japanese Government Bond (JGB) trader in USFG1, joined SAFG's New York office to implement the same trading scheme as JGB trading used by USFG1. He was the first person to develop the new JGB trading scheme in the Tokyo market by applying the latest bond trading method in the U.S. and European markets.

At the same time as he joined SAFG's New York office, the trader hired his two colleagues from USFG1 to expand the JGB business in SAFG's Tokyo office. In addition, his other two colleagues also joined from USFG1 as JGB repo traders. As a group, the reader and his team developed a global booking mechanism for JGB trading between SAFG's New York, London, Hong Kong and Tokyo offices (Appendix C; Interviewee B).

The team required development of a new computer system which could indicate an overall profit and loss (PL) for the Asia-Pacific region. In 1993, SAFG's Hong Kong office started to consolidate system functions generating financial reports of the general ledger (GL) and the PL using the new computer system, because the regional head for the functions of administration and operations (FA&O) was located in the Hong Kong office at that time.

In 1994, the interface for different accounting systems between the Hong Kong and Tokyo offices was first developed. Other entities in the Asia-Pacific region, which also used different accounting systems, individually developed interface to export the data from their accounting systems to the new accounting system implemented in the Hong Kong office.

In 1995, accompanying a change of organisational management strategy from the remote management by the Hong Kong office to the regional centralisation in the Singapore office, the accounting department in the Singapore office hired about 5 people in order to regionally consolidate financial reports of the GL and PL for the Asia-Pacific region.

This consolidation process matured around 1996. SAFG's Tokyo office started eliminating the vendor system which operated back office processes including the GL and PL financial reports (Appendix C; Interviewee I).

Through the analysis of the interview manuscripts, four key factors for the application of the global business model have been identified. Firstly, the team migrated a global competitive

business model that was an important IT based innovation (Willcocks and Sykes, 2000) from USFG1 to SAFG.

Secondly, the team promoted a global competitive business vision (Earl and Feeny, 1995) that required a global trading mechanism using global IS to quickly obtain PL figures. The global business vision integrated with the IS strategy was autonomously shared among the top management team in SAFG.

Thirdly, the team members were deployed not only in the Western markets but also in the Asian markets to implement complex global IS projects which required coordination beyond national borders, functions, business units, profit and cost centres, and sites (Earl and Feeny, 1995).

Fourthly, the trader and his team became strong project sponsors, recognised as a key factor to successful implementation of major IS projects with business change and innovation (Edwards, 1995; Willcocks and Sykes, 2000).

9.3.2 Implementation of the New Matrix and Global Organisational Structure

The effort to change organisations to utilise global IS beyond national borders within multinational organisations (Earl and Feeny, 1995) is one of the greatest challenges for senior management (Santos and Fjermestad, 2002). Organisational structure should be changed to enable the expected benefits of the strategic IT solution (Boddy, 1995).

In the early 1990s before the new trader's arrival, the relationship between the Tokyo, Hong Kong and Singapore offices was not tight. In addition, reporting to SAFG's New York office from those Asian offices was not strict. As a whole, SAFG's New York, Tokyo, Hong Kong and Singapore offices worked their business independently (Appendix C; Interviewee B).

In 1992, a senior back office employee joined SAFG as a regional manager in the Tokyo Office. A Singapore manager started reporting to him after his arrival, when the equity business model was changed from a local business model to a regional business model i.e. combining all local business to all Asia-Pacific level (Appendix C; Interviewee L).

From 1994, SAFG started changing its management style from local management to regional management in the Asia-Pacific region. After this, they started integrating back office computer systems in the region and centralising operational processing in Singapore (Appendix C; Interviewee B).

In 1995, a vice president of the Operations department and a vice president of the IT department were transferred from Tokyo to Singapore. They started to develop a new in-house system to reduce manual processes and establish a straight through processing system.

They firstly developed a) a securities transaction booking system named Remote Trade Entry (RTE), b) a securities settlement system named Clearance and Settlement (CS), c) a cash settlement system named Cash Record (CR), and d) reconciliation system named Intellimatch (IMATCH) (Appendix C; Interviewee L).

After implementation of the new in-house system in SAFG's Singapore office, the system was implemented in the Hong Kong and Tokyo offices. As a result, they could operate on the same platform, which made for easy operation and had more efficiency and better control than the previous system (Appendix C; Interviewee H).

During the migration period from decentralisation to centralisation, the working style had been changed to adapt the local independent working style to the regionally coordinated working style (Appendix C; Interviewee L). In 1997, they officially implemented a global

reporting line when a) the investment banking, b) the commercial banking, and c) the derivative house merged (Appendix C; Interviewee B).

From the view of the reporting line of organisational structures (Earl, Edwards and Feeny, 1995), there are two key findings. Firstly, the matrix and global organisation structure in SAFG was implemented after the arrival of the trader and his team in 1992.

Secondly, SAFG has gradually changed the reporting line from local to regional, and then to global. The merger of three business organisations; investment banking, commercial banking and derivative business within the group in 1997, was a trigger to strengthen the global reporting line (Appendix C; Interviewee B).

9.3.3 Development of Hybrid Managers

Development of global IS specialists to work effectively is important in a global economy (Ferratt and Fogel, 1998). However, a large empirical study carried out in many countries in several continents has shown that IS specialists have difficulties in changing their view from micro-orientation to macro-orientation, often do not possess much experience in business functions, and often lack interest in business knowledge (Couger, 1995). SAFG attempts to develop hybrid managers who have a good understanding of business, industrial trends and IT capabilities, a human network within the organisation, and general management skills (Skyrme, 1995; Currie and Glover, 1997).

One interviewee explained his working experience becoming a hybrid manager in SAFG. From 1994 until 1997, he was a manger of the static data maintenance section in the operations department of SAFG's Singapore office. In 1997, he was transferred from the static data section to the fixed income settlement section. He was involved in the European

Monetary Union (EMU) project in 1998 and the Year 2000 (Y2K) project in 1999 (Appendix C; Interviewee H).

A Director, who managed the EMU projects, emphasised a critical success factor of the project. It went well from the start to end, because the strong hybrid managers, who had various knowledge of IT and business processes obtained from the new in-house system development, could act as key people to bring about their success (Appendix C; Interviewee M).

SAFG provides cross-cultural training to help IS specialists understand different cultural values (Ferratt and Fogel, 1998). One interviewee explained her working experience of internal transfer between accounting, operations and IT department beyond national borders. In May 1994, she joined SAFG's Tokyo office as a computer programmer in the accounting department. Three months later, she was transferred from the accounting department to the IT department to take care of the custody operation system.

In 1994, she was transferred from the Tokyo office to the Singapore office, because of the centralising project to support the same systems as she had supported in Tokyo. In 1996, she came back to the Operations department in Tokyo to deal with end user computing applications.

From 1997, by utilising her working experiences and knowledge across various business functions between the Singapore office and the Tokyo office, she was involved in major IS projects such as a) development of an in-house system aiming at elimination of a vendor system, b) the EMU project, c) the Y2K project, d) the Business Process Reengineering (BPR), and e) the Real Time Gross Settlement (RTGS) in JGB settlement between the Bank of Japan (BOJ) project (Appendix C; Interviewee C).

SAFG has an atmosphere conducive to developing Hybrid managers, which was not intentionally designed, but historically the management level employees are required to coordinate with other departments including IT not only for the big changes but also for improvements of ordinary business processes. One large IS project was managed by the strong IT support team which was organised with experienced experts (Appendix C; Interviewee M).

9.4 Failed Global BPR /IS Project in SAFG

SAFG's IS Project Driven approach (Figure 9.4) illustrates the failure of a new global business process reengineering (BPR)/IS project. No sponsor for the project was found in the organisation. Consequently, the human resources and the business models were unchanged.

Cause		Consequence	
IS Management	Organisational Management Structure	Human Resource Management	Business Model
New Global Business Process/ IS Project	No strong sponsor for New Global Business Process/ IS Project	No change of Human Resource	No change of Business Model
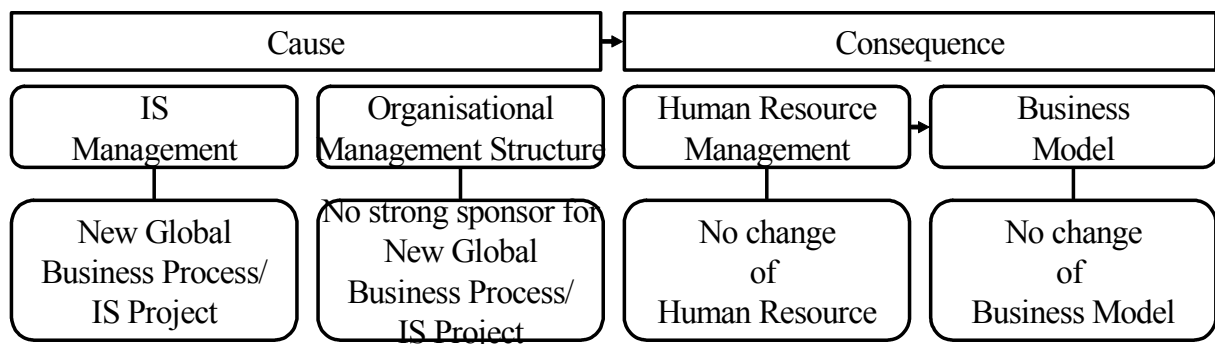
Figure 9.4: The CCCM-GSISM: Failed Global BPR/IS Project in SAFG

9.4.1 Initiation of Global BPR/IS Project

This model indicates how and why global BPR/IS project failed in SAFG. The global BPR/IS project, which was started around 1999, was stopped in 2003. The project manager who led the same activity in USFG3, joined SAFG to drive the project, but he left SAFG in 2003. As

a result, the project was terminated (Appendix C; Interviewees K and M). Thus, the attempt to migrate the same BPR approach for USFG3 did not work in SAFG.

The global BPR/IS project was managed from two different aspects, which were BPR and improvement of IT architecture. The project originally included all business functions in the organisations at a global level. However, the scope of the global BPR/IS project was too big to complete (Appendix C; Interviewee M).

In addition, SAFG's style, where normally only high priority issues get completed, but the medium and low priority issues are left as outstanding projects, did not change (Appendix C; Interviewee K). Furthermore, SAFG needed to build consensus between New York, London and Zurich, but this was very difficult to achieve, because the requirements from those three major offices are fundamentally different (Appendix C; Interviewee M).

Departments with large numbers of staff such as a) Operations, b) Product Control and c) Accounting, appointed various managers from various business functions as representatives to the global BPR/IS project. As a result, many people started to suggest their own requirements to the project office (Appendix C; Interviewee M). Insufficient human resource allocation to the project occurred in the organisation (Appendix C; Interviewee K).

There were thought to be three reasons for this failure. Firstly, the relationship between the IS function and other business functions is not static but fluid (Sampler, 1995). It is important for the IS function to promote integration of the business strategy and IS strategy (Earl and Feeny, 1995). It is also important for the IS projects to respond effectively to the requirements of other business functions (Vedder, Vanecek, Guynes and Cappel, 1999). However, SAFG could not integrate business strategy and IS strategy, because no sponsor from the business function in the organisation could be found.

Secondly, BPR methodologies are not fully mature (Earl, 1995; Earl, Sampler and Short, 1995), and BPR implies multiple dimensional changes in the business often through IS solutions (Earl, 1995). SAFG could not establish their methodologies to manage the global BPR/IS project, because too many people joined the project and the organisational management structure of the project office attempted to be consensus driven across all departments which led to decisions not being made (Appendix C; Interviewee M).

Thirdly, there was loss of central co-ordination. Decentralisation may lead to failures in cost sharing between business units, opportunities for synergy and failure of integration of business activities losing sight of the business needs of the overall company (Hodgkinson, 1995). SAFG could not centralise the authority to manage the BPR/IS project, because New York, London and Zurich are competing with each other. Consequently, the authority is decentralised (Appendix C; Interviewee K).

9.4.2 Failure of Global Business Process/IS Project

IT implementation projects have continuing opportunities for compromise (Edwards, 1995). The labelling of success or failure for the BPR projects is more of a political declaration than a statement of fact (Myers and Larsen, 1997). In the process of the project management, the project office gathered all requirements from all departments, but finally they found that it was almost impossible to deal with everything. Then, the project office started to compromise by not dealing with everything.

In the final stage of the global BPR/IS project, calls to stop the project were strongly voiced in SAFG. However, the project could not be stopped until a new CEO joined SAFG. The new CEO could not see the tangible results of the large investment in the project and decided that the cost of completion far out weighed the benefits.

The project did not achieve its initial target in SAFG. The idea of the project was exceptionally clever; however, no significant deliveries had occurred, even though SAFG had spent approximately US$ 200 million (Appendix C; Interviewee M).

9.5 Successful Global Centralisation of IT Support in SAFG

SAFG's organisational management structure driven approach (Figure 9.5) identifies successful global IS outsourcing. Along with restructuring a top management team, human resources were globally relocated. Consequently, IT support functions were globally centralised and the business model in the IT support was globally improved.

Cause	Change	Consequence	
Organisational Management Structure	*Human Resource Management*	IS Management	Business Model
Hiring New Strong Leadership Management Team	Relocation of Global Human Resource	Success of Global Centralisation in IT Support	Improvement of Support for Global Business Model
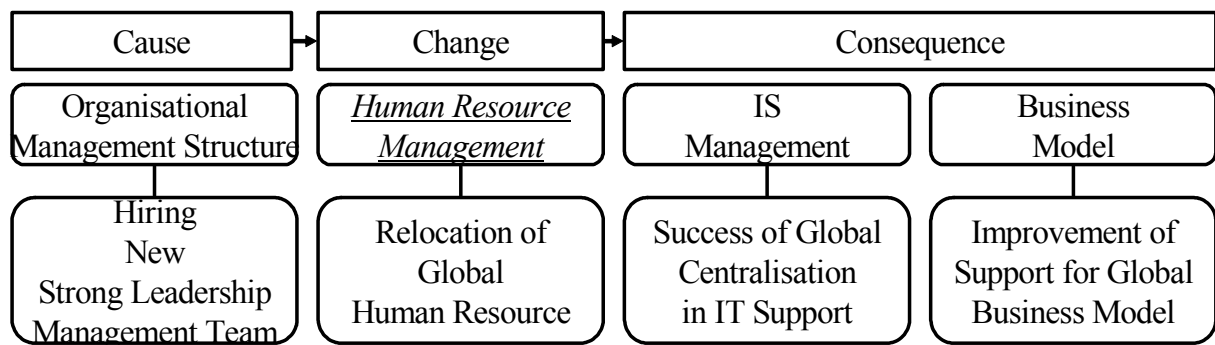
Figure 9.5: The CCCM-GSISM: Successful Global Centralisation of IT Support in SAFG

9.5.1 Hiring New Strong Leadership Management Team

The new CEO joined SAFG from USFG1 (see - 10.3.1) in 2002 before the arrival of the global head of Operations, Product Control and IT. He changed the management style to *"strategic leadership"* from *"strategic guidance"* (Hodgkinson, 1995) to minimise the negative obstacles of cross-border IS by the adjustment of organisational decision-making structures (Raisinghani, 1999).

Around 2002, a project, which aimed at cost reduction in the back office, started in North Carolina and Florida. The plan was an internal outsourcing from the New York office and the London office for these locations. Though many discussions between senior managers were arranged, there was no outcome at this stage. The project could not a) identify any strong sponsorship in the organisation, or b) find any strong requirements from the business functions (Appendix C; Interviewee M).

When another project to establish the Singapore Development Support Centre (SDSC) commenced, a similar thing happened. The senior managers could not decide the details of the outsourcing from New York and London to Singapore (Appendix C; Interviewee M).

In 2002, a new global head of Operations, Product Control and IT, who was hired by the new CEO, joined from USFG1. This new global head decided, in mid-2002, that one way of significantly reducing IT / operations costs was to follow through making Singapore a global support site and thus move functions from New York and London to there (Appendix C; Interviewee M).

She ordered senior managers to transfer one hundred and fifty IT jobs with another one hundred operational jobs from the New York and London offices to the Singapore office by the end of December 2003. This was the trigger that started the migration activity from the London office. The direction was clear, *"just do it"*, *"small bureaucracy"*, and enable *"high improvement"* (Appendix C; Interviewee M).

In 2004, SAFG expanded the SDSC's capacity to two hundred and fifty IT staff. The New York and London offices allocate their business analysts, who develop business requirements in the New York office and the London office, and send them to the Singapore office (Appendix C; Interviewee M).

Three key factors for the change of management style have been identified. Firstly, though the role of the CIO is widely recognised as becoming important (Brown, 1993; Earl, 1995; Stewart 1998; Huff and Enns, 1998; Huff and Enns, 1999; Willcocks and Sykes, 2000; Reich and Nelson, 2003; Hirschheim, Porra and Parks, 2003; Stephens, 2003; Karahanna, Williams and Calbos, 2004), SAFG did not appoint a CIO. SAFG appointed the global head of Operations, Product Control and IT to take a global IS initiative (from the official corporate information of SAFG in their home page).

This is one of the critical success factors for multinational corporations to increase market penetration in the global competitive economy (Santos and Fjermestad, 2002). This appointment avoided the difficulties of establishing partnership with other senior management and department heads. This is recognised as one of the key challenges for the CIO (Feeny, Edwards and Simpson, 1992; Brown, 1993; Preston, 2003; Rattanasampan and Chaidaroon, 2003; Preston and Karahanna, 2004).

Secondly, the richness in communication and mutual understanding, which is an important factor for successful IT/IS strategy building (Lederer and Johnson, 2000; Lederer and Johnson, 2003), was strong between the new CEO and the new global head of Operations, Product Control and IT, because they used to work together in USFG1 before they joined SAFG.

Thirdly, the project was global IS outsourcing, which is complex and uncertain (Khan, Currie and Guah, 2003), and the project aimed at development and expansion of an information centre, which requires proactive action and the adoption of business-oriented strategies (Yip, To and Ma, 1993). Although multinational corporations with a high level of IT implementation tend to apply a low level of IT centralisation (Sethi, Mienert, Govind and

Sethi, 1998), SAFG aimed at cost reduction, time cycle reduction and access to skilled IT professionals (Khan, Currie and Guah, 2003) by centralisation of IT in the Singapore office.

9.5.2 Change of Global Human Resources

There are two key findings for the change of global human resources. Firstly, the global head of Operations, Product Control and IT issued clear directions to change the global human resources. Transferring one hundred and fifty IT staff from London to Singapore by December 2002 ordered by the global head to the senior managers was the trigger that started the migration activity (Appendix C; Interviewee M).

Secondly, SAFG leveraged the Singapore labour pool which can communicate in both English and Chinese. Singaporeans can communicate not only with the New York and London offices in English, but also with the Hong Kong and other offices in Chinese (Appendix C; Interviewee M).

A Singaporean project manager emphasised that speaking multiple languages is a very important factor in the financial institution to globally establish sound communication with other entities worldwide (Appendix C; Interviewee H). Another Singaporean project manager emphasised that she could smoothly communicate with Hong Kong staff using Chinese as well (Appendix C; Interviewee L).

9.5.3 Successful Global Centralisation of IT Support

In 2004, the project was successfully implemented. SAFG established the centralised information processing centre in Singapore, which has two hundred and fifty IT / operations staff to operate and process IT business requirements from the New York office and the London office (Appendix C; Interviewee M).

9.6 IT Outsourcing to *Keiretsu* Company in JPFG1

JPFG1's Human Resource Driven approach (Figure 9.6) explains that lifetime employment and the seniority system were maintained with the consensual management style in the Japanese organisation. Consequently, no global business model was clarified and IT activities were outsourced to a *Keiretsu* company without any global IS strategy.

Cause		Consequence	
Human Resource Management	Organisational Management Structure	Business Model	IS Management
Lifetime Employment and Seniority System	Single Dimensional Organisation Structure / Consensual Management	Unclear Global Business Model	IT Outsourcing to Keiretsu Company / No Global IS Strategy
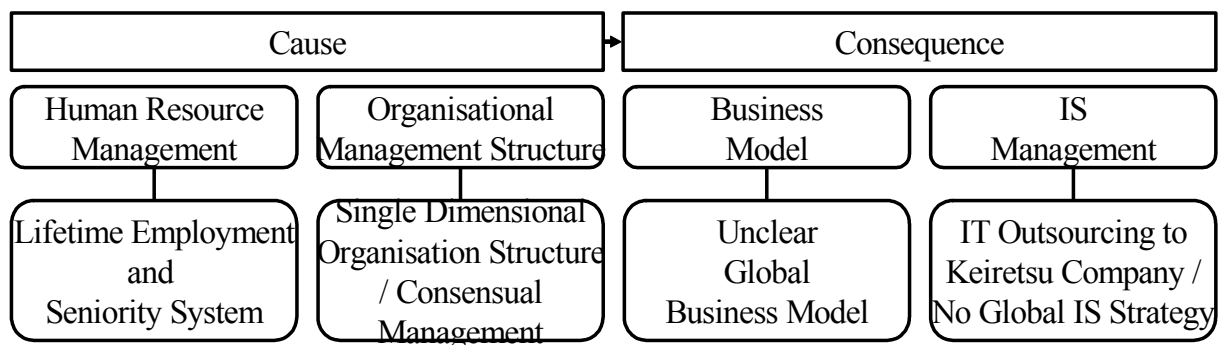
Figure 9.6: The CCCM-GSISM: IT Outsourcing to *Keiretsu* Company in JPFG1

No concept for global IS was detected in the collected data for the period 1983 to 2004. Many interviewees emphasised the cultural difference between Japanese and Western banks, especially with regard to human resource management and organisational management structure.

In the 1990s, large-sized Japanese banks directed that the computer system development should be conducted within the *Zaibatsu* and *Keiretsu* relationships. They hired many staff to achieve this goal in the 1990s. In addition, the large sized IT developments are sometimes used as a *"New Deal Policy"* to internally absorb excess employees (Appendix C; Interviewee E).

Because the large Japanese banks fundamentally hired and deployed employees based on lifetime employment and the seniority system, management of the banks need to think about

human resource allocation not only from the view of profit making, but also from the view of creating enough jobs to absorb excess employees (Appendix C; Interviewee E).

The Japanese lifetime employment ethos is a guarantee to male employees who are assigned to various positions as generalist workers developing multiple skills. Every three to five years, employees receive new assignments to expand their range of job knowledge. Cumulative working experience rather than economic performance in overseas branches is considered important for employees to develop their knowledge of global markets (Gross and Hews, 1997; Gross, 1998).

In relation to lifetime employment, a seniority system exists which is believed to improve long-term company performance by eliminating self-serving behaviour and hence conflicts amongst individuals. Consequently, the process of decision-making becomes consensual but takes much longer in Japanese companies than in Western companies (Gross and Hews, 1997; Gross, 1998; Porter, Takeuchi and Sakakibara, 2000).

Normally a head office human resource department and a head office planning department possess stronger power than other business departments in the large Japanese banks. The head office human resource department has strong power to make decisions for the human resource allocation, and the head office planning department has strong power to make decisions for the financial budget and expense for the whole company. IT developments are internally conducted using their own IT resource within a group (Appendix C; Interviewees D and J).

Typically, Japanese banks do not clarify a global business strategy and the IT activities are outsourced to *Keiretsu* companies, (companies in the *Zaibatsu* Group established for support functions rather than development of new business areas) which are established through a cross shareholding scheme in the *Zaibatsu* Group. This mechanism is very beneficial for

employees working in lifetime employment and the seniority system, especially for employees who achieve high positions in the bank (Gross, 1998).

In JPFG1's case, the IT department is outsourced to the *Keiretsu* subsidiaries (from the official corporate information of JPFG1's web home page). The IT planning department in JPFG1's head office liaises IT/IS requirements between JPFG1's business functions and the subsidiaries (from the organisational structure of JPFG1's web home page). *Amakudari* (similar to the treatment of Emeritus Professors in Western Universities) allows senior managements of the banks to obtain high positions in the *Keiretsu* companies including IT services after retirement from the core banking business.

An interviewee who joined JPFG1 in 1986 emphasised that it is very difficult for Japanese companies to change lifetime employment and the seniority system which are well suited to the Japanese people's spiritual condition and culture. A person who has a strong character could decide things through a strong top-down approach, but this is rare (Appendix C; Interviewee F).

Because of lifetime employment and the seniority system, the performance efforts and appraisal results do not match. A scheme to closely identify performance for each staff member does not exist. In other words, the concepts of profit centre and cost centre do not exist in the organisation. All profits are believed to be the result of strong teamwork. Consequently, cost allocation mechanisms do not exist, and it will be almost impossible to implement it in the organisation in the near future (Appendix C; Interviewee F).

9.7 Differences between SAFG and JPFG1

There are two major findings by comparison of the emerged theories. The first finding is the relationship between organisational management structure and human resource management.

There are three well recognised definitions of information strategies, which are a) information systems (IS) strategy representing the selection of system applications to be delivered to the business functions, b) information technology (IT) strategy representing the selection of technology platform to deliver system applications, and c) information management (IM) strategy representing the deployment of management policies to determine the mission, authority and responsibility (Earl and Feeny, 1995).

A global business strategy should be formulated before any sensible decision for IS strategies. After IS strategy with a business strategy is in place, IM strategy must be implemented (Earl and Feeny, 1995).

In SAFG's cases, one of the CCCM-GSISMs clearly identifies that SAFG applied a global business driven approach to enact global IS projects, though Earl and Feeny (1995) emphasise that a global business driven approach is difficult to achieve.

In addition, all three CCCM-GSISMs of SAFG indicate that organisational management structure is located before human resource management. This means that change of organisational management structure directly or indirectly influences human resource management in SAFG.

On the other hand, in the JPFG1's case, human resource management is located above the other three central categories as an initial condition of business. Lifetime employment and the seniority system of Japanese traditional human resource management heavily affect management style, business model and IS management.

IT activities are outsourced without any global business model in JPFG1. However, the style of IT outsourcing in *Keiretsu* relationships has some significant differences from the Western style of IT outsourcing.

The second finding is the identification of success or failure for IS projects. In SAFG's cases, all three CCCM-GSISMs clearly indicate success or failure in the consequences of projects. However, in JPFG1's case, the research could not find data to clearly indicate success or failure.

9.8 Conclusion

As discussed in Chapter 4, the research aims at discovery of similarities and differences of cultural elements in the multinational investment banking industry. This chapter discovered the CCCM-GSISMs from the data of unstructured interviews which were conducted with various types and levels of employees in SAFG and JPFG1.

In order to detect the differences and similarities of cultural mechanisms, this chapter discussed various aspects of styles of IS functions and IT management which were a) IS human resource management, b) the role of the CIO, c) the characteristic of IS specialists, d) the development of hybrid managers, e) strategic IS planning (SISP), and f) the role of the IT project sponsor through investigation of the four categories in the CCCM-GSISMs.

In order to achieve *"theoretical saturation"* (Glaser and Strauss, 1967; Strauss and Corbin, 1998) of the CCCM-GSISM, the research needs to conduct discriminate sampling to maximise opportunities for comparative analysis aimed at strengthening the theory (Pandit, 1996; Strauss and Corbin, 1998; Goulding, 2002; Goede and Villers, 2003).

As discussed from Chapter 6 to this chapter, the research initially selected two cases of Japanese (JPFG1) and Swiss/American (SAFG) investment banks. However, it is important for the researcher to obtain negative data in the discriminate samples (Strauss and Corbin, 1998).

The researcher should a) constantly compare the products, e.g. emerged theories, through the analysis against actual data, b) make modifications based on these comparisons, and c) validate the modifications to incoming data through the discriminate sampling processes.

Although differences in culture between SAFG and JPFG1 affecting management practices are carefully examined in this chapter, in order to reinforce the internal and external validity (Pandit, 1996) of the CCCM-GSISM, more cases of Japanese and other Western investment banks should be investigated. Chapter 10 explains the process.

Chapter 10 Discriminate Sampling

Chapter 9 identified the CCCM-GSISMs discovered through the coding analysis of two selected cases as relational and variational sampling. This chapter presents findings from six more organisations. It argues that global IS in the multinational investment banking industry are not only dependent upon changes of a) technology, but also upon change of b) business models, c) organisational management structure, and d) human resources management of the companies, which both the FCCM-GSISMs and the CCCM-GSISMs indicate as their central categories.

This chapter firstly clarifies details of discriminate sampling. Secondly, global IS management in the six cases is carefully examined. Thirdly, the cases are applied to the CCCM-GSISMs.

10.1 Introduction

As discussed in Part I, this research examines investment banks that originally emerged by establishing information networks to transfer capital beyond national borders. The investment banks took the multi-national path around the 1980s leveraging advances of IT and the trend towards globalisation. Those banks continue to take up the challenges to implement globally networked IS.

The researchers should conduct the discriminate sampling process on which this chapter focuses to strengthen the theory and maximise opportunities for comparative analysis. This discriminate sampling process aims at gathering necessary data to theoretically saturate the central categories.

"When engaged in discriminate sampling, a researcher chooses the sites, persons, and documents that will maximise opportunities for comparative analysis. This might mean returning to old sites, documents, and persons or going to new ones to gather the data necessary to saturate categories and complete study" (Strauss and Corbin, 1998; p. 211).

The researcher a) constantly compares the research discoveries through careful analysis against actual data, b) makes modifications based on these comparisons, and c) validates the modification to incoming data. It is important for the researcher to obtain negative data in the process (Haig, 1995; Pandit, 1996; Strauss and Corbin, 1998; Locke, 2001; Goulding, 2002).

In order to validate, modify and reinforce the CCCM-GSISM through the discriminate sampling process, the research analysed data collected from six other financial groups.

10.2 Unstructured Interviews and Semi-Structured Interviews

As explained in Chapters 6, 8 and 9, the research initially selected JPFG1 as a representative case of Japanese investment banks and SAFG as a representative case of Western investment banks, but the cultures of the U.S. and European countries including Switzerland are noted to be quite different in some dimensions.

In order to reach theoretical saturation, discriminate data was collected from other multinational investment banks. These are three American financial groups (USFG1, USFG2 and USFG3), two British Banks (GBFG1 and GBFG2), and another Japanese financial group (JPFG2).

The companies' official information was collected from their web sites. Three of the six (USFG1, USFG3 and GBFG1) were found from the manuscripts of the unstructured interviews. Semi-structured interviews were conducted through face-to-face conversation. In order to seek negative data from the other three cases (USFG2, GBFG2 and JPFG2), the researcher explained the emerged theories from the relational and variational sampling explained in Chapter 9 to the interviewees at the beginning of the semi-structured interviews. Appendix D gives the detail of the interviews.

Table 10.2: Statistics of Data Collection for the Discriminate Sampling

Group Code	USFG 1	USFG 2	USFG 3	GBFG 1	GBFG 2	JPFG 2	Total
Companies' Official Information							
Size of data in manuscripts	218 words	228 words	243 words	232 words	241 words	222 words	1384 words
Semi-Structured Interviews							
Year of Interviews	2004	2005	2004	2004	2005	2005	Total
Method	Tele-phone	Face-to face	Tele-phone	Tele-phone	Face-to face	Face-to face	
Number of Interviewees	1	1	1	2	1	1	7
Number of Interviews	3	2	1	2	2	6	16
Length of Interviews	2hours 35min	1hour 8min.	1hour	40min	49min	3hours 45min	9hours 57min
Size of data in manuscripts	217 words	171 words	360 words	276 words	139 words	76 words	1239 words

10.3 Context of Discriminate Cases

This section describes the context of the discriminate cases, which are three American, two British and another Japanese financial group.

10.3.1 USFG1: The Significant American Financial Group

The Glass-Steagall Act required financial service firms to segregate commercial banks and investment banks after the depression. In 1935, a traditional financial institution in the U.S. decided to operate as a commercial bank. Several employees of the financial institution split off to form an investment bank (USFG1). They achieved 24 percent of the market share for public offerings within the first year.

In 1964, USFG1 was the first investment bank to create computer models for financial analysis. By 1971, they had established the mergers & acquisitions (M&A) department along with the sales and trading department. In 1986, they publicly listed their shares in the stock exchange. In 1997, they announced a merger with a large American stock brokerage.

They are considered one of the top three (Freeman, Sanger and Chotimongkol, 2001) investment banks in the world, and the leaders for the investment banking industry in the field of IT/IS. Their IT budget rivals the operating budget of many medium and large-sized software companies.

In 2004, they held the No. 1 rank for market share of global equity and equity related underwriting, global equity trading and global initial public offering (IPO) in the multinational investment banking industry, and made net revenue of US$ 23.8 billion and had about 54,000 total employees worldwide (Davies, 2002; Roberts, 2004; Liaw, 2006).

Global Networked IS within USFG1: In the middle of 1980s

Interviewees who had working experience in USFG1 (Appendix C; Interviewees A and B) emphasised the efficiency of the company's global IS. They are pioneers of advanced technology in the investment banking industry.

In order to achieve its global business model in the middle of the 1980s, they implemented a global in-house developed system as well as a globally networked electronic mail system from the New York head office to other branches. In 1986, the Tokyo Stock Exchange opened the gate to foreign banks including USFG1 by giving the members license to run them.

At that time, their Tokyo office had already utilised their global IS. When they opened any new business locations worldwide, the same approach was applied. This enabled any of their employees to login to the same system environment through the same procedure from different locations.

In addition, they had developed advanced technologies to link securities transactions to the front office and securities settlement to the back office. The stock record system was clearly recognised as the beneficial back office system because of its ability to identify the securities position by trade date and settlement date, by customer and broker, by location of custodian and by trader and sales worldwide (Appendix C; Interviewee B).

They continuously enhance their globally standardised computer system to this day (Davies, 2002; Roberts, 2004; Liaw, 2006).

10.3.2 USFG2: A Major U.S. Financial Group

In 1859, a U.S. bank was established in Boston. In 1903, it was merged with another bank which had originally been established in 1784 in Massachusetts. The merged bank operated a full range of financial, banking and trust services for individual and commercial customers. Their headquarters are located in Boston as well as Massachusetts.

In 1970, a major U.S. Financial Group (USFG2) succeeding the merged bank was established after a number of mergers and acquisitions. Their subsidiaries provided a number of services including mortgage banking, venture-capital financing, commercial finance, trust and agency services, cash lending, cash management programs, money market operations, payroll processing and equipment leasing.

In 1999, they became one of the ten biggest financial groups in the U.S. financial market through a merger with another financial institution. Following the merger, they operated about 1,500 branches in North America as well as about 250 offices in about 25 other countries, especially Latin America. In addition to the traditional retail and commercial banking businesses, they became one of the largest loan providers, particularly in the credit card and residential mortgage markets.

By 2003, they had about 50,000 employees and over 20 million customers worldwide, and made annual revenues of US$ 12 billion. In 2004, they merged with a large rival financial group. All their branches took the rival bank's logo, because they chose to give up the naming rights.

Global Standardisation of IS within USFG2: 1977 - 1982

In the middle of the 1970s, USFG2 segregated their business into two areas which were *"domestic"* business in the U.S., Latin America and South America, and international business in Europe, Middle East, Asia Pacific and Oceania. The IT department for the international business was located in its London office.

In 1977, the head office in Boston became a strong project sponsor to develop new global IS for international business. The project focused on a) replacement of all financial transactions applications, and b) standardisation of the global communication network.

In 1977, the design and development work of the project was started. The implementation of the project started in the London head office and moved in turn to Paris, Frankfurt, Luxemburg, Singapore, Hong Kong, Tokyo and Melbourne.

In 1981, the project was completed in Melbourne. After the implementation, the system was adopted by the Boston head office for implementation in Latin America and South America by relocating a couple of IT specialists from London to Boston to establish a department and undertake knowledge transfer (Appendix D; Interviewee Q).

10.3.3 USFG3: The Large U.S. based Financial Group

In 1910, the large U.S. based financial Group (USFG3) was established in Wall Street. Until the early 1980s, they kept a partnership style of shareholding. In the 1980s, they became a notable innovator in the bond market through creating the first mortgage-backed securities.

They moved away from the traditional investment banking business model and focused on proprietary trading business which buys and sells stocks, bonds and derivatives for profit. They had a large bond position on certain swings on a daily basis.

However, in 1991, they were punished for illegal trade pricing in the bond market. As a result, they were fined a large amount of cash, which weakened their financial situation and eventually led to their acquisition by another financial group. Most of the proprietary trading business was disbanded after the acquisition, but their name was kept in part of the investment banking company under the umbrella of the new parent shareholding company for some time.

However, the name became a division and service mark of the parent company which is the largest in terms of assets and the third largest financial services company in terms of market capitalisation in the world as of 2005.

