A SERVICE MEDIATOR MODEL
BASED ON SERVICE DOMINANT LOGIC
FOR MANAGEMENT OF BUSINESS PROCESS

Doan, Minh Chau

Japan Advanced Institute of Science and Technology

a

Doctoral Dissertation

A SERVICE MEDIATOR MODEL
BASED ON SERVICE DOMINANT LOGIC
FOR MANAGEMENT OF BUSINESS PROCESS

Doan, Minh Chau

Supervisor: Professor Michitaka Kosaka, Ph.D

School of Knowledge Science

Japan Advanced Institute of Science and Technology

March 2015

Acknowledgement

Abstract

Keywords: service field; service mediator; service dominant logic; information service; business management, human resource management.

The recent upsurge in service management activities in firms has also attracted the investigative interests of research scholars. Issues in service activities have been researched and solved through the lens of service perception. Several approaches to service have been discussed to promote the effectiveness of businesses. The service dominant logic (SDL) proposed by Vargo and Lusch (2004) has notably revealed alternative direction in service management, where service values have been noted as being the most important factor in the service process, in which collaboration between firms and customers is crucial from the viewpoint of the value-in-use concept. On the other hand, the good dominant logic (GDL) concentrated on selling goods (value added) but not considering the real value products could even serve customers (value in exchange). It is a simple model in which suppliers is the providers (firms) selling the products and giving value to the recipients (customers). Consequently, the conventional mediator based on GDL also existed but it depends greatly on transferring the value added on products/services. This kind of mediator is not really a bridge to match supplies and demands between suppliers and users. It lacks of value co-creation to fulfill the real seeds and needs of organizations and customers.

This research introduces the service dominant logic applied in business process management with service mediator model. The concept of a service mediator has been proposed to IT service business and human resource management to fill the gaps in collaborations between providers and users. Providers and users here are considered equally in service exchange in business and they are both beneficiaries in the process. They could be firms, customers, employers, employees, etc. in the service process. The service mediator supports co-creation between service providers and users by matching services, sharing information, and promoting collaborations.

A service mediator matches providers' service seeds and customers' service needs to create service values between providers and customers (Doan and Kosaka, 2011). This research proposes a service mediator model, which based on value co-creation concept and service field concept. In this research, three players model has been emphasized because its role in some business processes is better than two players (organizations and customers) work with each other. The proposed model concentrated on value co-creation in SDL to strengthen the relationship between organizations and its customers.

The effectiveness of the mediator in the IT service business and human resource management has been verified through successful business outcomes from case studies carried out during the research period. With the results finding, this research contributes to create new knowledge to business management. Regarding service experience, this model contributes to understand value co-creation and enhance the service value. Moreover, this research brings practical knowledge to organizations by encouraging them to strengthening firms' performance by creating good service field equipped with supporting functions. They should focus on IT infrastructure and develop IT system as a competitive tool management. Training T-shape people is also our suggestion to enhance the value co-creation.

List of Abbreviation

SSME: Service Science, Management, and Engineering

SDL: Service dominant logic

GDL: Good dominant logic

GDP: Gross domestic product

HRM: Human resource management

AMD: Administration management department

OHS: Organization health survey

MQPI: Management quality performance index

Table of Contents

List of Figures

List of Tables

Chapter 1 Introduction

1.1 Backgrounds

1.1.1 Service economy – A recent important economy trend

Nowadays, service represents the important and growing contribution to most economies in the world. The industry now dominates the economics with large percentages of GDP come from this sector. In developed countries, service sector forms the largest part of GDP (over 70%), above world average. In developing countries such as China or Vietnam, the service sector has increased every year (Figure 1.1). Globally, new jobs are mostly generated in the service sector. There are many forces which are transforming economies and making them more service-oriented such as government policies, social changes, business trends, advances in information technology and globalization (Lovelock, Wirtz, and Chew, 2008). Their impacts on the service economy range from the creation of new services, and increase competition to new measures to protect consumers.

The servitization for products impacts the economics activities change. Nowadays products are the distributions of the demanding services. It increases the importance of the service sector in the world economies. Top organizations in the world generate into service companies more than any time before. IBM, Apple, Amazon, etc. are pioneers in developing their company by concentrating on providing services. Even though they sell tangible products, there is no denying that they provide the best services for customers' needs.
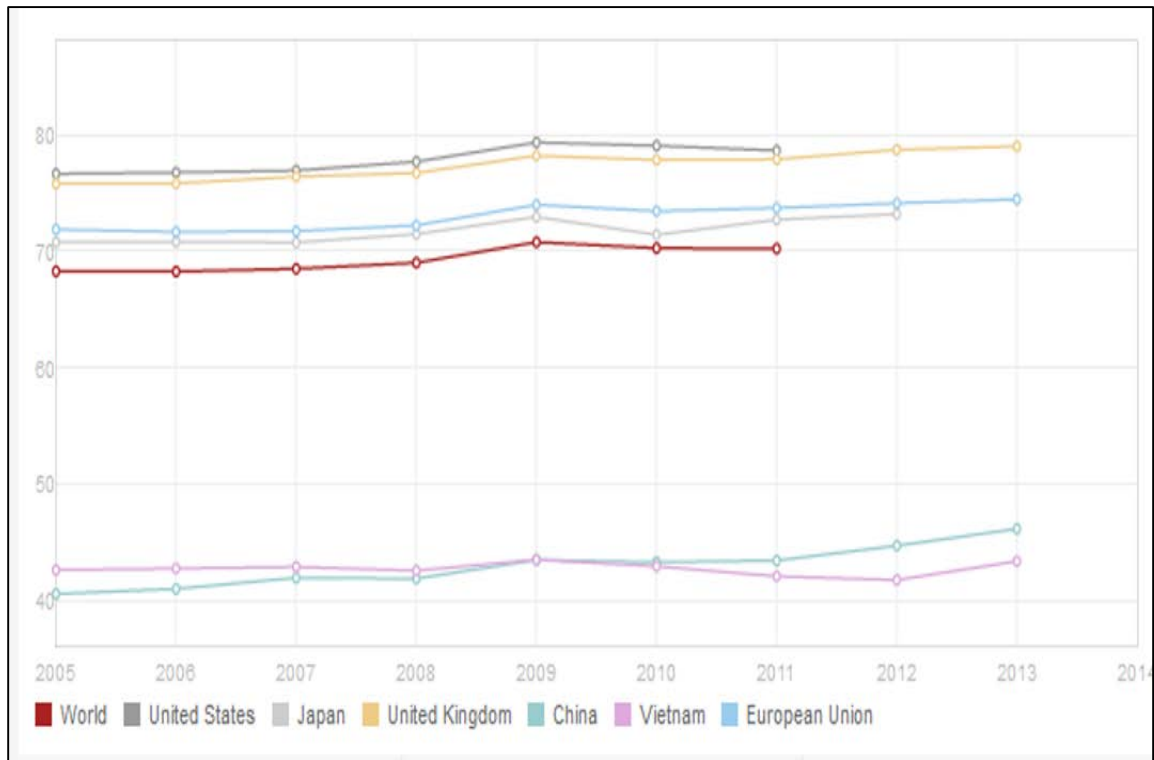
Figure 1.1 Percentage of service sector in the GDP

Source: The World Bank, access November 2014

Furthermore, world's labor force in each sector of each country has changed in the last 25 years. As showed in table 1.1, the economy of the world has shifted from agriculture and manufacturing into servitizing. It marked a new era in society as people recognized and affirmed the dominance of service and its influence. Significant development of service firms means improvement in service skills for job candidates. Hence, knowledge on servitization and its components is necessary and would become a competitive edge in the labor market.

Because of its crucial role, emerging research on the science of service is essential. The business industry is not the only one focusing on service, since academic researchers also want to work on service theory and its model. More than any time before, this topic is being concentrated and addressed by interdisciplinary focus in search of the answer to the complex nature of services.

Table 1.1 Percentages of world force labor in each economy sector

Source: Spohrer and Maglio, 2008

Nation	World Labor	Agriculture	Goods	Services	25-year increase in services
China	21 %	50 %	15 %	35 %	191 %
India	17 %	60 %	17 %	23 %	28 %
U.S.	4.8 %	3 %	27 %	70 %	21 %
Indonesia	3.9 %	45 %	16 %	39 %	35 %
Brazil	3.0 %	23 %	24 %	53 %	20 %
Russia	2.5 %	12 %	23 %	65 %	38 %
Japan	2.4 %	5 %	25 %	70 %	40 %
Nigeria	2.2 %	70 %	10 %	20 %	30 %
Bangladesh	2.2 %	63 %	11 %	26 %	30 %
Germany	1.4 %	3 %	33 %	64 %	44 %

In the past, companies usually thought of manufacturing and selling goods to consumers. Now, many companies catch the service trend by shifting their business from goods to services, especially information companies such as IBM, Hitachi, Fujitsu, etc. They have developed the service business by using Information Communications Technology (ICT) to provide high quality services that can satisfy their customers. Those important and fast changing businesses call for a new business model to help improving the productivity and gaining success.

1.1.2 The service perspective in management of business process

A business process is a combination of activities which assists the delivery of a service or a product to customers. It has also been defined as a set of tasks which when they are completed, they will archive the organizational goals. The process contains many operations

within the organization and needs a clear vision to make them work smoothly and support the business process' management. With the dominance of services in the economy, perspectives of doing a business have changed.

Before the boom of services' era, firms provide customers with value-added on the products. Customers could only have the value set by providers. Actually they did not even have the chance to decide the value they wanted. In that sense, there was a big gap to fill customers' satisfaction. Recently, service scientists have recognized the term "service dominant logic" (SDL). SDL is driven by the definition of service as "the application of competences for the benefit of another entity" (Vargo and Lusch, 2004a). It focuses on customer-centric and customer responsiveness.