It was the first U.S. financial institution to combine banking with insurance since the depression. It has more than 275,000 employees and more than 200 million customers in about 100 countries worldwide (Davies, 2002; Roberts, 2004; Liaw, 2006).

Decentralisation of Global IS/Operational Process within USFG3: In the early 1990s

In the late 1980s, their New York head office had an international operations department which dealt with all back office activities of non-U.S. products for all entities worldwide. However, it was very inefficient. The discrepancies occurring in overseas entities had to be reported to the international operations department in New York for amendment.

In the early 1990s, they started to move the operation's functionality from New York to Tampa to reduce operational costs. Almost at the same time, a head of the IT Department opened a relationship with a consulting firm to find the best solution to develop more efficient global IT and operations.

The result of the consultation was a migration from *"Centralisation in New York"* to *"Decentralisation worldwide"*. In order to conduct the decentralisation project, the IT department and the Operations department in New York office worked with the Front Offices who would be the project sponsors. Firstly, the project was discussed between New York and London.

However, the New York financial market was facing recession at that time after the black Monday shock, and the fine for illegal transactions of the U.S. treasury bonds had badly impacted on their profits.

On the other hand, since the Japanese market was performing very well at that time, the New York IT and Operations department contacted the Tokyo office to request the Tokyo front office to join the project as a project sponsor. Only after approval from Tokyo, did the project commence.

When the decentralisation project had been implemented, a small team (about 20 people) had been organised in the New York office and the management gave strong authority and responsibility for decision-making to the team in order to speed up implementation.

IS specialists in the IT department of the New York office were allocated to specific system applications. The users in each entity could contact the IS specialists when they had any problems with the system applications.

They normally took care of all outstanding issues to be completed one-by-one and step-by-step. Within two years, the decentralisation project had been completed in the New York, London and Tokyo offices (Appendix C; Interviewee K).

10.3.4 GBFG1: The London Bank

The London Bank (GBFG1) was founded as a venture capital lending bank for monarchs and merchants in the heart of the financial district in London more than 300 years ago. In the 18th century, they operated money lending business to merchants as well as private banking business to individual clients.

In 1896, they formed a new joint stock bank with deposits of £26 million and 182 branches, mainly in the East and South East of England, by utilizing a web of connections from family, business and religious relationships.

In the first decade of the 19th century, they expanded their branch network by merger and acquisitions of other banks, and were one of the big five British banks in 1918. In addition, they began to develop global business around 1925 with the merger of large banks in South Africa, Egypt and India.

In 1969, they acquired one of the largest U.K. banks with a head office located outside London. In 1986, they became the first British bank to publicly list their shares on the New York and Tokyo Stock Exchanges. At the same time, they accelerated global expansion with the establishment of their investment banking business.

In 2000, they took over a leading Building Society (a traditional British type of financial institution specializing in mortgages, often from mutual ownership roots) founded in 1847. In 2003, they also acquired Spain's largest private bank founded in 1910.

Currently, they are an AA rated bank with a balance sheet of more than £ 520 million (Davies, 2002; Roberts, 2004; Liaw, 2006).

Global Networked IS within GBFG1: 1996 - 1999

A global consolidated computer system to quickly obtain the profit and loss figure was necessary to the investment banking business after the 1990s.

However, until 1996, the financial statements of their offices were independently generated apart from other overseas offices. Consequently, they had difficulties in the investment banking business, and thought about selling the investment business function to another financial group.

They decided to challenge the financial investment business one more time, and hired a trader and team to revitalise the investment banking business by implementing the global business model used by SAFG.

In 1997, they reviewed the business process in the support sections worldwide and recognised the necessity to globally consolidate the computer system.

In 1998, the head office in London decided that they would implement an ERP application throughout all entities worldwide. All offices received an implementation schedule based on the condition of the market from the head office.

The implementation activity for the global ERP system was conducted by the special implementation team organised in London and they visited each entity to conduct users acceptance testing and implementation.

First, the New York office implemented the SAP system, followed by the Asia-Pacific region. In the Asia-Pacific region, the implementation team deployed the system from small to large, simple to complex entities, i.e. they started in Hong Kong and Singapore and progressed to Tokyo.

During this period, most of the long-term employees in the support sections, who felt unable to adapt, left GBFG1. Progress on the implementation was shared amongst entities. In September 1999, their Tokyo office completed the implementation of the global ERP system (Appendix C; Interviewee I).

10.3.5 GBFG2: An English Bank

Until the 1880s, an English Bank (GBFG2), which was established in 1836 during the industrial revolution, played an important role in Birmingham business and steadily enlarged its business.

They expanded their networks by establishment of new branches and by acquisition of other banks in England and Wales. From the 1880s, they moved into the wider national financial market.

By 1918, they were ranked the largest bank in the world with deposits of £ 335 million. In addition, they were the first British bank to establish a foreign exchange department. After World War I, they continuously expanded their branch network by introducing new services, developing new systems and advertising new activities.

After World War II, they changed their interests from traditional commercial banking to the new business areas of a) installment finance, b) leasing and factoring services, and c) travel services. In 1974, they opened branches/representatives and acquired international subsidiaries in the major financial markets worldwide.

In 1987, a British Colonial bank acquired about fifteen percent of the shares in GBFG2 to establish a strong business relationship. In 1989, the Colonial bank launched an innovative revolutionary telephone banking system which provided 24-hour service.

This has now become one of the most recommended Internet banking services with more than one million customers in the U.K. market.

In 1992, the Colonial bank acquired full ownership of GBFG2, which was one of the largest acquisitions in the history of the banking industry. In 1994, this acquisition enabled the Colonial Bank to re-domicile its global holding company to the U.K. from the colony, which was to adopt a different status in 1997.

They were renamed with a name derived from that of the Colonial bank in 1999 (Davies, 2002; Roberts, 2004; Liaw, 2006).

Global Standardisation of IS within GBFG2: 1987 - 1992

In the middle of the 1980s, GBFG2 segregated their business into three areas as domestic retail banks in the U.K., international wholesale banks in the U.K. and non-U.K. The IT department in the London head office took care of all IT activities in the three areas with support from a large centre at Sheffield from the perspective of GBFG2 whilst the British Colonial Bank continued to develop and maintain various systems from centres in Hong Kong, Sydney and Vancouver.

In 1984, in GBFG2, a global standardisation of IS project was started. Until 1986, however, the progress was slow. In 1987, in order to accelerate the speed of the project, they hired new IT managers in the senior positions of IT management from another U.S. investment bank.

The new IT managers conducted the project based on the same philosophy as the U.S. bank's with smooth communication between IS specialists and system users.

In 1990, the project started in New York, went through Toronto, Paris, Helsinki, Oslo, Stockholm, Madrid, Singapore, Hong Kong, Tokyo, and finished in Sydney in 1992 (Appendix D; Interviewee Q).

10.3.6 JPFG2: A Japanese Traditional Securities Firm

A Japanese traditional company (JPFG2) is the largest securities firm in Japan. In 1925, the securities department of the Japanese traditional bank became independent from a Japanese bank which was originally established in Osaka in 1918. In 1941, they received the sole license for investment fund business from the government for the first time in Japan.

In 1946, they moved their head office from Osaka to Tokyo and became a member of the Tokyo Stock Exchange. In 1961, they publicly listed their shares on the Tokyo Stock Exchange, Osaka Stock Exchange and Nagoya Stock Exchange. In the same year, they separated their research department into a research institute.

They became a member of the New York Stock Exchange in 1981 and a member of the London Stock Exchange in 1986. In 2001, their functions were divided into two organisations, a securities company and a shareholding company, which is JPFG2. They are now a core leader of the JPFG2's group.

Recently, they strengthened the financial research functions by reorganizing with the research institute. They independently maintained a distance from other Japanese groups which are aiming at conglomeritic consolidation as instructed by the Japanese government.

However, they are becoming close to JPFG1's group. In 2002, JPFG1's group bought shares of the *Keiretsu* securities companies under the umbrella of JPFG2's group.

In JPFG2's case, the same mechanism of global IS management as JPFG1 was detected in the collected data from semi-structured interviews.

An interviewee, who has working experiences in both JPFG1 and JPFG2 (Appendix D; Interviewee P), emphasised that JPFG2 adopted the same human resource management and organisational management structure as JPFG1, which does not clarify a global business strategy. The IT activities are outsourced to *Keiretsu* companies, and *Amakudari* activities exist in JPFG2 as well (Appendix D; Interviewee P).

10.4 Application to the CCCM-GSISMs

In order to investigate similarities and differences of strategic management of global IS in the selected cases between a) the relational and variational sampling process, and b) the discriminate sampling process, this section investigates collected data concerning the process of global IS management by applying to the CCCM-GSISMs, which consist of the four central categories, i.e. business model, organisational management style, human resource management and IS management identified in Chapter 9.

10.4.1 Global Business Driven

USFG1's and GBFG1's business model driven approach (Figure 10.4.1) describes the successful implementation of new global IS strategies which are the same mechanism as the SAFG's case (Figure 9.3).

Cause	Change		Consequence
Business Model	*Organisational Management Structure*	*Human Resource Management*	IS Management
Application of New Global Business Model	Implementation of New Matrix and Global Organisation Structure	Hiring New Human Resources	Successful Global Networked IS
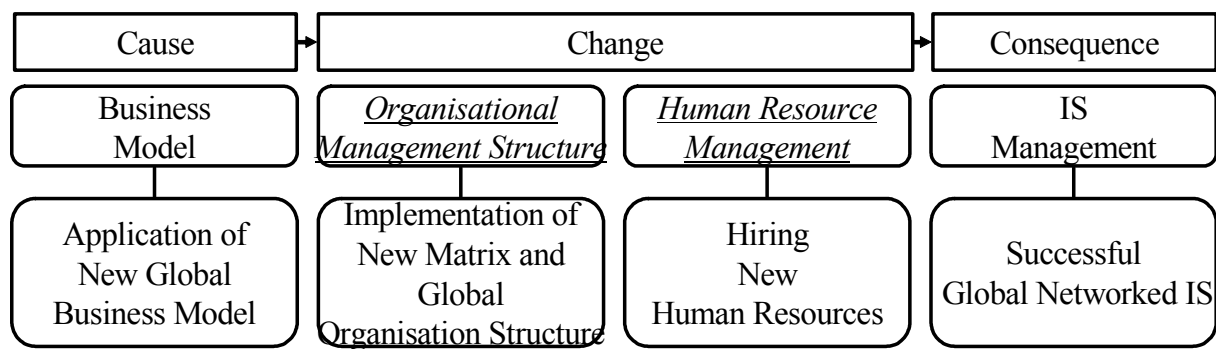
Figure 10.4.1: The CCCM-GSISM: Global Business Model Driven of USFG1/GBFG1

"Global Business Driven Approaches" were identified in SAFG, USFG1 and GBFG1. All three cases were identified as successful global IS. The approach possessed very strong power to change organisational management structures and human resources because the new business model is directly linked to profit making.

In addition, the new business model clearly needed globally networked IS. Therefore, it was mandatory to formulate and implement a global IS strategy. As a pioneer of advanced technology in the investment banking industry, USFG1 had already implemented a global business model as well as global IS in the mid-1980s.

SAFG imported the global business model from USFG1. In order to activate global IS, SAFG gradually changed the organisational management structure from local to regional, and then to global from 1992 until 2001.

GBFG1 implemented global IS after the mid-1990s. Thus, from the results of the three successful cases, the approach is noted to possess a strong driver to successfully enact global strategic IS planning by changing organisational management structures and human resources.

10.4.2 Organisational Management Structure Driven

GBFG2's organisational management structure driven approach (Figure 10.4.2) identifies the success of standardisation and improvement of global IS. The case has the same mechanism as the SAFG's case (Figure 9.5).

Cause	Change	Consequence	
Organisational Management Structure	*Human Resource Management*	IS Management	Business Model
Implementation of New Matrix and Global Organisation Structure	Relocation of Global Human Resource	Success of Global Standardisation in IS Function	Improvement of Support for Global Business Model
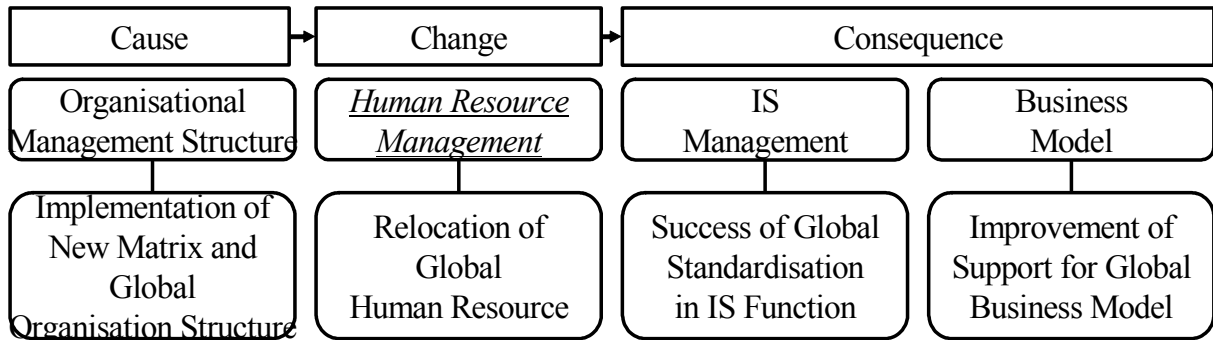
Figure 10.4.2: The CCCM-GSISM: Organisational Management Structure Driven of GBFG2

"Organisational Management Structure Driven Approaches" were identified in SAFG and GBFG2. Both cases were described as having successful global IS management. The approach did not aim at implementation of a global business model, but aimed at acceleration of an ongoing global IS project or resolution of organisational problems.

GBFG2 hired new IT managers from another U.S. investment bank to highly prioritise the global standardisation of the IS project. SAFG organised a new top management team possessing strong leadership by head hunting experienced managers from USFG1 to change the direction of strategic management of global IS.

Both cases indicate that human resources were globally relocated to improve global IS after organisational management structure changes.

This approach fits with the Earl's (1995) recommendation that emphasises implementation of information management (IM) strategies to activate global IS, if a global IT/IS strategy cannot be formulated. Thus, from the results of the two successful cases, the approach is noted to be valuable for acceleration of ongoing global IS projects or resolution of an organisational problematic situation.

10.4.3 Global IS/BPR Project Driven

Contrary to the failure of SAFG (Figure 9.4), the IS Project Driven approach of USFG2 and USFG3 (Figure 10.4.3) demonstrates the successful implementation of new global business process/IS projects.

Cause		Change	Consequence
IS Management	Organisational Management Structure	*Human Resource Management*	Business Model
New Global Business Process/ IS Project	Strong Sponsorship for New Global Business Process/ IS Project	Hiring New Human Resources	Successful Implementation of Global IS
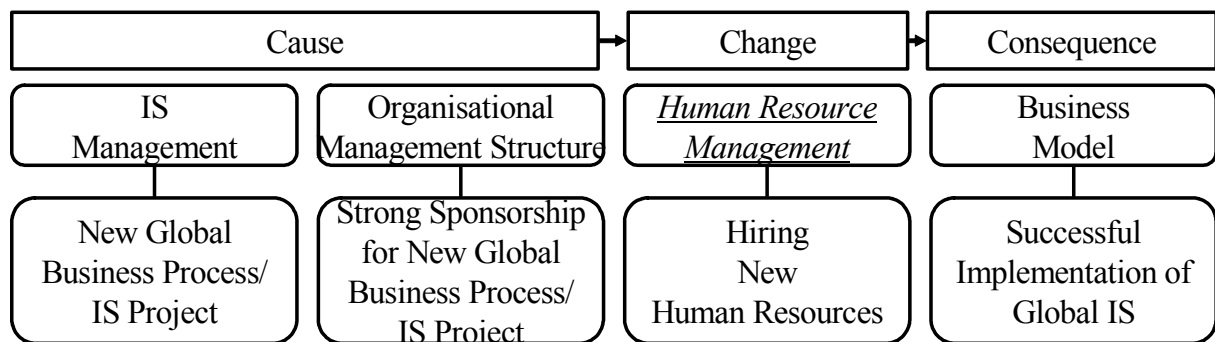
Figure 10.4.3: The CCCM-GSISM: Global IS/BPR Projects Driven of USFG2/USFG3

"Global IS/BPR Project Driven Approaches" were identified in SAFG, USFG2 and USFG3. The critical success factor of the approach is a project sponsor in the organisation. The same project manager experienced success and failure through similar approaches of global IS projects in different multinational investment banks.

USFG3's case was identified as success. The project aimed at decentralisation from the New York head office. The project found strong project sponsorship not only in New York but also in other locations. SAFG's case is thought to be failure.

The project team could not find a strong project sponsor in SAFG. The project had a democratic style, because the authorities for decision-making were distributed to various departments such as operations, accounting and product control as well as locations such as New York, Zurich and London.

USFG2's case was identified as success. The project teams found strong sponsorship in the head office in Boston. Thus, from the comparison between the success and failure of these three cases, the critical success factor of the approach is noted to be a project sponsor in the organisation.

Although no sponsor for the project was found in SAFG, the strong sponsorships for the projects were identified in the successful cases at USFG2 and USFG3.

10.4.4 Traditional Human Resource Management

The model indicates a paradoxical phenomenon in relation to strategic management of global IS in the Japanese traditional *Zaibatsu* investment bank. Lifetime employment and the seniority system initially aimed at the encouragement of loyalty to the company.

However, this leads to a consensual organisational management structure which inhibits the establishment of a clear global strategic business model. Accompanied with the *Amakudari* culture, IT activities were outsourced to *Keiretsu* companies without any global IS strategy from 1983 to 2004.

In JPFG2's case (Figure 10.4.4), exactly the same CCCM-GSISM as found at JPFG1's case (Figure 9.6) was described through the analysis of the discriminate sampling data. The two cases demonstrate that lifetime employment, the seniority system, consensual management and a single dimensional structure pervade the Japanese investment banks.

IT activities were outsourced to *Keiretsu* subsidiaries where poorly performing employees are shifted within, and because of, the lifetime employment scheme (Gross, 1998).

Cause		Consequence	
Human Resource Management	Organisational Management Structure	Business Model	IS Management
Lifetime Employment and Seniority System	Single Dimensional Organisation Structure / Consensual Management	Unclear Global Business Model	IT Outsourcing to Keiretsu Company / No Global IS Strategy
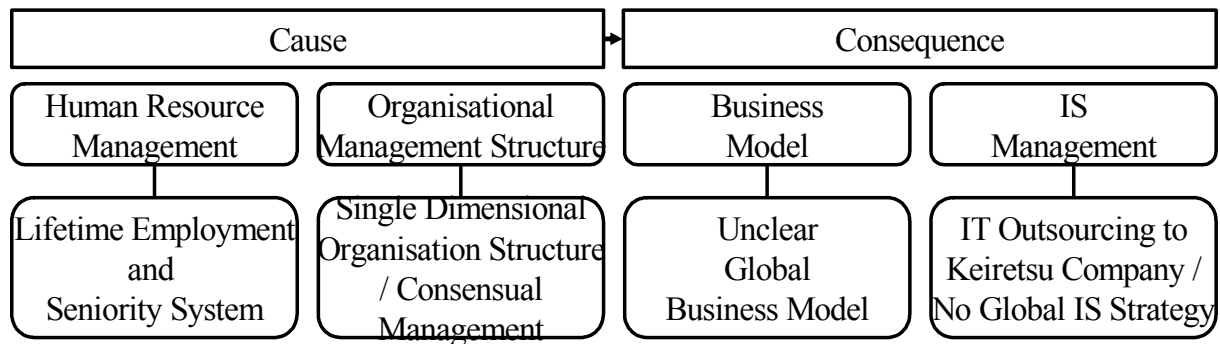
Figure 10.4.4: The CCCM-GSISM: Human Resource Driven of JPFG2

10.5 Conclusion

The research initially selected the two cases, Japanese and Swiss/American investment banks. In order to identify the differences in culture in U.S. and European countries including Switzerland, this chapter analysed discriminate sampling data from six other multinational investment banks in order to reach theoretical saturation. They were three American, two British and another Japanese financial group.

It is clarified that *"Global Business Models"* successfully activate global IS, *"Organisational Management Structure"* contributes the improvement of IT/IS support for global business.

Success or failure of global IS depends upon the strong sponsorship for the *"Global IS/BPR Projects"* from the business in the Western investment banks. On the contrary, the Japanese investment bank has different mechanisms in human resource management which heavily impact on IS management.

In the next phase in the Grounded Theory research process after data collection and data analysis, emerged theories are validated through comparison with similar and conflicting frameworks and refined through selecting and integrating central categories until theoretical saturation is reached. Theoretical saturation is the milestone when the researcher judges that no additional categories, concepts, dimensions or incidents are emerging.

The research can move on to closure when the researcher judges that all categories are theoretically saturated (Strauss and Corbin, 1998). In order to reach research closure, Part IV validates and refines the emerged theories from this part and assesses theoretical saturation.

Part IV: Validation and Refinement

In order to answer the research questions identified in Part I using the research method identified in Part II, Part III explained the process of inductive theory development through open, relational, variational and discriminate sampling.

However, the two emerged theories, the FCCM-GSISMs and the CCCM-GSISMs are not theoretically saturated yet, because the research may find other central categories through further analysis.

In order to reach the theoretical saturation which is the point when the researcher judges that no new categories, concepts, dimensions or incidents emerge during the research process, Part IV demonstrates a) validation of the CCCM-GSISMs, b) refinement of the CCCM-GSISMs, and c) the discovery of the Fixed Sponsor Model (FSM).

In order to reinforce the objectivity, consistency and transferability of the emerged theories (Gasson, 2004), Chapters 11 and 12 conduct validation using similar and conflicting theories of a) IS management and b) Japanese management and culture. In order to answer the sub-question identified in Chapter 4, the CCCM-GSISMs are refined in Chapter 13.

During the process of validation and refinement, the research questions identified in Chapter 4 become narrowed and more focused (Strauss and Corbin, 1998). Each chapter from Chapter 11 to Chapter 13 clarifies the narrowed questions to be discussed in the chapter.

Chapter 11 Validation from the Perspective of IS Management

As discussed in Chapters 2, 3 and 4, global strategic IS planning has become an important factor for global investment banks because of advances in IT and globalisation trends.

In order to detect similarities and differences in the cultures affecting global strategic IS management in multinational investment banks, the CCCM-GSISM was discovered through the Grounded Theory process as demonstrated in Chapters 8, 9 and 10.

As discussed in Chapter 5, it is important for the research to confirm internal and external consistency of the emerged theory and this is attempted by comparison with similar and conflicting frameworks.

This chapter firstly indicates a narrowed research question. Secondly, it compares the emerged CCCM-GSISMs in Chapter 9 with three concerns of Strategic Information Systems Planning (SISP) defined by Earl (1990, 1995).

Thirdly, the model is verified through the comparison with the approaches of SISP categorised by Earl (1990, 1995). Fourthly, the model is investigated in the review of three categories of information strategy (Earl and Feeny, 1995).

Fifthly, enabling factors for global IS (Earl and Feeny, 1995; Santos and Fjermestad, 2002) in the model are analysed.

11.1 Introduction

Through the analysis of data collected in the open sampling discussed in Chapter 8, the research discovered the FCCM-GSISMs which have four central categories of business model, organisational management structure, human resource management and IS management.

In the relational and variational sampling process discussed in Chapter 9, the research developed the CCCM-GSISMs indicating the cause, change and consequence to the four central categories in the FCCM-GSISM. The details of the CCCM-GSISMs were examined in Chapters 9 and 10 to understand the difference in culture between Japanese and Western multinational investment banks.

"Throughout a study, validation of the products of analysis is a crucial part of theory building. Validation is built into each step of analysis and sampling. ... Analysts constantly are comparing the products of their analyses against actual data, making modifications or additions as necessary based on these comparisons and then further validating the modifications and additions against incoming data; therefore, the researchers constantly are validating or negating their interpretations" (Strauss and Corbin, 1998; pp. 211).

11.2 Narrowed Research Question

In order to reinforce the objectivity, consistency and transferability (Gasson, 2004) and improve internal and external consistency (Pandit, 1996) of the model, this chapter compares the emerged CCCM-GSISM in Chapter 9 with similar and conflicting IS management frameworks. The following narrowed research question is discussed in this chapter.

Narrowed question: "What mechanisms exist or do not exist in the CCCM-GSISMs from the perspective of IS management?"

Figure 11.2 conceptualises the mechanisms of the CCCM-GSISMs which is structured in two layers. The upper layer indicates the causal relationship by indicating cause, change and consequence. The lower layer explains the four categories of business model, organisational management structure, human resource management and IS management which were detected in the FCCM-GSISMs.

Contexts for each category are identified in terms of properties, dimensions and incidents which are investigated through paradigm analysis using the data collected from the selected cases.

Cause ⟶ Change ⟶ Consequence			
Central Category 1	Central Category 2	Central Category 3	Central Category 4
Properties, Dimensions and Incidents	Properties, Dimensions and Incidents	Properties, Dimensions and Incidents	Properties, Dimensions and Incidents
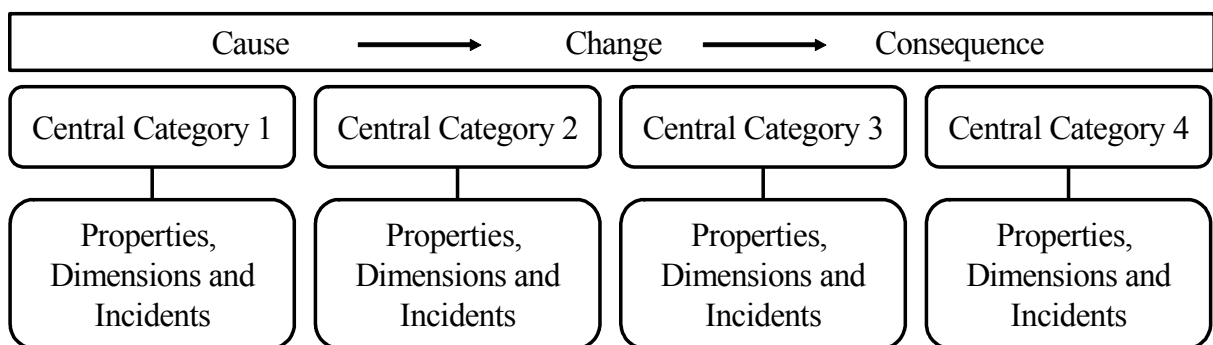
Figure 11.2: Structure of the CCCM-GSISMs

11.3 Concerns of Strategic Information Systems Planning

11.3.1 Definition

Earl (1990, 1995) identifies three areas of necessary concerns for successful SISP, which are method, process and implementation.

"Method concerns centred on the SISP technique, procedure, or methodology employed. Firms commonly had used proprietary methods, such as Method 1, BSP, or Information Engineering, or applied generally available techniques such as critical success factors or value chain analysis. Others had invented their own methods, often customising well known techniques" (Earl, 1995, pp. 138).

"Implementation was a common concern. Even where SISP was judged to have been successful, the resultant strategies or plans were not always actioned or fully implemented. Even though clear directions might be set and commitments made to developing new applications, projects often were not initiated and systems development did not proceed" (Earl, 1995, pp. 138).

"Process concern included lack of line management participation, poor IS-users relationships, inadequate user awareness and education, and low management ownership of the philosophy and practice of SISP. Line managers were particularly vocal about the management and enactment of SISP methods and procedures and whether they fit the organisational context" (Earl, 1995, pp. 139).

11.3.2 Application

The CCCM-GSISMs for SAFG's cases explain both the success and failure factors of SISP by particular sequences of the four central categories. If a) organisational management structure influences human resource management, or b) human resource management influences global IS management, the global IS project is successfully implemented in SAFG.

On the other hand, if global IS management is positioned as more important than the other three central categories, the global IS project failed in SAFG.

The CCCM-GSISM of JPFG1 explains that no global SISP is delivered because Japanese traditional human resource management influences management style, leading to the failure to develop a clear business model for globalisation.

11.3.3 Validation

It is verified that the CCCM-GSISMs perform the function of explaining the process concern through the sequences of the four central categories, and indicate the implementation concern by the global IS management result. However, the CCCM-GSISMs do not perform the function of explaining the method concern of SISP.

11.4 Approaches of Strategic Information Systems Planning

11.4.1 Definition

Earl (1990, 1995) explains the following five SISP's approaches.

Business-Led Approach

"The underpinning assumption of this approach is that current business direction or plans are the only basis upon which IS plans can be built and that therefore business planning should drive SISP. The emphasis is on the business leading IS and not the other way round. Business plans or strategies are analysed to identify where information systems are most required" (Earl, 1995, pp. 141).

Method-Driven Approach

"Adherents to this approach appear to assume that SISP is enhanced by, or depends on, use of a formal technique or method. The IS director may believe that management will not think about IS needs and opportunities without the use of a formal method, or the intervention of consultants" (Earl, 1995, pp. 143).

Administrative Approach

"The emphasis here is on resource planning. The wider management planning and control procedures are expected to achieve the aims of SISP through formal procedures for allocating IS resources. Typically, IS development proposals were submitted by business units or departments to committees who examined project validity, common system possibilities, and resource consequences" (Earl, 1995, pp. 144).

Technological Approach

"This approach is based on the assumption that an information-systems oriented model of the business is a necessary outcome of SISP and therefore analytical, modeling methods are appropriate" (Earl, 1995, pp. 145).

"SISP is not a special or neat-and-tidy endeavour, but is based on IS decisions being made through continuous integration between the IS function and the organisation. The way that IT applications were identified and selected was described in much more multi-dimensional and subtle language. The approach was not without method, but methods were employed as required and to fit a particular purpose" (Earl, 1995, pp. 146).

11.4.2 Application

The CCCM-GSISMs for SAFG's cases clearly explain that global IS projects with the business led approach are successfully implemented in SAFG. However, the model does not clarify whether the method-driven approach, the administrative approach, and the technological approach have been applied in SAFG.

In terms of the organisational approach, Earl (1995) emphasises that IT applications identified and selected through the organisational approach are much more multi-dimensional, and this approach outperforms other approaches of SISP according to his case studies.

However, the CCCM-GSISMs for SAFG's cases indicate that the organizational approach without any strong support by the top management team failed. The CCCM-GSISM for JPFG1's case identifies that JPFG1 does not apply the business led approach. Therefore, JPFG1 is likely to apply the other four approaches.

11.4.3 Validation

Earl's categorisation for SISP's approaches is linked to the central categories under the indication of cause in the CCCM-GSISM. It is verified that the CCCM-GSISMs for SAFG's cases have a mechanism to identify whether the business led or the organizational approach in Earl's five SISP approaches is applied in investment banks.

In addition, the CCCM-GSISMs have a function to describe the result for the global IS projects. On the other hand, the CCCM-GSISM for JPFG1's case does not clarify which approaches have been applied in JPFG1.

11.5 Information Strategy

11.5.1 Definition

Earl and Feeny (1995) describe following three aspects of information strategy.

> *"Information Systems (IS) strategy - the choice of system applications, of what is to be delivered to the business; Information Technology (IT) strategy - the choice of technical platform, of how applications are delivered; Information Management (IM) strategy - the adoption of policies which determine who holds what mission, authority and responsibility" (Earl and Feeny, 1995, pp. 95).*

Earl and Feeny (1995) explain that a global business strategy should be formulated before any decisions for IT strategy, IS strategy and IM strategy to ensure implementation and prevention of usurpation of global IT policies by local behaviours, when IS strategy is in place with a business strategy.

Sabherwal, Hirschheim and Goles (2001) emphasise the importance of four dimensions of business and IS strategy, and business and IS structure when researchers analyse alignments of IS and business strategy.

"The strategic IS management profile included business and IS strategy and structure, unlike prior studies which have focused on only two of the four dimensions, such as business and IS strategy or business and IS structure" (Sabherwal, Hirschheim and Goles, 2001).

11.5.2 Application

In the CCCM-GSISMs for SAFG's cases for successful global IS implementation, a global business model is implemented before the other three categories, though Earl and Feeny (1995) emphasise that strategy before systems is ideal but difficult and business led IS strategy making is rare and difficult to achieve.

The CCCM-GSISMs for SAFG's success of global IS internal outsourcing agrees with the Earl and Feeny's (1995) explanation that information management strategy should be formulated at or above the top management level in their global business.

Furthermore, the CCCM-GSISMs for SAFG's failure of global IS internal outsourcing agrees with Earl and Feeny's (1995) that a global business vision should be shared at the global level in order to develop the appropriate global IS strategy.

The CCCM-GSISM for JPFG1's case possessed no global IS strategy. None of the IM, IT or IS strategies are delivered in JPFG1, though Earl and Feeny (1995) emphasise that attention should be directed to IM strategy, if a global business strategy has not been clarified and IS strategy has not been formulated.

Lifetime employment and the seniority-based system seem to influence Japanese management style which cannot deliver a global business vision. Consequently, no global IS strategy was formulated in JPFG1.

In terms of alignments of business and IS strategy, SAFG adopted the matrix and global organisational structure in order to integrate those strategies, but JPFG1 maintained the traditional organisational structure in a single dimension which might have led to some difficulties in consolidating those strategies.

In the CCCM-GSISMs, IS structure and IS strategy are identified in the properties of the organisational management structure and the IS management. Business strategy is indicated in the property of the business model.

11.5.3 Validation

It is identified that the CCCM-GSISMs have a mechanism to explain which information strategies are applied, how sequence of the four categories affects information strategy building, and why the global IS project is a success or failure. In addition, it is verified that the CCCM-GSISMs have a mechanism to describe alignments of business and IS strategy from the perspective of structure for business and IS.

11.6 Enablers of Global IS

11.6.1 Definition

Earl and Feeny (1995) explain that some companies needs to adjust the relationship between their global business strategies and IS practice.

"First, there needs to be a global business vision shared among the top management team" (Earl and Feeny, 1995).

"The second condition therefore is that IS organisation structure promotes integration of business and IS strategy" (Earl and Feeny, 1995).

Santos and Fjermestad (2002) identify similar findings.

"The efforts of researchers have received increasing interest as more and more practitioners employ the concepts that have evolved from the study of global information technology and applications of Global IS. One such initiative critical to the success of Global IS has been identified as the coordination of the global business strategy and that of the information system strategy" (Santos and Fjermestad, 2002).

11.6.2 Application

The organisational management structure for SAFG's case is matrix and global to share a global business vision. The successful CCCM-GSISMs for SAFG indicate that organisational management structure and human resource management are positioned before global IS management. This sequence enables the promotion of integration of business and IS strategy.

On the other hand, the CCCM-GSISM showing failure of global strategic IS planning for SAFG indicates new global IS projects started before the sharing of business vision and the integration of business and IS strategy. The model misses enablers of global IS. The CCCM-GSISM for JPFG1 does not include global strategic IS management, because JPFG1 has not developed a clear global business vision.

11.6.3 Validation

It is verified that the CCCM-GSISMs have a mechanism to explain which enablers of global IS are applied or missed, and where the bottlenecks in implementation for global IS are.

11.7 Conclusion

In order to externally validate the CCCM-GSISMs which has emerged from the data of a) IS projects, b) official corporate information, c) unstructured interviews (Appendix C), and d) semi-structured interviews (Appendix D) through the Grounded Theory coding process, this chapter applied and compared the model with similar and conflicting IS management theories. This chapter has made four important findings.

Firstly, the CCCM-GSISMs have mechanisms to describe process concerns and implementation concerns of SISP, but do not have a function to identify the method concerns. Secondly, the CCCM-GSISMs indicate that business led SISP is successfully implemented but the organisational approach SISP failed in SAFG.

Thirdly, the CCCM-GSISMs have a mechanism to explain which information strategies are applied, how the sequence of the four categories affects information strategy building, and why the global IS project succeeds or fails. Fourthly, the CCCM-GSISMs have a function to explain what enablers are applied or missed, and where there is a bottleneck in implementation of global IS.

Based on the applications and validations discussed in this chapter, the following four points were identified as potential reinforcement for the CCCM-GSISMs.

Reinforcement 1: The CCCM-GSISMs can be reinforced by segregating global IS projects and global IS implementation.

Reinforcement 2: In addition to reinforcement 1, the CCCM-GSISMs can be reinforced by adding a new indicator for success or failure of global IS projects.

Reinforcement 3: The CCCM-GSISMs can be reinforced by adding a new function of demonstrating what are the drivers for global IS management.