This logic enhances the strength of the firm to meet customers' needs and to achieve both organizational and societal objectives. The alternative mindset shifts business' center of interest from goods manufacturing to service provision. Nowadays, companies might not offer to customer the value-added, but instead the value-in-use to please them. The value should be co-created by both the customers and the firms.

The alternative logic reorganizes the way firms do business and manage their organizational operations. This research argues the new model based on the service mindset to help firms work better and more successful.

1.1.3 Issues in management of business process

The business process needs a completed management for organization performance such as business model, business strategy, human resources management, accounting or etc. Those factors will contribute to the quality of services or products of the organizations. Among that, the issues of business model (for example in IT service business) or general human resource management are the core activities, which could affect to business management. Below are the issues that should be concerned.

(1) Issues in IT service management

IT service is a fast growing business nowadays. It is an important service that supports many other businesses in system and database management, procurement, finance or

marketing, etc. Being a hot-trend service, besides potential chances for developing and success, there are many issues in this business. The IT service company works with both business partners and users to help deliver suitable services with adequate requirements. In those exchanges, co-creation process is significant in order to build optimized value. IT service is intangible and it is hard to weight or measure it. Satisfaction is based on the experience obtained by actually using the service.

There are a lot of gaps between providers and users. Users usually lack the technically specific information and knowledge. They need a friendly environment to interact with providers and share their values. In fact, customers want to be involved in the service's creation process because only when they agree with the service propositions, would they have the highest satisfaction. The problem occurs because it is not that easy to encourage people to take part in the value creation process. Not all providers are professional in supporting their users. Shortage in human resource, low ability or bad communications leads to failure when seeking co-creation from users. Therefore, the service mediator must be existed.

The service mediator provides supporting functions that can assist providers and users to collaborate with each other. The service mediator must be equipped with effective tools so that excellent services would be delivered and business exchanges are supported. Because it is the bridge towards solving the problems and matching the seeds and needs between suppliers and users, it requires setting up functions that are essential to respond to customers' expectations and demands.

(2) Issues in human resource management (HRM)

People are always the significant resource in business success. HRM is recognized as a part of an organization, which involves hiring and controlling the labor force of the business. HRM plays a more important role in organization activities than just paperwork in managing people. Previous research had found that HRM is one considerable factor that can help an organization become more effective and gain a competitive advantage (Becker and Gergart, 1996; Delery and Doty, 1996; Becker and Huselid, 1998; Rogg et al., 2001, Liu et. al., 2007). Research attention has recently turned to the effects that HRM system has had on employees' attitudes and behaviors (Allen et al., 2003; Kuvaas, 2008; Wright et al, 2003; Zacharatos et al., 2005). Results of those researches have demonstrated that HRM is both effective and

related to the performance of organizations and employees.

How HRM deals with both obstacles and conflict between employers and employees is a question that has inspired research scholars devoted to this field. Issues associated with human resources such as staffs' turnovers, recruitments, promotions, motivation, rewards and benefits, education and trainings have been widely identified as critical concerns in the operation of an organization. The expectations of both employers and employees regarding these matters to fulfill each other's needs have been unraveled. Conflicts of interest have become the focus of attention in this relationship. Furthermore, low adaptation to technology could even limit the ability of HRM to support the business' processes. Also, lack of communication could even lead to misunderstandings between firms and staffs. As a result, these issues would individually affect the performance of both organizations and employees. Relationship between organizations and employees is very complicated and thus always requires a system to not only balance on either sides but also inspire collaboration. Moreover, unsolved issues in HRM entail a completed system to solve and simplify cooperative processes within the organization. Figure 1.2 outlines the current issues in HRM.
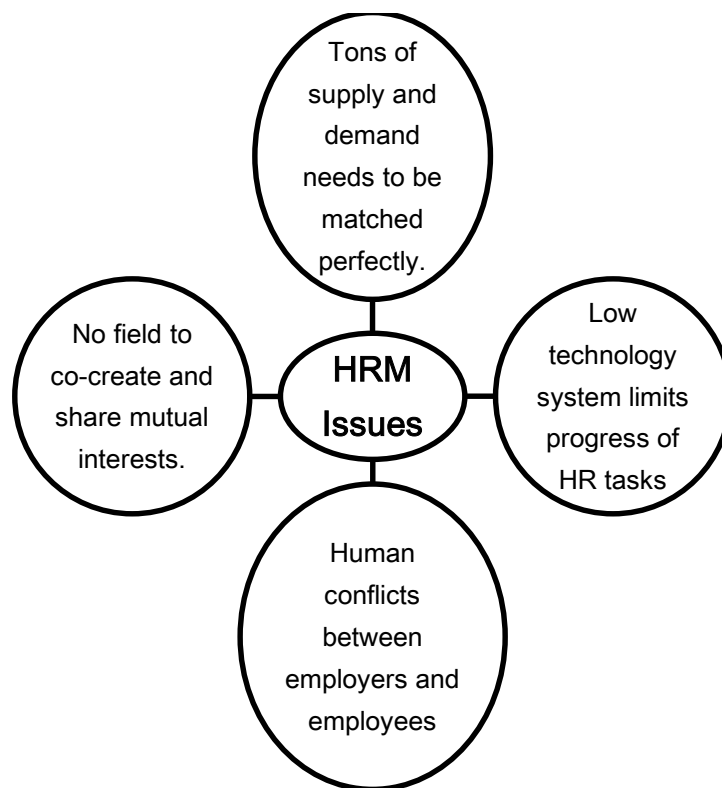
Figure 1.2 Issues in HRM

1.2 Research originality and novelty

Recently, the service science is a new academic field so there should be more focus on researching it. There are a great number of previous researches relating to service science, which concentrated on identifying and defining the concepts, characteristics, and applications, etc. of service science in an effort to understand the new circumstances of business. Service perspectives have been argued as significant propositions for managing business process.

Researchers are simultaneously concentrating on raising new perspectives, which drive the service industry in a more correct way. New business models and strategies generated by those new logics provide a foundation for the company's theory. The service perspectives are changing the viewpoint of value creation, which in turn leads to the transformation of business model. For example, Gadrey et al. (2002) considered that the providers and clients work together to create value. The clients have the power to ask for values from the providers, thus they become co-producers in the value creation process. The service dominant logic (Lusch and Vargo), which has been cited in many kinds of academic research such as marketing theory, organizational dynamics, retail, and etc., affirms the significant and evolutionary prospect of the service mindset. Co-creation concept has also been discussed as a fundamental factor in business exchange. Firms and academia together argued over the significance of the service logic and how to apply it to the real world.

Though there are many researches about how service logic supports the economic system, marketing or health care services, there is not yet any detailed research analyzing the work and role of mediators in business process management from the service perspective. The service mindset has been applied to the eco business system with two players: providers and receivers. In the scope of this research, a new service model for mediator has been proposed to business model of three players. The new model should explain the roles of service mediator for mediating providers and receivers in business exchange, and how the service mediator supports value co-creation between two sides. In the context of service science, understanding the work of service mediator from the service perspective helps firms reorganize their organizational structure and utilize human resources for managing the business process.

In fact, the mediator model has been researched and existed in the real business hence it is not a new model in the business industry. However, the existed model has a lot of gaps and

still based on good-oriented perspectives. Therefore it has paid little attention to value co-creation and lacked neither satisfaction from providers nor receivers. This research develops a novel model of mediating process, which involves the collaboration between providers and receivers in order to obtain mutual agreement and extract the highest value through co-creation process. The final results will satisfy all parties in the exchange and fulfill their requirements. Service dominant logic (Vargo and Lusch, 2004a) and the service field concept (Kosaka et. all, 2011) are the key concepts for this new model.

1.3 Objectives and research questions

Having reviewed the existing scholar works / literatures that are relevant to this research, new service mediator model proposal is the direction and outcome needed. The purposes of this research are to explore and develop a service model for organizations which could mediate the service exchange providers and receivers to support the business process. The case studies have been done to justify the possibility of the proposed model and verify the hypotheses.

With this research, the main outcome is to develop a service based mediator model, and emphasize the role of the service mediator model in helping both providers and receivers. Through findings on the service mediator roles and functions, suggestions and implications for firms to improve the performance of organizations have also been made.

The research is guided by the major research question (MRQ)

MRQ: How have a service mediator model supported for management of business process?

and three subsidiary research questions:

SRQ1: **How have the service mediator enhanced collaborations between providers and receivers and get satisfactions in the business process?**

SRQ2: What are roles of the service mediator to support both providers and receivers in the business process?

SRQ3: What are the useful functions that promote value co-creation between providers and receivers in the business process?

1.4 Research methodology

1.4.1 Hypotheses proposed methodology

Empirical works and literatures of preceded scholars and scientists have been reviewed to gain an understanding of what have been researched in this field. Having found the gaps and issues of the current situations, the hypotheses are made on the basis of alternative concepts to develop a new model which can solve the existed issues and problems.

1.4.2 Case study methodology

To verify this research's hypotheses, a qualitative approach was used. To understand about the service phenomena and its applications on management of business process, several ways have been done such as preliminary surveys, questionnaire and interviews. When the questions "How" and "Why" have been asked, the case study is a suitable research method since the investigator has little control over actual events and the research focuses on a contemporary phenomenon (Yin, 2009). Therefore, the case study has been chosen as the main method for this research to explain the service mediator's behaviors and how the service mediator interacts with and responses to providers and receivers' needs.