Reinforcement 4: The CCCM-GSISMs can be reinforced by adding a new indicator for describing causal relationships between business model, organisational management structure, human resource management, IS projects, and IS implementation.

The emerged theories become more rigorous through external validation from the perspective of national culture. Accompanying validation of the emerged theory of cross-cultural comparison in global IS management in the multinational investment banks, Chapter 12 reveals how Japanese traditional culture impacts on global IS management.

Chapter 12 Validation from the Perspective of National Culture

As discussed in Chapter 11, Grounded Theory has a couple of criticisms in the areas of the ability to audit and confirm emerged theories (Gasson, 2004). External validation from the perspective of national culture enables a continuous process of incremental correction of those weaknesses of the emerged theories.

The induced theory becomes firmer and more vigorous through verification from the perspective of national culture. The process of cultural analysis enables the researchers to examine the culture from the historical, normative, psychological, structural and genetic views as well as viewing culture as the antecedent.

The process also enacts the inscription of the detailed interpretive explanation for the use of other academic researchers. Attempts to externally and culturally validate the theory against previous authoritative works from the view of Japanese history and traditional customs are promising.

Accompanying validation of the emerged theory of cross-cultural comparison in global IS management in the multinational investment banks, the main purpose of this chapter is to reveal how Japanese traditional culture can impact on global IS management.

12.1 Introduction

Japan, because of an Industrial Revolution uniquely driven by the Meiji Emperor, became the first country in Asia to embrace globalisation in the middle of the 19th century, whilst preserving its unique traditional culture (Nye, 2004), both in terms of external accoutrements and internal socio-political structuration.

However, this country which had been the best performer in the 1980s became the worst performer in the 1990s from a global economic standpoint (Thurow, 2003).

> *"Systems that don't work have to be changed, and the changes don't happen automatically. Solutions demand a change in Japan's culture, and only Japan can change its own culture. Easy to say, but how is it done?"(Thurow, 2003)*

Japan, therefore, should move from quality competition to strategic innovation (Porter, Takeuchi and Sakakibara, 2000).

> *"According to conventional wisdom, Japan's unique management model is the other leg of its postwar economic success. We agree - in part. The model stresses attributes such as teamwork, a long time horizon, and dedication to continuous quality improvement, all of which remain important Japanese strengths. But it has also encouraged conformity and a conception of competition that is dangerously incomplete" (Porter, Takeuchi and Sakakibara, 2000; pp. 69).*

12.2 Narrowed Research Questions

The domestic information network in Japan was established around 14th century and well organised in 18th century. Japan has become a country which has one of the most sophisticated, accurate, stable, punctual and mature internal information networks in the world.

In spite of the fully developed domestic information network in the Japanese banking industry, the two selected cases, i.e. JPFG1 and JPFG2, have not yet globally consolidated their e-mail network.

After World War II, the Japanese government continuously controlled the capital funds to smoothly flow to the industries they deemed to be strategic. At the beginning of the business, the emerging small and young companies including Honda, Matsushita, Sony and Toyota faced difficulties accessing government-controlled funds. They were required to build their own business strategies for obtaining capital.

On the other hand, as the centre of the *Zaibatsu* and *Keiretsu* networks, e.g. Mitsubishi, Mitsui and Sumitomo, the major Japanese banks could earn a fixed margin on their business under the protection of the government policy (Schaede, 1999).

The Japanese banking industry benefited from government protection following World War II but this has led to weakness in the internal structures and allowed the perpetuation of inefficient practices.

When the financial bubble burst in the late 1980s, the problems were of such magnitude that the government was unable to shore them up and a number of banks had to be allowed to declare bankruptcy (Schaede, 1999).

Since then, Japan experienced an economic recession throughout the 1990s. Japanese banks, which directly or indirectly owned stocks of subsidiaries or affiliates through cross-shareholding scheme, decreased their capital and lending liabilities. Consequently, they are now facing difficulties surviving in the globally competitive financial market (Liaw, 2006).

The typical Japanese corporate model consists of a set of a) human resource policies, b) organisational management style, c) leadership approaches, d) production practices, and e) modes of diversification (Porter, Takeuchi and Sakakibara, 2000).

As discussed in Chapters 8, 9 and 10, the Japanese traditional business/IS management has difficulty formulating a global IS strategy. From those views, the following narrowed question 1 is identified.

Narrowed question 1: "What are Japanese traditional styles of human resource management, organisational management structure and outsourcing in Japanese banks?"

Japan did not respond well to new ideas coming from the West during the 20th century. An agonizing struggle between these new ideas and Japan is still ongoing (Kerr, 2001).

"The gap between Japan's way of doing things and the realities of modern life, both international and domestic, is extreme - there is no other way to put it. It is this that leads me to call Japan a case of failed modernisation. Japan's elaborate Dogs and Demons monuments are a sort of defensive bulwark, a desperate attempt to shore up its embattled systems against the crushing weight of real value" (Kerr, 2001; pp. 383), and *"The question at the beginning of the twenty-first century is: Can Japan change?"* (Kerr, 2001: pp. 358)

Management style seems to be closely integrated with national culture. Japanese culture, which was embodied in the myths of their national history, in their comments on what constitutes a successful person, and in their speeches on national holidays, was not Buddhism or Confucianism, but Japan itself (Benedict, 1946). From those views, the following narrowed question 2 is identified.

Narrowed question 2: "What cultural structures as antecedents influence Japanese traditional style of human resource management, organisational management structure and outsourcing in Japanese banks?"

12.3 Japanese Management Style

In order to answer the narrowed question 1, this section reviews the previous work and interview manuscripts in relation to human resource management, organisational management structure, and outsourcing in Japanese companies including banks.

12.3.1 Human Resource Management

Human resource management style is closely integrated with culture (Takeuchi, 1990). Many Japanese companies have studied the theory and practices of human resource management from the United States and have adopted some of them, but major differences still exist (Takeuchi, 1990).

Human resource policies in the overwhelming majority of Japanese companies emphasise a) creation of a strong community within the company, b) establishment of employee loyalties, and c) orientation of long-term managerial decision-making (Takeuchi, 1990; Gross and Hews, 1997; Gross, 1998; Ornatowski, 1998; Porter, Takeuchi and Sakakibara, 2000).

Although the Japanese companies have well educated, bright, and hardworking human resources (Thurow, 2003), Porter, Takeuchi and Sakakibara (2000) criticise the unsuccessful and low performing industries, including finance, which have a shortage of trained talents and effective specialists.

Many researchers (Takeuchi, 1990; Gross and Hews, 1997; Gross, 1998; Ornatowski, 1998; Porter, Takeuchi and Sakakibara, 2000; Gross and Tran, 2003) identify that the traditional Japanese style of human resource management consists of the two major elements, which are lifetime employment and the seniority system.

12.3.2 Lifetime Employment

The Japanese lifetime employment system a) promotes employee loyalty, b) guarantees employment to male staff, and c) assigns various positions to employees in order to become generalist type workers with multiple skills (Takeuchi, 1990; Gross and Hews, 1997; Gross, 1998; Ornatowski, 1998; Porter, Takeuchi and Sakakibara, 2000; Gross and Tran, 2003).

The system works in two directions. Firstly, Japanese employees expect to stay for the whole of their working life in a single company. Secondly, Japanese employers expect these employees to remain for their whole working life (Takeuchi, 1990; Gross and Hews, 1997; Porter, Takeuchi and Sakakibara, 2000).

Employees receive new assignments to expand their job knowledge every three to five years (Takeuchi, 1990; Gross, 1998). They are much less resistant to changing their position and more loyal to their companies than most Western employees (Porter, Takeuchi and Sakakibara, 2000). Salary is conceptually paid to a person not to a job (Takeuchi, 1990).

One of the interviewees in a Japanese multinational investment banks demonstrated that *"it is very difficult to change these systems, which are well suited to the Japanese people's spiritual condition and culture"* (Appendix C; Interviewee F).

Ornatowski (1998) emphasises the disadvantage of the system in terms of fixed labour costs and suggests that it could be manageable through a number of mechanisms, including early retirement and transfers to *Keiretsu* companies. Porter, Takeuchi and Sakakibara (2000) criticise a) the difficulty of controlling the size of the workforce in the short-term, and b) the costs which are higher than the benefits that come from increased trust and cooperation of employees.

Another interviewee explained that; *"The large sized IT developments sometimes are used as a 'New Deal Policy' to absorb excess internal human resources. Because the Japanese large banks fundamentally hired employees based on lifetime employment, the senior management needed to think about human resource allocation not only from the view of profit making but also from the view of the creating enough jobs for the excess employees"* (Appendix C; Interviewee E).

In terms of economic efficiency, Fujiwara (2005) emphasised that Japanese companies should maintain the lifetime employment system with the seniority system which fit Japanese spiritual and moral culture. He felt other systems overemphasised efficiency at the expense of other important considerations.

12.3.3 Seniority System

The seniority system aims to improve long-term company performance by eliminating competition among individuals and fostering group unity (Takeuchi, 1990; Gross and Hewes, 1997; Gross, 1998; Porter, Takeuchi and Sakakibara, 2000).

Even if younger employees have greater knowledge or experience in specific areas than senior employees, largely Japanese people are uncomfortable when the younger employees are promoted beyond someone senior. Therefore, even if younger employees have unusual ability beyond senior employees, the employers often refrain from increasing the title, salary and responsibility until the employees gain more seniority through the simple passage of time (Gross, 1998).

Consequently, young workers are often underpaid relative to their contributions (Porter, Takeuchi and Sakakibara, 2000). Other consequences include the need to sideline ineffective senior employees and the need to create circuitous communication protocols to prevent senior management from making disastrous efforts.

One of the interviewees emphasised that; *"Because of 'Lifetime Employment' and 'Seniority Based Salary System', the performance amount and the appraisal result still do not match each other",* and *"historically, the appraisal mechanism for salaries is equality based and seniority based. A scheme to identify the exact performance for each staff member does not exist" (Appendix C; Interviewee E).*

12.4 Organisational Management Structure

12.4.1 Consensual Management

Contextually, the Japanese companies apply consensual decision-making mechanism through involvement and participation at various level of management (Gross and Hewes, 1997; Gross, 1998; Porter, Takeuchi and Sakakibara, 2000). Decision-making processes take much longer in Japanese companies than in Western companies (Gross, 1998).

In the process, typical mid-career managers are involved in the process of consensual decision-making as one of many participants such as different levels of managers, general manager, directors, and sometimes managing directors. Consequently, the Japanese mid-career managers do not have as much experience in making decisions as typical mid-career Western managers (Gross and Hewes, 1997; Gross, 1998).

Japanese consensual management is strong when problems occur from outside, but it is weak when problems occur from inside (Thurow, 2003). The interview manuscripts identify the weakness of the consensual management.

"The senior management will have a big problem, if the new appraisal system is implemented. Because they made a big loss during the collapse of the bubble economy" (Appendix C; Interviewee E).

"Not so many staff members want to implement the new appraisal system, because if they have the confidence to make a profit in the financial market, they have already moved to the foreign companies, which adapt the self-performance based salary system and gives a salary based on the profit amount" (Appendix C; Interviewee E).

12.4.2 Human Resource Department and Planning Department

A hierarchy in Japanese companies is established based upon the strong belief in authority (Gross, 1998). The organisation chart in the official corporate information of the Japanese investment banks describes the single dimensional organisational structure with a simple pyramid shape.

In order to understand the real aspects of the structure, it is important to recognise the authority of the human resource department and the planning department. In the hierarchy inside the company, the human resource departments are highly respected (Porter, Takeuchi and Sakakibara, 2000). The human resource department conducts salary administration and periodical appraisal.

The assessment focuses not only on business performance but also on attitudes, growth in skills and work methods. Appraisals are basically annual, sometimes more frequently conducted not only by the line managers of each business units, but also by the human resource management. The scope of the assessments includes not only the performance but also attitudes, growth in skills and working methods (Takeuchi, 1990).

One of the interviewee explained that; *"The human resource department and the planning department in the head office have stronger power than other business units in the Japanese large banks. Normally, the human resource department has a strong power to make decision for the human resource allocation, and the planning department has a strong power to make decisions for the budget and expense for the whole company as well as each department in the large Japanese banks"* (Appendix C; Interviewee D).

Another interviewee explains that; *"The human resource department has authority to mark the final appraisal of all employees based on the information from each section head. In addition, the human resource department has authority to make decisions concerning the transfer of all employees based on the requirement of human resource allocation of all section, entity and department"* (Appendix C; Interviewee J).

The interview manuscript indicates that the Takeuchi's view in 1990 has not been changed and still kept in JPFG1.

12.4.3 Keiretsu and Amakudari

The mechanism of outsourcing to *Keiretsu* companies is totally different from Western style outsourcing. In order to explain the difference, the *Keiretsu* relationship and *Amakudari* culture are investigated. The *Keiretsu* relationship is *"ubiquitous in Japan"* (Porter, Takeuchi and Sakakibara, 2000).

Through the cross shareholding scheme, the *Zaibatsu* groups traditionally had vertical relationships with a top down pyramid shape. Whereas the *Keiretsu* are horizontal relationships with other group companies mutually holding each other's shares.

Usually, a bank is located in the centre of *Zaibatsu* and *Keiretsu* structure as a leader of the group (Schaede, 1999; Porter, Takeuchi and Sakakibara, 2000). Lambert and Peppard (1994) explain that the *Keiretsu* can coordinate strategic approaches to penetrate world markets, block foreign competition by managing supply chain and long-term investments in manufacturing and technology.

But Gross (1998) explains that the Japanese employees are shifted to easier positions at subsidiaries or related companies, if their performance is poor because of the lifetime employment system (Gross, 1998).

In the *Amakudari* mechanism, which literally means *"descent from heaven"*, senior managers in higher ranked companies are allowed to obtain high-ranking positions in lower *Keiretsu* group companies after their retirement (Davies and Ikeno, 2002).

12.5 Japanese Culture as Antecedents

In order to answer the narrowed question 2, this section analyses the relationship between a) traditional management style and b) Japanese culture as antecedents elicited from the review of Japanese history.

Japanese ideologies seem to come from the four philosophical religions, which are Buddhism, Confucianism, Taoism and *Shinto* (Hotta, 2004). Buddhism, which was originally established in India during the 6th century B.C., teaches a path to spiritual enlightenment. Confucianism, which was originally established by Confucius in China during the 6th century B.C., strongly emphasises the importance of the maintenance of social harmony.

Taoism was originally established by Lao Tsu in China at approximately the same time. Tao in Chinese is same character as *"DO"* in Japanese which will be explained below. *Shinto*, which worships various parts of nature as well as the Japanese emperor as gods, is an indigenous religion in Japan (Mason and Caiger, 1997; Varley, 2000; Davies and Ikeno, 2002; Hotta, 2004).

In reference to the Japanese history briefly summarised in Appendix E, this section demonstrates two major concepts which are the spirits of *"DO"* and *"WA"*.

12.5.1 Spirit of *"DO"*

In order to understand the spirit of *"DO"* which continues to pervade in modern Japanese culture (Davies and Ikeno, 2002; Hotta, 2004), this part discusses a) the origin of *"DO"* and b) the relationship between *Senpai* and *Kohai*.

Origin of "DO"

The origin of *"DO"* can be found in Buddhism and Taoism. Japanese people are seeking to acquire spiritual satisfaction after perfection in basic patterns in their lives (Davies and Ikeno, 2002; Hotta, 2004). The concept of *"DO"*, which is deeply rooted in the Japanese traditional and modern way of thinking, illustrates important insights into the Japanese way of thinking (Davies and Ikeno, 2002; Hotta, 2004).

The meanings of the Kanji character *"DO"* are way, path or route in English. The suffix *"DO"* is applied to various kinds of activities, such as *"Kado"* (flower arrangement), *"Shodo"* (calligraphy), *"Sado"* (tea ceremony), *"Kendo"* (swordsmanship) and *"Judo"*, all of which imply development of a degree of implicit skill and *"art"*.

Senpai-Kohai Relationship

The concept of *"DO"* spirit contains *"Shogun-Samurai"* relationships (Nitobe, 1938; Varley, 2000; Davies and Ikeno, 2002) and *"Senpai-Kohai"* relationships (Davies and Ikeno, 2002; Hotta, 2004). Many similarities can be found in the mechanisms between a traditional *Senpai-Kohai* relationship and a modern Japanese seniority system which is one of the unique characteristics of the Japanese labour market.

Historically, human relationships in Japan are quite different from those in the West. *Senpai-Kohai* relationship represents the vertical hierarchy and comes from the teachings of the Confucianism (Davies and Ikeno, 2002; Hotta, 2004).

Senpai who are older than *Kohai* are considered to be superior in ability because of their longer experience. *Kohai* who are younger than *Senpai* are considered to be inferior to *Senpai* because of their lack of experience.

The *Senpai-Kohai* relationship exists not only in most of Japanese corporate, educational and governmental organisations (Davies and Ikeno, 2002; Hotta, 2004). The *Senpai-Kohai* relationship impact on the seniority system, which technically aims to improve long-term company performance by eliminating competition among individuals and fostering group unity (Takeuchi, 1990; Gross and Hewes, 1997; Gross, 1998; Porter, Takeuchi and Sakakibara, 2000).

Obedience to Traditional Myth and Authority

Apart from the spirit of *"DO"*, the characteristic of *"obedience to traditional myth"* can be seen in historical politics. The Emperor was established in the *Yamato* era and the *Shogunate* government was established in the *Kamakura* era.

After this, these two political powers have been continually and permanently coexisted. Although the *Shogunate* government predominantly controlled the political leadership after the 14th century, the erasure and/or extermination of the Emperor had never been carried out (Maezawa, 2001).

The traditional myth, the Emperor as the posterity of God, seems to be the uncompromised point by any reasons. Thus, the style, in which the Generalissimo *Shogun* at the top of *Shogunate* government is appointed by the Emperor, has never been changed. A current prime minister is appointed under the same method. Table 12.5 gives relations between political power and authority in three eras of Japanese history.

Table 12.5: Political Power and Authority

Time / Era	Political Power	Authority
From *Asuka* era to *Heian* era	Emperor or their regencies or chief advisers	Emperor as the posterity of God
From *Kamakura* era to *Edo* era	Generalissimo *Shogun* or their regencies	Appointment by Emperor who is the posterity of God
From *Meiji* era to now	Prime minister and sovereignty rests with public people	Elected in the Parliament and appointment by Emperor the posterity of God

Because of the relationship between *Senpai-Kohai* and the obedience to traditional myth and authority, the Japanese society generally respects Japanese traditional authority, command chain and senior persons, and the seniority system is favoured by Japanese people (Gross and Hewes, 1997).

12.5.2 Spirit of *"WA"*

In order to understand the spirit of *"WA"* which continues to pervade in the modern Japanese culture (Davies and Ikeno, 2002; Hotta, 2004), this part discusses identified characteristics of Japanese culture which are a) intermingling religion, b) obedience to traditional authority, c) obedience to invisible shared rules, and d) obscuration of persons in charge.

Intermingling Religion

The *"intermingling religion"* is a foundation which impacts on the other three characteristic. When Japan imported new concepts and cultures which were a) Buddhism via China in the 6th century, b) Christianity from Holland in the 16th century, and c) Western philosophy from Europe and America in the 19th century, there was, with each ingress of ideas, concern in

Japan as to how to adjust the existing sense of values and maintain harmony in the face of different external values.

In the introductory period of Buddhism in the 6th century, the concept *"WA"* emerged and the opposite thought, *Shinto*, could coexist with Buddhism. The concept of *"WA"* implies group harmony and Japanese version of democracy, which originally come from the Confucianism (Mason and Caiger, 1997; Varley, 2000; Hotta, 2004).

The origin of *"WA"* in Japanese history can be found in the first sentence of the seventeenth articles, which is the first constitution of Japan organised by Prince Shotoku in A.D. 604 (Mason and Caiger, 1997; Varley, 2000).

In addition, many kinds of Japanese Buddhist schools, such as *Zen, Nenbutsu, Shingon and Ritsu,* appeared during the *Kamakura* era. By this, Japanese religious thought became very diverse with many kinds of Buddhism coexisting with each other and *Shinto* which contradicts Buddhism directly in many ways. In the *Edo* era, people belonged to the temple and/or shrine determined by their residential location, not by their independent personal belief.

Thus, the concept of religion was intermingled, and selection of religious faith was managed and controlled by the authorities and rules. Consequently, Japanese people, who do not have a specific religious belief, tend to prefer many things to be decided by something outside them. Thus, the spirit of *"WA"* continues to pervade cultures in Japan. The unique Japanese climate was evolved in which people prefer harmonisation in a group without any fixed religion beliefs and argument on religious conflicts.

It is very difficult for the Japanese people to say *"No"* in contrast to Westerners, who attempt to reach decisions and truths by presenting conflicting facts or interests to reach a conclusion (Davies and Ikeno, 2002).

Obedience to Invisible Shared Rule

The fourth characteristic is obedience to invisible shared rule. Davies and Ikeno (2002) explain that the geography of Japan has greatly influenced many aspects of the Japanese cultural values and customs. Japan is an isolated country. Japanese cultures were developed in relative isolation, because Japan was separated by the dangerous seas from the continent and free from the threat of invasion from other Asian countries (Davies and Ikeno, 2002).

Japanese people culturally tend not to be against groups direction because they fear to be excluded from the group. The groups are more important for Japanese people than their personal characteristics, traits and abilities. Japan is a mountainous country. Japanese people had to live in small communities in good harmony to grow more rice with another's support in a small inhabitable land (Davies and Ikeno, 2002).

Historically, approaches to collecting tax were unchanged in the government ages by the Emperor and the *Shogunate*. It was carried out by a) standardisation of the social class system, b) geographical survey of agricultural lands, and c) preparation of statistics of farmers.

In order to negotiate tax reduction from the government whose structure was historically complicated and unclear from the view of the common people, a united group was independently formed on a village level with strict rules from the *Kamakura* era.

Strengthening a union brought about success in negotiation. If people broke rules, they were banished to social ostracism with the concept of *"Mura-Hachi-Bu"* which means outcast (Maezawa, 2001).

Obscuration of Persons in Charge

The third characteristic of *"obscuration of persons in charge"* can be seen both in the government and in the public people. Although the Emperor or the Shogunate seized absolute political power several times, the structure in which regents or chief advisers seized real power frequently appeared (Sakaiya, 1997).

Thus, it is not unusual for Japanese people for a person who is not in the top position to grasp actual real power. Similarly, Japanese public people dislike being specified as a principal offender of a rebellion, although they, mostly farmers, had been historically troubled with heavy taxes after the establishment of the taxation system of the *So-Yo-Cho* in the *Asuka* era.

A covenant under joint signature in the *Muromachi* era is a symbolic negotiation method to governors. Signatures on the covenant were written *"in the round"* so that the leader of a treasonable plot could not be identified.

The *Ringi* system, which requires all signatures from junior managers to senior directors to maintain consensual management in the contemporary Japanese banks (Porter, Takeuchi and Sakakibara, 2000), has the same mechanism as signatures on the aforesaid covenant. Consequently, the concealment system, which does not clarify a specific head, has been established both in the ruling and ruled sides of Japan and carried to the modern period.

This mechanism can be found in the modern Japanese banks in which the human resource department has authority to make decision for the human resource allocation, and the planning department maintains authority to make decisions for the budget and expense for the whole bank rather than other senior directors.

12.6 Conclusion

This chapter has examined Japanese culture as antecedents influencing traditional style of human resource management, organisational management structure, and *Keiretsu* outsourcing in Japanese banks.

There seem to be cultural factors that support or prevent globally networked IS development in the competitive business world. The Japanese traditional cultures such as *"DO"* and *"WA"* seem to preventively influence global IS management in the Japanese banks. JPFG1 and JPFG2 could not fix IS project sponsor which is one of the most important factors in the global IS project management.

Japanese history has similarities with China and Korea from the view of Buddhism, Confucianism and Taoism, but seems to be different from China and Korea in terms of *Shinto*.

By analysing other cases from Chinese and Korean banks, further research can deeply detect similarities and differences of the cultural relationship between *Shinto*, Buddhism, Confucianism and Taoism which affect global IS management.

Chapter 12 examined Japanese management style and culture which influenced global IS management in Japanese multinational investment banks.

The question *"what has to be done at a strategic level for Japanese multinational investment banks to compete globally through IS"* can be analysed in further research. Chapter 13 moves on to the refinement of the CCCM-GSISMs.

Chapter 13 Refinement

As previously explained, this research mainly aims to identify similarities and differences in the cultures affecting global strategic IS management in multinational investment banks. Part III discovered the cross-cultural comparison model for global strategic IS management (the CCCM-GSISM) through the Grounded Theory coding process. This chapter refines the theories discovered in Chapters 9 and 10, and validated in Chapter 11 and 12.

> *"Once the researcher outlined the overarching theoretical scheme, it is time to refine the theory. Refining the theory consists of reviewing the scheme for internal consistency and gaps in logic, filling in poorly developed categories and trimming excess ones, and validating the scheme" (Strauss and Corbin, 1998; pp. 156).*

This chapter firstly identifies three narrowed questions through reviewing previous work on global IS management. Secondly, the functions of business model, organisational management structure, human resource management and IS management in the CCCM-GSISMs are examined.

Thirdly, activators and inhibitors of successful global strategic IS management are discussed. Fourthly, the Fixed Sponsor Model (FSM), discovered through these processes, is explained in order to describe similarities and differences in the cultures affecting strategic management of global IS in the multinational investment banks before concluding the chapter.

13.1 Introduction

As explained in Chapter 5, the research selected Grounded Theory analysis in the inductive theory building process. Following the theoretical sampling procedure clarified in Chapter 6, data collection was conducted in three phases which were a) open, b) relational and variational, and c) discriminate sampling.

For open sampling identified in Chapter 8, the internal documents available were IS project related, and the companies' official information was collected from Internet sources. In the relational and variational sampling demonstrated in Chapter 9, unstructured interviews were conducted. Various levels and types of manager as well as other employees participated in the process.

Although the open, relational and variational sampling focused on three entities in two corporate groups, the discriminate sampling, which was explained in Chapter 10, expanded to six other cases by investigating official information from similar companies, reviewing manuscripts of unstructured interviews, and conducting semi-structured interviews with respondents.

This discriminate phase focused on organisational forms, management strategies and competitive, collaborative and co-operative notions. Using the formalised templates and diagrams developed in Chapter 7, the research conducted visualisation of the mechanisms in the strategic management of global IS which was demonstrated in Chapters 9 and 10.

> *"The general rule when building theory is to gather data until each category is saturated. This means until (a) no new or relevant data seems to emerge regarding a category, (b) the category is well developed in terms of its properties and*

dimensions demonstrating variation, and (c) the relationships among categories are well established and validated" (Strauss and Corbin, 1998; p. 212).

In order to answer the sub-question; *"What cultural factors of organisations activate or inhibit global IS in multinational investment banks?"* identified in Chapter 4, this chapter refines all CCCM-GSISMs (Figure 9.3, Figure 9.4, Figure 9.5, Figure 9.6 and Figure 10.4.1, Figure 10.4.2, Figure 10.4.3, Figure 10.4.4) through re-categorising as U.S., British, Swiss/American, and Japanese investment banks.

13.2 Narrowed Research Questions

Strategic IS management is a critical management challenge (Santos and Fjermestad, 2002). The rapid change of technology increases the complexity faced by IS management as well as the pressure on senior management who are responsible for achieving the continuous growth of companies (Benamati, 1999; Shipps and Zahedi, 1999; Huxley, Stewart, Taylor and Rosemann, 2002).

Organisational survival is increasingly dependent on strategic IS, and strategic IS decides the continuity of the organisation (Audy and Lederer, 2000). In the early days of IT/IS, often a system department was responsible for the design and development of the computer systems, and other departments were responsible for the operational process of the business (Vandenbosch and Avital, 2000).

Many researchers (Earl, 1995; Earl and Feeny, 1995; Chan, 1999; Presley and Meade, 1999; Willcocks and Sykes, 2000; Lederer and Johnson, 2003) emphasise the importance of integration between business strategies and IS strategies to strategic management so that IS can respond effectively to the requirements of other business units.

IS strategy making involving various organizational actors is important. In addition, the existence of a global competitive business model is promulgated as one of the most important factors for IT/IS solutions (Willcocks and Sykes, 2000).

However, IS strategy making led by business strategy is rare and difficult to achieve (Earl and Feeny, 1995). Often IS strategy focuses on small-scale solutions, meeting short-term business objectives (Remington, Moores, Swanson and Folts, 1999), because IS specialists have difficulty changing their view from micro-orientation to macro-orientation, do not possess enough experience in business functions, and often lack an interest in business knowledge (Couger, 1995).

Therefore, richness in communication and mutual understanding within the top management team is important to activate successful strategic IS (Lederer and Johnson, 2003). Especially, the role of the Chief Information Officer (CIO) in the top management team is increasingly becoming important (Earl, 1995; Huff and Enns, 1999; Willcocks and Sykes, 2000; Reich and Nelson, 2003; Hirschheim, Porra and Parks, 2003; Stephens, 2003), and support by the top management team to the IS department is a critical success factor of strategic IS (Lunce, 1999; Kearns, 2000).

In addition, some IS have different impacts on organisational structure at different times (Sampler, 1995). Organisational structure should be changed to enable the expected benefit of the strategic IS (Boddy, 1995). In order to establish cross-border IS, it is necessary to minimise negative obstacles by adjustment of organizational decision-making structures (Raisinghani, 1999).

Significant changes occur to the scope of strategic IS management in modern organizations in relation to massive restructuring in the global business environment (Marshall and McKay, 1999).

New organisational forms, new management strategies, and new competitive, collaborative and cooperative ideas have emerged in response to the rapid changes in IT/IS (Marshall and McKay, 1999; Shipps and Zahedi, 1999; Murphy and Platt, 2002). Therefore, it is important for researchers as well as practitioners to take a wide view of various aspects to examine *"organizational form, function, and processes" (Evaristo and Tan, 2006)* in strategic management of global IS. This research therefore posed the following question.

> *Narrowed Question 1; "What new business models, organisational forms and operational processes emerge in accordance with the advances of IT/IS in the multinational investment banks?"*

Strategic IS has a significant impact not only on the short but also on the long-term profit of companies (Remington, Moores, Swanson and Folts, 1999). Although IT/IS strategies have become increasingly important to the success of companies (Lunce, 1999), many companies fail to fully realise the benefits of IT/IS investment because of mismatches between business and IS strategies (Presley and Meade, 1999).

It is difficult for multinational corporations to successfully activate global IS because of differing technological infrastructure, multiple vendors, conflicting standards and regulatory structure between different national entities (Earl and Feeny, 1995). In addition, it is necessary to tackle non-financial and non-economic factors such as differences of languages, religions, gender roles, customs and traditions (Johnson, Elmallah, Crow and Gezi, 1998). Hence, a second question is formulated.

> *Narrowed Question 2; "What changes in business model, organisational management structure and human resources in relation to strategic management of IS activate or inhibit successful global IS in the multinational investment banks?"*

IT/IS brought about a blurring of geographical national/regional boundaries by activating global work (Evaristo and Tan, 2006). Many investment banks adopted a multinational style around the 1980s, because of advances both in IT/IS and globalization trends (Holland and Westwood, 2001).

The U.S. investment banks have improved their business structures by innovatively utilizing global IS since the 1980s (Davies, 2002; Nanda, Delong and Roy, 2002; Roberts, 2004; Liaw, 2006).

The Japanese banking industry received special consideration from the Japanese government after World War II and played an important role as a central entity in the *Keiretsu* and *Zaibatsu* relationships common during the high economic growth period of Japan until the end of the 1980s (Schaede, 1999; Davies, 2002).

However, this industry experienced a financial crisis when several large-scale financial institutions went bankrupt following the bubble economy's collapsing in the latter half of the 1990s (Schaede, 1999; Porter, Takeuchi and Sakakibara, 2000; Thurow, 2003).

Although the U.S. investment banks achieved success by activating global IS, the Japanese investment banks missed this opportunity. The following third question is clarified.

Narrowed Question 3; "What cultural elements of different national origin affect success and failure of global IS management in the multinational investment banks?"

13.3 Categorisation of the CCCM-GSISMs

In order to answer *the narrowed question 1; "What new business models, organisational forms and operational processes emerge in accordance with the advances of IT/IS in the multinational investment banks?"* identified in Section 13.2, the eight CCCM-GSISMs were re-categorised. Table 13.3 summarises the phenomena identified through the CCCM-GSISMs of the eight selected cases.

Table 13.3: Summary of the CCCM-GSISMs

Driver	Business Model	Organisational Management Structure	Global IS Project		Human Resource Management
Result	Success	Success	Success	Failure	No global IS
Cases	SAFG (1992-2001), USFG1 (Mid 1980s) and GBFG1 (1996-1999)	SAFG (2002-2004) and GBFG2 (1987-1992)	USFG2 (1977-1982) and USFG3 (Early 1990s)	SAFG (1999-2002)	JPFG1 (1983-2004) and JPFG2 (1986-2004)
Cause	A new business model	A new organisational management structure	A new global IS project with a fixed sponsorship	A new global IS project without a fixed sponsorship	A traditional human resource management
Change	Change of organisational management structure and human resources	Change of human resources	Change of human resources	No change of human resources	Unclear global business model
Conse-quence	Success of global IS implementation	Improvement of business model	Success of the global project	Failure of the global project	IT Outsourcing to *Keiretsu*

13.3.1 Business Model

Business models between the Western and Japanese multinational investment banks function in different forms. In the cases from the Western banks, there are two different patterns in the functionality of the business model. One pattern is that a causal business model works as a primary condition that affects the other three central categories i.e. organizational management structure, human resource management and IS management.

The other is that a consequential business model is affected by the three other categories. As significantly discovered, there is no pattern where the business model is affected by other categories in the middle of the management cycle of global IS. In both of the Japanese banks cases, the business models were unclear.

13.3.2 Organisational Management Structure and Human Resource Management

One of the fundamental differences between the Western and Japanese banks is the causal relationship between the organisational management structure and human resource management. In the cases of the Western banks, the organisational management structure affects the human resource management.

If an organization changes, human resources are changed. In some cases, we might go so far as to say that the organisation is changed by a change of personnel. Conversely, in the cases from the Japanese banks, human resource management was seen to affect the organisational management structure.

13.3.3 IS Management

In the cases from the Western banks, there are two different patterns in the functionality of IS management. One pattern is where an IS Management is a causal condition which affects three other categories i.e. business model, organizational management structure and human resource management.

Another is where a consequential IS management is affected by three other categories, and there is no pattern in which IS Management is affected by other categories in the middle of the management cycle of global IS. In the cases from the Japanese banks, IS strategy is always unclear in the consequential part. Thus, IS management as an analysis construct displays the same characteristic as business model.

13.3.4 Sponsor

However, there is a significant difference in the functionalities between business model and IS management. In the business model driven cases, all cases are successfully completed, but there is a failure in the IS management driven case. In order to clearly identify cultural elements of different national origin affecting the success and failure of global IS management, a central category of IS management is divided into two, causal function and consequential event, and the sponsor or lack thereof of an IS project is clearly indicated.

13.3.5 Driver

As described in Table 13.3, three patterns of a) business model driven, b) organisational management structure driven, and c) IS management driven in the Western banks are formulated, whereas the Japanese style converges on one pattern of being human resource management driven.

13.4 Activators and Inhibitors of Global IS

In order to answer *the narrowed question 2; "What changes in business model, organisational management structure and human resources in relation to strategic management of IS activate or inhibit successful global IS in the multinational investment banks?"* identified in Section 13.2, the following matrix (Table 13.4) was defined to detect activators and inhibitors of successful global IS. The matrix includes not only the discriminate cases but also cases analysed in the open, relational and variational sampling process. *"S"* is used to denote cases with successful global IS, *"F"* cases that failed to develop global IS, and *"N"* cases with no concept of global IS.

Table 13.4: Success and Failure of Global IS

	SAFG	USFG 1	USFG 2	USFG 3	GBFG 1	GBFG 2	JPFG 1	JPFG 2
National Origin and Location of Head Office								
National Origin	Swiss/ U.S.	U.S.	U.S.	U.S.	U.K.	U.K.	Japan	Japan
Head Office(s)	New York and Zurich	New York	Boston	New York	London	London	Tokyo	Tokyo
Success and Failure of Global IS Management								
Global Business Model Driven	S 1992-2001	S Mid 1980s			S 1996-1999			
Organisational Management Structure Driven	S 2002-2004					S 1987-1992		
Global IS/BPR Project Driven	F 1999-2002		S 1977-1982	S Early 1990s				
Traditional Japanese HR Management Driven							N 1983-2004	N 1986-2004

13.4.1 Activators

By analyzing three cases in SAFG, USFG1 and GBFG1, *"New Global Business Models"* were identified as strong success factors for successful global IS. However, the opportunity to implement global IS driven by a global business model might be a single organisational event. In the cases of USFG1 and GBFG1, the speed of implementation of global IS was less than two years, but SAFG took about 8 years before the completion of stable global IS.

The difference of implementation speed may come from the centralization of political decision-making in USFG1 and GBFG1 and the political conflict between three locations in SAFG. By analysing the GBFG2's and SAFG's cases, *"New Organisational Management Structures"* were identified as success factors that improved the efficiency of existing global business models.

This approach identifies the notion that change came about from prioritisation by the organisation resolving the problematic situation through changing strategic direction. GBFG2 accelerated an ongoing global IS project three years after commencement of the project.

SAFG stopped the global IS/BPR project which had nearly failed and changed direction to global IT support. Both *"New Global IS/BPR Projects"* in USFG2 and USFG3, successfully achieved global standardization or decentralization following strong business sponsorship.

13.4.2 Inhibitors

In the SAFG's case, the global IS/BPR idea which came from USFG3 became a failure factor for global IS without any strong business sponsorship. Success or failure of the global IS project might depend on organizational culture, especially political power in the organization.

This case suggests that global IS/BPR which can become a *"medicine"* with strong sponsorship can also become a *"poison"* without strong sponsorship. In addition, global co-ordination by decentralised authority might be difficult.

From the JPFG1's and JPFG2's cases, it is seen that the factors relating to global IS were very different from those in the Western banks. JPFG1 and JPFG2 kept the traditional Japanese lifetime employment and the seniority system creating the consensual organisational management structure. Global business strategy was not clarified and IT activities were outsourced to *Keiretsu* IT companies. Many senior managers who joined *Keiretsu* companies might possess political power and interact robustly with the core business companies as members of an *"Old Boy"* group.

13.5 The Fixed Sponsor Model (FSM)

In order to answer *the narrowed question 3; "What cultural elements in different national origin affect success and failure of global IS management in the multinational investment banks?"* identified in Section 13.2, the research has developed a new model with three layers through categorising the selected eight organisations into two groups, i.e. a) banks originating from the West (Tricker, 2003) including SAFG, USFG1, USFG2, USFG3, GBFG1 and GBFG2, and b) banks originating from Japan consisting of JPFG1 and JPFG2.

This enables a) detection of the homogeneity and heterogeneity between business model and IS management, b) visualisation of the relationship between organisational management structure and human resource management, and c) specification of a sponsor and a driver of IS management. The following fixed sponsor models (FSM) were identified by this refining process of the CCCM-GSISMs.

13.5.1 U.S., British and Swiss/American Investment Banks

The U.S., British and Swiss/American investment banks (Figure 13.5.1) have mechanisms to fix the IS project sponsorship. Global Business models, global organisational management structure and global IS projects can become strong drivers to activate global IS. The Global business model is the most powerful driver because it possesses a profit opportunity.

Change of organisational management structure to a global style can also activate global IS. Cases of failure with these two drivers were not identified, but there was a failed case caused by an IS project. The global IS project failed to find sponsorship in the organisation. Moreover, the human resources are directly affected by the change of organisation management structure in those cases but this is ameliorated in the Japanese cases.
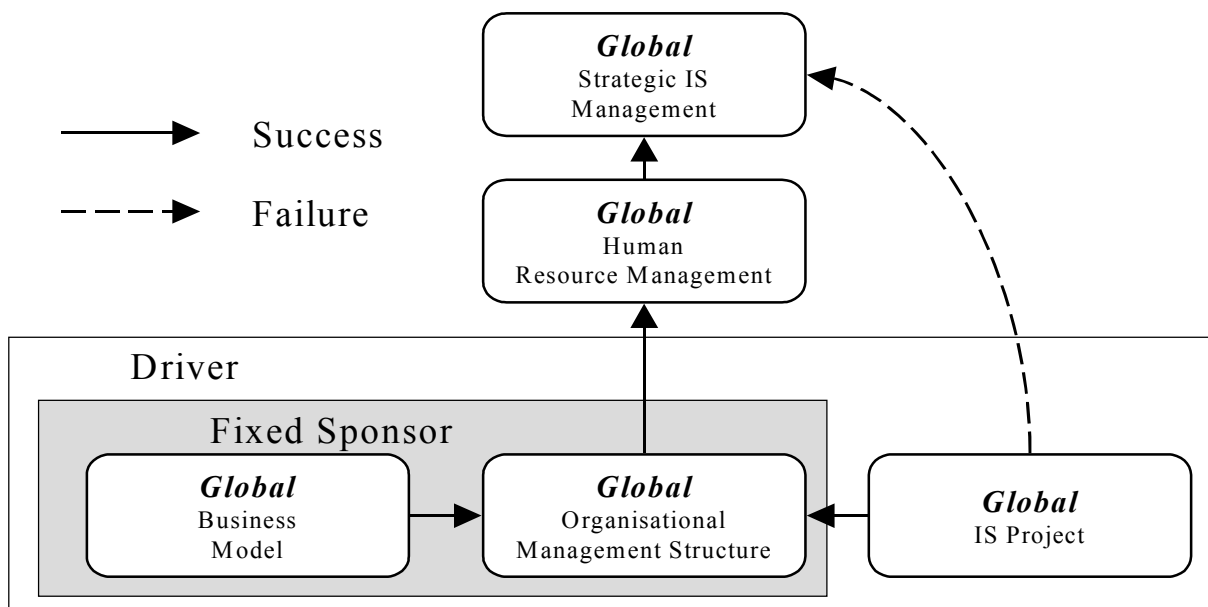
Figure 13.5.1: The FSM: Global IS Management of U.S., British and Swiss/American Banks

13.5.2 Japanese Investment Banks

The Japanese investment bank (Figure 13.5.2) has no mechanism to fix IS project sponsorship. Lifetime employment and the seniority-based system are the foundation of the organisational management structure. In order to maintain this system, employees' feeling of mutual importance needs to be continuously maintained. As a result, the Japanese traditional IS management has difficulty formulating a global IS strategy.
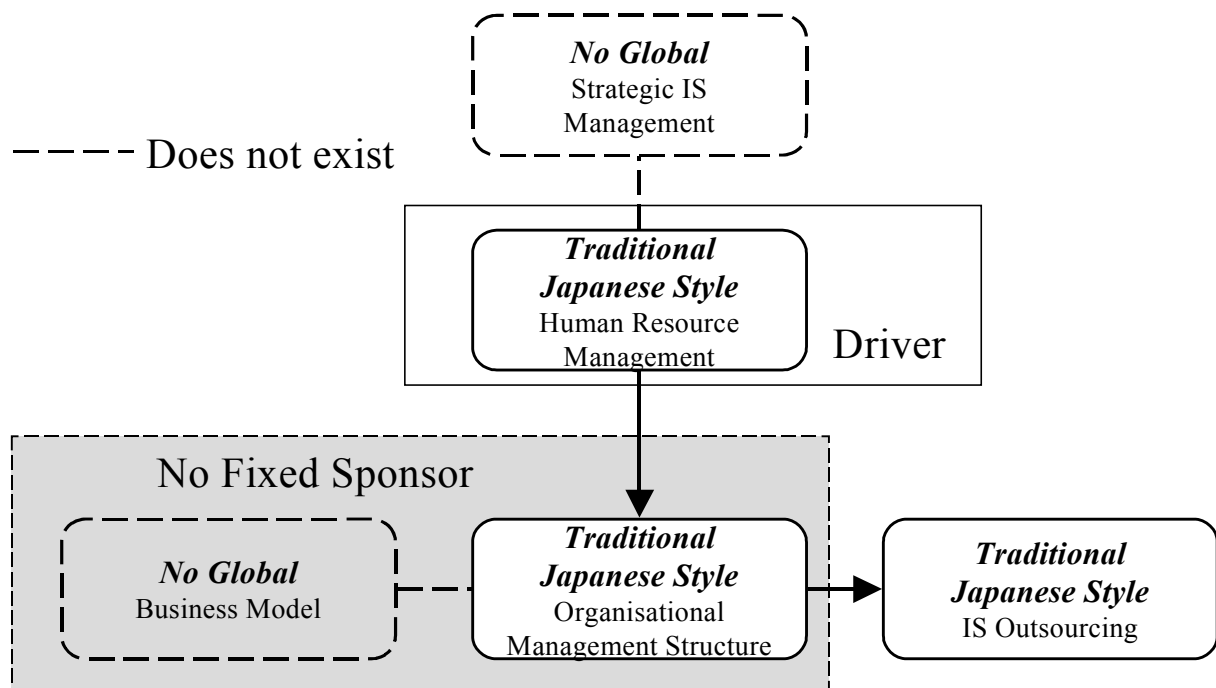
Figure 13.5.2: The FSM: Global Strategic IS Management of Japanese Banks

13.5.3 Judgment of Theoretical Saturation

The research judges the discovered FSMs are theoretically saturated. However, judgment of theoretical saturation is critical in Grounded Theory research (Gasson, 2004), the identification the theoretical saturation in the research is carefully justified in this section.

As discussed in Chapter 5, theoretical saturation is the point when the researcher judges that no new information, i.e. categories, concepts, dimensions or incidents, emerge during the theory building process, i.e. data collection, data analysis, validation and refinement. The research can reach closure when all categories are theoretically saturated (Strauss and Corbin, 1998).

In addition, as discussed in Chapter 6, although statistical sampling aims to obtain accurate evidence on distributions, theoretical sampling possesses a) a data collection mechanism of discovering new categories, concepts, dimensions or incidents and b) a validation mechanism of modifying and adding emerged theories throughout the research. The theoretical sampling process is completed at the point of theoretical saturation (Strauss and Corbin, 1998).

As explained in Chapter 2, numbers of investment banks that adopt multinational style are limited in the European, U.S. and Japanese financial industry, because many multinational investment banks experienced mergers after the 1980s.

In terms of sample size and, i.e. number of cases, as summarised in Table 13.4, the research analysed eight organisations, i.e. one Swiss/American, three U.S., two U.K. and two Japanese investment banks.

In addition, in terms of variation of collected data from those cases, various types of staff, i.e from senior to junior, from front, middle and back office, and IT/non-IT, participate in the unstructured/semi-structured interviews indicated in Appendix C and D.

Furthermore, as explained Chapter 9 and Chapter 10, the collected data from two Japanese multinational investment banks contain many homogenous concepts, dimensions or incidents.

From these facts, the research judged those eight samples to be sufficient to reach theoretical saturation and complete theoretical sampling. Table 13.5.3 summarises the evidence of the reason why the research judged that the FSMs were theoretically saturated from the aspects of a) size of data, b) variation of data, c) homogenisation of data, and d) processes of theory building.

Table 13.5.3: The Researcher's judgment of theoretical saturation

Aspects	Actions in the theory building	The researcher's judgments
Size of Data	Within a limited number of organisations i.e. less than twenty, which globally operate their business in the investment banking industry, eight organisations were selected as cases.	After the 1980s, many multinational investment banks experienced mega mergers beyond national borders. Unselected investment banks might have similar phenomena but could not provide major discriminate phenomena from the view of global strategic IS management.
Variation of Data	Various levels of employees from various departments from the selected eight organisations participated in the interviews.	Employees from other departments, i.e. corporate services or compliance, could have similar information but could not provide major discriminate information from the view of global strategic IS management.
Homo-genisation of Data	The research selected two Japanese investment banks. Data collected from the two Japanese organisations contained many similar phenomenon.	Japanese investment banks seem to have many homogeneities in terms of global strategic IS management. The research does not expect that major discriminate samples could be obtained from other Japanese investment banks.
Processes of Theory Building	As Strauss and Corbin (1998) emphasised, the formalised coding process enables the researchers to keep a record of the data analysis and visualise relationships among concepts. The research developed four templates and two diagrams for the coding processes. All coding processes consistently utilise the templates and diagrams.	The FCCM-GSISMs have no relations between the four central categories. The CCCM-GSISMs indicate cause, change and consequence in the four central categories. The FSMs identify drivers, sponsorship and success /failure from the perspective of global strategic IS management. The research cannot expect any other modifications and additions of the relations among the central categories in the FSMs through more samples.

From the evidence in the Table 13.5.3, it cannot be expected that discriminate samples impacting on the FSMs can be obtained from additional data collection, or that further modifications of the FSMs are required by additional investigation.

The researcher, therefore, judged that the research achieved theoretical saturation at the point when the FSMs emerged through the theory development processes, i.e. the data collection, data analysis, validation and refinement, and stopped theoretical sampling.

13.6 Conclusion

This chapter explained the discovery of the FSM which detects the similarities and differences in global strategic IS management between the Western and Japanese multinational investment banks, and judged that the research reached theoretical saturation at the point when the FSMs emerged.

By comparison between the two FSMs (Figure 13.5.1 and Figure 13.5.2), it is theoretically clear that the Japanese banks need to undergo some cultural changes in their human resource management in order to retrieve their competitive advantage.

Part IV validated and refined the CCCM-GSISMs, and discovered the FSM which is the saturated theory of *"the Cross-Cultural Comparison of Global Strategic IS Management of the Multinational Investment banking Industry"*. Chapter 14 in Part V concludes the research.

Part V: Conclusion

As discussed in Chapter 2, investment banking business originally emerged utilizing cross-border information network to exchange capital beyond national borders in Europe. They have activated advanced IT/IS to enact real time information exchange among global financial markets after the 1980s.

Part I, II, III and IV explained the process of discovering two important theoretical models; *the Cross-cultural Comparison Model of Global Strategic IS Management (the CCCM-GSISM)* and *the theoretically saturated Fixed Sponsor Model (the FSM)*. Those emerged theories visualise differences in the cultures of global strategic IS management in U.S., British, Swiss/American and Japanese multinational investment banks.

Part V, as a conclusion of the research, identifies findings and limitations in the inductive theory building through Grounded Theory for *"the Cross-Cultural Comparison of Global Strategic IS Management in the Multinational Investment Banking Industry",* and demonstrates further research.

Chapter 14 Conclusion

14.1 Introduction

This research has discovered two important theoretical models which were *the Cross-Cultural Comparison Model of Global Strategic IS Management (CCCM-GSISM)* and *the Fixed Sponsor Model (FSM)* through Grounded Theory analysis. Before moving on to the reflection on the research, a summary of the thesis is briefly outlined.

After introducing the research in Chapter 1, Part I focused on clarification of the research questions. Chapter 2 reviewed the previous work on the history of financial markets, the history and context of the investment banking industry, and the roles, scope and organisational structure found in investment banks.

Chapter 3 demonstrated the Seven Domains Model (SDM), a newly developed analytical lens for global IS management research. Chapter 4 examined the importance of the research through the analytical lens of the SDM, and clarified the main and sub research questions.

Part II focused on justification and clarification of the research method. Chapter 5 clarifies audiences, philosophical standpoints, definitions and research structure of cross-cultural comparative IS research. Chapter 6 examined theoretical sampling procedures for Grounded Theory, and selected the two selected organisations which were SAFG and JPFG1. Chapter 7 formalised coding procedures for Grounded Theory.

Part III focused on discoveries of theories through data analysis. Chapter 8 explained the discovery of the FCCM-GSISMs which consists of business models, organisational structure, human resource management, and IS management concerns as central categories.

Chapter 9 discovered the CCCM-GSISMs by indicating cause, change and consequence to the FCCM-GSISMs through analysing data collected from SAFG and JPFG1. Chapter 10 analysed additional data collected from three American, two British and another Japanese financial groups and described other four CCCM-GSISMs.

Part IV focused on validation and refinement of the CCCM-GSISMs. Chapter 11 validated the CCCM-GSISMs which emerged from cases in SAFG and JPFG1 with similar and conflicting SISP models. Chapter 12 validated the CCCM-GSISMs from the perspective of the relationship between Japanese culture and management style.

Chapter 13 demonstrated the theoretically saturated FSM, which indicated similarities and differences in the cultures impacting on global strategic IS management between Western and Japanese investment banks. Figure 14.1 demonstrates the overall process of the research.
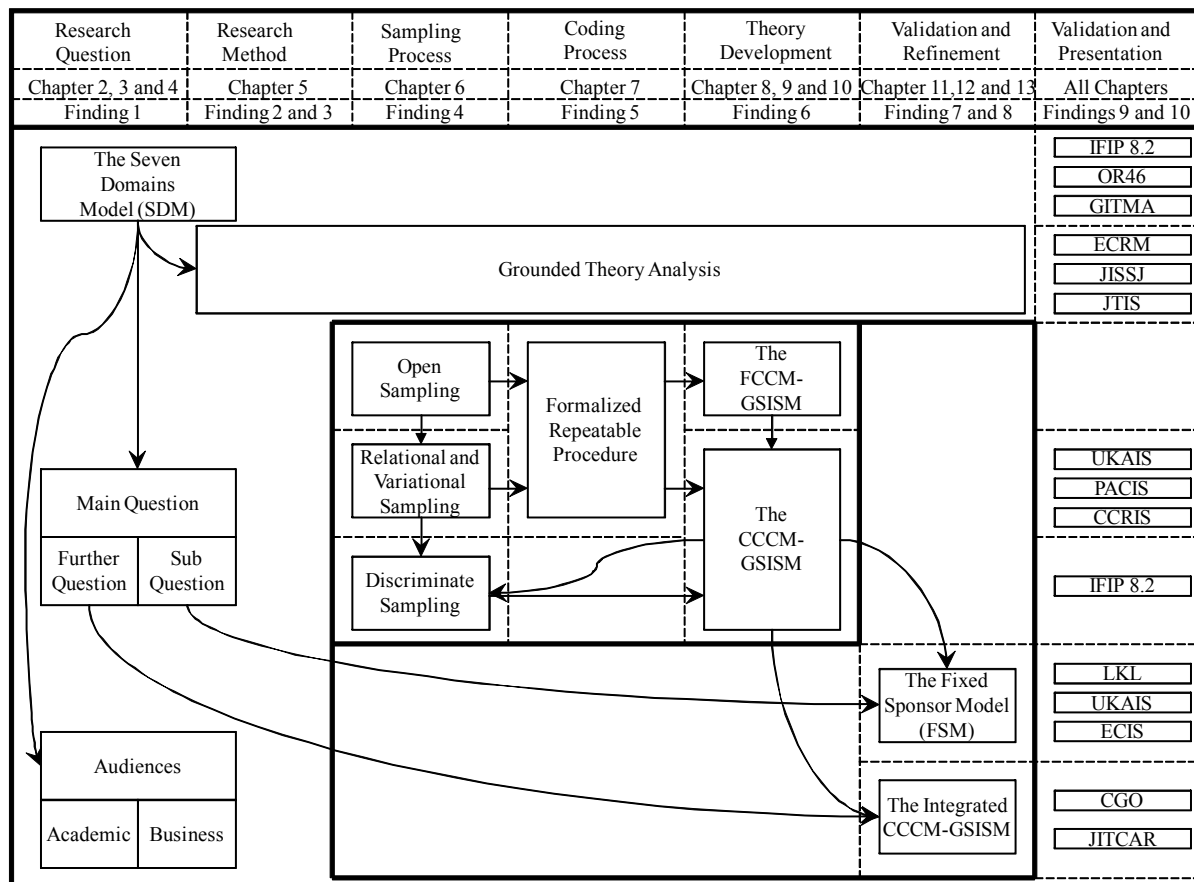

Figure 14.1: The Overall Process of the Research

As demonstrated in Figure 14.1, a newly structured research approach was deployed for this cross-cultural research in IS. The new approach seems to address some weaknesses in the field of cross-cultural IS and global IS management research.

In order to explain the strength of the new approach, this chapter firstly explains ten findings brought about through the research based on Figure 14.1. Secondly, the chapter clarifies the limitation of the research and the further research is discussed before the overall conclusion.

14.2 Research Question - The Seven Domains Model (SDM)

As discussed in Chapter 3, globalisation debates fundamentally consist of broad dimensions in economics, politics and culture. The debates are engaged from various combinations of a) views (subjectivity and objectivity), b) times (long, middle and short-term), c) cognitions (static and dynamic), and d) philosophical standpoints (positive, critical and interpretative).

The domain of global IS management can be located in the centre of these debates. It is clear that researchers need to consider many values when they conduct research in global IS management. However, there is no analytical lens to systematically indicate a research interest in global IS research from the multiple viewpoints of the complicated globalisation debates.

In order to compensate for this limitation, the research developed the SDM which a) describes the wide frame of the globalisation debates, b) demonstrates the critical debates in economic, political and cultural aspects, c) categorises the debates into seven domains, and d) identifies a definition of IT/IS in the globalisation debate.

In this research, Chapter 4 clarifies the main and sub research questions through the SDM after reviewing the previous literature for the investment banking industry in Chapter 2.

Thus, the SDM enables identification, clarification and definition of research interests in the globalisation discourse.

Finding 1: It is useful for global IS researchers to use the SDM in order to clarify research questions in the specific industry. The SDM might be adopted in other global IS researches when global IS researchers clarify their research questions.

14.3 Research Method - Grounded Theory

As discussed in Chapter 5, the research selected the inductive research approach using Grounded Theory. If a deductive research approach had been chosen for the field of global IS research, the researcher should a) narrow down the research field to a limited, fixed and small domain, b) identify a static research question from the domain, c) set up a hypothesis in reference to the previous works in a similar research area, d) collect data from selected cases, and e) verify the predefined hypothesis of the research.

Consequently, it would be probable that global IS research may become an analysis of small number of values within small number of locations, countries or nations (Tan and Gallupe, 2004), because most researchers seem to have a) a limited capacity of data collection from multiple locations, countries or nations, and b) a limited access to a small amount of previous literature in the similar fields. In addition, they need to be sensitive to avoid data bias.

Grounded Theory, which is an inductive research method, is a continuous interaction between data and theory development until theoretical saturation is reached. The processes of Grounded Theory are a) setting a broad question, b) collecting open, relational and variational, and discriminate data from selected cases, c) analysing collected data, and d) developing theories.

In order to identify cultural differences affecting global strategic IS management in the multinational investment banking industry, the research discovered two theories, the CCCM-GSISM and the FSM, through the Grounded Theory analysis.

Finding 2: It is useful for global IS researchers to use the Grounded Theory approach in order to develop new theories. The inductive theory development using Grounded Theory enables improvement of the research method that established researchers in the field, e.g. Karahanna, Evaristo and Srite (2004); Tan and Gallupe (2004), seek to achieve in the cross-cultural IS and global IS management studies.

There are two major schools of Grounded Theory approach. One is Glaser's school, a traditional Grounded Theory approach, which strictly emphasises avoiding imposition by the researchers.

The other is Strauss' school, a revised Grounded Theory approach, which allows researchers to a) broadly state research question, b) utilise the researchers' experience for data analysis, and c) systematically interact between data and emerged theories.

Based on these descriptions, this research belongs to Strauss' school, because the research questions were broadly indicated through the SDM and the collected data were analysed through the formalised templates and diagrams.

By the SDM, which is the analytical scale for research interests in the global IS research, the research interests can be consistently maintained during inductive analysis. In this research, the sub-question indicated in Chapter 4 was answered in Chapter 13 through the theory building processes, which are research method selection, cording process formalisation, data analysis, theory building, validation and refinement, discussed from Chapter 5 to Chapter 13.

Thus, the research question identified in Chapter 4 was rigorously maintained throughout the research.

Finding 3: It is useful for global IS researcher to use the SDM as the analytical scale maintaining in the whole process of the inductive cross-cultural IS and global IS management research. The SDM enables the maintenance of consistency to global IS research interest during inductive analysis. Combination of the SDM and revised Grounded Theory can be applied to other cross-cultural IS and global IS management research.

14.4 Sampling Process - Theoretical Sampling

In cross-cultural IS research, homogeneity of the data collection is one of the critical issues. It seems to be difficult for global IS researchers to justify quantitative and/or qualitative homogeneity of data collected from different locations.

The idea of theoretical sampling of Grounded Theory, which does not emphasise quantitative and/or qualitative homogeneity, seems to enable relaxation of sensitivity to homogeneity in data collection of cross-cultural IS research.

In this research, data collection was conducted in three phases which were a) open, b) relational and variational, and c) discriminate sampling. In the open sampling, the internal documents available were IS project related, and companies' official information was collected from Internet sources. In the relational and variational sampling, unstructured interviews were conducted. Various levels and types of manager as well as employees participated in the process.

Although the open, relational and variational sampling focused on three entities of two organisations, the discriminate sampling expanded to another six cases by investigating companies' official information, reviewing manuscripts of unstructured interviews, and conducting semi-structured interviews with respondents from other cases by focusing on organisational forms, management strategies and competitive, collaborative and co-operative notion.

Thus, the research performed triangulation of the data collection. Table 14.4 summarises the steps of open, relational, variational and discriminate data collection in the theoretical sampling process of the research.

Table 14.4: Summary of the Theoretical Sampling

Phases		Open Sampling Phase	Relational and Variational Sampling Phase	Discriminate Sampling Phase
Selected Cases				
	Company Codes	SAFG and JPFG1	SAFG and JPFG1	USFG1, USFG2, USFG3, GBFG1, GBFG2 and JPFG2
Collected Data				
	Internal Data	IS Projects		
	Official Data	Companies' Information (I)		Companies' Information (II)
	Interviews		Unstructured Interviews (I)	Unstructured Interviews (II)
				Semi-Structured Interviews

The research collected data from limited locations (Singapore, Tokyo and London) in the selected cases. In spite of this, it was discovered that the collected data contained various global elements.

For example, the internal IS project documents collected in SAFG's Singapore and Tokyo offices indicated the global/matrix project management structure. In addition, the internal IS project documents collected in JPFG1's London office indicated the relationship with the head office in Tokyo. The official corporate information for all selected organisations explained business expansion in the global financial markets.

In the process of the unstructured and semi-structured interviews conducted through face-to-face or telephone conversations in all selected organisations, many interviewees including non-senior level employees demonstrated various events in other financial markets, such as New York, London, Hong Kong and Sydney which closely link to Tokyo and Singapore. Consequently, various global elements were found in the data collected from the selected organisations.

> *Finding 4: Triangulation of data collection in the theoretical sampling is useful for global IS management research using the Grounded Theory approach in order to collect various types of data containing global elements. Even though the selected locations were limited, the researcher can collect data containing global events from the limited number of locations in the multinational organisations, because financial markets globally connect to each other, and employees in the multinational investment banks globally communicate between the markets.*

14.5 Coding Process - Formalised Templates and Diagrams

In order to detect and analyse difference in cultures using the collected data which contained global elements, the developed templates and diagrams discussed in Chapter 7 seem to be beneficial for global IS research deploying the Grounded Theory analysis.

Especially, the paradigm analysis of the axial coding (Table 7.4.6) which enable identification of a) condition (causal, intervening or contextual; why, where and when), b) action/interaction (routine or strategic; by whom and how), c) Consequences (intended or intended), d) duration (short, medium or long), e) visibility (visible or invisible), f) impact (strong or weak), f) predictability (predictable or unpredictable), and g) scope (wide or narrow) of each category is useful to categorise global elements in collected data.

Finding 5: Although various types of data in relation to globalisation are collected through the triangulation of data sampling methods, the formalised templates and diagrams enable categorisation of the collected data in the cross-cultural IS research.

14.6 Theory Development

The research developed the theories in the three phases of a) open sampling, b) relational and variational sampling and c) discriminate sampling.

Table 14.6 explains the growth process from a) the FCCM-GSISMs simply identifying four categories in the one layer, b) the CCCM-GSISMs sequentially explaining in the two layers, and c) the FSMs clarifying drivers/sponsors of IS management, and success/failure of global IS in the three layers.

Table 14.6: Comparison of the Three Emerged Models

Models	Samples	Relationship	Layer(s)
The FCCM-GSISMs	Open Sampling	No relationship between the four central categories	1 Layer
The CCCM-GSISMs	Relational and Variational Sampling	Identification of cause, change and consequence in the four central categories	2 Layers
The FSMs	Discriminate Sampling	Identification of drivers, sponsorship and success/failure of global IS	3 layers

14.6.1 The FCCM-GSISMs: Who and What

The FCCM-GSISMs is a simple model which describes four central categories raised from the data analysis of the IS project and the official corporate information. The causal relationship between four categories is not specified. Each category independently exists in the FCCM-GSISMs.

14.6.2 The CCCM-GSISMs: What, Who, When and How

The data collected in the relational and variational sampling covered events in a wide range including success or failure of IS projects, cost allocation of IT investments, reporting lines, internal politics, organisational structure and individual working experience. The CCCM-GSISMs were structured with two layers by indicating cause, change and consequence to the FCCM-GSISMs.

14.6.3 The FSMs: Who, What, When, How and Why

The data collected in the discriminate sampling affirmed and/or denied the CCCM-GSISMs emerged in the relational and variational sampling. In the case of the Western banks, the models driven by the business model and the organisational management structure change are always successfully completed.

However, the models driven by IS projects indicate both successful and failed cases. Thus, the drivers exist in the business model, the organisational management structure or the IS project.

In the case of the two selected Japanese banks, the human resource is a core driver of the business management, but the global business model and IS strategy are unclear in the selected organisation. Based on these findings, the discovered FSMs are structured with three layers in order to explain a) drivers of global business, b) a positioning of IS sponsorship, and c) success or failure of global IS project.

Finding 6: In the process of theory building in the three phases of a) open sampling, b) relational and variational sampling and c) discriminate sampling, the emerged theories evolve from a single dimension, dual dimensions and triple dimensions. In accordance with this, the emerged theories gradually expand explainable elements such as who, what, when, how and why.

In addition, the CCCM-GSISMs and the FSMs visualise differences in culture. In the IS/IT supported global economy *"the West"* cannot avoid *"the East"* or vice-versa. Revealing and understanding each other's values, structures and practices will not only empower commercial enterprises but also the markets they intend to create.

Whilst the FSMs may be limited to comparisons of Japan and the West there are grounds to believe that it may be worthwhile to compare other pairs of cultures using the CCCM-GSISMs.

Finding 7: As an analytical model, the CCCM-GSISMs could be used for other cross-cultural IS and global IS management researches.

14.7 Refinement of the Emerged Theories

In Chapter 13, the research judged the FSMs to be a theoretically saturated theory. Judgment of the theoretical saturation in Grounded Theory analysis is one of the critical issues in the debates of the Grounded Theory.

As discussed in the previous section, the FSMs possess the explainable elements such as who, what, when, how and why. Galliers (1993; 1998) also indicates those five elements, i.e. who, what, when, how and why in the components of information systems strategy.

Finding 8: A key indicator for the theoretical saturation might be whether the emerged theories could answer all the questions for who, what, when, how and why.

14.8 Validation - Previous Literatures

Inductive theory building through Grounded Theory is often criticised because of its weaknesses of objectivity, consistency and transferability (Gasson, 2004). The research validates the emerged theory through comparison with previous literature. In addition, most cross-cultural IS researches miss the views of culture as an antecedent (Karahanna, Evaristo and Srite, 2004).

Validation from the view of cultural aspects enables the researches using Grounded Theory to examine culture as antecedent from historical, normative, psychological, structural and genetic views.

Findings 9: Cultural validation is useful not only for validation but also for identification of culture as antecedents which is one of the weaknesses in the cross-cultural IS research identified by Karahanna, Evaristo and Srite (2004).

14.9 Validation - Presentation to Critical Groups

Following Pandit's (1996) recommendation, the research thoroughly conducted presentations to various critical groups discussed in Chapter 5 in order to strengthen the emerged theories.

Firstly, the research interest discussed in Chapters 1 and 2 was presented at the 46th Annual Conference of the U.K., Operational Research (OR) Society in September 2004 (Matsumoto, 2004), leading to publication in the society journal (Matsumoto, 2005b).

After this, the initial findings from the pilot study discussed in Chapter 8 were demonstrated at the workshop of the Organizations and Society in Information Systems (OASIS - IFIP 8.2 Working Group) in December 2004 (Matsumoto and Wilson, 2004).

The initial validation of the emerged CCCM-GSISMs described in Chapter 11 was discussed at 10th Conference of the U.K. Academy for Information Systems (UKAIS) in March 2005 (Matsumoto and Wilson, 2005a).

Next, the formalised templates and diagrams of the coding process discussed in Chapter 7 were demonstrated at the 4th European Conference on Research Methodology for Business and Management Studies (ECRM) in April 2005 (Matsumoto and Wilson, 2005b).

The impact of Japanese traditional culture on the global strategic IS management discussed in Chapter 12 was discussed at the 9th Pacific Asia Conference on Information Systems (PACIS) in July 2005 (Matsumoto, 2005c).

In addition, the competitive advantages of Singapore as a strategic destination of offshore IS outsourcing were demonstrated at the 4th Annual International Outsourcing Conference in September 2005 (Matsumoto, 2005d), leading to publication in the society journal (Matsumoto, 2005e; Appendix H-2).

The whole theory building process and the mechanisms of the CCCM-GSISMs were explained at the 13th Cross-Cultural Meeting in Information Systems (SIGCCRIS) in December 2005 (Matsumoto and Wilson, 2005c).

In addition, fundamental differences of global strategic IS management between the Japanese and Western investment banks, detected from the comparative investigation of the CCCM-GSISMs, were discussed at the workshop of the Organizations and Society in Information Systems (OASIS - IFIP 8.2 Working Group) in December 2005 (Matsumoto, 2005f).

The initial discovery of the FSM discussed in Chapter 13 was demonstrated at the Research Day, School of Computer Science and Information Systems, University of London in January 2006 (Matsumoto, 2006a).

Next, the Seven Domain Model (SDM) discussed in Chapters 3 and 4 was published in the Journal of the Information Society of Japan in March 2006 (Matsumoto, 2006b - in Japanese).

The theory and practice of theory building to the FSMs were presented at the 11th Conference of the U.K. Academy for Information Systems (UKAIS) in April 2006 (Matsumoto and Wilson, 2006a).

Next, the formalised templates and diagrams discussed in Chapter 7 were published in the Journal of Informatics Society in May 2006 (Matsumoto and Wilson, 2006b - in Japanese).

Finally, the activators and inhibitors of successful global IS management discussed in Chapter 13 were presented at the 14th European Conference on Information Systems (ECIS) in June 2006 (Matsumoto and Wilson, 2006c).

Table 14.9 indicates the presentation at the conferences and the publications in the journals.

Table 14.9: Presentation at the Conferences and Publications in the Journals

Conferences	Author(s) and Year	Title
OR46 2004	Matsumoto H. (2004)	Cross-cultural comparison of IS globalisation from the view of IS strategy and implementation in finance industry
OASIS 2004	Matsumoto H. and Wilson D.W. (2004)	Strategic Information Systems Planning for Globalisation in the Finance industry: Cross-cultural Comparison between a Swiss/American financial institution and a Japanese financial institution in London, Tokyo and Singapore
UKAIS 2005	Matsumoto H. (2005a)	Cross-Cultural Comparison Model of Global Strategic IS Management in Investment Banks
UKAIS 2005	Matsumoto H. and Wilson D.W. (2005a)	Application and validation of the emerged Cross-Cultural Comparison Model with Similar and Conflicting SISP Models
OR Newsletter 2005	Matsumoto H. (2005b)	Cross-cultural comparison of IS globalisation from the view of IS strategy and implementation in finance industry
ECRM 2005	Matsumoto H. and Wilson D.W. (2005b)	Testing a Rigorous Execution of Grounded Theory Using Comparative Cross-cultural Case Studies of Strategic Global IS Management in Investment Banks
PACIS 2005	Matsumoto H. (2005c)	Impact of Japanese Traditional Culture on Global IS Management
CGO 2005	Matsumoto H. (2005d)	Globalisation and IT/IS Outsourcing in the Multinational Investment Banking Industry
JITCAR 2005	Matsumoto H. (2005e)	Global Business Process/IS Outsourcing to Singapore in the Multinational Investment Banking Industry

CCRIS 2005	Matsumoto H. and Wilson D.W. (2005c)	Inductive Theory Building to Visualise the Differences in Culture in Japanese and Western Multinational Investment Banks from the View of Global Strategic IS Management
OASIS 2005	Matsumoto H. (2005f)	Fundamental Difference of Global Strategic IS Management between the Japanese and Western Investment Banks
LKL 2006	Matsumoto H. (2006a)	Cross Cultural Research in IS: Finding the Fixed Sponsor Theory
JISSJ 2006 (Japanese Journal)	Matsumoto H. (2006b)	Relationship between Globalisation and Information Systems
UKAIS 2006	Matsumoto H. and Wilson D.W. (2006a)	Discovering the Fixed Sponsor Model: a Cross-Cultural Comparative Study of Global Strategic IS Management
JTIS 2006 (Japanese Journal)	Matsumoto H. and Wilson D.W. (2006b)	Visualisation of Coding Process and Formalisation of Analytical Tool: Grounded Theory Analysis for Cross-Cultural Comparative Study of Global Strategic Information Systems Management
ECIS 2006	Matsumoto H. and Wilson D.W. (2006c)	Activators and Inhibitors of Successful Global IS in the Strategic Management Cycle of the Multinational Investment Banks
GITMA 2006	Matsumoto H. (2006d)	Examination of Global IS Management Research through "Seven Domains Model (SDM)"
ECRM 2006	Matsumoto H. (2006e)	Combining Grounded Theory and Ethnography for Cultural Comparative Research of Global Strategic IS Management in the Multinational Investment Banks
OR48 2006	Matsumoto H. (2006f)	Global Strategic Information Management in Investment Banks

Findings 10: Presentation of discoveries to critical groups enables theory testing and strengthens theory development in the inductive theory building process of a) clarifying the research topic, b) conducting the data collection and data analysis, c) developing the theories and d) judging theoretical saturation in Grounded Theory analysis.