To converse about the management in business process, two types of business process have been chosen: one is the IT service business and another is the human resource management process. The case studies have been chosen based on the performance success of the companies who have their frameworks related to the hypotheses. First, the case studies in IT service have been conducted to verify the hypotheses and explore the real procedure in the service mediator model. After analyzing the data from two organizations, key factors of each mediator model in each company would be discovered and verified with hypotheses. Then the hypotheses and real procedures are justified and verified again in HRM. Prosperous operations of the organizations have proven the effectiveness of the hypotheses. Thanks to great support from key person of each company in the case studies, invaluable information

and knowledge that support this research have been obtained.

Figure 1.3 demonstrates the strategy of the case study methodology
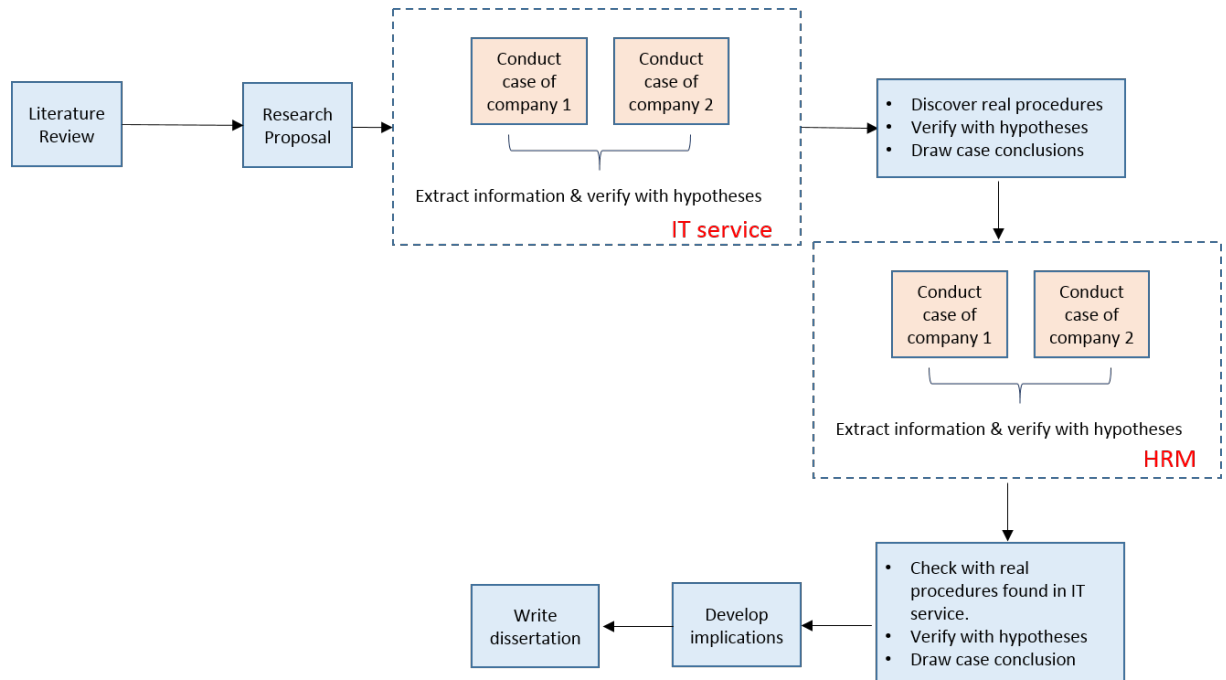
Figure 1.3 Case study strategy in this research

1.4.3 Data collection techniques

Four types of data collection techniques have been used in this study including: questionnaire, interview, website observation and document record. First to mention is questionnaire, which has been distributed in primary survey of the case studies. Based on the questionnaires, results are easy to be analyzed due to clear and closed responses. The questionnaire gave the preliminary results before interviewing people in the organizations.

The second and also the main technique is the interview, which is aimed to gather in-depth and wide variety of information for the case studies. Interviews were conducted with key persons in the companies of the case studies. In this research, they are top managers from Hitachi TWX-21, municipal hospital in Ishikawa, and Suntory PepsiCo Vietnam Beverage. Another interview was conducted with Mr Miwa, a person who investigated about Cookpad's operation. His findings gave us a general view of Cookpad's business framework. Semi-

structured interviews were used with clear and opened questions to encourage free responses and opened answers. The interviewees not only answered the questions but also gave deep inside knowledge of their companies for more gainful information.

Website observation and document records have also been used to procure more information for the case studies. The observations of website allowed us to study the dynamics of the situations or aspects of the targeted cases. It has given additional information about those cases and provided good data for analysis. Next, the records of organizational documents consist of existing data such as reports or results of company's projects. That information contributed greatly to the data collection.

1.4.4 Data analysis strategy

After being collected from the case studies, the data were then analyzed to achieve usable and useful information. The data were summarized and described, and then the key factors of each case study's framework were identified, consequently comparing those frameworks' factors with the hypotheses. This analytical technique is called pattern-matching logic (Trochim, 1989; Yin, 2009). The logic compares an empirically based pattern with several alternative predictions. If those patterns match the hypotheses, hence the results will enhance the validity of the case studies.

In pattern matching procedure, the collected data are classified into roles and functions of the organizational mediator. This information is then compared with the roles and functions of the proposed service mediator model to justify and verify the possibility of the proposal. Finally, conclusions are made to answer the research questions and provide future implications.

1.5 Organization of the study

This research has been organized with six chapters. Chapter 1 presents the general introduction of the research.

Chapter 2 introduces the literature reviews with wide range of contents about the service knowledge and research. Service related researches from other literature such as business, HRM, law, philosophy, etc. also has been reviewed for general perception as well. There is a

need of carefulness in reviewing the literature of service science for the purpose of understanding and comprehending its concepts and many viewpoints of the service when choosing a right approach for this research project.

Chapter 3 raises the hypotheses extracted from the alternative foundations and concepts. Having studied previous researches and works from service scientists, hypotheses of service mediator model has been made in order to enhance the value co-creation and step up to achieve customers' satisfaction.

Chapter 4 and chapter 5 are dedicated to discussion about the case studies in two types of business process. Chapter 4 conducts the case studies in IT service business then finds the actual procedures of their researches and verified them with the hypotheses. Chapter 5 describes the case studies in human resource management. The analysis of these cases studies determined the reality frameworks in organizations and verified the hypotheses. The roles and functions of the service mediator are identified and future implications for both providers and users in service exchange are given.

Chapter 6 concludes the summary of findings to answer the research questions, provide both theoretical and practical implications. Moreover, the limitations of the research have also been discussed and directions for future research will be considered.

Chapter 2 Literature review

2.1 Introduction

This chapter reviews existing materials with importance provided by the relevance to research topic and arguments. Many scholars have researched on the field of service in regards to the fast changing service sector in the economy. In accordance with the development of service economy, the importance of the service viewpoint is noticed. Both academia and industry calls for activities and efforts to contribute in the service knowledge.

The purposes of this chapter are to present the established findings and to note any gaps of previous researches, thus making premises for the research. Firstly, what has already been written on the service science topic would be determined. Scientists have founded the principles, concepts for the services science. However, there was innovation from GDL to SDL. In addition, service perspective renovates the business structure of firms. Researchers have emphasized the role of value co-creation and affirmed its essential in the new stage of doing business.

Business model has changed in many business fields with the development of service science. Nonetheless, there was no completed model for those firms in order to response to higher requirements of customers. Reviewing the theme of this topic helps integrate the viewpoints of service and others concepts such as value co-creation, value-in-use so as to propose a service mediator model.

2.2 Service science

2.2.1 Principles of service science

Ever since the service sector became the largest past of most economies, service concepts have been focused on and considered as one of potential topics for social developments. Service science is about studying the service system, defining the framework and service-centered conceptual foundation.

In 2004, IBM has introduce the Service Science, Management, and Engineering

(SSME) to illustrate service science, *"an interdisciplinary approach to the study, design, and implementation of service systems"*. They are complex systems in which people make compromises and use technologies to bring value for others. More precisely, *"SSME has been defined as the application of science, management, and engineering disciplines to tasks that one organization beneficially performs for and with another"* (Spohrer, Maglio, Bailey, and Gruhl, 2007)

Several definitions of service have been proposed due to different views of scientists. From the view of service marketing, Lovelock and Wirtz (2007) stated that *"services are economic activities offered by one party to another"*, such that *"bring desired results"* to the customers. Another definition is *"a service is a time-perishable, intangible experience performed for a customer acting in the role of a co-producer."* (Fitzsimmons and Fitzsimmons, 2003). From the viewpoint of service dominant logic, *"Service [is] the application of specialized competences (knowledge and skills), through deeds, processes, and performances for the benefit of another entity or the entity itself."* (Lusch and Vargo, 2004a).

In all of the above, the core premise, which is the *"service is to support people or organizations to achieve objectives"*, is of most important in considering value creation in the management of business processes. This definition comes from Kameoka (2010) and Sadahiko Oda (Kosaka, 2012). Kameoka defined services as activities to support people or organizations to achieve their objectives. Also, Oda, who is the chairman of Kagaya and is a well-known service practitioner, describes service as an activity that (1) provides professional techniques, (2) satisfies the customer, and (3) results in compensation. According to his definition, most productive human activities are considered services, and services cover various types of business activities. These definitions are outlined in Figure 2.1
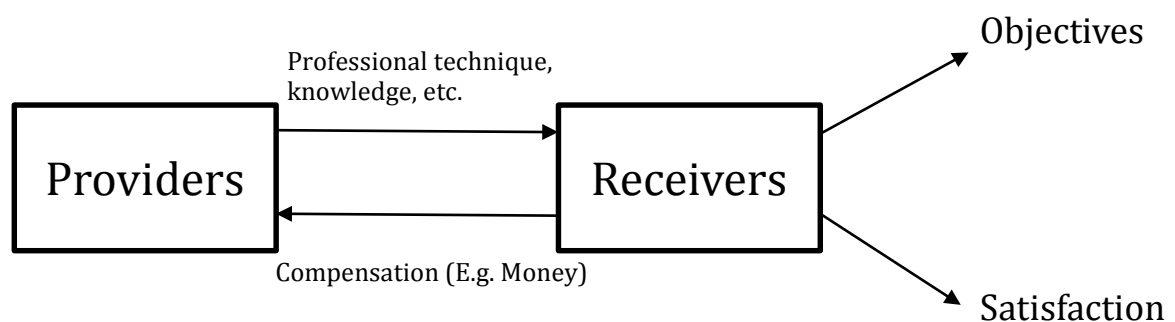
Figure 2.1 Definition of service

Source: Kosaka, 2012

A service is defined, combining Kameoka's and Oda's definitions, as an activity that supports human beings or organizations and enables them to achieve their objectives or desires. This definition can be applied in management of business process such as service business activities or management of human resource.

By clarifying the definition of service, service science is an interdisciplinary academic research which focuses on fundamental service, models, theories, and applications that lead to service innovation, competition, and well process through value co-creation. Many disciplines such as economics, culture, organization theory, marketing service oriented architecture, business strategies, etc. have accumulated knowledge related to understanding service systems, each of which focuses on different aspects of the whole system.

"Service science combines organization and human understanding with business and technological knowledge to categorize and explain many existing types of service systems or model as well as how service systems interact and get involved in co-creating value" (Maglio and Spohrer, 2008). Thus, there should be an intensive collaboration between academia and service firms to learn from each other and contribute to the service research. In the scope of this research, SDL is considered as a potential perspective, an assumption in formulating a theory for service science and a foundation for further service research.

Till now, various perspectives of service science have been explored from different fields. Because there are confronts with lack of data to that might be confusing to choose as a theoretical foundation to lean for. Among the theoretical service perspectives, service dominant logic stands out as the alternative, pioneering and developing service innovations. In recent years, the service dominant logic has been really focused on and dramatically argued over its applications. From the prominent aspects of the service dominant mindset, it has been used as a theoretical foundation to conduct this research and develop a service model to solve current issues of the business management.

2.2.2 Core research in service science

Nowadays, service research is an emerging topic contributing to the development of humankind. Through a comprehensive project, Arizona State University's Center for Services Leadership makes an effort to identify and integrate the research priorities on the science of service.

After conducting months of research, scientists have worked with over 300 business executives and academics from a variety of disciplines, functions and geographies, which has led to ten overarching priorities for the science of service. Figure 2.2 illustrates the ten future research priorities.
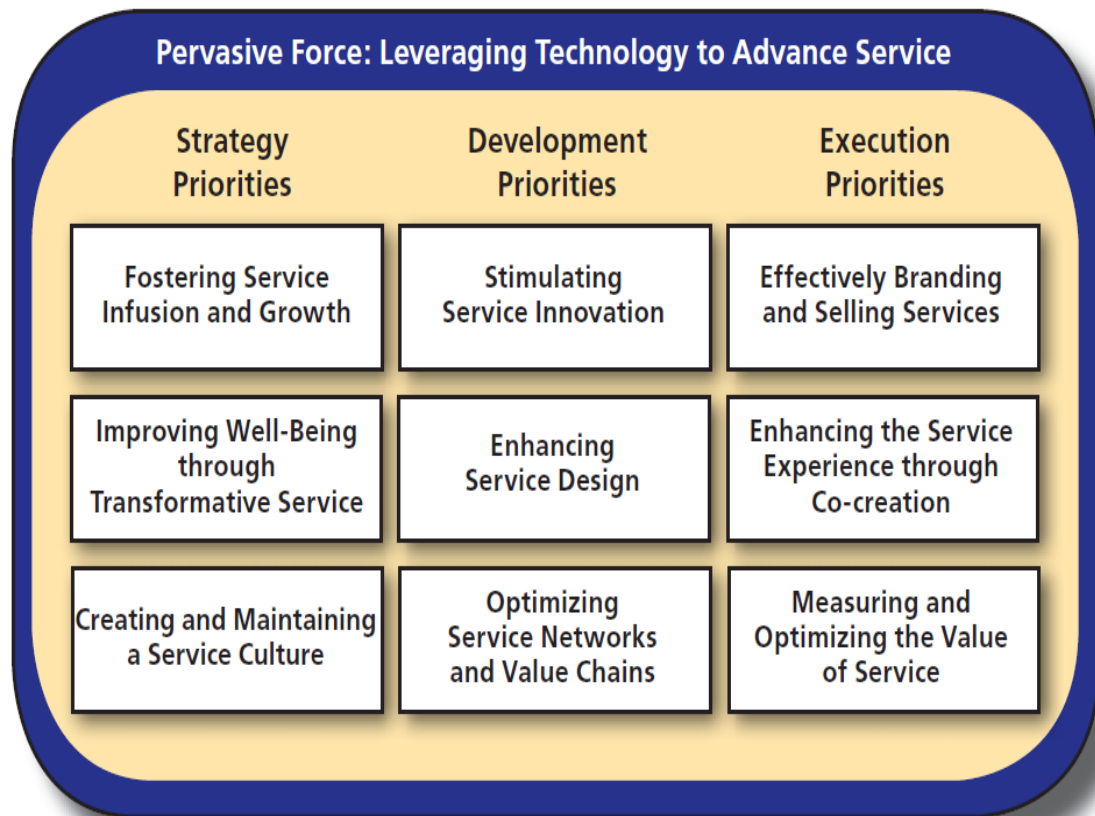
Figure 2.2 Service research priorities framework

Source: Ostrom et al., 2010

This figure shows the interests for future research, thus results in a global picture of development in service science. With the intention of providing the context of each priority, researchers should reinforce the research profile of services, intensify the R&D cooperation and create excellent service centers for enhancing the value of the priorities. This research focuses on execution priorities in researching the service model, which aims to enhance co-creation between providers and users to optimize the value of service.

2.2.3 Core collaboration

In order to embark effective research in the service science, every party in the society such as the academia, company, government and others should cooperate in the progress. Engelmann (2008) considered this collaboration as "practice meets theory". Academia carries out new theories frequently, and eventually expands them to the company as applications for the business. However, in some fast-changing areas, companies are more proactive in researching new topics and propose many inquiries for solving their issues. Nowadays, more and more company research centers are expanding their roles to concentrate on service as a roadmap for business innovations. IBM, Hitachi, etc. are the ones leading those trends. They have a close relationship with universities, research institutes to cooperate in developing the concepts of service science.

In another research, Edvardsson and Gustafsson (2008) emphasized the important relationship of academia and company in service science study. The collaborations among government, academia, and companies are encouraged to build up the innovation process. With different perspectives about service(s), these parties could fulfill the gaps in each other. Academies not only obtained research funding from companies and public organizations, but also could learn essential viewpoints from real-life case businesses. On the other hand, companies would benefit from the assistance they receive from academies in their business developing efforts. Moreover, organizations needs significant innovations for competitive advantage, but they lacks of time and human resources for research. Therefore, collaboration between company and academia is good for both sides and creates a win-win condition.

This research has been supported with collaborations from business organizations in finding an effective model concept. The successful framework of case studied companies has provided valuable information to the research project, as a consequence, the service mediator has been verified and back implications for attended organizations are provided. Therefore, useful suggestions for enhancing their operations' performance by supporting co-creation process would be at service.

2.2.4 Future challenges

We have witnessed the fast growing service sector of the economy, which transforms all

economies to be service economy (Lusch and Vargo, 2008). There were a huge amount of works and researches in finding the context of service. Yet, was that enough? A financial crisis in 2008 destroyed the world economy, pointing out that financial systems, market systems, social systems, etc. lack of sustainability, direction and human's consideration. Gummesson (2010) believed that "*people should be more open-minded, innovative and entrepreneurial in academic research and education as well as in business and government practice*". In his point of view, there should be innovation came from both service management and service science which helps solving issues in the service economy.

Another challenge of future research is how to deal with the complexity, context and change of the service(s) in the new era. The oriented philosophy – SDL in service science guides us to future research, but it seems people lack of a methodology of long term commitment to service issues.

One important additional challenge in further study is the expansion of generating value of service process. Value proposition for customers has always been an issue in the service business. A comprehensive value creation is to be expected in service provision. From the viewpoint of SDL, value creation reaches a new line in the way value is provided and delivered to customers. This research discusses the value creation in the next part of the literature review.

Last but not least, business process management is concerned as one of future science of service's difficulty. Facing an increasing amount of requirements and expectations from customers day by day, firms are under an obligation to acquire a more productive and effective model to compete with impetuous difficulty of the market. It is not easy to have a good model for managing the business process, especially one that could bring success to the firms. Advanced research on the service is needed to propose an effective model based on suitable concepts and foundations.

2.3 Good dominant logic versus service dominant logic

In general, there are two orientations being discussed in service science. One based on the traditional perspective of economic exchange and value creation, which involves goods (tangible products). This good logic means that firm could turn goods into resources available for customer (Gronroos, 2006). The other service logic suggests that firm facilitates processes

that support customers' value creation [1]. There are many ideas about good dominant logic and service dominant logic. Given the scale of this research, orientations of good dominant logic and service dominant logic (Vargo and Lusch, 2004-2011) have been discussed to view the differences of those logics.

2.3.1 Good dominant logic (GDL)

Up to early 20th century, manufacturing industry accounted for most businesses in the economy. Therefore, in those days, the formal study of market focused at first on the delivery and exchange of commodities and manufacturing goods (Vargo and Lusch, 2004b).