14.10 Limitation and Further Research

14.10.1 Financial Markets

As discussed in Chapter 4, the research initially focuses on multinational investment banks. The following sub-question, identified from area "4" of the SDM (Figure 3.2), was analysed throughout the research.

Sub-question; "What cultural factors of organisations activate or inhibit global IS in multinational investment banks?"

As discussed in Chapter 2, major financial centres continue relocating at national and regional level in line with the changes of the regional and global economic structure. In addition to the sub-question, another domain from the perspective of financial markets is identified from area "5" of the SDM (Figure 3.2) - the overlapped view of cultural and political dimensions; *"do cultural factors of financial markets support or prevent global IS in multinational investment banks?"*
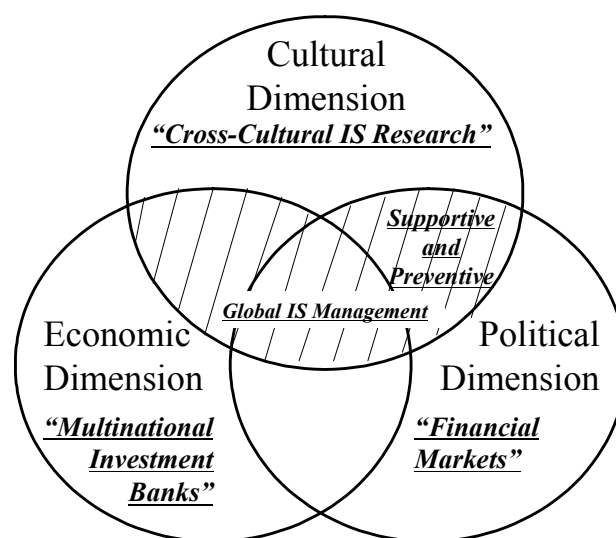

Figure 14.10.1: Supportive and Preventive Factors of Global IS

After the initial emergence of financial markets in Italy in the 12th century and frequent relocation in European countries until the 17th century, the City of London, which allowed land ownership to foreigners, usurped the position of the European financial centre from Amsterdam at the end of the 19th century. The London market is still prosperous as the centre of the European region (Nanda, Delong and Roy, 2002).

Centralisation of wholesale financial services in the City of London is underway in Europe. This may require more high-powered management, high performance traders, dealers and fund managers, highly sophisticated financial engineers and analysts in *"the City"*.

It is happening through two directions which are a) the penetration of the European financial market by City-based investment banks, and b) the consolidation of wholesale financial business operations in the City of London by European investment banks (Roberts, 2004).

New York became the largest securities market in U.S. in the mid-1830s, and is still prosperous as the financial centre of U.S. (Nanda, Delong and Roy, 2002). New York is the main competitor of the City of London (Davies, 2002; Roberts, 2004).

New York is a) the principal financial business centre of the largest economy in the world, b) the biggest capital market connecting with other main financial markets in the world, and c) the hometown of many leading investment banks (Roberts, 2004).

Although Tokyo is the largest financial market in the Asia-Pacific region, Singapore is one outstanding example of a city that has became a financial hub in the Asian region by maintenance of regulations, construction of infrastructure and promotion of talent focusing on the financial market (Lee, 2000; Vietor and Thompson, 2004).

Challenges of small countries or cities to establish international financial business hubs beyond the industrialised countries are becoming significant. Their competitive advantages are a) benefit of tax treatment for investors and foreign companies, and b) flexibility of regulatory arrangement for financial institutions. Singapore and Hong Kong, which have already become the sophisticated financial hubs in the Asian region, may attract more global business (Lee, 2000; Davies, 2002; Roberts, 2004; Vietor and Thompson, 2004).

Thus, the financial centres have been historically and frequently relocated in accordance with changes of the regional and global economic structure. Operating location is no longer an issue for them to participate in financial markets or gain access to financial information.

Although major investment banks keep their head office in one of the major global financial markets and concentrate front office staff in the head office, back office staff have been moved to less costly locations (Roberts, 2004).

From this, the research recognises the importance of examining supportive and preventive cultural factors of financial markets to activate global IS in the multinational investment banks. The following further question is clarified.

Further Question; "What cultural factors of financial markets support or prevent global IS in multinational investment banks?"

In order to answer this further question, the research has already analysed the cultural factors of Singapore which support or prevent global IS in multinational investment banks from the view of business process/IS outsourcing based on the integrated CCCM-GSISM (Matsumoto, 2005d/2005e; Appendix H-2).

In addition, as discussed in Chapter 2, there are some other major financial markets such as Tokyo, Hong Kong, Sydney, London, New York and Chicago. The further research, therefore, should investigate other major financial markets through the same analytical lens, the CCCM-GSISMs, using additional data.

14.10.2 Nationality as a cultural construct

The research initially selected investment banks known to have Swiss/American and Japanese origins. In addition, the research expanded the cases to investment banks with U.S. and British origins. Consequently, the research collected and analysed data from the Swiss/American, U.S., British and Japanese investment banks.

However, there are some Western investment banks which originated from other countries such as France, German and Holland. In addition, banks in the potential giants such as China, Brazil, Russia and India (Roberts, 2004) might enter the investment banking business in the near future. The findings of the research, therefore, might not fit with other nationalities except for Swiss, U.S., U.K. and Japan.

Further research, therefore, should firstly move to other European countries such as France, German and Holland. After this, the research might visit other developing countries such as China, Brazil, Russia and India when they enter the investment banking business.

14.10.3 Industry

The research focused on the investment banking industry. As discussed in Chapter 2, there are some different types of business models such as commercial banks, securities brokers, mortgage providers, life insurance, fire insurance, investment funds and pension funds in the finance industry. The business model of investment banks might have some similarities in the model of other styles of finance businesses.

However, the strategies in the global IS network between investment banks and other financial businesses seem to be different, because the investment banks adopted a multinational style after the 1980s but other businesses typically focus on the domestic markets. The findings of the research, therefore, might not fit with the other financial businesses.

Further research, therefore, should investigate the domestic strategic IS management in the other financial businesses. The comparison between investment banking industry and other financial industries might detect other cultural elements affecting IS strategy from two different aspects which are domestic and global.

In addition, globalised industries such as automobile and computer manufacturing might be other candidates for cross-cultural IS research. The CCCM-GSISMs and the FSMs could be deployed for the area.

14.11 Overall Conclusion

The research discovered the FSMs through integrating and refining the CCCM-GSISMs. The FSMs explain the following discovery.

Table 14.11: Discovery

Firstly, the Western investment banks have mechanisms to fix the IS project sponsorship in their organisational management structures to activate global IS. Contrary to this, the Japanese traditional cultures, such as a)*"DO"* and b) *"WA"*, and the Japanese traditional human resource management style, such as a) lifetime employment and b) the seniority-based system, preventively affect global IS management in the Japanese investment banks which could not fix IS project sponsorship.

Secondly, the global IS researcher should not ignore cultural elements when they study global IS management, and they should not mix global and domestic IS management, because the strength and weakness in the cultures from the perspective of global IS management seem to be different from the strength and weakness in the cultures from the perspective of domestic IS management.

According to Goulding (2002), there are two categories of the emerged theories through the Grounded Theory approach.

"Substantive theory is developed from work in a specific area, such as a particular type of organisation. A substantive theory does not attempt to explain outside of the immediate field of study. The theory should remain parsimonious: that is, it should not try to generalise with explanations of situations for which there are no data" (Goulding, 2002; pp. 45 - pp. 46).

"A formal theory, on the other hand, has explanatory power across a range of situations. For example, it may be a theory of organisational culture that is applicable across organisations rather than specific to a particular type. Formal theory is usually the end product of longitudinal research, normally on the part of a team of researchers engaged in the collection of data across a range of situations and locations. Consequently, owing to the time, expense and high levels of abstraction, most researchers tend to avoid constructing formal theory, preferring to remain at the substantive level" (Goulding, 2002; pp. 46).

The CCCM-GSISMs and the FSMs emerged through the analysis of data collected from the eight multinational investment banking organisations. The CCCM-GSISMs and the FSMs are, therefore, substantive theory. A formal theory which describes global strategic IS management in various industries might emerge by conducting the further research indicated in this section.

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Appendix

Appendix A: Permission from SAFG

Date	Time (GMT)	From	Coordinated by	Internal data to be used
July 5th 2004	11:36am	SAFG's Legal Counsel	The director of the operations department	EMU (1998), Legal Document Project (2001) and BPTA (2001)

Appendix B: Permission from JPFG1

Date	Time (GMT)	From	Coordinated by	Internal data to be used
July 23rd 2004	11:07am	The head of legal department	The head of technology department	BPR (2002), DSSR (2003) and SIP (2004)

Appendix C: List of Unstructured Interviews

Interview Code	Date	Time (GMT)	Interviewee	Position and Department	Company	Method	Size of manuscript
A-01	September 16th 2004	9:00am - 9:10am	A	Director, Operations	SAFG/ GBFG1	Telephone interview in Japanese	184 words
B-01	September 17th 2004	9:00am - 10:55am	B	Director, Operations	SAFG/ USFG1/ GBFG1	Telephone interview in Japanese	1,421 words
D-01	September 20th 2004	13:10pm - 13:30pm	D	Manager, IT	JPFG1	Face-to-face interview in Japanese	124 words
C-01	September 21st 2004	9:00am - 9:10am	C	Assistant Vice President, Operations	SAFG	Telephone interview in Japanese	108 words
C-02	September 22nd 2004	9:30am - 10:30am	C	Assistant Vice President, Operations	SAFG	Telephone interview in Japanese	825 words
E-01	September 22nd 2004	15:30pm - 16:10pm	E	Director, Fixed Income Sales	JPFG1	Face-to-face interview in Japanese	552 words

F-01	September 22nd 2004	16:30pm - 16:50pm	F	Director, Credit Derivatives	JPFG1	Internal telephone interview in Japanese	89 words
G-01	September 22nd 2004	18:40pm - 17:10pm	G	Director, Product Control	JPFG1	Face-to-face interview in English	333 words
H-01	September 23rd 2004	10:20am - 11:00am	H	Assistant Vice President, Fixed Income Operations	SAFG	Telephone interview in English	703 words
D-02	September 23rd 2004	13:30pm - 13:50pm	D	Manager, IT	JPFG1	Face-to-face interview in Japanese	144 words
I-01	September 24th 2004	10:00am - 10:30am	I	Director, Accounting	SAFG/ GBFG1	Telephone interview in Japanese	675 words
J-01	September 24th 2004	11:45am - 11:55am	J	Associate Director, Equity	JPFG1	Face-to-face interview in Japanese	134 words
K-01	September 25th 2004	14:00pm - 15:00pm	K	Director, Operations	SAFG/ USFG3	Telephone interview in Japanese	862 words
B-02	September 27th 2004	9:45am - 9:55am	B	Director, Operations	SAFG/ USFG1/ GBFG1	Telephone interview in Japanese	84 words
G-02	September 28th 2004	8:30am - 8:45pm	G	Director, Product Control	JPFG1	Face-to-face interview in English	51 words
B-03	September 28th 2004	9:15am - 9:45am	B	Director, Operations	SAFG/ USFG1/ GBFG1	Telephone interview in Japanese	125 words
F-02	September 28th 2004	12:30pm - 13:30pm	F	Director, Credit Derivatives	JPFG1	Face-to-face interview in Japanese	64 words
L-01	September 30th 2004	12:00pm - 12:30pm	L	Vice President, Fixed Income Operations	SAFG	Telephone interview in English	396 words
E-02	September 30th 2004	12:45pm - 12:50pm	E	Director, Fixed Income Sales	JPFG1	Face-to-face interview in Japanese	90 words
M-01	September 30th 2004	13:30pm - 15:20pm	M	Director, Operations	SAFG	Face-to-face interview in English	1,199 words

N-01	October 1st 2004	9:50am - 10:05am	N	Manager, Operations	SAFG/ GBFG1	Telephone interview in Japanese	190 words
O-01	October 18th 2004	9:15am - 9:45am	O	Director, Technology	JPFG1	Face-to-face interview in English	64 words

Appendix D: List of Semi-Structured Interviews

Interview Code	Date	Time (GMT)	Inter-viewee	Position and Department	Com-pany	Method	Size of manuscript
P-01	June 14th 2005	10:30am - 11:00am	P	Director, Equity Business	JPFG1/ JPFG2	Face-to-face interview in Japanese	Total 607 words
P-02	June 15th 2005	16:30pm - 17:00am	P	Director, Equity Business	JPFG1/ JPFG2	Face-to-face interview in Japanese	
P-03	June 28th 2005	17:30pm - 18:30pm	P	Director, Equity Business	JPFG1/ JPFG2	Face-to-face interview in Japanese	
P-04	July 27th 2005	11:00am - 12:00pm	P	Director, Equity Business	JPFG1/ JPFG2	Face-to-face interview in Japanese	
P-05	August 2nd 2005	14:00pm - 15:00pm	P	Director, Equity Business	JPFG1/ JPFG2	Face-to-face interview in Japanese	
Q-01	June 30th 2005	13:00pm - 13:30pm	Q	Director, IT project manager	JPFG1/ GBFG2/ USFG2	Face-to-face interview in English	Total 308 words
Q-02	July 5th 2005	11:00am-11:30am	Q	Director, IT project manager	JPFG1/ GBFG2/ USFG2	Face-to-face interview in English	
Q-03	July 26th 2005	11:00am-12:00pm	Q	Director, IT project manager	JPFG1/ GBFG2/ USFG2	Face-to-face interview in English	

Appendix E: A Brief Summary of Japanese History

The country of *"Japan"* was born around the 3rd century. Although there are some different techniques in the historical classification of Japan, the history classification based on the capital location after Asuka era is as follows.

Time and Era in the Japanese History			
Time / Era	Start	End	Capital (Current location name)
Ancient times of Japan			
Asuka Era	The end of 6th century	A.D. 710	Asuka Kyo (Nara)
Nara Era	A.D. 710	A.D. 794	Heijyo Kyo (Nara)
Heian Era	A.D. 794	A.D. 1192	Heian Kyo (Kyoto)
Medieval times of Japan			
Kamakura Era	A.D. 1192	A.D. 1334	Kamakura (Kanawaga)
Nanboku-cho Era	A.D. 1334	A.D. 1392	Yoshino (Nara) and Kyoto (Kyoto)
Muromachi Era	A.D. 1392	A.D. 1573	Muromachi (Kyoto)
Modern times of Japan			
Azuchi-Momoyama Era	A.D. 1573	A.D. 1603	Azuchi (Shiga) and Momoyama (Kyoto)
Edo Era	A.D. 1603	A.D. 1868	Edo (Tokyo)
Contemporary times of Japan			
Meiji Era	A.D. 1868	A.D. 1912	Tokyo
Taisho Era	A.D. 1912	A.D. 1926	Tokyo
Showa Era	A.D. 1926	A.D. 1989	Tokyo
Heisei Era	A.D. 1989	Present	Tokyo

* Eras' names were determined regardless of death/change of Emperors before the Meiji Restoration. Meiji, Taisho, Showa and Heisei were used since the new technique of eras' name change was taken after the Meiji Restoration.

Asuka/Nara/Heian Era

There are various historical views about the time and the place that the official government *(Cho-Tei)* was firstly established in Japan. It was described in a Chinese history book that the country of *"Yamatai"* emerged through consolidation of small villages around the 3rd century in Japan.

After this, the Yamato clan, established at the end of the 4th century, dispatched troops to *Kudara, Shiragi* and *Kokuri* in Korea, which was described in a Korean history book.

In this period, the Emperor gave the clans names *(Shi-Sei)*, the clans served the Emperor and the head of clans deified the clans' saints. Clans were a) leading powerful clans in the district or central region and b) visitors from China or Korea. In this time, Japan accepted many visitors from China and Korea which positively imported continental culture.

When the new concept of Buddhism was introduced from China in 538, a big turning point arrived in the culture and politics of Japan. The two major families, *Mononobe* and *Soga* which seized political power, opposed each other.

In order to solve this conflict, Prince *Shotoku*, who was a regent of the Empress *Suiko*, proclaimed the constitution of 17 articles in 604, and declared the victory of the *Soga* clan who supported Buddhism (Mason and Caiger, 1997; Varley, 2000; Maezawa, 2001).

The constitution, which mainly explained government officials' mental attitude unlike the present constitution, emphasised respects of a) the consensual agreement through conferences with the spirit of *"WA"*, b) the concepts of Buddhism and c) the authority of the Emperor (Sakaiya, 1996). Prince *Shotoku* reformed a political system to the law-governed structure in reference to the Chinese regulatory and administrative mechanism.

By implementing the spirit of *"WA"*, which continues to pervade cultures in Japan (Hotta, 2004), Japan could escape from the dangerous situation in which the country might be divided into two by the confrontation of two opposite major thoughts which were a) *Shinto* defining the Emperor as the descendant of God and b) Buddhism defining no-discrimination between Buddha and ordinary people.

In 603, the old *Shi-Sei* class system was replaced by the new system named 12th rank system *(Kan-I-Jyu-Ni-Kai)*, which gave class levels to individuals instead of clans and allowed promotion based on their contribution to the society. Prince *Shotoku* positively took Chinese culture by seeing off the official envoys, which continued until the *Heian* era.

In connection with it, the language of Japan changed to the dual structure of the Japanese original *"Hiragana"* and the Chinese character *"Kanji"*. Coins such as *Huhon-sen* and *Wado-Kai-Chin* began to circulate from these days through the influence of the Chinese economic mechanism.

Taika Reform, which was the coup d'etat of the Soga clan who seized political power after Prince *Shotoku* era, happened in 646. The Imperial Edict of this reform declared a) the principle of public lands for public use, b) the method of grouping fields for delivering and receiving rice, c) the taxation system of *So-Yo-Cho* and d) administrative districts, traffic systems and military affairs.

In 701, the *Tai-Ho* Codes were proclaimed in reference to the Chinese law structure. It clarified the bureaucratic and administrative government structure in the centre and provinces. During that time when the Emperor was strengthening the law-governed structure, Japan faced a big problem in that the Emperor's political dignity was eliminated by the expansion of Buddhism.

In order to assert the justification of the Emperor's origin and define the Emperor as the descendant of God, the two major historical mythologies, *Kojiki* and *Nihon-Shoki*, were completed.

The land-based taxation system did not effectively work, because of a) delay in producing clans' registers and b) lack of well cultivated lands. In 723, the new regulation, *"Sanze-Isshin Law"*, allowed the private possession of the newly cultivated lands and the succession of the lands to three generations. In 743, the reformed regulation, *"Konden-Edai Law"*, permitted the permanent private possession of lands by cultivators.

Consequently, the private land properties were expanded and the economical/political power of landowners was increased. The typical phenomenon was a concentration of the power to the *Fujiwara* clan which increased political power by a) by possessing a large scale of lands and b) grasping the position of regent or chief adviser to the Emperor using marriage relations.

Local government was confused and collapsed following this power structure change. The powerful landowners needed to defend estates by their own military power. The necessity to defend was a trigger for the *"Samurai"* to be born.

In order to conquer the northeastern district, where local government had collapsed, the Emperor appointed *Sakanoue-no Tamuramaro* to the status of Generalissimo Shogun and dispatched him. This was the beginning of *"Shogun"*.

In the 12th century, the *Samurai*, who possessed military power and gained political power, gradually amalgamated two major families of the *Genji* clan and the *Heike* clan (Mason and Caiger, 1997; Varley, 2000; Maezawa, 2001).

Kamakura/Nanboku-Cho/Muromachi Era

Minamoto-no Yoritomo from the *Genji* clan who defeated the *Heike* clan founded the Shogunate government *(Baku-Fu)* in *Kamakura* in 1192.

The new structure had three administrative functions which were a) *Samurai-Dokoro* to manage human resources, military affairs and police, b) *Kumon-Jyo* to administrate general political affairs, and c) *Monchu-Jyo* to control lawsuits and courts. This system continued for more than 300 years until the *Muromachi* era with some amendments.

At this *Kamakura* era, the master and servant relationship in the centre of the land possessing mechanism was established. *Shogun* gave the lands to *Samurais*, and *Samurais* paid tax and served military activities for *Shogun*.

The economical life of *Samurais* is based on fiefs which the lord possesses (Mason and Caiger, 1997; Varley, 2000; Maezawa, 2001). The lord assigns the territory for each *Samurai* according to his achievements in weaponry (Nitobe, 1938; Varley, 2000; Davies and Ikeno, 2002).

It is ethics established among *Samurais* in the *Kamakura* period, not only in spirit and skill in weaponry, but also absolute loyalty to lord, devotion of duty, and strength of personal honour and courage (Davies and Ikeno, 2002). Thus, the *Samurai* spirit emerged.

Nitobe (1938) introduced the Samurai spirit, so-called *Bushido*, as a symbolic identity of the Japanese culture to the Western world. He explained that Japanese traditional loyalty was a distinctive value of the feudal period in Japan, because historically the obligations and service between lord and vassal were recognised as one of the most important factors from the *Kamakura* period. *Kamakura's* new Buddhism bloomed uniquely in Japan at this era.

The Emperor was dissatisfied with the new political structure of the Shogunate government. In 1221, the *Jyo-kyu* War, in which the Retired Emperor *Gotoba* tried to destroy the Shogunate government, occurred but failed. Consequently, the political power of *Shogun* was increased and that of the Emperor decreased.

After the death of *Minamoto-no Yoritomo*, the *Hojo* clan which was the parent's home of *Yoritomo's* wife, managed the Shogunate government through the consensual management style in the position of regent for the Shogun.

The economy was modernised from these days. Since Chinese gold flowed into Japan through island-continental trade, money-based economy and inland transportation progressed. Japanese farmers began double-cropping and started the use of oxen and horses.

The Mongolian Empire tried to invade Japan twice in 1274 and 1281. Because of this, the domestic economy went into depression, the living standard of citizens fell, and the economic stabilizing policy (Tokusei-Rei), which the *Hojo* regency performed, was ineffective. Concequently, *Samurais* lived in dire want, and the relationship between *Shogun* and *Samurai* collapsed. Thereby, the Kamakura Shogunate government went to ruin and the political power came back to the Emperor through the restoration of Emperor *Godaigo* in 1333.

The Emperor tried returning to the political organization in the *Heian* era by justifying blood root of the Emperor referring to the *Nihon-Shoki*. After this, the argument about the successor to the Emperor between northern and southern dynasties broke out. In 1392, the confusion was ended by returning Three Sacred Treasures succeeded in the Emperor clan from the southern dynasties to the northern. *Ashikaga Takauji*, who was supported by the northern dynasties, established the Shogunate government in *Muromachi*, Kyoto in 1392.

The taxation scheme was changed from the way which *Shogun* received all tax from *Samurai* to the way which provincial *Samurai (Daimyo)* received half of them. This caused the Muromachi Shogunate government to become coalition structure between *Shogun* and *Daimyo*.

From the latter half of the *Kamakura* era, farmers possessed high agricultural productivity, decided their leaders by themselves and began self-government. Decision-making in relation to the usage of public lands and water, the solution of troubles and the self-defense in villages was performed by deliberation organization. Offenders against the self-governance were punished within each group.

When they performed negotiations about political items including reduction of heavy tax with the governors, the farmer group created a round covenant under joint signature in which a mastermind might not be identified. Negotiation methods to protect farmers' groups were a) submission of protest documents, b) protest rally and c) escape by all members. Thus, the origin of consensual management and negotiation style can be seen in the groups' activities.

Buddhist culture prospered and traditional Japanese Buddhism constructions, such as *Kin-Kaku* (Gold Big Building) and *Gin-Kaku* (Silver Big Building), were built. However, the confrontation of two opposite major thoughts between *Shinto* and Buddhism was still controversial from the Prince *Shotoku* period. A thought reciting the integration between *Shinto* and Buddhism appeared (Mason and Caiger, 1997; Varley, 2000; Maezawa, 2001).

Azuchi-Momoyama/Edo Era

The *Oh-Nin* War broke out because of a power struggle between *Daimyos* in 1467. It rushed into the Age of Civil Wars. Cities, such as a castle town, a post town, a port town, and a temple town, were developed in this civil war period.

Japan was influenced by the age of discovery. Guns firstly arrived from Portugal in 1543, and the Christianity was introduced by the Jesuit Francis Xavier in 1549. *Nobunaga Oda* newly utilised the guns for fighting and established deregulated commercial markets *(Raku-Ichi-Raku-Za)* to strengthen his economic foundation for purchasing guns.

After *Nobunaga's* assassination, *Hideyoshi Toyotomi*, who appeared from a humble class and inherited the dream of Japanese unification from *Nobunaga*, attained the unification of Japan. On the total Japan scale, he performed a) maintenance of the tax roll in order to grasp the actual condition of national economy, b) survey of land in order to correctly collect land tax and c) collection of swords in order to maintain peace.

In the latter days of his life, he obtained the position of the chief adviser to the Emperor and the Grand Minister of State from the Emperor in order to acquire dignity and authority. *Hideyoshi Toyotomi* invaded Korea twice in 1592 and 1597 but failed. Major *Daimyos* were divided into supportive and preventive groups for the invasion. In 1600, two years after *Hideyoshi's* death, the Battle of *Sekigahara* took place between the *Tokugawa* group (East) and the *Toyotomi* group (West).

Ieyasu Tokugawa, who won the battle, established the Shogunate government in *Edo* (present Tokyo) in 1603. He organized the political structure by positioning the *Shogun* in the centre of the government with the consensual decision-making structure which consisted of 5 chief ministers and 5 magistrate in his government.

He revised the governmental officials' law, the imperial court's governance law and the temple's governance law. *Daimyos* were ranked in three categories which were a) relatives *(Go-San-Ke)*, b) supporters in the *Sekigahara* Battle *(Hu-Dai)* and c) opponents in the *Sekigahara* Battle *(To-Zama)* which means outsiders.

All *Daimyos* were required to annually travel between their residential hometown and *Edo (Tokyo)* and release *Daimyos'* wives and children living in *Edo* as hostages. This system, *San-Kin-Ko-Tai*, was maintained until the end of *Edo* government. *To-Zamas*, who were assigned the area distant from *Edo*, exhausted economic strength.

The new four ranks feudal social class system of Samurais, farmers, craftsmen and merchants was implemented. The population of craftsmen and merchants was less than 10 percent and about 80 percent of the population was farmers.

Self-governance of villages was maintained by farmers from *Muromachi* era. Farmers undertook joint liability for tax payment/delivery and prevention of crime. In addition, peoples were obliged to belong to the temple and/or shrine determined by the area where they lived. Temples published personal identification notes, certifying non-Christian, in case of employment or travel.

Moreover, the *Edo* government took a national isolation policy which consists of a) the prohibition of Christianity proclaimed in 1612, b) the prohibition of overseas voyages and homecoming from overseas proclaimed in 1635 and c) the relocation of Netherlands trading house to *Dejima, Nagasaki* proclaimed in 1641.

Since the rebellion preventing policies took effect to stabilise society, it changed from military policies to educational and cultural politics. Feudal lords encouraged not military power but Confucianism which was Confucius' instruction of politics and morality succeeded from ancient times of China. It became the educational foundation of the *Edo* era. 5th Shogun *Tsunayoshi* moreover promoted these educational and cultural politics by establishment of *Yushima* Confucian Shrine and deification of Confucius. Confucian scholars were nominated as the head of universities.

Because of the establishment and implementation of the *San-Kin-Ko-Tai* system, the distribution channels connecting in the whole country became well-structured. The highways from the center of Tokyo to five regions called *Tokai-Do, Nakasen-Do, Koshu-Kaido, Nikko-Kaido* and *Oshu-Kaido* were widely developed and a mail delivery system was efficiently established.

A merchant class, which was ranked at the bottom of the four ranks feudal social classes system, gained real economic power. Money changers, which were equivalent to contemporary financial business, prospered. Daimyos borrowed money from merchants and merchants saved money with the interest earned. Consequently, inconsistency between the social class system and the real economic power began to appear.

Three major reforms, the *8ᵗʰ Shogun Tokugawa Yoshimune's Kyoho Reform* between 1716 and 1745, the *Sadanobu Matsudaira's Kansei Reform* between 1787 and 1793, and the *Tadakuni Mizuno's Tenpou Reforms* between 1841 and 1843, were conducted in order to stabilise domestic economy.

Visitors from Russia in 1792, 1804, 1808 and 1811, Britain in 1824 and the U.S. in 1837 landed in Japan. Mr. Perry from the U.S came to Uraga port and requested the opening of the country in 1853.

After this, unequal treaties were exchanged with the U.S. Japanese citizens, who knew the request to open the country from foreign countries, began to desire revolution from the Shogunate government to the Emperor government in order to maintain national isolation with military power (Mason and Caiger, 1997; Varley, 2000; Jansen, 2000; Maezawa, 2001; Buruma, 2003).

Contemporary Period from Meiji Revolution to 21ˢᵗ Century

Japan drastically reformed its national structure in 1868, which is called the *Meiji* Restoration. Firstly, the Shogunate government, which continued about 700 years after the *Kamakura* era, ended and the Imperial government restarted. Secondly, the national isolation policy ended and the country was opened.

The *Meiji* Emperor announced the five articles which consists of a) consensual spirit, b) non-discriminating of social class, c) liberalism, d) internationalism, and e) learning from foreign countries in 1868. The new governmental structure was established in reference to the *Tai-Ho* Codes established in 701.

Although the movement of freedom and people's rights happened, the *Meiji* government oppressed it and proclaimed the great Japan constitution in 1889. The Imperial Diet, the Cabinet and the Court existed under the Emperor's control.

Thus, the *Meiji* Emperor grasped all authority as the head of the nation. The policy to promote industries such as spinning, shipbuilding, glass and cement was implemented. A bank was established for the first time in Japanese history in 1872. Thus, the Japanese economic structure was capitalised.

Japan invaded China in 1904, Russia in 1910, and colonized Korea through annexation policy in 1910. *Taisho* era was a time of democracy through development of journalism after the death of the *Meiji* Emperor.

However, the domestic economy declined from the Great *Kanto* Earthquake in 1923 and the financial crisis in 1927. The government conducted three weeks grace of payment, which caused concentration of deposit to the five major banks of *Daiichi, Yasuda, Mitsui, Mitsubishi* and *Sumitomo*.

Troops of the Japanese army were dispatched to China *Santo* between 1927 and 1928. The country of *Manchuria* was established in 1932. Consequently, the military began to have heavy authority and a big voice in the domestic politics. By this, Japan was becoming a militant nation, the *Showa* Emperor was defined as a living deity, and the Imperial Rule Assistance Association was established in 1940.

The Japanese army attacked the Pearl Harbour in Hawaii in 1941. However, the war ended on August 15, 1945 in response to atomic bombs dropped on *Hiroshima* and *Nagasaki* in the same month.

After the end of the World War II, Japan was under the control by GHQ led by MacArthur from the U.S. The Special Senior Police was disassembled, the Peace Preservation Law was eliminated, and *Shinto* was segregated from the national thought in 1945.

After the Emperor's renunciation of divinity, the new Japanese Constitution which devised a) sovereignty of the people, b) pacifism, and c) assertion of fundamental human rights was proclaimed in 1946.

Although the Japanese domestic economy experienced a high degree of inflation after the end of the war, economic prosperity called *Jim-Mu Keiki* came around from 1955. At the same time, two major parties structure started in Japanese politics.

It was called Year 1955 system which was organised by the Liberal Democratic Party and the Socialist Party. During this period, Japanese government continuously controlled the smooth flow of capital funds to the strategic industry.

At the beginning of the business, the small and young companies including Toyota Motors, Honda Motors, Sony and Matsushita faced difficulties accessing the fund. It required them to build their own strong business strategy for funding capitals.

On the other hand, as the centre of *Zaibatsu* and *Keiretsu* relations, the Japanese banks could earn a fixed margin on their business under the protection of the government policy (Schaede, 1999).

Accelerated by the Income Doubling Plan declared by the *Hayato Ikeda's Cabinet*, the high economic growth started around 1960. Japan joined IMF and OECD in 1964, and became the 2nd GDP rank in the world countries (Mason and Caiger, 1997; Varley, 2000; Jansen, 2000; Maezawa, 2001; Buruma, 2003). Thus, Japan took the policy which considered economic growth as top priority.

By overcoming the dollar shock in 1971 and the oil crisis in 1973, Japan rushed into the bubble economy and *Nikkei Stock Average* reached 38,900 yen in 1989. *Konosuke Matsushita*, who is a founder of Panasonic, understood the Japanese psychology in which harmonization in the groups is ranked as high priority, and made the Japanese style human resource management of lifetime employment and the seniority-based system in the present daytime.

Most Japanese companies are adopting this system accompanying the success of *Matsushita's* business after World War II.

After the burst of the financial bubble, the Japanese government deregulated the financial system in 1996. Foreign capitals started to invade the Japanese markets. The Japanese financial industry moved to the mega merger (Schaede, 1999).

Appendix F: Glossary of Non-English Terms

Amakudari (天下り): 'Ama' (天) means 'heaven'. 'Kudari' (下り) means 'falling' or 'descent'. 'Amakudari' literally means 'descent from heaven'. In modern political and business usage, it represents a common practice where senior bureaucrats or senior managers are allowed to take important positions in substructures or subsidiaries after retirement (Davies and Ikeno, 2002).

Asuka (飛鳥): 'Asuka' is the name of the old Japanese capital and the name of era between the 6th century and the 7th century. See - Appendix E

Azuchi (安土):'Azuchi' is the name of the old Japanese capital and the name of era after 'Muromachi' in the 16th century. See - Appendix E

Bushido (武士道): 'Bushi' (武士) means 'warrior'. 'Bushido' literally means 'the way of warrior'. It embodies the principles of humanity, justice, etiquette, wisdom, sincerity, loyalty, honour and endurance. See - 'Do'

Do (道): 'Do' means 'way', 'path', 'route' or 'road'. The concept of 'Do' can be found in Taoism which strongly influences Japan from China. Japanese people seek to acquire spiritual satisfaction in their lives through achieving basic training in arts, sports as well as business based on the spirit of 'Do' which continues to pervade Japanese culture, both traditional and modern (Davies and Ikeno, 2002).