That is to say, "*good logic was a featured foundation in the economics*" (Smith 1776, Shaw 1912, Marshall 1927; cited in Vargo and Lusch, 2004a). The foundation for GDL is begun in economic philosophy and economic science from work of Smith (1776) [2]. Thus, *"the goods-centered model became the dominant paradigm for the business related disciplines"* (Vargo and Morgan, 2005) [3].

In some of previous researches, the GDL assumes the following: (Vargo and Lusch, 2004a):

- The purpose of economic activity is to make and distribute things that can be sold.
- Those interests are preferably tangible.
- Manufacturers add utility and value to products in order to sell products to consumers.
- The products must offer superior value to consumers compared to competitors' offerings.
- The firm should set all decision variables so as to have profit maximization.
- For both productivity and efficiency, the goods should be standardized and produced by decision of company.

---

(1) Nordic school (School in the Nordic countries) implies the meaning of service logic in their school system.

(2), (3) Vargo and Akaka summarized the previous works in their paper "Service Dominant Logic as a Foundation for Service Science: Clarification", Service Science 1(1), pp.32-41, 2009

As described above, from the viewpoint of GDL, product is the core of the economy. Business models, strategies and marketing theories were established based on the good logic. Because of this orientation, in previous researches of economic and market activities, "*service was ignored though they existed*" (Lusch, Vargo and Wessels, 2008). Over the years, people came to realize the significant role of service in the industry. It was considered as an add-on to the core product (e.g. things which are not agriculture, mining or manufacturing was labeled as services).

A wide range of separate researches on services marketing has seen service as a particular type of good. One of the most influential scientists in the services marketing, Lovelock (2007) defined "*services are the performances that bring about the desired results for the customers*".

Because services are performances, rather than objects, a number of characteristics have been cited in the literatures includes: "*intangibility, heterogeneity, inseparability, and perishability*" (IHIP characteristic). Zeithaml, Parasuraman and Berry (1985) have reviewed the characteristics of services through previous researches as displayed in figure 2.3.

Figure 2.3 References listing unique characteristics of services

Source: Zeithaml, Parasuraman and Berry 1985

Besides those characteristics, , Lovelock (2007) also pointed out some more distinct characteristic of services such as:

- *Most service products cannot be inventoried.*
- *Intangible elements usually dominate value creation.*
- *Services are often difficult to visualize and understand.*
- *Customers may be involved in co-production.*
- *People may be part of the service experience.*
- *Operational inputs and outputs tend to vary more widely.*
- *Time factor often assumes great important.*
- *Distribution may take place through non-physical channels.*

According to the unique characteristic of services, researchers pointed out the famous marketing mix 4Ps: Product elements, Place and Time, Price and Promotion. However, it is argued to be conventional practices in marketing. Through the service management's perspective, Lovelock (2007) has added 3 more P which are: Process design, Physical environment, and People. This is a step up in GDL but there are still gaps when business comes to face current situation of the economy. Additionally, this business model was defined based on the GDL. It proposes the value-add on for goods/products. Figure 2.4 below explains the business model based on GDL.
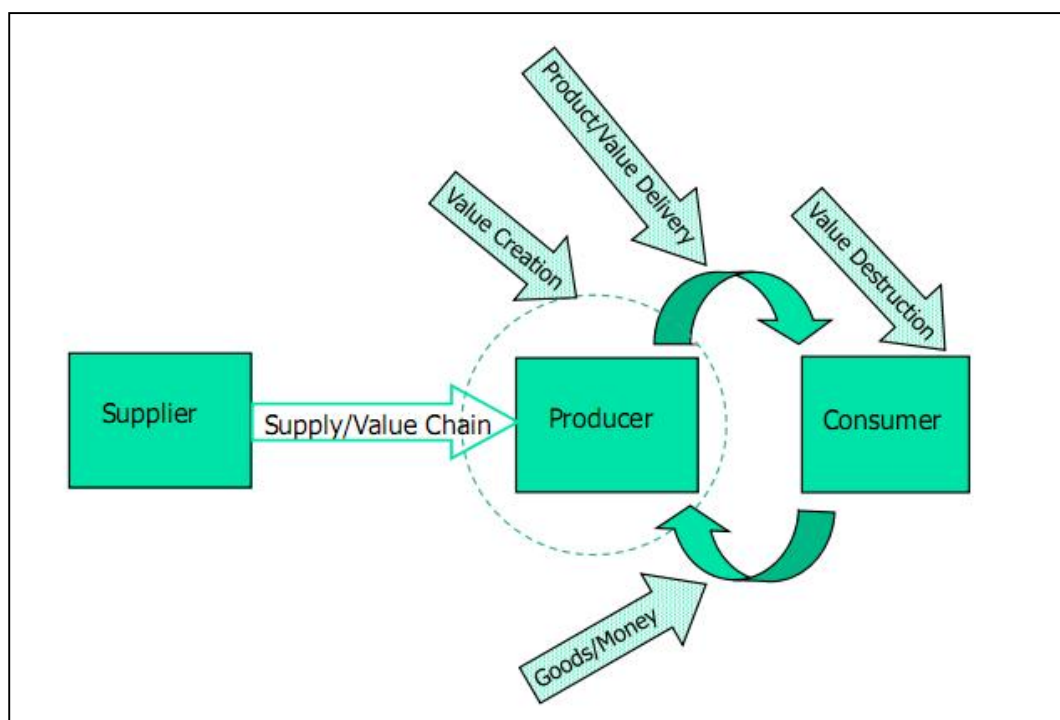
Figure 2.4 Business model based on GDL

Source: Vargo, 2009

Along with his research in GDL, Vargo (2009) has clarified the problems with GDL:

- Goods are not why we buy goods
- Goods are not what we fundamentally "own" to exchange with others
- Customer is secondary and seen as value receiver and destroyer
- IHIP characteristics do not distinguish services versus goods

Considering the problems of GDL, there will be a need of more service-center views for

22

responding the significant roles of service economy. A recent recommendable service oriented foundation would be the service dominant logic by Vargo and Lusch in their focused research since 2004.

2.3.2 Service dominant logic (SDL)

SDL is a view to understand the purpose and nature of organizations, markets and society. *"The foundational proposition of SDL is that organizations, markets, and society should be fundamentally concerned with the exchange of service—the applications of competences (knowledge and skills) for the benefits of one party"* (Vargo and Lusch, 2004a). Thus, *"service is exchanged for service; all firms are service firms; all markets are centered on the exchange of service, and economies and societies are all service based"*. (Vargo and Lusch, 2004a)

Not up till now do researchers think about the service mindset. In the past, many scientists started to work on their field based on the service orientation. They thought of the service logic to argue with the good logic. Below are some famous arguments concerning the important role of service.

"What is needed is not an interpretation of the utility created by marketing, but a marketing interpretation of the whole process of creating utility." - Fredric Bastiat (1848) - [4]

"The importance of physical products lies not so much in owning them as obtaining the services they render." - Wroe Alderson (1957) - [5]

"Customers do not buy goods or services. They buy offerings which render services, which create value...activities render services, things render services." - Philip Kotler (1977) - [6]

"The focus is not on products, but on the consumers' value -creating processes, where value emerges for consumers, and is perceived by them...the focus of marketing is value creation rather than value distribution." - Evert Gummesson (1995) - [7]

---

(4), (5), (6), (7) Cited in the www.sdlogic.net

With the proposal of SDL in 2004, Vargo and Lusch provided an alternative perspective for the study of economic exchange. The ideas of the two professors made a hit in the field of service science. It impressed the audiences and attracted them to an interesting topic: service dominant logic. Leading scholars in service science quickly joined in the discussion and appreciated for what Vargo and Lusch had done. SDL is considered as a foundation which can puzzle out the unsolved problems in the GDL. It is more consistent and can deliver more real value (applied, specialized knowledge) and value-in-use than the GDL.

SDL proposes the exchanges of service, not goods. Therefore, *the definition of service in SDL refers to "service" (singular) which is a process, distinct from "services," particular types of goods* (Vargo and Lusch, 2004a). The ten foundation premises (Vargo and Lusch, 2008) help present the patchwork of the emerging dominant logic. Table 2.1 will intelligibly define 10 premises and explain what have been implied in those premises.

Table 2.1 Foundational premises of SDL

Adapted from Vargo and Lusch, 2008

	Foundation Premises	**Explanations**
FP1	Service is the fundamental basis of exchange.	The application of operant resources (knowledge and skills), "service," is the basis for all exchange. Service is exchanged for service.
FP2	Indirect exchange masks the fundamental basis of exchange.	Goods, money, and institutions mask the service-for-service nature of exchange.
FP3	Goods are distribution mechanisms for service provision.	Goods (both durable and non-durable) derive their value through use – the service they provide.
FP4	Operant resources are the fundamental source of competitive advantage	The comparative ability to cause desired change drives competition.
FP5	All economies are service economies.	Service is only now becoming more apparent with increased specialization and outsourcing.
FP6	The customer is always a co-creator of value.	Implies value creation is interactional.
FP7	The enterprise cannot deliver value, but only offer value propositions	The firm can offer its applied resources and collaboratively (interactively) create value following acceptance, but cannot create/deliver value alone.
FP8	A service-centered view is inherently customer oriented and relational.	Service is customer-determined and co-created; thus, it is inherently customer oriented and relational.
FP9	All economic and social actors are resource integrators	Implies the context of value creation is networks of networks (resource integrators).
FP10	Value is uniquely and phenomenological determined by the beneficiary	Value is idiosyncratic, experiential, contextual, and meaning laden.

The ten premises above generalize the foundations which SDL would implicate and justify. In this research, the most important point of SDL is the value co-creation theoretical concepts. As mentioned in GDL, value is created at the moment of the exchange. After that, customers use the goods, or the value-added inside on their own. In the service mindset, value co-creation happens after the value exchange. Values for customers mean that, after customers have been offered a service process, they feel better than before using it. The service helps them to solve their issues. Customers themselves determine satisfaction, not by the service suppliers. It is said that value is co-created when customers' needs and requirements are fully met.