Edo (江戸): 'Edo' is the old name of Tokyo and the name of era after 'Azuchi-Momoyama' between the 17th century and the 19th century. See - Appendix E

Heian (平安): 'Heian' is the name of the old Japanese capital and the name of era after 'Nara' in the 8th century. See - Appendix E

Heisei (平成): 'Heisei' is the name of era after 'Showa' in the 20th century and the 21st century. See - Appendix E

Judo (柔道): 'Ju' (柔) means 'soft' or 'flexible'. 'Judo' literally means 'the flexible way'. 'Judo' is one of the representative Japanese hand-to-hand combats using throwing and grappling techniques. After World War II, Judo spread worldwide and became an official Olympic event (Sugiura and Gillespie, 1993). See - 'Do'

Kado (華道): 'Ka' (華) means 'flower'. 'Kado' is used to mean 'the way of flower arrangement'. 'Kado', also called 'Ikebana', is a traditional Japanese method of flower arrangement established in the 16th century. The basic concept of 'Kado' is to express balance and harmony of the three elements, 'heaven', 'earth' and 'human', using natural flowers (Sugiura and Gillespie, 1993). See - 'Do'

Kamakura (鎌倉): 'Kamakura' is the name of the old Japanese capital and the name of era after 'Heian' between the 12th century and the 14th century. See - Appendix E

Keiretsu (系列): 'Kei' (系) means 'relation', 'connection' or 'network'. 'Retsu' (列) means 'line'. Keiretsu literally means 'connected lines'. In modern business usage, Keiretsu refers to a group network in which enterprises establish mutual relations with one another aiming at mutual security, especially in Japan. Typically, Keiretsu includes organisations specialized in banking, raw materials, manufacturers, suppliers and transportation. See - Zaibatsu

Kendo (剣道): 'Ken' (剣) means 'sword'. 'Kendo' literally means 'the way of sword'. 'Kendo', similar to fencing in the West, is a traditional Japanese combatant's match propagated around the middle of the Edo Period. 'Kendo' combatants wear protective outfits and attack with bamboo swords (Sugiura and Gillespie, 1993). See - 'Do'

Kohai (後輩): See - 'Senpai-Kohai'

Meiji (明治): 'Meiji' is the name of era between the 19th century and the 20th century after the Meiji Restoration. See - Appendix E

Momoyama (桃山): 'Momoyama' is the name of the old Japanese capital and the name of era after 'Azuchi' between the 16th century and the 17th century. See - Appendix E

Muromachi (室町): 'Muromachi' is the name of the old Japanese capital and the name of era after 'Kamakura' between the 14th century and 16th century. See - Appendix E

Nara (奈良): 'Nara' is the name of the old Japanese capital and the name of era after 'Asuka' in the 8th century. See - Appendix E

Nenbutsu (念仏): 'Nenbutsu' is one of the Buddhist sects in Japan. The concept of Nenbutsu emphasises rebirth in the peaceful world after one's death.

Ringi (稟議): 'Ringi' is a unique and typical Japanese decision-making mechanism which usually requires a) deep explanation for business matters by mid-level managers, b) many signatures from various ranks of managers in various departments, and c) long discussion between managers before approval.

Ristu (律): 'Ritsu' is one of the Buddhist sects in Japan. The concept of Ritsu emphasises strict adherence to the monastic discipline.

Sado (茶道): 'Sa' (茶) means 'Tea'. 'Sado' literally means 'the way of tea'. 'Sado' is a traditional etiquette of preparing and drinking Japanese tea with a guest. After a) putting a powdered tea into a teacup, b) pouring hot water on it, and c) whipping with a bamboo whisk until it foams, a host drinks it with a guest. The concept of 'Sado' was established around the 16th century (Sugiura and Gillespie, 1993). See - 'Do'

Samurai (侍): The character of 'Samurai' (侍) is a combination of 'people' (人) and 'temple' (寺). *"Samurai ranked from the shogun down to the lowliest retainer. Barred from engaging in trade, which was beneath them, the samurai were mostly poorly paid government servants" (Buruma, 2003).*

Senpai-Kohai (先輩-後輩): 'Sen' (先) means 'before', 'forward' or 'senior'. 'Ko' (後) means 'after', 'backward' or 'junior'. 'Hai' or 'Pai' (輩) means 'people', 'person', 'fellow' or 'mate'. 'Senpai' literally means 'senior person', and 'Kohai' means 'junior person'. *"Horizontal relationships in Japan are expressed by words such as 'Doryo' and 'Dokyusei'. The former is used by businesspeople and refers to colleagues or those who are in the same position in a company, while the latter is a term used by students for classmates or those who are the same age. Such horizontal relationships are not the norm in Japanese society, however, and vertical hierarchies dominate. Senpai-Kohai relationships exemplify this kind of hierarchy. Seniors are called Senpai in Japanese, a term that has a long history, first appearing in ancient Chinese texts, where it referred to people who are older or superior in ability. In contemporary Japanese, Senpai is also used to refer to those who graduated earlier from the same school. Kohai is the opposite of Senpai. So people who are junior or who entered the same school or company after oneself are called 'Kohai' and are considered to be inferior to Senpai because of their*

lack of experience. This expression can also be found in ancient texts and is used in the same way today" (Davies and Ikeno, 2002).

Shingon (真言): 'Shingon' is one of the Buddhist sects in Japan. Although Shingon borrows the concept of Chinese Buddhism, Shingon sect emphasises unique truth of their teaching.

Shinto (神道): 'Shin' (神) means 'god'. 'To' (道) is a same character as 'Do'. 'Shinto' literally means 'the way of the gods'. "*It is the Japanese religion from the ancient times, centering on the ideas of Japanese intimacy with nature and ancestor worship. All things on earth were brought forth and ruled over by the gods who reside throughout all nature. Mountains and trees often become objects of worship, and Shrine archways and sacred Shinto rope mark sacred areas. Ordinarily, shrines are built there, and objects of worship in which a god or gods reside are enshrined. Shinto constitutes the foundation of the sensibility of the Japanese people, but most present-day Japanese, rather than placing faith in Shinto, feel their cultural identity through it. Shinto meanwhile supported the Emperor system in a religious sense, and even now its ancient customary practices remain as the religion of the Imperial Family*" *(Sugiura and Gillespie, 1993).* See - 'Do'

Shodo (書道): 'Sho' (書) means 'writing'. 'Shodo' is a Japanese art which originally derived from China. Using a writing brush, 'Fude' (筆), with 'Sumi' (墨) ink, a writer expresses spiritual depth and beauty by controlling the thickness and the tone of characters which combines Chinese-original character (Kanji) and Japanese-original character (Kana) (Sugiura and Gillespie, 1993). See - 'Do'

Shogun (将軍): 'Sho' (将) means 'leader', 'ruler' or 'fighter'. 'Gun' (軍) means 'army' or 'military'. 'Shogun' means 'leader of military'.

Shotoku (聖徳): 'Shotoku' is the name of prince between the 6th century and the 7th century. Prince Shotoku is a proponent of Buddhism and an author of the Seventeen-Article Constitution. See - 'WA' and Appendix E

Showa (昭和): 'Showa' is the name of era after 'Taisho' in the 20th century. See - Appendix E

So-Yo-Cho (租庸調): 'So-Yo-Cho' is the name of the old Japanese taxation rule in the 7th century. See - Appendix E

Taisho (大正): 'Taisho' is the name of era after 'Meiji' in the 20th century. See - Appendix E

Tenno (天皇): 'Ten' (天) means 'heaven'. 'No' (皇) means 'superior king'. 'Tenno' literally means 'superior king from heaven'. *"In the Constitution of Japan, it is stipulated that 'the Emperor shall be the symbol of the State and of the unity of the people.' The current Heisei Tenno is the 126th counting from Jinmu Tenno, who was the first to be enthroned in 660 B.C. In this span, the role of Tenno was at times one of real power, at times only the nominal sovereign. In the Meiji Constitution (the Great Japan Imperial Constitution) which was proclaimed in 1889, Tenno was made the chief of state with political and military power; but he lost that power with the Constitution of Japan which went into effect following the defeat in World War II. From then until now, Tenno exists as a symbol without function in the administration of government and only carries out affairs of state as national ceremonies" (Sugiura and Gillespie, 1993).* See - Appendix E

Wa (和): 'Wa' means 'peace', 'harmony' and 'balance'. 'Wa', one of the most significant Japanese values, is a unique concept in Japanese philosophy and culture with various meanings. In the Seventeen-Article Constitution authored by Prince Shotoku in 604, the

spirit of 'Wa' was explained in the first article in order to achieve peaceful governance by the emperor with absolute authority. See - 'Shotoku' and Appendix E

Yamato (大和):'Yamato' is the nation's name of the ancient Japan, the name of the old Japanese capital, and the name of era before the 5th century. See - Appendix E

Zaibatsu (財閥): 'Zai' (財) means 'wealth'. 'Batsu' (閥) means 'group' or 'conglomerate'. Zaibatsu literally means 'wealth group'. Zaibatsu were powerful industrial or financial groups that emerged during the Meiji era. A Zaibatsu is an amalgamation of various businesses controlled by a shareholding company owned by a single family. The major Zaibatsu were Mitsui, Mitsubishi, Sumitomo and Yasuda. Although the U.S. occupation army abolished Zaibatsu after World War II, numerous companies, formerly controlled by Zaibatsu, came together as Keiretsu (Buruma, 2003).

Zen (禅): 'Zen' is one of the Buddhist sects in Japan. The concept of Zen emphasises enlightenment by sitting in meditation.

Appendix G: Glossary of Acronyms

ANT: Actor Network Theory

ASEAN: Association of Southeast Asian Nations

BCP: Business Continuity Project

BIS: Bank of International Settlement

BOE: Bank of England

BOJ: Bank of Japan

BPR: Business Process Reengineering

BPTA: Business Process Technical Architecture

CASE: Computer Aided Software Engineering

CCCM-GSISM: Cross-Cultural Comparison Model of Global Strategic IS Management

CCRIS: Cross Cultural Research in Information Systems

CEO: Chief Executive Officer

CGO: Centre for Global Outsourcing

CIO: Chief Information Officer

COO: Chief Operating Officer

CR: Cash Record

CS: Clearance and Settlement

DSSR: Derivative Systems Strategy Review

ECIS: European Conference on Information Systems

ECRM: European Conference on Research Methodology for Business and Management Studies

EMU: European Monetary Union

ERP: Enterprise Resource Planning

EU: European Union

FA&O: Function of Administration and Operations

FCCM-GSISM: Four Central Categories Model of Global Strategic IS Management

FSM: Fixed Sponsor Model

GBFG1: Great Britain Financial Group 1

GBFG2: Great Britain Financial Group 2

GIM: Global Information Management

GITMA: Global Information Technology Management Association

GL: General Ledger

ICT: Information and Communication Technology

IM: Information Management

IMATCH: Intellimatch

IMF: International Monetary Fund

IPO: Initial Public Offering

IS: Information Systems

IT: Information Technology

JGB: Japanese Government Bond

JISSJ: Journal of Information System Society of Japan (in Japanese)

JITCAR: Journal of Information Technology Cases and Applications Research

JPFG1: Japanese Financial Group 1

JPFG2: Japanese Financial Group 2

JTIS: Journal of the Informatics Society (in Japanese)

LDP: Legal Document Project

LKL: London Knowledge Lab

M&A: Mergers and Acquisitions

MIS: Management Information Systems

OASIS: Organizations and Society in Information Systems

OR: Operational Research

PACIS: Pacific Asia Conference on Information Systems

PL: Profit and Loss

RTGS: Real Time Gross Settlement

RTE: Remote Trade Entry

SAFG: Swiss/American Financial Group

SDM: Seven Domains Model

SDSC: Singapore Development Support Centre

SIP: System Infrastructure Project

SISP: Strategic Information Systems Planning

STP: Straight Through Processing

UKAIS: U.K. Academy for Information Systems

UN: United Nations

USFG1: United States Financial Group 1

USFG2: United States Financial Group 2

USFG3: United States Financial Group 3

Y2K: Year 2000 Computer Problem

Appendix H: Sample Publications

Appendix H-1: Matsumoto H. (2005c), "Impact of Japanese Traditional Culture on Global IS Management", Proceedings of the 9th Pacific Asia Conference on Information Systems (PACIS), Bangkok, Thailand, July 2005, pp. 1477 - pp. 1484

Appendix H-2: Matsumoto H. (2005e), "Global Business Process/IS Outsourcing to Singapore in the Multinational Investment Banking Industry", Journal of Information Technology Cases and Applications Research (JITCAR), Volume 7, Number 3, Research Article One, Ivy League Publishing, ISSN: 1522-8053, pp. 4 - pp. 24

Appendix H-3: Matsumoto H. and Wilson D.W. (2006c), "Activators and Inhibitors of Successful Global IS in the Strategic Management Cycle of Multinational Investment Banks", Proceedings of the 14th European Conference on Information Systems (ECIS), Göteborg, Sweden, June 2006, AIS

Impact of Japanese Traditional Culture on Global IS Management

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Abstract

In order to re-establish a prominent position in Global Trade Competition, Japanese enterprises need to undergo some cultural changes. The real question is whether and how much cultural change can be brought about. The Japanese Banking Industry benefited from protectionism following World War II but this has led to weakness in the internal structures and inefficient practices. Whilst investment banks have been transferring capital across national boundaries since the 18th century recently through the deployment of global Information networks the small streams have become large rivers. A Grounded Theory of global strategic IS management has been emerged through a rigorous coding process of data from a Japanese multinational investment bank. Attempts to externally validate the theory against authoritative works in wider arenas are promising. This paper reveals the external validation strengthening the cross-cultural comparison model for global strategic IS management from the view of Japanese traditional culture.

Keywords: Global IS, Cross-cultural, Investment Banks, Japanese Culture, Grounded Theory

1. Introduction

Investment banks originally emerged with establishing cross-border information network to transfer capital beyond national borders in Europe. They have utilized the advances of technology to provide real time networks among global financial markets after 1980s. Japanese banks were historically protected at the center of the *Zaibatsu* and *Keiretsu* relationships. They experienced a number of bankruptcies after the burst of the financial bubble in the late 1980s (Schaede, 1999). They are now facing the difficulties to survive in the global competitive financial market. Japan was the best performer in the 1980s and became the worst performer in the 1990s in the global economic world (Thurow, 2003).

> *"Systems that don't work have to be changed, and the changes don't happen automatically. Solutions demand a change in Japan's culture, and only Japan can change its own culture. Easy to say, but how is it done?"(Thurow, 2003).*

> *"Today, Japan must move beyond just quality competition to competing on strategy and innovation. Genuine innovation not only in products but also in approaches to competing will be required" (Porter et al., 2000).*

> *"The Japanese system was singular. It was not Buddhism and it was not Confucianism. It was Japanese - the strength and the weakness of Japan" (Benedict, 1946).*

From these views, the research recognizes the importance to identify invisible cultural mechanism in Japanese multinational investment banks.

> *"What are the cultural mechanisms impact on global strategic IS management in Japanese multinational investment banks?"*
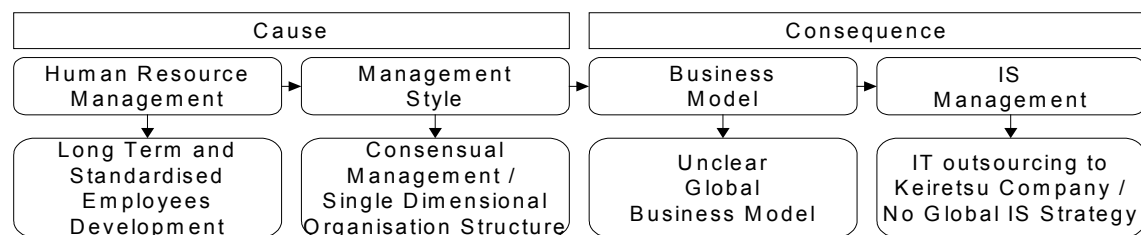
2. Context of selected case

Because the objective of the research is to examine the cultural mechanisms which impact on the global strategic IS management in Japanese multinational investment banks, the origin, history and structure of JPFG are carefully examined. The Japanese traditional *Zaibatsu* bank (JPZB) was established in 1880 by a key player of the Japanese industrial revolution in Meiji period. The banking division in the shareholding company (JPZGH) succeeded the banking business of JPZB in 1895, and the founder of JPZB established the Zaibatsu group (JPZG). Though JPZG companies have historically maintained cross shareholdings scheme and frequently organize gatherings of their chairman and presidents, they have been managed and operated independently. More than twenty of JPZG companies, which conduct a wide range of business including banking, insurance, manufacturing, trading, natural resources, real estate and transportation, are publicly listed in the Japanese stock exchanges. JPZB plays a role of a main bank for JPZG companies within the Zaibatsu and Keiretsu relationships. The origin of the Japanese traditional foreign exchange bank (JPFB) was the traditional foreign exchange bank (JTFB) that was established in 1880 to deal with special foreign exchange in Yokohama, Japan. After the World War II, since the Japanese government needed to establish a special financial institution to deal with foreign trade financing, JPFB established in 1946 as a successor to JTFB. JPFB became the only bank licensed under the foreign exchange bank law of 1954, which was linked to the foreign exchange and foreign trade law of 1949. JPFB received special consideration from the Japanese government in establishing the overseas offices because of the special license and many other aspects of foreign exchange and international finance. JPFB had established the most extensive worldwide network of the Japanese banking industry. The worldwide network of JPFB enables to conduct full range of commercial banking activities throughout the world. One of the Japanese largest banking business corporations (JPCB) was formed through the merger of JPZB and JPFB in April 1996. The shareholding company (JPFG) is one of the largest financial groups in Japan and provides a broad range of banking services in Japan and around the world. The investment banking business unit of JPFG provides a broad range of investment banking services which are corporate advisory capital markets, derivatives, structured finance, and securities, and the global service through investment banking subsidiaries in Hong Kong, Singapore, New York and London. Because of recent deregulation, increased demand of cross border transactions and direct financing in Japan, the investment banking unit implemented the new management system, which assigned global heads for each particular business categories, and aligned all subsidiaries and affiliates to them. JPFG has changed the shareholding scheme and transferred the investment-banking unit from the banking business corporation (JPCB) to the securities business corporation (JPSC) which was established in 2002 to promote a global securities and investment banking. JPSC acquired three overseas subsidiaries in Hong Kong, Singapore and New York in 2003, and a subsidiary in London in 2004 from JPCB (From the web site of JPFG).

3. Emerged Theories

Following *"theoretical sampling" (Glaser and Strauss, 1967; Strauss and Corbin, 1998),* data were collected from JPFG through various routes. By analyzing the data through the formalized Grounded Theory coding procedure (Matsumoto and Wilson, 2005b), the research discovered *"the cross-cultural comparison model for global strategic IS management (CCCM-GSISM)" (Matsumoto, 2005).* It was compared with other frameworks (Matsumoto and Wilson, 2005a) to reinforce objectivity, consistency and transferability (Gasson, 2004). Figure 1 describes that global IS management of JPFG. Traditional consensual management style is applied and no global business model is clarified. IT activities are outsourced to Keiretsu companies without any global IS strategy.

Figure 1: CCCM-GSISM: No global strategic IS management for JPFG

Cause		Consequence	
Human Resource Management	Management Style	Business Model	IS Management
Long Term and Standardised Employees Development	Consensual Management / Single Dimensional Organisation Structure	Unclear Global Business Model	IT outsourcing to Keiretsu Company / No Global IS Strategy

4. Brief Review of Japanese Ideologies

Japanese ideologies seem to come from the four philosophical religions, which are Buddhism, Confucianism, Taoism and Shinto (Hotta, 2004). Buddhism, which was originally established in India during the B.C. 6th century, teaches reaching the spiritual enlightenment. Confucianism, which was originally established by Confucius in China during the B.C. 6th century, teaches maintaining of social harmony. Taoism was originally established by Lao Tsu in China during the B.C. 6th century. Tao in Chinese is same character as *"DO"* in Japanese. Shinto is an indigenous local religion in Japan that worships various parts of nature as gods or the Japanese emperor as a god (Mason and Caiger, 1997; Varley, 2000; Davies and Ikeno, 2002; Hotta, 2004).

5. Human Resource Management and *"DO"* spirit

Many researchers (Takeuchi, 1990; Gross and Hews, 1997; Gross, 1998; Ornatowski, 1998; Porter et al., 2000; Gross and Tran, 2003) identify that the traditional Japanese style of human resource management is constituted by the two major elements, which are lifetime employment and seniority system. Similarly, the first box of Figure 1 for JPFG indicates the long term and standardized employee development. Many Japanese companies have studied theories and practices of human resource management from U.S and have adopted some of them, but differences still exist (Takeuchi, 1990). Human resource policies in the Japanese companies emphasize creation of a strong community within the company, establishment of employee loyalties, and orientation of a long term managerial decision making (Takeuchi, 1990; Gross and Hews, 1997; Gross, 1998; Ornatowski, 1998; Porter et al., 2000). Although the Japanese companies have a well educated, bright and hardworking human resources (Thurow, 2003), Porter et al. (2000) criticize that the unsuccessful and low performing industries including finance have a shortage of trained talents and effective specialists. Human resource management style is closely integrated with culture (Takeuchi, 1990). Davies and Ikeno (2002) emphasize that *"DO"* spirit continues to pervade culture in Japan. The concept of *"DO"*, which is deeply rooted in the Japanese traditional and modern way of thinking, illustrates important insights into the Japanese way of thinking, and provides the most significant Japanese cultural values (Davies and Ikeno, 2002; Hotta, 2004). The origin of *"DO"* can be found in Buddhism and Taoism. Japanese people are seeking to acquire spiritual satisfaction after perfection in basic patterns in their lives (Davies and Ikeno, 2002; Hotta, 2004). The meanings of the Kanji character *"DO"* are way, path or route in English. The word of *"DO"* is applied to various kinds of activities, such as *"Kado"* (flower arrangement), "Shodo" (calligraphy), *"Sado"* (tea ceremony), *"Kendo"* (swordsmanship) and *"Judo"*. The concept of *"DO"* spirit contains *"Shogun-Samurai"* relationship (Nitobe, 1938; Varley, 2000; Davies and Ikeno, 2002) and Sempai-Kohai relationship (Davies and Ikeno, 2002; Hotta, 2004).

5.1 Lifetime Employment

Although Porter et al. (2000) describe that lifetime employment in Japan is not a culturally ordained relationship but culture of post-World War II, many similarities can be found in the mechanisms between a traditional Shogun-Samurai relationship of Bushido and a modern

Japanese lifetime employment system. Nitobe (1938) introduced Bushido as a symbolic identity of the Japanese culture to the Western world. It is ethics established among samurai in the Kamakura period, not only sprits and skills for weapons, but also absolute loyalty to lord, devotion of duty, and strength of personal honor and courage (Davies and Ikeno, 2002). Traditionally, loyalty is a distinctive value of feudal period in Japan, because historically the obligations and service between lord and vassal were recognized as one of the most important factors from the Kamakura period. The economical life of samurais is based on fiefs which the lord possesses, and the lord assigns the territory for each samurais according to their achievements in weapons (Nitobe, 1938; Varley, 2000; Davies and Ikeno, 2002). Similarly, the Japanese lifetime employment guarantees male employees to assign positions to create generalist type workers with multiple skills, which promotes employee loyalty (Takeuchi, 1990; Gross and Hews, 1997; Gross, 1998; Ornatowski, 1998; Porter et al., 2000; Gross and Tran, 2003). The Japanese lifetime employment system works both directions, Japanese employees expect to stay for whole life in a single company for their working life, and Japanese employers expect these employees to remain for their working life (Takeuchi, 1990; Gross and Hews, 1997; Porter et al., 2000). Every three to five years, employees receive new position assignments to expand the range of job knowledge (Takeuchi, 1990; Gross, 1998). They are less resistant to change their position and more loyal to their companies than most Western managers (Porter et al., 2000). One of the interview records indicates that; *"Regarding the lifetime employment and seniority based system in Japanese multinational investment banks, he replied that it is very difficult to change these systems, which are well suited to the Japanese people's spiritual condition and culture" (from the interview manuscripts)*. Ornatowski (1998) emphasizes that the disadvantage of the system in terms of fixed labor costs could be manageable through a number of mechanisms, including early retirement and transferring to group companies. However, Porter et al. (2000) criticize the difficulty to control the size of workforce in the short term, and the costs which are more expensive than the benefits that come from increased trust and cooperation of employees. Another interviewee explained that; *"The large sized IT developments sometimes are used as a "New Deal Policy" to absorb excess internal human resources. Because the Japanese large banks fundamentally hired employees based on lifetime employment, the senior management needed to think about human resource allocation not only from the view of profit making but also from the view of the creating enough jobs for the excess employees" (from the interview manuscripts)*.

5.2 Standardized Employee Development
Many similarities can be found in the mechanisms between a traditional Sempai-Kohai relationship and a modern Japanese seniority based system which is one of the unique characteristics of the Japanese labor market. Historically, human relationships in Japan are quite different from those in the west. Sempai-kohai relationship represents the vertical hierarchy and comes from the teachings of the Confucianism (Davies and Ikeno, 2002; Hotta, 2004). Sempai who is older than kohai is considered to be superior in ability because of their longer experiences. Kohai who is younger than Sempai is considered to be inferior to Sempai because of their lack of experiences. The sempai-kohai relationship exists not only in most of Japanese corporate, educational, and governmental organizations (Davies and Ikeno, 2002; Hotta, 2004). The sempai-kohai relationship influences the seniority base system, which technically aims to improve long term company performance by eliminating competition among individuals, fostering group unity (Takeuchi, 1990; Gross and Hewes, 1997; Gross, 1998; Porter et al., 2000). Gross and Hewes (1997) emphasize the Japanese society generally respects authority, command chain and senior persons, seniority system is favored for Japanese people. Even if younger employees have greater knowledge or experience in specific areas, the Japanese people are uncomfortable when the younger employees are promoted beyond

someone older. Therefore, even if younger employees have unusual ability beyond senior employees, the employers often refrain from increasing the title, salary and responsibility until the employees gain more seniority and age (Gross, 1998). Young workers are underpaid relative to their contributions (Porter et al., 2000). One of the interviewee emphasized that; *"Because of 'Lifetime Employment' and 'Seniority Based Salary System', the performance amount and the appraisal result still do not match each other", and "historically, the appraisal mechanism for salaries is equality based and seniority based. A scheme to identify the exact performance for each staff member does not exist" (from the interview manuscripts).*

6. Management Style and *"WA"* spirit

The second box of Figure 1 for JPFG identifies the consensual management and single dimensional organization structure. Davies and Ikeno (2002) describe that the geography of Japan has greatly influenced many aspects of the Japanese cultural values and custom. Japan is an isolated country. Japanese cultures were developed in relative isolation, because Japan was separated by the dangerous seas from the continent and free from the threat of invasion from the other Asian countries (Davies and Ikeno, 2002). Japan is a mountainous country. Japanese people had to live in small communities with good harmony to grow more rice with another's support in a small inhabitable land (Davies and Ikeno, 2002). The concept of *"WA"* implies a group harmony and Japanese version of democracy, which come from the Confucianism (Mason and Caiger, 1997; Varley, 2000; Hotta, 2004). The origin of *"WA"* can be found in the first sentence of the seventeenth articles, which is the first constitution of Japan organized by Prince Shotoku in A.D.604 (Mason and Caiger, 1997; Varley, 2000).

6.1 Consensual Management

"WA" spirit continues to pervade culture in Japan (Hotta, 2004). Culturally, Japanese people tend not to be against groups direction because they fear to be excluded from the group. The groups are more important for Japanese people than their personal characteristics, traits and abilities. It is very difficult for the Japanese people to say "No" in contrast to Westerners, who present conflicting interest to reach a conclusion (Davies and Ikeno, 2002). Contextually, the Japanese companies apply the consensual decision making mechanism through involvement and participation at various level of management (Gross and Hewes, 1997; Gross, 1998; Porter et al., 2000). Decision making process takes much longer in Japanese companies than in Western companies. Typical mid-career managers are involved in the process of consensual decision making as one of many participants such as different levels of managers, general manager and directors. Consequently, they generally don't have as much experience in making decisions as typical mid-career Western managers (Gross and Hewes, 1997; Gross, 1998). Thurow (2003) identifies that Japanese consensual management is strong when problems occur from outside, but is weak when problems occur from inside. The interview manuscripts identify the weakness of the consensual management. *"The senior management will have a big problem, if the new appraisal system is implemented. Because they made a big loss during the collapse of the bubble economy", "not so many staff members want to implement the new appraisal system, because if they have the confidence to make a profit in the financial market, they have already moved to the foreign companies, which adapt the self-performance based salary system and gives a salary based on the profit amount" (from the interview manuscripts).*

6.2 Single Dimensional Organizational Structure

The organization chart in the official corporate information for JPFG describes the single dimensional organizational structure with a simple pyramid shape. In order to understand the real aspects of the structure, it is important to recognize the authority of the human resource department and the planning department. A hierarchy in Japanese companies has been

established based on the strong belief in authority (Gross, 1998). In the hierarchy, the human resource departments in Japanese companies are highly respected (Porter et al., 2000). The human resource department conducts the salary administration. Appraisals are basically annually, sometimes more frequently conducted not only by the line managers of each business units, but also by the human resource management. The scope of the assessments includes not only the performance but also attitudes, growth in skills and way of work. Salary is conceptually paid to a person not to a job (Takeuchi, 1990), which is similar mechanism which the lord decides the territory for each samurais. One of the interviewee identifies that; *"The human resource department and the planning department in the head office have stronger power than other business units in the Japanese large banks. Normally, the human resource department has a strong power to make decision for the human resource allocation, and the planning department has a strong power to make decisions for the budget and expense for the whole company as well as each department in the large Japanese banks"(from the interview manuscripts).* Another interviewee explains that; *"The human resource department has authority to mark the final appraisal of all employees based on the information from each section head. In addition, the human resource department has authority to make decisions concerning the transfer of all employees based on the requirement of human resource allocation of all section, entity and department" (from the interview manuscripts).* The interview manuscript indicates that the Takeuchi's view in 1990 has not been changed and still kept in JPFG.

7. Business Model and IS Management

The third and fourth boxes of Figure 1 for JPFG indicate the unclear business model for globalization and the IT outsourcing to *Keiretsu* companies. A global business strategy should be formulated before any sensible decision for information system (IS) strategies. After IS strategy with a business strategy is in place, information management (IM) strategy must be implemented (Earl and Feeny, 1995). However, JPFG does not have a clear business model for globalization. In order to understand the *Keiretsu* which is *"ubiquitous in Japan" (Porter et al., 2000),* it is important to recognize that the mechanism is totally different from the idea of outsourcing in the Western society from various aspects. From the cross shareholding scheme, the *Zaibatsu* had been vertical relationship with top down pyramid shaped, and the *Keiretsu* had been horizontal relationships with other group companies by holding shares each other. The banks were located in the center of the *Zaibatsu* and *Keiretsu* relationships (Schaede, 1999; Porter et al., 2000). Lambert and Peppard (1994) explain that the *Keiretsu* can coordinate strategic approaches to penetrate world markets, block foreign competition by managing supply chain and long-term investments in manufacturing and technology. But Gross (1998) explains that the Japanese employees are shifted to easier positions at subsidiaries or related companies, if performances are poor based on the lifetime employment system. In addition, because *"Amakudari"* culture, which literally means decent from heaven, senior bureaucrats are allowed to obtain high ranking positions with private companies after retirement (Davies and Ikeno, 2002). The senior managements of the banks often obtain high position in the *Keiretsu* companies.

8. Conclusion

The paper has deeply examined the invisible traditional Japanese customs which negatively influence global IS management in Japanese multinational investment banks. The question *"what has to be done at a strategic level for Japanese multinational investment banks to compete globally through IS"* can be analyzed in further research.

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Global Business Process/IS Outsourcing to Singapore in the Multinational Investment Banking Industry

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ABSTRACT

In the early 1990s, the Singapore government enhanced the economic strategy to promote Singapore as an international financial center. Over 100 companies made their regional head offices in Singapore by the middle of the 1990s. In 2004, one of the largest multinational investment banks launched a Global Support Center in Singapore. The research aimed to identify the invisible traditional customs which impact on global strategic IS management in a Western rooted investment bank and an Eastern rooted investment bank. The research discovered the cross-cultural comparison model for global strategic IS management (CCCM-GSISM) through Grounded Theory coding process. By analyzing the model, this paper identifies the mechanism of offshore business process/IS outsourcing and examines the competitive advantages of Singapore as a strategic destination for offshore business process/IS outsourcing for the multinational investment banking industry.

Keywords: *Globalization, Singapore, IT/IS Outsourcing, Investment Banking Industry, Multinational Corporations, Grounded Theory*

INTRODUCTION

Singapore emerged as *"a regional financial centre in Southeast Asia"* [42] from the late 1960s. The financial industry was identified *"as a key growth area"* [42] in Singapore in the 1970s. In the early 1990s, the Singapore government enhanced the economic strategy to promote Singapore as an international business hub and an international financial centre. Over 100 companies had made their regional head offices in Singapore by the middle of 1990s. The policies implemented from the late 1960s opened up the Singapore financial industry to foreign banks and investors. There were *"155 commercial banks, 81 merchant banks and 19 finance companies in Singapore"* [42] at the end of 1997. Consequently, Singapore became a hub for financial industry in the Asia-Pacific region [42, 76]. Singapore is now taking up the challenge to be a global business hub for knowledge-based industries [73]. One of the largest multinational investment banks launched a new global IS support center in Singapore in February 2004.

The research initially aimed to identify the invisible traditional customs which impact on global strategic IS management in a Western rooted and an Eastern rooted investment bank. Importance of the research was explained in the annual conference [47] of UK Operational Research Society in 2004. The research discovered the cross-cultural comparison model of global strategic IS management (CCCM-GSISM) through Grounded Theory coding process. Mechanisms of the CCCM-GSISM were presented in the professional and doctorate consortium [48] and validation and application of the CCCM-GSISM were discussed in the main annual conference [49] of UK Academy for Information Systems in 2005. Repeatable procedure of Grounded Theory coding process was presented in the European Conference on Research Methods [50].

The CCCM-GSISM indicates a) three phases (cause, change and consequence) on the top, b) four central factors (business model, management style, human resource management and global IS management) in the middle, and c) detailed explanation of the four central factors at the bottom (see examples of figure 8 and figure 9). Four different types of the CCCM-GSISMs were identified through analysis of collected data from a Swiss/American investment bank (SAFG) and a Japanese traditional *Zaibatsu* investment bank (JPFG). They were a) success of regional centralization of business process/IS to Singapore of SAFG, b) success of global business process/IS outsourcing from London and New York to Singapore of SAFG, c) failure of global strategic IS project in entire SAFG, and d) no global strategic IS management of JPFG. By *"integration"* [57] of the two models for business process/IS outsourcing of the four CCCM-GSISMs, this paper explains the following research topics.

"What are the mechanisms of offshore business process/IS outsourcing to Singapore in a Swiss/American investment bank?"

"What are the competitive advantages of Singapore as a destination for offshore business process/IS outsourcing for a Swiss/American investment bank?"

In order to examine these questions, the paper firstly reviews the previous work for outsourcing. Second, it examines history of Singapore and explains the context of a selected case. Third, the paper justifies Grounded Theory as a research strategy. Fourth, the paper explains the formalized templates and diagrams for coding processes. Fifth, the data collection and analysis are explained. Sixth, the CCCM-GSISMs are examined from the perspective of offshore business process/IS outsourcing. Finally, the paper *"integrates"* [57] to identify the mechanisms of business process/IS outsourcing and examines the competitive advantage of Singapore as a strategic destination for offshore business process/IS outsourcing.

PREVIOUS WORK

Many researchers examined outsourcing from various aspects. Table 1 describes the previous works on business process/IS outsourcing based on the five factors of outsourcing [43]. The research categorizes *"organization"* into three subcategories that are a) offshore, b) human resources and c) key factors, key drivers and process. By analyzing the table, the following three findings were detected. First, many researches investigate the relationship with outsourcing vendors. Second, most researches do not specify the case industries. Third, few researches investigate the strategic location of offshore outsourcing from the view of the long-term life cycle, while senior managers in the financial industry are interested in destinations of offshore outsourcing.

From these aspects, this paper is valuable for the following three reasons. First, this paper can explain the mechanisms of business process/IS outsourcing from the view of long-term processes, which is more than ten years. Second, it examines various aspects, which are business driver, effects of management style, IS human resource issues and IT infrastructure. Third, it focuses on Singapore which became an international business hub for the financial industry in the Asia-pacific region [42, 76]. Fourth, it focuses on the financial industry, which is one of the most important strategic industries for Singapore [42].