In order to help firms provide better value-in-use for customers, Vargo created a value co-creation model for firms and customers (Figure 2.5). This model implies that the firm can only make an offer on value creation through customers' requirements and then, if accepted, value is co-created in concert with the customer. In this case, both firms and customers are resource integrators/beneficiaries in the business. Both must take part in the service process and co-create the value. It would bring great satisfaction to customers when co-created value makes service more dynamic and innovative to fulfill customers' desired outcomes. The firm should strive to leverage interactions and relationships with its customers to have better cooperation, thus lead to productive and satisfactory co-created value.

SDL embraces concepts of the value-in-use and co-creation of value rather than the value added concepts of GDL. As a result, instead of simply providing or delivering value to customers, firms cooperate with customers, as well as understanding and tightening the relationship to build more useful and sufficient value to customers.
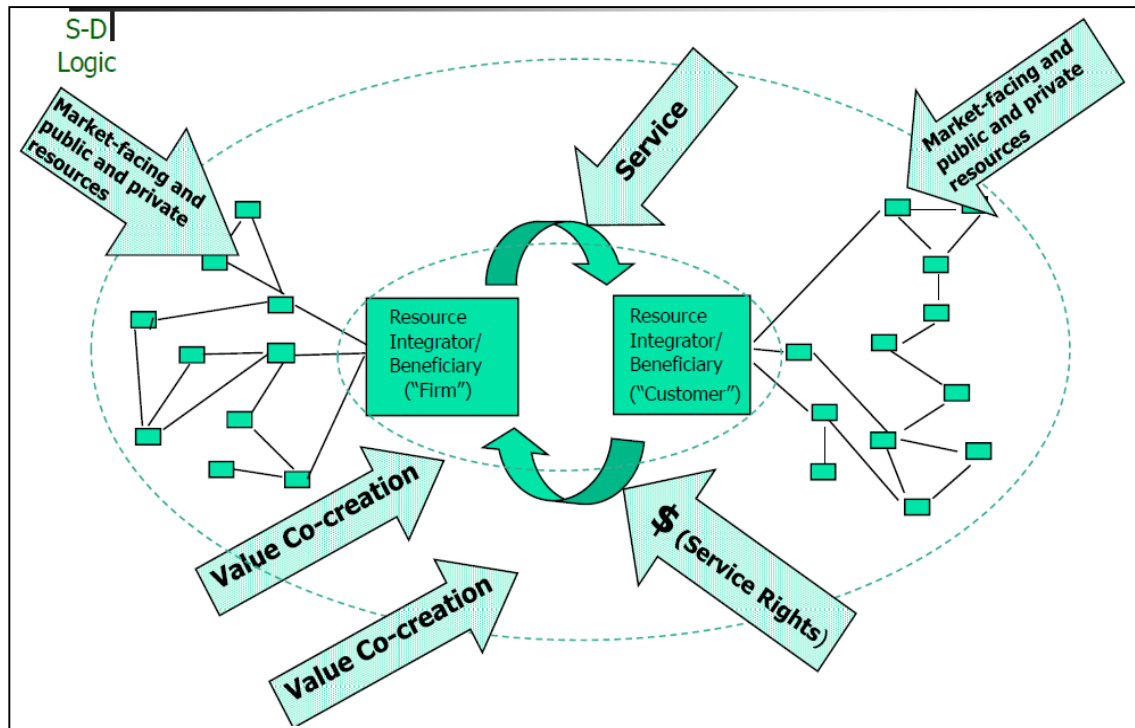
Figure 2.5 Business model based on SDL

Source: Vargo, 2009

Overall, SDL might be a foundation of a paradigm shift in marketing. This perspective can help marketers understand the role of markets in society, therefore making it a basis for general theory markets and marketing. More generally, it is also a basis for "service science", a foundation for theory of the firms which leads them to gain customers satisfaction and consequently success. This recent perspective causes the reorientation for economic theory and changes viewpoints of both academic and business industry.

2.3.3 Contrasting the different of GDL and SDL

SDL represents a shift in logic of exchange. If GDL see market as good-based models, SDL suggests a service-based foundation, for understanding all economic activities. There are some different points between GDL and SDL. This part summarizes those contrastive thinking to help classify GDL and SDL. First, different mindsets of the two logics in the way they view the economic activities have been discussed. This shift is captured in eight areas

(Lusch and Vargo, 2008).

- A shift to the process of serving rather than the creation of goods.
- A shift to the primacy of intangibles rather than tangibles.
- A shift to the creation of using dynamic operant resources from operand resources.
- A recognition of strategic advantage is symmetric rather than asymmetric information.
- A shift to conversation as dialog an opposed to propaganda.
- The firm should make the value propositions rather than create or add value.
- Focus to relational than transactional exchange.
- Emphasize on financial performance for information feedback rather than a goal of profit maximization.

Adapted from those eight shifted areas, table 2.2 shows the effectiveness of these shifting and implies the end purposes which SDL aims to.

Table 2.2 Contrasting of GDL and SDL

Adapted from Lusch and Vargo, 2008

Goods-Dominant

- Goods
- Tangible
- Operand Resources
- Asymmetric
- Propaganda
- Value Added
- Transactional
- Profit Maximization

Service-Dominant

- Service(s)
- Intangible
- Operant Resources
- Symmetric
- Conversation
- Value Proposition
- Relational
- Financial Feedback

Less → **Global Sustainability** ← **More**

More → **Customer Alienation** ← **Less**

Less → **Respect for Marketing in the society** ← **More**

Among these eight characteristics pointed out above, the views of operand and operant resources help distinguishing the logic of good-centered and service-centered views. Table 2.3 will clarify those differences.

Table 2.3 Distinguish good-centered logic and service-centered logic

Source: Vargo and Lusch, 2004a

	Traditional Goods-Centered Dominant Logic	Emerging Service-Centered Dominant Logic
Primary unit of exchange	People exchange for goods. These goods serve primarily as *operand resources*.	People exchange to acquire the benefits of specialized competences (knowledge and skills), or services. Knowledge and skills are *operant resources*.
Role of goods	Goods are *operand resources* and end products. Marketers take matter and change its form, place, time, and possession.	Goods are transmitters of *operant resources* (embedded knowledge); they are intermediate "products" that are used by other operant resources (customers) as appliances in value-creation processes.
Role of customer	The customer is the recipient of goods. Marketers do things to customers; they segment them, penetrate them, distribute to them, and promote to them. The customer is an *operand resource*.	The customer is a coproducer of service. Marketing is a process of doing things in interaction with the customer. The customer is primarily an *operant resource*, only functioning occasionally as an operand resource.
Determination and meaning of value	Value is determined by the producer. It is embedded in the *operand resource (goods) and is defined in terms of* "exchange-value."	Value is perceived and determined by the consumer on the basis of "value in use." Value results from the beneficial application of *operant resources sometimes* transmitted through *operand resources*. Firms can only make value propositions.
Firm–customer interaction	The customer is an *operand resource*. Customers are acted on to create transactions with resources.	The customer is primarily an *operant resource*. Customers are active participants in relational exchanges and coproduction.
Source of economic growth	Wealth is obtained from surplus tangible resources and goods. Wealth consists of owning, controlling, and producing *operand resources*.	Wealth is obtained through the application and exchange of specialized knowledge and skills. It represents the right to the future use of *operant resources*.

Overall, it has been illustrated in figure 2.6 that the traditional GDL is not a good logic since it views the role in the business process of firms and customers separately. They are discrete to each other and cannot be used to build a good corporation for satisfaction. Otherwise, SDL is a systematic logic and it suggests good collaboration between firms and customers. SDL emphasizes the co-creation of value, and is considered as the value reference for this research.

GDL: A logic of separation	SDL: A logic of Co-creation
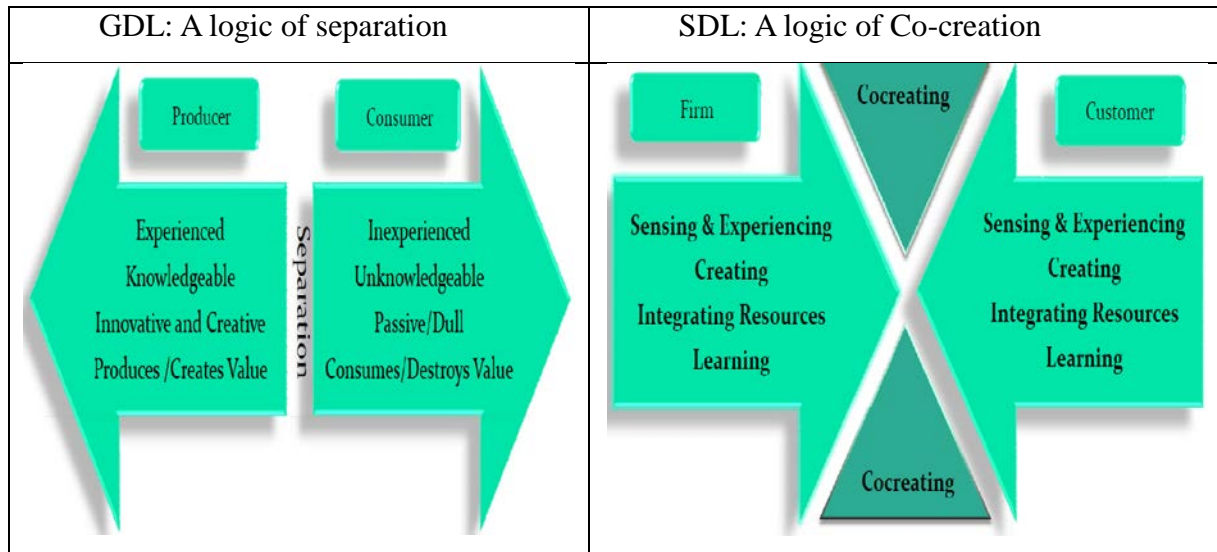
Figure 2.6 Collaboration of firms and customers in GDL and SDL

Source: Vargo, 2009

2.4 The emergence of value co-creation in reality

2.4.1 Value in exchange versus value-in-use

When customers purchase a product or service, there is one uprising question "why a consumer should buy a product or use a service?". The answer should convince potential consumers that the value propositions of a single product or service would make them satisfy than others in the market.