Table 1: Previous work for outsourcing

Topic	Author(s)	Year	Case Industry	Case Location
1, Relationship				
	Klepper R. [38]	1994	Not specified	Not specified
	Das A., Soh C. and Lee P. [12]	1999	Not specified	Not specified

	Gallivan M.J. and Oh W. [21]	1999	Not specified	Not specified
	Van der Zee H. and Ribbers P. [75]	2000	Not specified	Not specified
	Beulen E. and Ribbers P. [7]	2002	Not specified	Europe, Asia, North America, Americas
	Petkova O. and Petkov D. [62]	2002	Not specified	Not specified
	Currie W.L., Desai B., Khan N., Wang X. and Weerakkody V. [11]	2003	Not specified	U.S.A. and Europe
	Lee J.N. and Kim Y.G. [44]	2003	Not specified	South Korea
	Oza N., Hall T., Rainer A. and Grey S. [58]	2004	Not specified	India, Europe, U.K. and U.S.A.
	Swinarski M., Kishore R. and Rao H.R. [72]	2004	Not specified	Not specified
	Balaji S. and Brown S.A. [5]	2005	Not specified	Not specified
	Lindskog H. [45]	2005	Telecom services	Sweden
	Randeree E., Kishore R. and Rao H.R. [63]	2005	Healthcare Industry	U.S.A.
2, Decision				
	Ketler K. and Willems J.R. [33]	1999	Not specified	U.S.A.
	Roy V. and Aubert B. [65]	2000	Financial Industry	Canada
	Nembhard H.B., Shi L. and Aktan M. [55]	2001	Not specified	Not specified
	Al-Qirim N.A.Y. [1]	2003	Not specified	New Zealand
	Benamati J.S. and Rajkumar T.M. [6]	2003	Not specified	U.S.A.
3, Contract				
	Beulen E. and Ribbers P. [8]	2002	Not specified	Europe
	Aubert B., Houde J.F., Patry M. and Rivard S. [3]	2003	Not specified	Canada
4, Performance				
	Aubert B., Dussault S., Patry M. and Rivard S. [2]	1999	Not specified	Not specified
	Navarrete C.J. and Pick J.B. [54]	2002	Not specified	Mexico
	Peak D.A., Windsor J.C. and Conover J.A. [61]	2002	Not specified	Not specified
	Bahli B. and Rivard S. [4]	2003	Not specified	Not specified
	Oh W. and Gallivan M.J. [56]	2004	Not specified	Not specified
5, Organization				
a) Offshore				
	Grembergen W.V. [28]	1999	Financial Industry	From Belgium
	Kumar N. and Palvia P.C. [40]	2002	Not specified	Not specified
	Khan N., Currie W.L., Weerakkody V. and Desai B. [34]	2003	Not specified	From U.K. to India

	Khan N., Currie W.L. and Guah M. [35]	2003	Not specified	From U.K. to India
	Jennex M.E. and Adelakun O. [31]	2003	Not specified	Not specified
	Ganesh J. and Moitra D. [22]	2004	Not specified	To India
	Khan N. and Fitzgerald G. [36]	2004	Not specified	Not specified
	Misra R.B. [51]	2004	Not specified	Not specified
	Palvia S. [59]	2004	Not specified	Not specified
	Chakraborty K. and Remington W. [9]	2005	Not specified	From U.S.A.
b) Human Resources				
	Slaughter S. and Ang S. [68]	1996	Not specified	Not specified
	Koh C., Tay C. and Ang S. [39]	1999	Not specified	Not specified
	Fulbright R. and Routh R.L. [19]	2004	Not specified	Not specified
	Wong B. [77]	2004	Not specified	Not specified
c) Key Driver, Key factors and Processes				
	Khandelwal V.K. and Ferguson J.R. [37]	1999	Not specified	North America, Europe, Australia, New Zealand and India
	Goo J., Kishore R. and Rao H. [26]	2000	Healthcare, Financial, and Logistics Industry	Not specified
	Lee J.N., Huynh M.Q., Chi-wai K.R. and Pi S.M. [43]	2000	Not specified	Not specified
	Thatcher S.M.B. and Foster W. [74]	2002	Not specified	Taiwan
	Ilie V. and Parikh M. [30]	2004	Not specified	Not specified

SINGAPORE

Because one of the objectives of the research is an examination of the competitive advantages of Singapore as a strategic destination for offshore business process/IS outsourcing, the historical context of Singapore is carefully examined.

Origin of the Independence

Singapore is located between the end of the Straits of Malaysia and the small islands of Indonesia [42, 64] slightly smaller than City of New York [76]. Historically, Singapore has been an important trading port from 7th century. Chinese immigrants established a society in Singapore in the 14th century [42, 64]. Sir Stamford Raffles, who recognized the value of *"the island's unique location and natural harbour"* [76] and *"the trading potential of the island"* and *"the policy of free trade"* [64], founded modern Singapore in 1819 [42]. The population of Singapore grew from 1,000 to 10,700 within five years after Raffle's arrival [42, 64]. As it was attractive to *"immigrants from China, India, Malaysia and Europe"* [76], the population reached almost 81,000 in 1860, including perhaps 7,000 Europeans [64]. Singapore became a port on the route between Europe and East Asia after the Suez Canal opened in 1869 [42, 76]. Singapore established useful facilities for international trading, developed attractive economical structures for shipping, communications and financial services, and became one of the major ports in the region [42, 64].

Though Singapore became the principal base of British military at the beginning of World War II, Singapore was invaded by the Japanese military in 1942 [42, 64, 76]. The British military returned to reconstruct in September 1945 after the end of World War II [42, 64, 76]. Though Britain retained control of defence, security and foreign affairs, the constitutional agreement was signed in 1958 and the first general election was held in 1959. The People's Action Party (PAP) led by Lee Kuan Yew took 41 of 53 seats, and Lee became the first prime minister of Singapore [42, 76]. The PAP began to seek for complete independence from Britain as a part of the Federation of Malaya [42, 64, 76]. Because of *"the political tensions between the ethnic Chinese dominated Singaporean and the Malayan majority in the rest of Malaysia"* [42, 64], they were unable to agree on the issues of revenues, territory of common markets and political control. The idea to separate Singapore from Malaysia was eventually raised [42, 64, 76].

After the Independence until 2000s

On August 9th, 1965, Singapore became an independent nation [42, 64, 76]. Most of the Singapore culture was created after the independence [64]. The Singaporeans had no true native language and used five major languages and 20 dialects [64]. The Singapore government selected four official languages, which were English, as the language of administration, Malay, as the language of national language, Mandarin Chinese and Tamil, to be taught in schools [64]. In 1979, the Singapore government encouraged the use of Mandarin Chinese to maintain cultural values, but English remained the most widely spoken language in Singapore [64]. Singapore maintained tight control, concentrating on *"investment in the state, active encouragement of foreign investment, a pro-business environment, free trade, a tight monetary policy, and high savings"* [76]. The Singapore government had very few restrictions on foreign investment, because it recognized the importance of foreign direct investment for economic growth [42, 64, 76]. From lower value added industries, such as manufacturing industries in the late 1960s and 1970s, to higher value added financial industries in the 1980s and technology industries in the 1990s, the tax intensive scheme supported the building of the matured industrial value chain in Singapore [42, 76].

In addition, the Singapore government began to *"promote and attract in higher value adding industries, such as electronics and chemicals in 1970s, because of its increasing land and labour costs"* [41]. As a result, multinational companies retained their higher value adding operations in Singapore, and relocated their manufacturing facilities to lower cost nations [41]. In the early 1990s, the Singapore government enhanced the economic strategy policy to promote and develop Singapore as an international business hub and an international financial centre in the Asia-pacific region [73]. Singapore grew about eight percent per year for thirty years by 1997 [41]. Over 100 companies made their regional head offices in Singapore by the middle of 1990s [42]. In 1998, the Singapore government renewed the policy that emphasized *"cluster development, promising local enterprise/world class companies, international business, headquarters and resource development"* [41]. Singapore is now taking up the challenge to be a hub for global business [76].

CONTEXT OF SAFG

While some researchers may believe that small cases are not enough to prove a theory, the researchers can learn many things from research into one organization, because happenings, events, actions and interactions are likely to occur in similar forms in other organizations [71]. The research selected a Swiss/American multinational investment bank (SAFG). In Europe, investment banks emerged in the late 18th and the early 19th centuries based on private partnerships [53]. In Switzerland, the banking industry was historically one of the most profitable industries [20]. In U.S., investment banks emerged as principal counselors for corporations, because the Glass-Steagall Act required investment banks to separate from the commercial banks [53]. The commercial bank (SWBK) was one of the traditional banks in Switzerland. The American investment bank (AMBK) was one of four traditional investment banks in U.S.

In 1988, AMBK made a huge loss in the U.S. bond market. Accompanying the financial difficulties of AMBK, SWBK underwent an organisational restructuring to simplify a management structure in 1989. The new merged company (SABK) between SWBK and AMBK started to operate the investment banking business under the umbrella parent shareholding company (SWBKH). However, SWBK had no experience of the investment banking business in the Asia-Pacific region. SWBK continuously exercised the business in the Asia-Pacific region using the infrastructure, which AMBK developed in the region. This direction was kept until 1996.

SABK stared to centralize the operational processes in Singapore in the region from 1994. At the same time, IT department in Singapore office started to develop an in-house system. The implementation project was started in Singapore in 1995, moved to Hong Kong in 1996 and then went to Tokyo in 1997. SABKH underwent another organisational restructuring in 1996. SAFG was established as a new investment bank, which succeeded the investment banking business of SABK. The Singapore office centrally coordinated the Euro Monetary Union (EMU) project in 1998 and the computer Year 2000 project in 1999. SABK launched a new global support center in Singapore in 2004.

RESEARCH METHOD

While some cross-cultural IS researches [7, 74] adapted Hofstede's model to analyze the offshore business process/IS outsourcing, there is few *"systematic"* [57] and *"graphical"* [69, 71] representation to explain the long-term life cycle of the offshore business process/IS outsourcing for the multinational investment banks. Grounded Theory is a useful tool for the research, because it is different from other qualitative research methods. *"Theories"* emerge from data through continuous interaction between data collection and analysis [10, 13, 23, 24, 25, 27, 29, 46, 52, 60, 69, 70, 71]. Grounded Theory is recognized as a strong cross-cultural research method [27, 32], because Grounded Theory enables a) development of context-based explanations of phenomena [52, 57], b) exploration of business management issues concerning human relationships and interpersonal communication [27, 52, 57], and c) visualization of complex phenomenon through the coding process [13, 57, 60, 71]. After the theories emerge, *"generation of the theories"* [57] enables explanation of the mechanisms of outsourcing, and *"integration of the theories"* [57] enables examination of the competitive advantage of Singapore as a destination of outsourcing.

PREPARATION OF DATA ANALYSIS

In order to improve reproducibility of findings [23], the research developed formalized templates and diagrams for coding processes that are the central mechanisms to generate theories [13, 23, 27, 60, 71].

Open Coding

Open coding is defined as an analytic process to identify concepts, properties, dimensions and incidents through comparative analysis [13, 23, 27, 60, 71]. The following three templates for a) identification of phenomena, b) identify concepts, and c) discover categories were developed for the opening coding.

Table 2: Template for Open Coding Step 1 - Identification of phenomena

No.	Phenomena	Code Type
1	Broken data 1	Open Label or In Vivo Code
2	Broken data 2	Open Label or In Vivo Code
3	Broken data 3	Open Label or In Vivo Code
…	…	…

Table 3: Template for Open Coding Step 2 - Identification of concepts

No.	Concepts
1	Detail of concepts 1
2	Detail of concepts 2
3	Detail of concepts 3
…	…

Table 4: Template for Open Coding Step 3 - Discovering categories from concepts

| Category 1	Detail of category	
Concepts	1	Detail of concepts 1
	2	Detail of concepts 2
	3	Detail of concepts 3
	…	…
Dimensions	Detail of dimensions	
Properties	Detail of properties	
Incidents	1	Detail of incidents 1
	2	Detail of incidents 2
	3	Detail of incidents 3
	…	….

Axial Coding

Axial coding is defined as a process to find relationships between categories and subcategories [13, 23, 27, 60, 71]. The following template and diagram were prepared for the axial coding.

Table 5: Template for Axial Coding

| Category			Detail of category
	Paradigm		
		Condition	Causal, Intervening, Contextual
		Why	
		Where	
		When	
		Action/Interaction	Routine or Strategic
		By whom	
		How	
		Consequences	Intended or Unintended
		Duration	Short, Medium or Long Term
		Visibility	Visible or Invisible
		Impact	Strong or Weak
		Predictability	Predictable or Unpredictable
		Scope	Wide or Narrow
	Memo		

Figure 1: Diagram for Axial coding
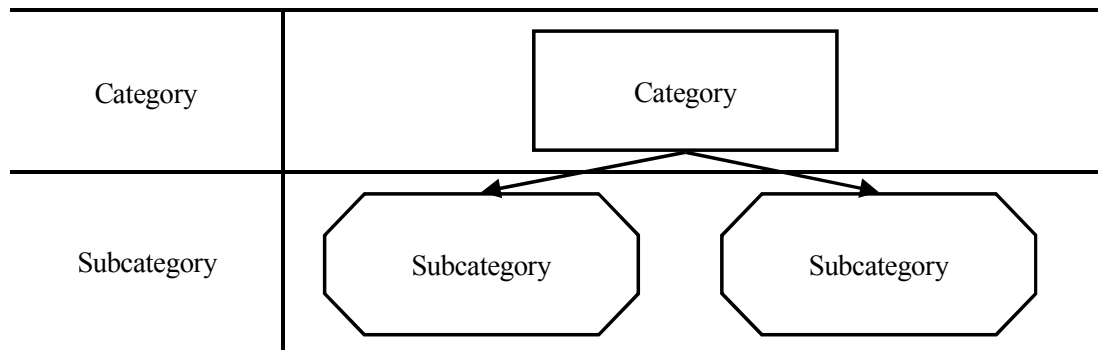
Selective Coding

Selective coding is defined as a *"process of integrating and refining the theory"* [71]. The following diagram was developed for the selective coding.

Figure 2: Diagram for Selective coding
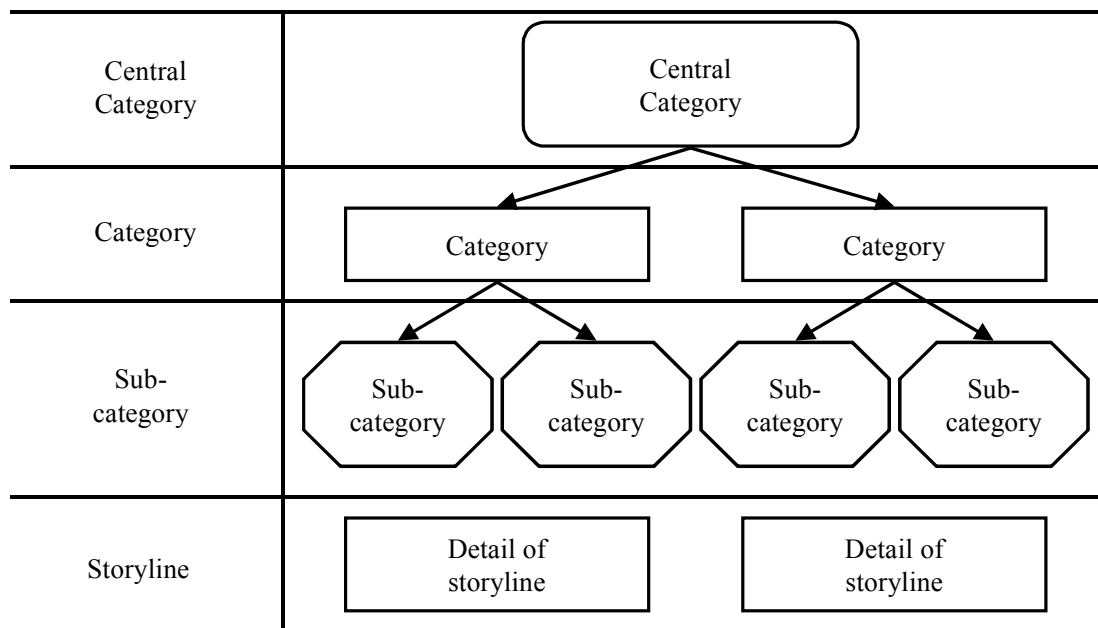
DATA COLLECTION AND DATA ANALYSIS

The triangulation of data collection is beneficial for theory development [57, 71]. Following the theoretical sampling procedure [13, 24, 60, 71], various types of data were collected because of *"accessibility and availability"* [71]. Data were collected from sites in Singapore and Tokyo of SAFG. The data collections were stopped when the research reached *"theoretically saturation"* [24, 60, 71].

Pilot Research

The pilot research was conducted in July 2004 to ensure the availability and applicability of the formalized templates and diagrams. It analyzed the data of IS project management in SAFG. Table 6 describes the statistics of the coding process of the pilot research. The pilot research confirmed that the formalized templates and diagrams could identify phenomena, concepts and category for the open coding, relationship between categories and subcategories for the axial coding and the central category for the selective coding.

Table 6: Statistics for IS project management of SAFG

Group Code	SAFG	
Location	Singapore	Tokyo
Data source	Business Process Technical Architecture	Business Process Re-engineering
Year of data	2000	2001
Size of data	65 words	191 words
Phenomena	9	14
Concepts	6	13
Categories	4	4

The pilot research developed the following two selective coding diagrams, which are one for SAFG Singapore and another for SAFG Tokyo.

SAFG Singapore

By adopting *"Top-Down management"*, SAFG Singapore clarifies responsibility, prioritization and objective of a project as a regional processing center.
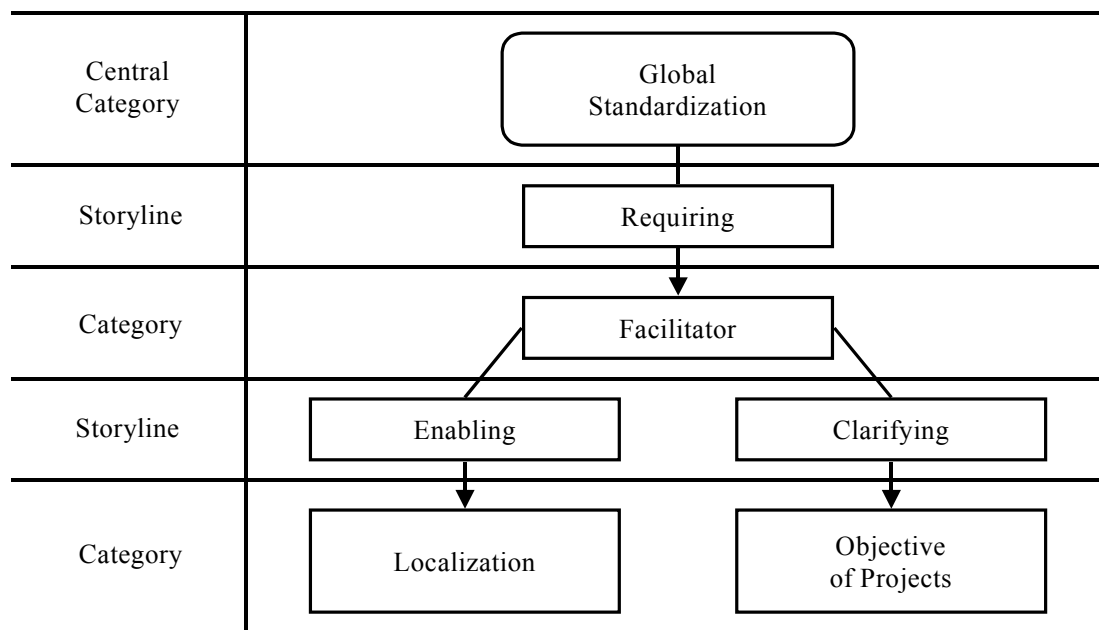
Figure 3: Selective coding of SAFG: Singapore Office
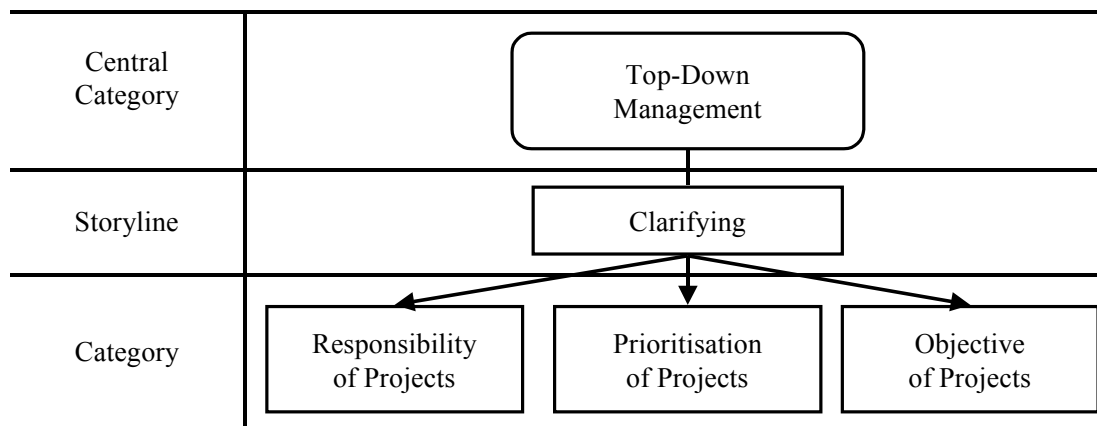
SAFG Tokyo

By adopting *"Global standardization"*, facilitators in SAFG Tokyo are required to enable localization and clarify objective of a project.

Figure 4: Selective coding of SAFG: Tokyo Office

Central Category	Global Standardization
Storyline	Requiring
Category	Facilitator
Storyline	Enabling	Clarifying
Category	Localization	Objective of Projects

Official Corporate Information

This research collected and analyzed the data of official corporate information to understand the corporate characteristics of SAFG. Table 7 indicates the detail of data collection, coding process and outcome of analysis for official corporate information. Data collections focus on company policy, employee development, organization and management structure.

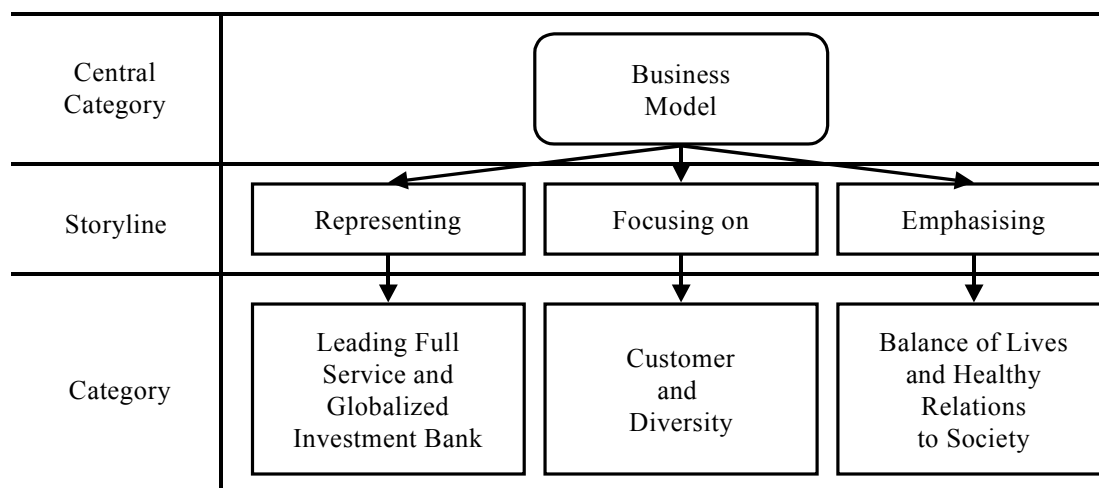Table 7: Statistics for Official Corporate Information of SAFG

Group Code	SAFG		
Location	Company Policy	Employee development	Structure and Management
Year of data	2004	2004	2004
Size of data	929 words	84 words	198 words
Phenomena	37	8	28
Concepts	15	4	8
Categories	7	1	2

The analysis of the official corporate information developed the following two selective coding diagrams and one integrated diagram.

Business Model of SAFG

The business model of SAFG represents leading and full service investment bank, focuses on customer and diversity, and emphasizes balance of lives for employees and healthy relations with society.
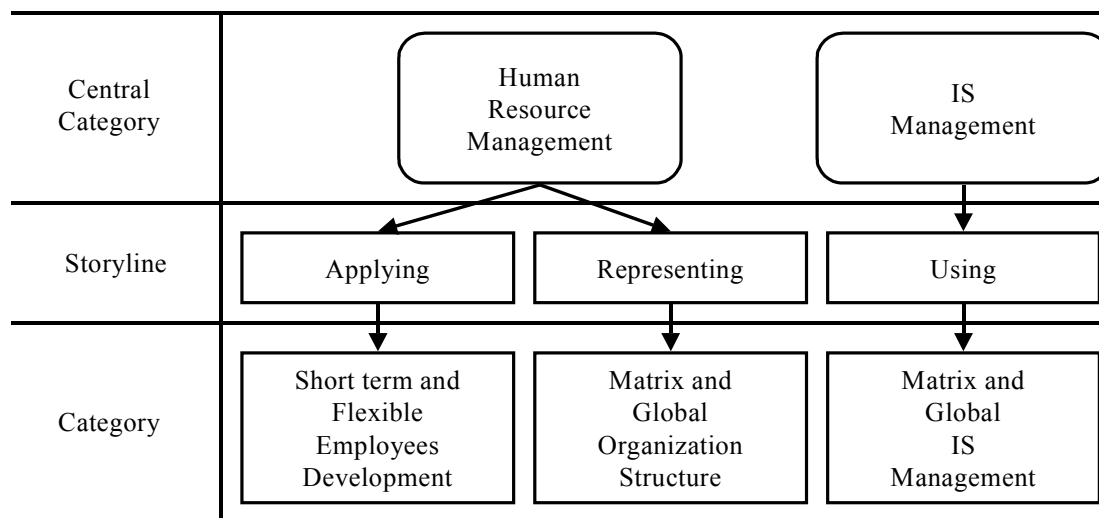
Figure 5: Selective coding of SAFG: Business Model

Central Category	Business Model		
Storyline	Representing	Focusing on	Emphasising
Category	Leading Full Service and Globalized Investment Bank	Customer and Diversity	Balance of Lives and Healthy Relations to Society

Human Resource Management and IS Management of SAFG

The human resource management style applies short term and flexible employee development under matrix and global organization structures. IS management uses matrix and global IS management style.

Figure 6: Selective coding of SAFG: Human Resource Management and IS Management

Central Category	Human Resource Management		IS Management
Storyline	Applying	Representing	Using
Category	Short term and Flexible Employees Development	Matrix and Global Organization Structure	Matrix and Global IS Management

Global Strategic IS Management of SAFG

Integrated selective coding diagrams indicates four central categories, which are a) management style, b) business model, c) human resource management and d) IS management.

Figure 7: Integrated selective coding of SAFG: Global Strategic IS Management
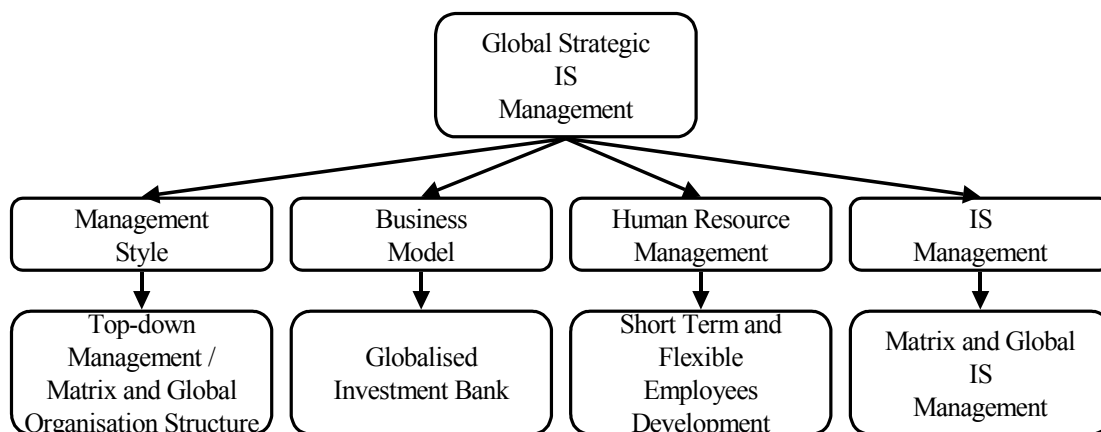
Unstructured Interview

This research conducted unstructured interviews in September 2004. The interviews were conducted in English and Japanese to avoid loss in translation [71]. The manuscripts of interviews were documented and sent through e-mail to the interviewees who confirmed the accuracy. The interviews focused on business process/IS outsourcing as well as IS human resources, system development, and changes of management style. Some IS projects were regionally or globally coordinated, and many interviewees had working experience in head offices and other affiliates. The collected data contained phenomenon in the Asia-Pacific region as well as head office and other regions. Table 8 indicates the statistics of data collection and analysis for the unstructured interview.

Table 8: Statistics for Unstructured Interview of SAFG

| Group Code	SAFG	
Location	Singapore	Tokyo
Year of data	2004	2004
Number of Interviewees	3	6
Number of Interviews	3	9
Length of interviews	3 hours 00 minutes	5 hours 40 minutes
Size of data	2301 words	4480 words
Phenomena	114	198
Concepts	52	116
Categories	24	52

TWO MODELS FOR BUSINESS PROCESS/IS OUTSOURCING OF THE CCCM-GSISMS

The research discovered the CCCM-GSISM which three phases, four central factors and detailed explanation of the four central factors. Four different types of the CCCM-GSISMs were identified through analysis of collected data from SAFG and JPFG. Two models for business process/IS outsourcing of the four CCCM-GSISMs are described in the follows.

Regional offshore business process /IS outsourcing to Singapore (1992-2001)

In order to apply the global business model, management style was changed to the matrix and global structure and new human resources were hired. Consequently, the regional offshore business process/IS outsourcing was successfully implemented.

Figure 8: CCCM-GSISM: 1992-2001
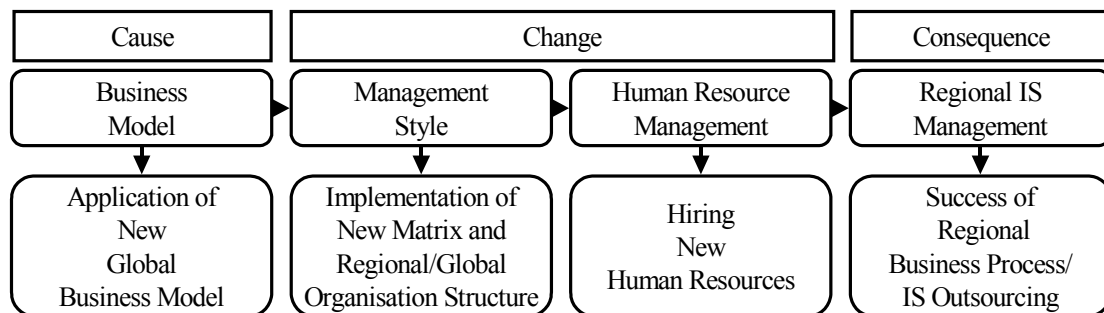
Global offshore business process /IS outsourcing to Singapore (2002-2004)

This model indicates the success of offshore business process/IS outsourcing in SAFG. By hiring a new strong leadership management team, human resources were globally relocated. Consequently, global offshore business process/IS outsourcing was successfully implemented and a new global business model was implemented.

Figure 9: CCCM-GSISM: 2002-2004

VALIDATION OF THE CCCM-GSISM

Grounded Theory is often criticized in terms of objectivity, confirmability, auditability, consistency and transferability of emerged theories [23]. In order to *"validate" [60]* the emerged theories, the research conducted comparison with similar and conflicting strategic information systems planning (SISP) models [49]. It is confirmed that the CCCM-GSISM has mechanisms a) to describe process and implementation concern of SISP [14, 15, 16], b) to indicates whether business led or organizational approach of SISP [14, 15, 16], c) to explain which information strategies are applied, how the emerged four central categories affect information strategy building, and why the global IS project succeeds or fails [18, 66] and d) a function to explain which enablers are applied or missed, and where there is a bottleneck of global IS implementation [18, 67].

ANALYSIS OF THE CCCM-GSISM

In order to identify the mechanisms of offshore business process/IS outsourcing and examine the competitive advantages of Singapore as a strategic destination, the CCCM-GSISMs and the manuscripts of the unstructured interview are carefully examined.

1992-1994

In 1992, two new global business models were implemented in SAFG. In New York, a trader joined from another U.S. investment bank to implement a competitive global fixed income business model. In London, another trader joined to start a new global derivative business. They needed global networked IT to deal with the global businesses in the Asia-Pacific region.

In 1993, trading volume of fixed income and derivatives business in the Asia-Pacific region increased. The trend reemphasized developing global networked computer systems to consolidate financial reporting in the Asia-pacific region.

In 1994, SAFG accelerated the change in its management structure from local to regional management in the Asia-Pacific region, and the idea of developing *"information processing center in Singapore"* was raised because the cost of employees between Tokyo, Singapore and Hong Kong were outstanding.

The average cost of hiring one employee in Tokyo was about USD 120,000, one in Hong Kong about USD 85,000 and one in Singapore about USD 50,000. Based on the number of transferable headcounts from Tokyo and Hong Kong to Singapore, cost reduction amount were estimated.

Consequently, senior managers as well as some IT staff moved to Singapore to establish the centralized processing center.

1995-1997

Until 1995, different software applications were used in Tokyo, Hong Kong and Singapore. The systems required many manual processes because of many inaccurate data in the systems. In 1995, a new in-house system development project was started to reduce the manual processes and establish straight through processing (STP).

At the beginning of the new in-house system development project, many staff in the Singapore office showed resistance to change. The staff gradually understood the importance of improving the systems to reduce the manual process.

At the migration period, the working style in Singapore was changed from the locally independent style to the regionally coordinating style. During the period, staff in Singapore faced cultural conflicts from two aspects. First, they had difficulties in communicating with the staff in Tokyo who could not speak English, though they could communicate smoothly with the staff in Hong Kong in Mandarin Chinese. Second, the required level of data accuracy was very high in the Tokyo, where no mistakes were tolerated.

In 1997, the merger of a company of investment banking business, a company of commercial banking business and a company of derivative business was a trigger to strengthen the global reporting line and shift the political power from New York and Zurich to London.

1998-2001

In 1998, the Tokyo office completed the implementation of the new in-house system. After implementation of the new in-house system in Singapore, Hong Kong and Tokyo, the three locations could operate on the same platform. It had more efficiency and better control than the old system.

In 1998, the Euro Monetary Union (EMU) project went well from the start to end, because much experience was accumulated through the in-house system development. The strong hybrid managers, who had various knowledge of IT and business process, could act as key people to bring about the success of EMU projects.

In 1999, the difficulties with Year 2000 (Y2K) project were communication between cross departments, cross entity, cross location in the Asia-Pacific region as well as communication with the London office which was a global control center for Y2K project.

In 2000, the in-house system was getting more efficient and better controlled. However, the enhancement of the system were very difficult after Tokyo, Seoul, Taipei, Shanghai, Sydney, Melbourne started to use it, because some changes in the system might have an impact on other entities. Consequently, Singapore office needs to co-ordinate other locations to insure against unexpected impacts.

2002-2004

Planning and analysis of business process/IS outsourcing from New York and London offices to North Carolina commenced around 2002. Though many discussions between senior managers were arranged, there was no outcome because there was no strong sponsor and strong requirements in SAFG.

In terms of business process/IS outsourcing from New York and London offices to Singapore, a similar thing happened. The senior managers could not decide on the direction.

When a new co-COO had joined SAFG in 2002, he hired three new senior managers in the supportive departments that were Operations, Product Control and IT. They joined together from another U.S. investment bank.

One of three senior managers, who was the global head of Operations, Product Control and IT rather than CIO [17], provided strong sponsorship and leadership to make the transfer from New York and London to Singapore. The instruction was *"to transfer 100 staff from London to Singapore by November 2002"*. The clear direction enabled acceleration of the migration activity from London. Consequently, SAFG launched a new global IS support center with 250 IT staff in Singapore in February 2004.

INTEGRATION OF THE CCCM-GSISMS

The two CCCM-GSISMs (Figure 8 and Figure 9) are *"integrated" [57]* to identify the mechanisms of offshore business process/IS outsourcing and examine the competitive advantages of Singapore as a strategic destination of offshore business process/IS outsourcing. Figure 10 is the integrated CCCM-GSISM from 1992 to 2004.