The concepts of "use value" and "exchange value" have been discussed since ancient times. They have a long history in economic and philosophical thought, from Aristotle (384 BC – 322 BC) to Adam Smith, and their meanings evolved. Aristotle is the first to distinguish those two meanings. The qualities related to use-value mean different things for different people. Alternately, exchange-value was considered as the quantity of a substance that could be a commensurable value of all things.

In another research, Adam Smith (1776) recognized that "*commodities may have an exchange-value but may satisfy no use-value, such as diamonds, while a commodity with a very high use-value may have a very low exchange-value, such as water*". Those historical researches give us a general view about the difference between value-in-use and value in

exchange.

In modern society, the meaning of value in exchange and value-in-use is related more to customers' satisfaction. In the past, manufacturers were the providers who sold products and delivered value to customers. Value is created at the moment of exchange. They provide the values, set by themselves, which based on what manufactures thought are good for customers and their benefits. Customers are offered values and they are inactive when buying the products or service, being just the recipients of the process. In a more developed step of good perspectives, providers create value added to provide "additional" characteristic of a unit of interest (product, service, person etc.). Those interests could satisfy customers more with extra feature by adding little or nothing to its cost.

Recently, the SDL view of exchange challenges the foundation of economics fundamentally. As mentioned above, in GDL, the purpose of economic exchange is to make and distribute things to be sold. From this perspective, maximum efficiency and maximum profit are based on organization's benefit. On the other hand, the SDL believes that "Service is exchanged for service". Additionally, value in SDL is resulted from the beneficial application of operant resources. Thus, from this view, value is co-created between firms and customers. Altogether, they make efforts to create a satisfactory value. Customers actively join in the value creation process and actually, they are the ones who accept and make the value useful for their requirements. It is acknowledged that "*there is no value until an offering is used*" (Vargo and Lusch, 2006).

2.4.2 Value creation versus value co-creation

Traditionally, suppliers produce goods and services, customers purchase goods and services. In the past, customers were assumed as a separate part of the value creation process. Firms do not need to interact with customers to build value, and the collaborations between them were never been seen as a source of value creation (Normann, Ramirez, 1994). Consequently, firms conceptualize customers on their own by targeting and managing the "right" customers. As of today, that has changed. Customers have more power and they can engage in the process with suppliers in each stage of product design and product delivery. Together, *"the supplier and the customer have the opportunity to create value through customized co-produced offerings"* (Payne, Storbacka, Frow, 2008). The value co-creation is

a desirable goal to help firms mark up the customers' requirements, thus enhance the customers' insight process to understand what they actually want.

From the viewpoint of service dominant logic, Vargo and Lusch (2006) argued that value co-creation regarding collaboration between firms and customers. When both firms and customers are beneficiaries in the business, they co-create the value for services. When customers use the service, they also create and define the value of service. That means they are both providers and receivers in the business process. They share the information, learn from each other, then cooperate closely and help each other to get the best solutions for their needs. Nevertheless, changing perspective from goods to service also changes the value creation way. In another research of C. K. Prahalad (2004a), it is said that: "*Consumers seem to want power without accountability. They want to choose for themselves but not be reliable for consequence of their choices*". Therefore firms must recognize the changing role of customers and have a respond to the new situation. Company no longer is the one who creates goods, operates manufacturing processes, designs marketing messages, and leads distributions without interactions from customers. Customers now try take part in and put their influence in all processes of the business exchange. *"Equipped with powerful tools and dissatisfied with available choices, customers want to interact with firms and then co-create value" (*Prahalad and Ramaswamy, 2004b). The need of collaborations for co-creation shows the emerging situation for the value propositions. In this service perspective, Prahalad and Ramaswamy (2004b) emphasized, "*value co-creation is the basis for value creation*". Significantly, co-creation of value can take place only if there are interactions between the firm and the customers (Grönroos, 2008). Hence, firms should not only facilitate their customers' needs but also take those opportunities to engage collaboration with customers to build value through interactions. Table 2.4 shows us the concept of value co-creation.

Table 2.4 Concept of co-creation

Source: Prahalad and Ramaswamy, 2004b

WHAT CO-CREATION IS NOT	WHAT CO-CREATION IS
• Customer focus • Customer is king or customer is always right	• Co-creation is about *joint* creation of value by the company and the customer. It is not the firm trying to please the customer
• Delivering good customer service or pampering the customer with lavish customer service	• Allowing the customer to co-construct the service experience to suit her context
• Mass customization of offerings that suit the industry's supply chain	• Joint problem definition and problem solving
• Transfer of activities from the firm to the customer as in self-service • Customer as product manager or co-designing products and services	• Creating an experience environment in which consumers can have active dialogue and co-construct personalized experiences; product may be the same (e.g., Lego Mindstorms) but customers can construct different experiences
• Product variety	• Experience variety
• Segment of one	• Experience of one
• Meticulous Market research	• Experiencing the business as consumers do in real time • Continuous dialogue
• Staging experiences	• Co-constructing personalized experiences
• Demand-side innovation for new products and services	• Innovating experience environments for new co-creation experiences

Dissimilar from referring the concept of co-creation, Vargo (2009) notes the shift from GDL to SDL as the transformation of value creation to value co-creation. This transform rules the effectiveness of what successful service provided. Table 2.5 will explain in details the difference of value provision through a number of perspectives.

Table 2.5 GDL vs. SDL on value creation

Source: Vargo, Maglio and Akaka, 2008

	G-D logic	S-D logic
Value driver	Value-in-exchange	Value-in-use or value-in-context
Creator of value	Firm, often with input from firms in a supply chain	Firm, network partners, and customers
Process of value creation	Firms embed value in ''goods'' or ''services'', value is 'added' by enhancing or increasing attributes	Firms propose value through market offerings, customers continue value-creation process through use
Purpose of value	Increase wealth for the firm	Increase adaptability, survivability, and system wellbeing through service (applied knowledge and skills) of others
Measurement of value	The amount of nominal value, price received in exchange	The adaptability and survivability of the beneficiary system
Resources used	Primarily operand resources	Primarily operant resources, sometimes transferred by embedding them in operand resources-goods
Role of firm	Produce and distribute value	Propose and co-create value, provide service
Role of goods	Units of output, operand resources that are embedded with value	Vehicle for operant resources, enables access to benefits of firm competences
Role of customers	To 'use up' or 'destroy' value created by the firm	Co-create value through the integration of firm-provided resources with other private and public resources

By opening out to various problems in the business process between suppliers and customers, the learning of value co-creation above gives potential concept for solving gaps between them.

2.5 Value co-creation in service field concept

In this research, value co-creation is the key concept for the proposed model. The research model engaging to the co-creation is the most essential network that can help leverage customers satisfaction and solve the gaps in the business process. Moreover, concept

of service field is used as the premise for this research. Therefore, understanding of co-creation in the service field is necessary.

2.5.1 Definition of service field

Service field concept has been developed through research progress by Kosaka et.al (2011). The service field is the situation or place in which services are created by service mediator, customers, and service suppliers. Service field contains all contexts related to service (backgrounds, situation, supply, demand, etc.). Usually, service field is the place where firms do business with their customers, and the co-created value is generated when players process the service within its place. In case of a service mediator, the mediator organizes a place known as service field for suppliers and users, raises the seeds and needs to understand each other, thus making a corporation in a trustworthy and convenient environment.

2.5.2 Value co-creation in the service field

As mentioned above, value co-creation is built by both firms and customers. The goal of the exchange is using the applied knowledge of others (service) as a resource to better one's circumstances. Therefore, being aware of partners is the key to high value in co-creation. However, when users want a service, they receive a huge amount of information from service providers and thus not being able to choose the best one for their solutions. It is also hard for service providers to find customers because of the lack of market research, culture and language barriers, etc. (Doan, Shirahada, Kosaka, 2013)

In the service field opened by an information service mediator, distributing and matching customers' needs with suitable supplier firms are the responsibilities of service mediators. They must manage an open, truthful and useful field for customers to collaborate. Mediators combine needs of customers and find potential service suppliers which can satisfy users. When users and suppliers are matched together, they can cooperate better with each other, and then together build high value of service. The information service firm responds to customers' expectations and satisfies them by increasing the service value through the co-creation process. (Doan, Shirahada, Kosaka, 2013)

2.5.3 Mechanism to create high service value

An identification of service field can be used to offer valuable services to customers. According to an analogy of electro-magnetic concept, the service field can be specified as follows:

(Service value) = (Service) x (Service Field) (Kosaka, Shirahada and Ito, 2011)