Figure 10: Integrated CCCM-GSISM: 1992-2004
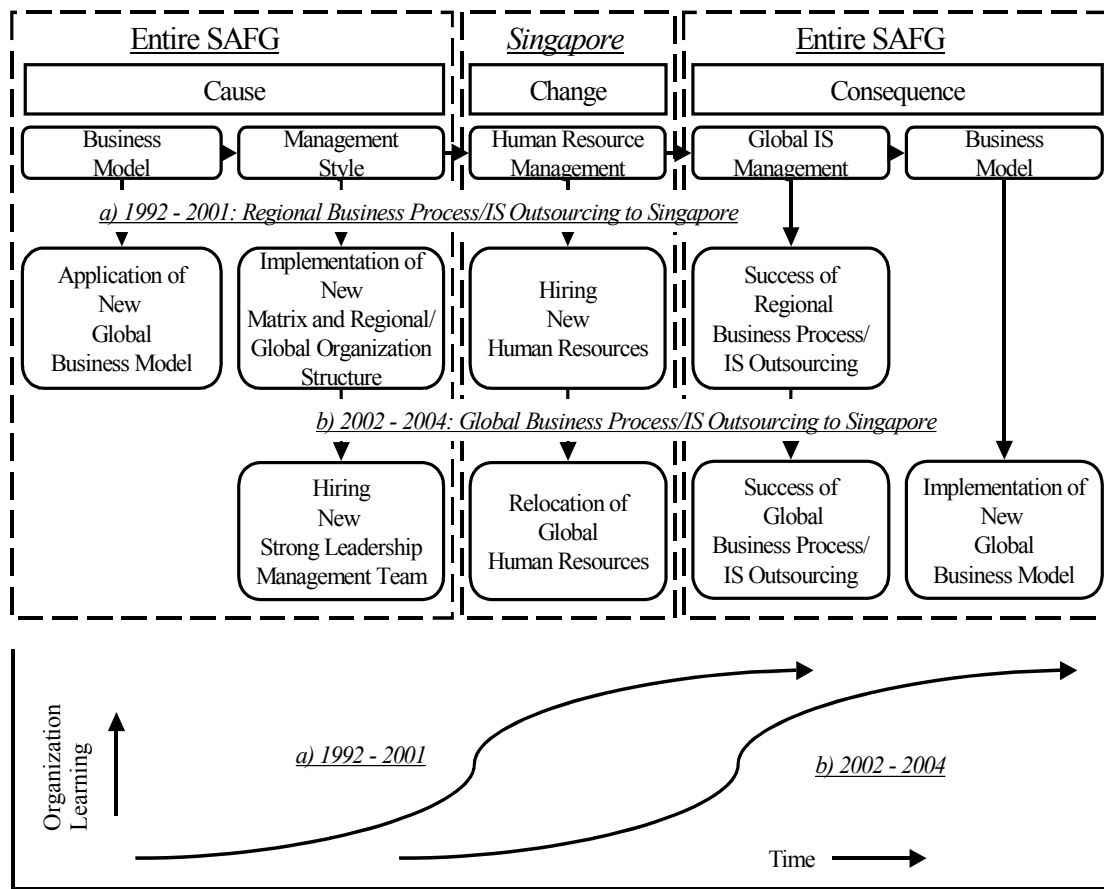
Mechanisms of Outsourcing to Singapore

The integrated CCCM-GSISM indicates a similar mechanism of the stages theory that consists of continuous multiple S-curves in six organizational learning stages of initiation, contagion, control, integration, administration and maturity [37]. SAFG has gradually changed size of the offshore business process/IS outsourcing from narrow region to wide region, and then to global.

The first phase was from 1992 until 2001. Initially, new business drivers of offshore business process/IS outsourcing of SAFG came from New York and London in 1992. They required globally networked IS to establish global booking mechanisms. SAFG has gradually changed the reporting line from local to regional, and then to global. The merger of three organizations within SAFG in 1997 accelerated, strengthening the global reporting line. The Singapore office hired new human resources, who were gradually educated and trained through centralization of the business process to Singapore in the Asia-Pacific region. Consequently, regional offshore outsourcing was successfully implemented around 2001.

The second phase was from 2002 until 2004. The strong leadership management team enabled the relocation of global human resources. Global offshore business process/IS outsourcing from New York and London to Singapore was successfully implemented by utilizing the existing human resources in Singapore and relocating additional human resources from London to Singapore.

Competitive Advantages of Singapore

The success of Singapore in attracting multinational companies was largely due to *"the superior geographical location, good infrastructure, efficient and educated labor force, good labor relations, clean government and tax and other investment incentives available to foreign companies"* [42]. Singapore could benefit from multinational companies by *"gaining employment, technology, managerial expertise, and human capital for the country"* [76]. In turn, multinational companies would be attractive *to "stable and open economy, efficient government, tax incentives, and docile labor supply"* [76]. Similarly, many interviewees indicated various strength of Singapore. These are efficient IT infrastructure, convenient geographical time zone and location, and beneficial taxation scheme for multinational companies.

The integrated CCCM-GSISM clearly describes that *"human resource"* is a key factor of the competitive advantage of Singapore rather than other factors. Staff in Singapore office were trained, educated and developed to adapt the implementation of *"global business model"* as well as the changes of management style to *"matrix and global organizational structure"*. They have capacities and knowledge to meet the requirements from New York and London. Their ability to speak multiple languages including English and mandarin Chinese are strengths to establish smooth communication between New York, London and Hong Kong.

CONCLUSION

Singapore is still facing various types of threat *"in the face of competition from China, a weak U.S. economy, and the country's continued shortage of natural and human capital resources"* [76]. By analyzing the emerged CCCM-GSISMs, the research has successfully identified the mechanisms of offshore business process/IS outsourcing. The key factor of the competitive advantage of Singapore as a destination of offshore outsourcing was *"human resources"*. Based on this analysis in the Swiss/American investment bank (SAFG) as well as another analysis in the Japanese traditional *Zaibatsu* investment bank (JPFG), the cross-cultural comparison of the outsourcing between Western rooted and Easter rooted investment banks can be analyzed in further researches.

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BIOGRAPHY

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ACTIVATORS AND INHIBITORS OF SUCCESSFUL GLOBAL IS IN THE STRATEGIC MANAGEMENT CYCLE OF MULTINATIONAL INVESTMENT BANKS

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Abstract

Strategic management of global information systems (IS) is increasingly important for the multinational investment banking industry that had originally utilized information networks crossing national borders for profit making purposes. Significant changes have occurred to the scope of strategic management of IS in modern organizations following major restructuring of the global business environment. This research has sought to find whether new organisational forms, management strategies and competitive, collaborative and co-operative ideas in relation to global IS that have emerged in the cycle of strategic management of the multinational investment banks have enabled Global Information Systems. It was further investigated what changes in business model, organisational management structure and human resources in relation to strategic management of IS activate or inhibit successful global IS in those organizations. It is difficult for multinational corporations to successfully activate global IS because of disparate technological infrastructure, multiple vendors, conflicting standards and regulatory structure in different national jurisdictions. In addition, sensitivity to non-financial and non-economic factors such as differences of languages, religions, gender roles, customs and traditions is required. In order to establish cross-border IS, it is necessary to minimize obstacles by adjustment of organizational factors sometimes at the structural level. What changes activated or inhibited successful global IS in the multinational investment banks? This paper presents findings from nine different cases of organizational change from six financial Groups, and examines activators and inhibitors of successful global IS from the aspects of business model, organisational management structure and human resources.

Keywords: Globalisation, Strategic IS Management, Multinational Investment Banks, Case Study

1   INTRODUCTION

Strategic management of information systems (IS) is a critical management challenge (Santos and Fjermestad, 2002). The rapid change of technology increases the complexity faced by IS management as well as the pressure on senior management who are responsible to achieve the continuous growth of companies (Benamati, 1999; Shipps and Zahedi, 1999; Huxley et al, 2002). Organisational survival is increasingly dependent on strategic IS, and strategic IS decides the continuity of the organisation (Audy and Lederer, 2000). This research examines investment banks that originally emerged by establishing information networks to transfer capital beyond national borders. The investment banks took the multi-national path around the 1980's leveraging advances of IT and the trend towards globalization. Those banks continue to take up the challenges to implement globally networked IS. This paper presents findings from nine different cases in six such organizations. It argues that global IS in the multinational investment banking industry are not only dependent upon changes of technology, but also upon change of business strategy, organizational form, organisational management structure and human resources of the companies. Following a brief introduction, research questions referring to previous work are firstly clarified. This is followed by brief outlines of the cases from the selected organizations. Thirdly, it elaborates key findings from the case studies and presents conclusions.

2   RESEARCH QUESTIONS

In the early days of emerging IT/IS, often a system department was responsible for the design and development of computer systems, and other departments were responsible for the operational process of the business (Vandenbosch and Avital, 2000). Many researchers (Earl, 1995; Earl and Feeny, 1995; Chan, 1999; Presley and Meade, 1999; Willcocks and Sykes, 2000; Lederer and Johnson, 2003; Axelsson and Goldkuhl, 2005) emphasise the importance of integration between business strategy and IS strategy to strategic management so that IS can respond effectively to the requirements of other business units. IS strategy making involving various organizational actors is important (Axelsson and Goldkuhl, 2005). In addition, the existence of a global competitive business model is promulgated as one of the most important factors for IT/IS solutions (Willcocks and Sykes, 2000). However, IS strategy making led by business strategy is rare and difficult to achieve (Earl and Feeny, 1995). IS strategy often focuses on small-scale solutions, meeting short term business objectives (Axelsson and Goldkuhl, 2005), because IS specialists have difficulty changing their view from micro-orientation to macro-orientation, do not possess enough experience in business functions, and often lack an interest in business knowledge (Couger, 1995). Therefore, richness in communication and mutual understanding within the top management team are important to activate successful strategic IS (Lederer and Johnson, 2003). Especially, the role of the CIO in the top management team is increasingly becoming important (Earl, 1995; Huff and Enns, 1999; Willcocks and Sykes, 2000; Reich and Nelson, 2003; Hirschheim, Porra and Parks, 2003; Stephens, 2003), and support by the top management team of the IS department is a critical success factor for strategic IS (Lunce, 1999; Kearns, 2000). In addition, some IS have different impacts on organisational structure at different times (Sampler, 1995). Organisational structure should be changed to enable expected benefits from strategic IS (Boddy, 1995). In order to establish cross-border IS, it is necessary to minimize negative obstacles by adjustment of organizational decision making structures (Raisinghani, 1999). Significant changes occur to the scope of strategic IS management in modern organizations in relation to massive restructuring in the global business environment (Marshall and McKay, 1999). New organisational forms, new management strategies and new competitive, collaborative and corporative ideas are emerged in response to the rapid changes of IT/IS (Marshall and McKay, 1999; Shipps and Zahedi, 1999; Murphy and Platt, 2002). Therefore, it is important for researchers as well as practitioners to take a wide view of various aspects to examine the *"cycle of strategy formulation, implementation, evaluation, and re-formulation" (Axelsson and Goldkuhl, 2005)* in strategic management of global IS.

This research therefore posed the following question.

Question 1; "What new organisational forms, management strategies and competitive, collaborative and co-operative ideas in relation to global IS emerge in the cycle of strategic management in the multinational investment banks?"

Strategic IS has a significant impact not only on the short but also on the long-term profit of companies (Remington et al, 1999). Although IT/IS strategies have become more and more important to the success of companies (Lunce, 1999), many companies fail to fully realize the benefits of IT/IS investment because of mismatches between business and IS strategies (Presley and Meade, 1999). It is difficult for multinational corporations to successfully activate global IS because of differing technological infrastructure, multiple vendors, conflicting standards and regulatory structure between different national entities (Earl and Feeny, 1995). In addition, it is necessary to tackle non-financial and non-economic factors such as differences of languages, religion, gender roles, customs and traditions (Johnson et al, 1998). Hence a second question is formulated.

Question 2; "What changes in business model, organisational management structure and human resources in relation to strategic management of IS activate or inhibit successful global IS in the multinational investment banks?

3   DATA COLLECTION

In order to answer the questions clarified in the section 2, the research selected the Grounded Theory analysis approach (Glaser and Strauss, 1967; Strauss and Corbin, 1998), which enables a) visualisation of the mechanisms in the strategic management cycles in relation to global IS to detect new factors and b) integration of the visualised mechanisms to detect activators and inhibitors of successful global IS in the selected cases. Following theoretical sampling (Glaser and Strauss, 1967; Strauss and Corbin, 1998), data collection was conducted in three phases which were a) open, b) relational and variational, and c) discriminate sampling (Strauss and Corbin, 1998). For open sampling, the internal documents available were IS project related, and the companies' official information was collected from Internet sources. In the relational and variational sampling, unstructured interviews were conducted. Various levels and types of manager as well as other employees participated in the process. Although the open, relational and variational sampling focused on three entities in two corporate groups, the discriminate sampling expanded to five other cases by investigating official information from similar companies, reviewing manuscripts of unstructured interviews, and conducting semi-structured interviews with respondents. This discriminate phase focused on organisational forms, management strategies and competitive, collaborative and co-operative notions. The whole process is summarized in table 3.1. The data collection statistics are shown in tables 3.2, 3.3 and 3.4.

Sampling Phases		Open	Relational and Variational	Discriminate
Selected Cases				
	Company Codes	SAFG and JPFG	SAFG and JPFG	SAFG, USFG1, USFG2, USFG3, GBFG1, GBFG2 and JPFG
Collected Data				
	Internal Data	IS Projects		
	Official Data	Companies' Information (I)		Companies' Information (II)
	Interviews		Unstructured (I)	Unstructured (II)
				Semi-Structured

Table 3.1: Selected Cases and Collected Data in the Theoretical Sampling Process

Group Code	SAFG			JPFG	
IS Projects					
	Site Location	Tokyo	Singapore	London	
	Data Source	Business Process Re-engineering	Business Process Technical Architecture	Systems Infrastructure Project	
	Year of Data	2001	2000	2004	
	Size of Data	191 words	65 words	135 words	
Companies' Official Information (I) – Year 2004					
	Data Source	Company Policy		Corporate Philosophy	
	Size of Data	929 words		322 words	
	Data Source	Employee development		Employee training	
	Size of Data	84 words		257 words	
	Data Source	Structure and management		Organisation Chart	
	Size of Data	198 words		116 words	

Table 3.2: Data Collection Statistics - Open Sampling

Unstructured Interviews (I)				
Group Code	SAFG			JPFG
	Site Location	Tokyo	Singapore	London
	Year of Data	2004	2004	2004
	Number of Interviewees	6	3	6
	Number of Interviews	9	3	9
	Total Length of Interviews	5 hours 40 minutes	3 hours	3 hours 35 minutes
	Size of data in Manuscripts	4480 words	2301 words	1587 words

Table 3.3: Data Collection Statistics - Relational and Variational Sampling

Group Code	USFG 1	USFG 2	USFG 3	GBFG 1	GBFG 2
Companies' Official Information (II) - Year 2005					
	Size of data in Manuscripts	218 words	228 words	243 words	232 words	241 words
Unstructured Interview (II) / Semi-Structured Interviews					
	Year of Data	2004	2005	2004	2004	2005
	Method	Telephone	Face to Face	Telephone	Telephone	Face to Face
	Number of Interviewees	1	1	1	2	1
	Number of Interviews	3	2	1	2	2
	Total Length of Interviews	2hours 35min	1hour 8min.	1hour	40min	49min
	Size of data in Manuscripts	217 words	171 words	360 words	276 words	139 words

Table 3.4: Data Collection Statistics - Discriminate Sampling

4   CONTEXT OF SELECTED CASES

This section describes the context of the selected cases in which data was collected. Paragraphs 4.1 and 4.7 describe the context from which the theories were first induced. Paragraphs 4.2 – 4.6 describe the contexts used in the discriminate sampling phase.

4.1   SAFG: The Swiss American Finance Group

The Group was originally established in 1856. A Swiss Bank stimulated business growth by building an international network in order to expand market share and increase profits in the 1970s. In 1978, the Group announced a business partnership with a U.S. investment bank, which became a market leader on Wall Street by the mid-1980s. The U.S. investment bank faced difficulties between 1986 and 1988 with various types of financial losses. In 1989, the Swiss Bank underwent restructuring simplifying the complex global organization structure. In 1996, the shareholding company underwent another reorganization that structured the organization into four global business units including a global investment bank. Currently, the official co-headquarters of the Swiss American Group are located in Zurich and New York. Two traders joined the New York and London offices of the Group to implement new global business models in 1992. They needed global IS to activate the global businesses in the Asia-Pacific region. Trading volume of the new businesses increased in 1993. In 1994, the Group accelerated its change in management structure from local to regional organisation and some senior managers as well as IT staff moved to Singapore to establish a new information processing centre. A new system development project was launched in 1995 and in 1997 restructuring of the Group strengthened the global reporting line. The new in-house system for the Asia-Pacific region was successfully implemented in 1998. Through this system the Group accumulated a great deal of knowledge and experience and subsequent major projects went particularly smoothly. The project manager who had led similar activities in a large US based financial group (USFG3 - see 4.4) joined the Swiss American Group to drive a global IS/BPR project in 1998. This project originally focussed on all global business processes with a remit to relate them to IT. However, the enormity of the scope was recognised and no delivery occurred, though the Group had spent over USD 200 million. Interviewees who were involved in the project indicated a number of critical failure factors. The project was started from the London office and difficulty was experienced attempting to build consensus for the project between New York, London and Zurich. The programme office attempted to gather all requirements from all departments, but finally they found that it was almost impossible to deal with everything that the users had come to expect. The programme office started to compromise by not dealing with everything. As a result, the project was stopped in 2003 by a new CEO who came from a significant American financial Group (USFG1 - see 4.2). Around 2001 when the global IS/BPR project seemed to have failed, two discussions in relation to centralisation of IT support emerged in the Swiss American Group. One support Group was proposed to be in the USA, and another in Singapore. Though many discussions between senior managers had been arranged, there was no outcome at this stage. In 2002, the Group reorganized with a new top management team. A new global Head of Operations, Product Control and IT, joined from the same significant American financial Group as the CEO had been recruited from. The new global Head provided strong sponsorship and leadership to enable the transfer of the support Group from New York and London to Singapore by November 2002. In addition, the Singapore office already existed and the Swiss American Group had fostered a sound relationship with the Singapore government smoothing their path.

4.2   USFG1: The Significant American Financial Group

Following the Depression, the Glass-Steagall Act of 1933 required financial service firms to segregate commercial banks from investment banks. Though being a traditional financial institution in the U.S. the bank decided to operate as a commercial bank. In 1935 several employees of the financial institution split off to form an investment bank (USFG1). They were the first investment bank to

create computer models for financial analysis in 1964. By 1971, they had established a mergers & acquisitions (M&A) department along with the sales and trading department. The shares of the entity were publicly listed in the stock exchange in 1986. In 1997 they announced a merger with a large American stock brokerage. They are considered to be one of the top two investment banks in the world. A respondent from the Significant American Financial Group emphasised the efficiency of their global IS. As a pioneer of advanced technology in the investment banking industry, they had implemented global in-house developed systems as well as a global networked electronic mail system from New York head office to other branches in order to activate a global business model in the mid-1980s. In 1986 the Group was one of the first foreign entities to obtain a Tokyo Stock Exchange members license. At that time, the Tokyo office of the Group had already utilized the global IS. When the Group commenced business in any location worldwide, the same approach was applied. It enables any Group employee to login to the same system environment through the same procedure from any location within Group facilities. The Group's globally standardised computer system is still being continuously enhanced.

4.3   USFG2: A major US Financial Group

A major US Financial Group **(**USFG2**)** was established in 1859 in Boston. In 1903, it was merged with another bank which had originally been established in Massachusetts in 1784. It operated a full range of financial, banking, and trust services for individual and commercial customers. Their Headquarters are located in Boston. The Group became one of the ten biggest financial Groups in U.S. financial market through a merger with another financial institution in 1999. After the merger, they operated about 1,500 branches in North America as well as over 250 offices in more than 25 other countries. In 2004 they merged with a large rival financial Group whose identity they assumed. In the mid-1970s, they separated their business into two areas as a) Domestic business in U.S.A, Latin America and South America, and b) International business in Europe, Middle East, Asia Pacific and Oceania. The IT department for the international business was located in the London office. The head office in Boston acted as a strong project sponsor to develop new global IS for international business in 1977. The project focused on a) replacement of all financial transactions applications, and b) standardisation of global communication networks. The design and development work of the project was started from 1977 and implementation started from the London head office then moved to Paris, Frankfurt, Luxemburg, Singapore, Hong Kong, Tokyo and Melbourne. The project was completed in Melbourne in 1981. After the implementation, the system was adopted by Boston head office for implementation in Latin America and South America by relocating a couple of IT specialists from London to Boston to establish a department and undertake knowledge transfer.

4.4   USFG3: The large US based financial Group

The large US based financial Group **(**USFG3**)** was established in 1910 in Wall Street. The Group had large bond positions on certain swings on a daily basis. However, they were punished for illegal trading pricing in the bond market in 1991. The fines weakened the financial situation and led to acquisition by another financial Group. Most of the proprietary trading business was disbanded after the acquisition. It was the first U.S. financial institution to combine banking with insurance since the Depression. In the late 1980s, the New York head office had an international operations department which dealt with all back office activities for all entities worldwide. However, this was very inefficient. In the early 1990's, USFG3 started to move the operations functionality from New York to Florida to reduce operational costs. Almost at the same time, the head of the IT Department commenced discussions with a consulting firm to find the best solution to develop efficient global IT and operations. The result of the consultation was a migration from *"Centralisation in New York"* to *"Decentralisation worldwide"*. In order to conduct the decentralization project, the IT department and the Operations department in the New York office contacted the Front Offices who would be the project sponsors. Firstly, the project was discussed between New York and London. However, the

New York financial market was facing recession at that time after the *"Black Monday"* shock, and transactions of the US treasury that had badly impacted on the profit of the Group. On the other hand, since the Japanese market was performing very well, the New York IT and Operations department contacted the Tokyo office to request them to join the project as a project sponsor. With the approval of the Tokyo office, the project got under way. Following implementation in Tokyo, a small team was organised in the New York office and the management gave strong support to the team to speed up the implementation. Within two years, the decentralisation project had been completed in the New York, London and Tokyo offices.

4.5   GBFG1: The London Bank

The London Bank (GBFG1) was founded as a venture capital lending bank in the heart of the financial district of London more than 300 years ago. The bank expanded its branch network by merger and acquisitions of other banks in the early 20th century, and was one of the British big five banks in 1918. They began to develop global business around 1925 with the merger of large banks in South Africa, Egypt and India. In 1969, they acquired one of the largest UK banks with a head office that was located outside London. They were the first British bank to publicly list their shares on the New York and Tokyo Stock Exchanges in 1986. In the 1990s a Global consolidated computer system was necessary to quickly obtain profit and loss figure for the investment banking business, but the financial statements of their overseas offices were independently generated until 1996. They considered selling the investment business function to another financial group. However, they decided to challenge the financial investment business, and hired a star trader and team to revitalize the investment banking business and implement a global business model from the Swiss American Financial Group (see Case 4.1). The business process in the support sections worldwide was reviewed and the necessity of globally consolidating the computer system was recognized in 1997. In 1998, the head office in London decided that they would implement an ERP application in all entities worldwide. All offices received an implementation schedule based on market conditions from head office. The implementation activity for the global ERP system was conducted by a special team organised in London and they visited each entity to conduct user acceptance testing and implementation. First, the New York Office went live, followed by the Asia-Pacific region where implementation started from Hong Kong and Singapore followed by Tokyo. Progress of the implementation was shared with other entities. The Tokyo Office completed the implementation of the system in September, 1999.

4.6   GBFG2: An English Bank

The British leg of this bank was established in 1836 during the industrial revolution. It played an important role in Birmingham business and enlarged its business steadily until the 1880s. They opened branches/representatives and acquired international subsidiaries in the major financial markets worldwide from 1974. A Colonial Bank acquired about 15 percent of the shares of the English Bank in 1987 establishing a strong business relationship. The Colonial Bank acquired full ownership in 1992 and re-patriated it's headquarters to London in 1994. In 1999, as part of a global re-branding the English Bank was renamed along with the other entities of the British Colonial Bank to an identity that was hoped to be geographically neutral whilst echoing the arena of much of the Colonial Bank's growth. In the mid-1980s, the English Bank segregated their business into three areas: domestic retail in England, international wholesale banks in the U.K. and non-U.K. The IT department in the London head office took care of all IT activities in all three areas. A global standardisation for IS projects was started from 1984. However, the progress was slow until 1986. In order to accelerate the speed of the project, they hired new IT managers from a U.S. investment bank in 1987. The new IT managers conducted projects based on a common philosophy of smooth communication. In 1990, one project started from New York, went through Toronto, Paris, Helsinki, Oslo, Stockholm, Madrid, Singapore, Hong Kong, Tokyo, and finished in Sydney in 1992.

4.7 JPFG: A Japanese Bank

JPFG was originally established by one of the founders of traditional Zaibatsu Groups in 1880. Zaibatsu are the large confederations of Japanese companies that have become global household names though their activities extend well beyond household goods. The Group historically maintained cross shareholdings relationship within the more than twenty publicly listed companies including banking, insurance, manufacturing, trading, natural resources, real estate and transportation. The banking company played the role of the main bank for the Group companies. In 1996, the bank merged with another Japanese traditional foreign exchange bank which was established in 1880. This was the only bank licensed under the foreign exchange bank law regulated in 1954, and received special permission from the Japanese government for establishing overseas offices for foreign exchange and international finance. The investment banking business unit of the Group provides a broad range of investment banking services which are corporate advisory capital markets, derivatives, structured finance, and securities, and global services through investment banking subsidiaries in Hong Kong, Singapore, New York and London. However, no concept of global IS was detected in the data collected for the period between 1983 and 2004. Many interviewees emphasised the cultural difference between Japanese and Western banks, especially with respect to human resource management and organisational management structure. It was emphasised that the process of decision making becomes consensual and takes much longer than in Western banks. The Japanese bank does not clarify a global business strategy and IT activities are outsourced to *Keiretsu* companies, which are established through a cross shareholding scheme in the *Zaibatsu* Group. This mechanism is very beneficial for employees working in the lifetime and seniority system, especially for employees who achieve high positions in the bank. *"Amakudari"* allows the senior managements of the banks to obtain high position in the *Keiretsu* companies including IT services after retirement from the core banking business.

5 ANALYSIS

In order to enquire into Question 1, this section visualises the mechanisms in the strategic management cycles in relation to global IS to detect new factors in the selected cases indicated in section 4 (Matsumoto and Wilson, 2005b). In the open sampling phase, the research discovered four central categories which were a) business model, b) organisational management style, c) human resource management and d) IS management which impacted on global IS. By indicating cause, change and consequence of the four central categories, the research visualised the mechanisms in the strategic management cycles in relation to global IS (Matsumoto and Wilson, 2005a).

5.1 New Global Business Driven: Successful Global IS Management
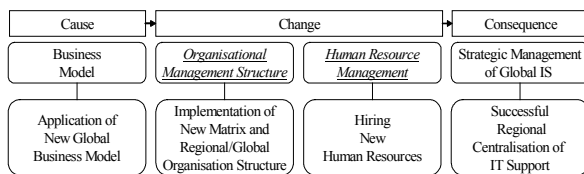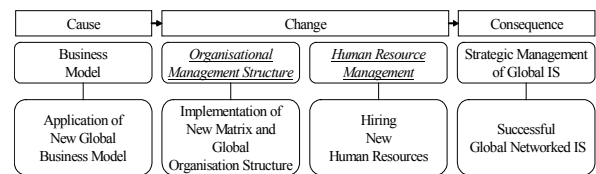

Figure 5.1a: SAFG: 1992-2001   *Figure 5.1b:USFG1:Mid1980s/GBFG1:1996-99*

"New Global Business Driven Approaches" were identified in SAFG, USFG1 and GBFG1. All three cases were identified as successful global IS. The approach possessed very strong power to change organisational management structures and human resources because the new business model is directly linked to profit making. In addition, the new business models clearly need globally networked IS. Therefore, it was mandatory to formulate and implement a global IS strategy. As a pioneer of advanced technology in the investment banking industry, USFG1 had already implemented a global business model as well as global IS in the mid-1980s. SAFG imported the global business model from USFG1. In order to activate global IS, SAFG gradually changed the organisational management

structure from local to regional, and then to global from 1992 until 2001. GBFG implemented global IS after the mid-1990s.

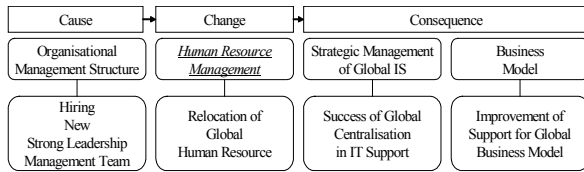## 5.2 New Organisational Management Structure Driven: Successful Global IS Management
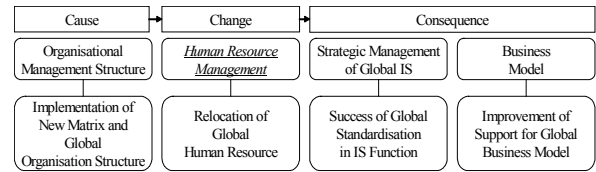

Figure 5.2a: SAFG: 2001-2004   *Figure 5.2b: GBFG2: 1987 -1992`*

"New Organisational Management Structure Driven Approaches" were identified in SAFG and GBFG2. Both cases were described as having successful global IS management. The approach did not aim at implementation of a global business model, but aimed at acceleration of an on-going global IS project or resolution of organisational problems. GBFG2 hired new IT managers from another U.S. investment bank to highly prioritise the global standardisation of the IS project. SAFG organised a new top management team possessing strong leadership by head hunting experienced managers from USFG1 to change the direction of strategic management of global IS. Both cases indicate that human resources were globally relocated to improve global IS after organisational management structure changes. This approach fits with the recommendation of Earl (1995) that emphasises implementing information management (IM) strategies to activate global IS, if the global IT/IS strategy cannot be formulated.

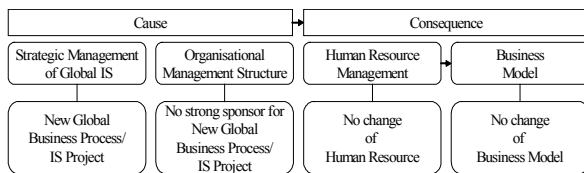## 5.3 New Global IS/BPR Project Driven: Success and Failure of Global IS Management

Figure 5.3a: SAFG: 1999-2002   *Figure 5.3b: USFG2:1977-82/USFG3:Early1990s*

"New Global IS/BPR Project Driven Approaches" were identified in SAFG, USFG2 and USFG3. The critical success factor of the approach is a project sponsor in the organisation. The same project manager experienced success and failure through similar approaches of global IS projects in different multinational investment banks. The case of USFG3 was identified as a success. The project aimed at the decentralisation from the New York head office. The project found strong project sponsorship not only in New York but also in other locations. The case of SAFG is thought to be failure. The project team could not find a strong project sponsor in SAFG. The project had a democratic style, because the authorities for decision making were distributed to various departments such as operations, accounting and product control as well as locations such as New York, Zurich and London. The case of USFG2 was success. The project teams found strong sponsorship in the head office in Boston.

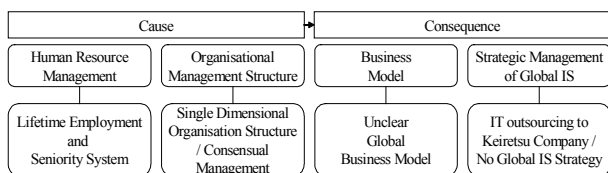## 5.4 Traditional Human Resource Management: No Global IS Management

Figure 5.4: JPFG: 1983-2004

The model indicates a paradoxical phenomenon in relation to strategic management of global IS in the Japanese traditional bank. Lifetime employment and seniority system initially aimed at the encouragement of loyalty for the company.

However, this leads to a consensual management style which inhibits the establishment of a clear global business model. Accompanied with the *Amakudari* culture, IT activities were outsourced to Keiretsu companies without any global IS strategy.

6   CONCLUSION

In order to answer the Question 2; *"What changes in business model, organisational management structure and human resources in relation to strategic management of IS activate or inhibit successful global IS in the multinational investment banks?",* the following matrix was defined to show the occurrences of emerged activators and inhibitors.

	SAFG	USFG1	USFG2	USFG3	GBFG1	GBFG2	JPFG
Global Business Model	S 1992-2001	S Mid1980s			S 1996-99		
Organisational Management Structure	S 2002-04					S 1987-1992	
Global IS/BPR Project	F 1999-2002		S 1977-1982	S Early1990s			
Traditional HR Management							N 1983-2004
Nationality	Swiss/U.S.	U.S.	U.S.	U.S.	U.K.	U.K.	Japan
Head Office(s)	New York and Zurich	New York	Boston	New York	London	London	Tokyo

Table 6.1: Success and Failure of Global IS ("S" *cases with successful global IS.* "F" *case which failed global IS.* "N" *case with no concept of global IS.)*

6.1   Activators

By analysing three cases in SAFG, USFG1 and GBFG1, *"New Global Business Models"* were identified as strong activators for successful global IS. But the opportunity to implement global IS driven by a global business model might be a single organisation events. In the cases of USFG1 and GBFG1, the speed of implementation of global IS was less than two years, but SAFG took about 8 years before completion of stable global IS. The difference of implementation speed may come from the centralisation of political decision making in USFG1 and GBFG1 and the political conflict between three locations in SAFG. By analysing the cases of GBFG2 and SAFG, *"New Organisational Management Structures"* were identified as activators that improved the efficiency of existing global business models. This approach identifies the notion that change came about from the prioritisation by the organisation resolving the problematic situation through changing strategic direction. GBFG2 took accelerated an on-going global IS project three years after commencement of the project. SAFG stopped the global IS/BPR project which had nearly failed and changed direction to global IT support. Both *"New Global IS/BPR Projects"* in USFG2 and USFG3, successfully achieved global standardisation or decentralisation following strong business sponsorship.

6.2   Inhibitors

In the case of SAFG, the global IS/BPR idea which came from USFG3 became an inhibitor for successful global IS without any strong business sponsorship. Success or failure of the global IS project might depend on organizational culture, especially political power in the organization. This case suggests that global IS/BPR which can become a *"medicine"* with strong sponsorship can also become a *"poison"* without strong sponsorship. In addition, centralisation or global co-ordination by

decentralised authority might be difficult. From the JPFG case, it is seen that the factors relating to global IS were very different from those in Western banks. JPFG keeps the traditional Japanese lifetime employment and seniority system which creates the consensual organisational management structure. Global business strategy was not clarified and IT activities were outsourced to *Keiretsu* IT companies. Many senior managers who joined *Keiretsu* companies might possess political power and interact robustly with the core business companies as *"Old Boy"* members.
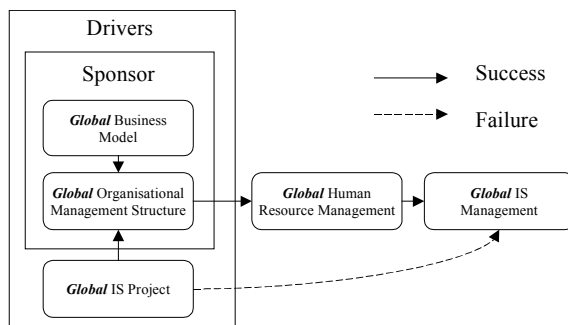
6.3   Integration
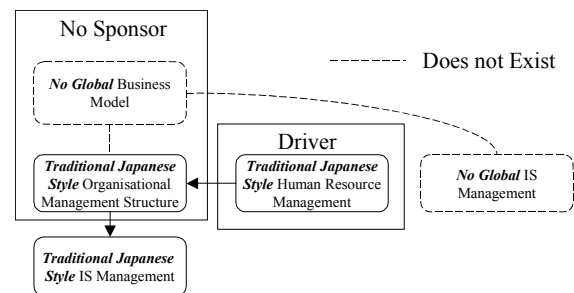

Figure 6.3a: Western Investment Banks   Figure 6.3b: Japanese Investment Bank

In order to clearly integrate findings of the answers to Question 2, the two models in Figure 6.3a and Figure 6.3b are devised. The Western investment banks have mechanisms to find IS project sponsorship. Global Business models, global organisational management structure and global IS projects can become strong drivers to activate global IS. The Global business model is the most powerful driver because it possesses a profit opportunity. Changing organisational management structure to a global style can also activate global IS. Cases of failure with these two drivers were not identified, but there was a case failed including a global IS project, because the global IS project failed to find sponsorship in the organisation. Moreover, the human resources are directly affected by the change of organization management structure in the Western cases. In contrast the Japanese investment bank has no mechanism to find IS project sponsorship. Lifetime employment and the seniority based system are the foundation of the organization management structure. In order to maintain this system, employees' feeling of mutual importance needs to be continuously maintained. As a result, traditional IS management in the Japanese case had difficulty formulating a global IS strategy. Since those structures are a facet of traditional Japanese organization it is believed these findings may generalize to the Japanese financial industry and other traditional Japanese enterprises and will not be easily changed.

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