The "value-in-use" concept in SDL greatly depends on the situation (users' needs, suppliers' seeds, place, time, cost etc.). Figure 2.7 shows that in order to maximize the service value, we have to develop the service field and the service process. Service value is different due to dissimilarity in circumstances, people, time, etc. Accordingly, the service mediator must concentrate on those elements and change them in order to enhance satisfaction of customers. Additionally, the service mediator should make efforts for the purpose of realizing customers' needs, expected outcomes, etc. by communications, and interactions between suppliers and users. By using their own resources, techniques such as Ethnographic marketing, Brain science, questionnaires and data mining, mediators can understand the market well, and then analyze information according to customers' requirements and potential matched suppliers. Users and suppliers understand each other's needs and seeds through cooperation and co-experience (Doan, Shirahada, Kosaka, 2013). Figure 2.7 illustrates the service field and measurements of it.
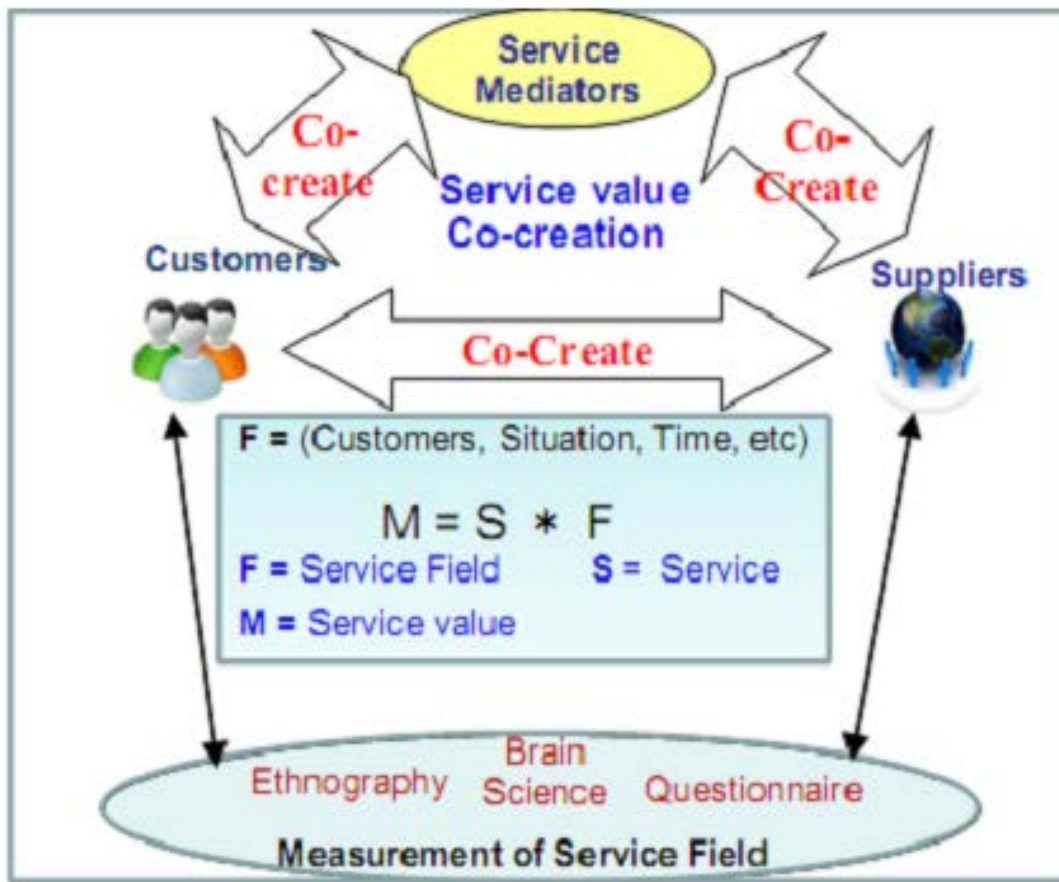
Figure 2.7 Maximizing Service value model

Source: Adapted from Kosaka, Shirahada and Ito, 2011

2.6 Business model: Two-sides attendants versus three-sides attendants

A business model describes the rationale of how an organization creates, delivers, and captures value (economic, social, or other forms of value) (A. Osterwalder, Yves Pigneur, Alan Smith et al., 2010; cited in Wikipedia). The process of business model design is a part of business strategy.

An organization or firm involved in the business economy must have a suitable model to represent core aspects of its business. Whenever a business is established, a particular business model should describe the design or architecture of the value creation, delivery, and capture mechanisms employed by the business enterprise. The essence of a business model is that it defines the manner by which the business enterprise delivers value to customers,

38

entices customers to pay for value, and converts those payments to profit: "*it thus reflects management's hypothesis about what customers want, how they want it, and how an enterprise can organize to best meet those needs, get paid for doing so, and make a profit*" (David Teece, 2010)

In the scope of this research, business models are categorized into two types. One is that there are two-sides attendants working with each other. Another one is where there are three-side attendants in the business exchange. In this kind of three parties, one is the intermediary for the others.

2.6.1 Two-sides attendants in the business

The two-sides attendants business model describes activities of business, as there are two participants work together in the business. One is the provider, and the other is the recipient. Although this model is fairly simple, it has existed for a very long time and took place in most businesses. For instance, the relationship between firms and consumers in which firms are the providers, making and selling products to consumers. This relationship has many perspectives in the way of doing business from the logic of good or the logic of service.

2.6.2 Three-sides attendants in the business

This model, also known as the mediator model, has three players in the business: mediator, provider and receiver. In this, mediator is the one that acts as an intermediary to mediate provider and receiver in business exchange. There are many examples of this model in actual business. This model could exist in retail business, travel business or law business, etc., with lots of different applications in various fields, but the issue here is the way they operate the mediator model. The mediator's operation, which based on good logic, tries to transfer exactly the added value from providers to users, rather than engaging the two business parties in the collaboration process. Therefore the mediator based on good logic does not support the value co-creation.

This research argues that a good mediator should seek for necessary information from both parties in an attempt to resolve an agreement on both parties' behalf. The mediator must

satisfy both of his customers by becoming a bridge to connect the supply and demand of all parties. Mediator firms, which have professional services, will help their customers (providers and receivers) reduce time, effort, and costs by contents and knowledge provided specifically. Therefore, an alternative model called service mediator model has been researched and proposed so as to help providers and receivers co-create better for the highest satisfaction.

Detailed classification of the business models will be discussed in chapter 3 for clear perceptions. Furthermore, the issues of each model will be determined for the purpose of setting up theoretical hypotheses.

2.7 Previous approaches of HRM in balancing the relationship between employers and employees

Numerous researchers have examined these issues and suggested various mechanisms that firms can use to explain unanswered questions. Bowen and Ostroff (2004) concluded that HRM practices could be seen as communications from employers to employees by reviewing several studies. Another approach from perceived organizational support (POS) revealed that POS practice mediated employees' relationships in terms of organizational commitment and job satisfaction (Allen, Shore and Griffeth, 2003). Chiang, Han, and Chuang (2011) investigated the relationship between high-commitment HRM and individual knowledge sharing behaviors related to POS. They justified the role of highly committed HRM is of benefit to organizations. Once employees perceived organizational support, they generated more values and contributions and were more willing to be committed (Meyer and Allen, 1991). How firms treat and care for their employees has been defined, but how employees provide feedback and express their needs still remains unexplored. Previous approaches have not yet solved the problems between employers and employees to better our knowledge. HRM practices only convey messages and actions from companies to staff. These practices cannot satisfy the demands of employees to exchange thoughts and share knowledge. Therefore, an innovative approach should be considered to support HRM.

Several approaches have already been taken to apply the mediator concept to HRM. The mediator concept has existed in the business industry. However, superseded models existed for long before that based on previous economic theories. The superseded models assisted parties to negotiate settlements in a variety of domains, such as commercial, legal, diplomatic,

workplace, community and family matters (Charlton and Dewdney, 2004). Mediation theory has also been discussed at many levels and a theory has been proposed for people who work as mediators (Noll, 2001). When previous mediators were still concentrating on human negotiations, human management was the most common issue that uses mediators to solve its problems. HRM practices are used to mediate relationships between organizations and employees (Tzafrir, 2005). Although the relationship between employers and employees from the service perspective is not a simple one-way, but rather a co-creating process that improves the performance of firms. The mediator in HRM should not only focus on negotiations and transfer of information with changing perceptions, but also collect all the necessary data regarding requirements and expectations, hence analyzing them to better interpreting the situation. The result from analyzed data of the case studies would contribute to a more comprehensive understanding and shared resources which in turns will enable more effective collaborations.

2.8 Summary

This literature review gives us a general knowledge about service science and researches relevant to this research. It is a valuable information resource to study and acknowledge the significant of service science and SDL orientation. Therefore, it is a good foundation to start the research topic and propose hypotheses for a service-based model. Chapter 3 will introduce the service mediator model and its hypotheses as the set of proposals.

Chapter 3 Hypotheses for a service mediator model

This research is aiming to propose a service mediator model, which is helpful for business process management. From reviewing the literature, alternative mindsets about services should be concerned and they are supposed to bring ideas for the existed mediator model. Besides, when solving any issues in IT business and management of human resource, a service based mediator model called the service mediator model is promptly needed. Service dominant logic and service field are the main foundations for this research. Hypotheses have been made to answer for the necessity of the service mediator model applied in management of business process.

3.1 Classification of business models and proposal of a service mediator model.

3.1.1 Classification of business models

Business model is *"concept and tool for managers to capture, understand, communicate, design, analyze, and change the business logic of their firm"* (Osterwalder, Pigneur et al. 2005 p.19). In many researches, the business models have been categorized into nine types that are frequently mentioned in the e- commerce literatures (Rappa, 2010; Samuelson, 2010; Engelfriet, 2005). These are:

- Brokerage Business Model
- Advertising Business Model
- Informediary Business Model
- Merchant Business Model
- Affiliate Business Model
- Manufacturer Business Model
- Community Business Model
- Subscription Business Model
- Utility Business Model

However, within the scope of this research, the business model has been classified from the number of attendants in the business. Based on the definition of two players and three players model in business mentioned in chapter 2, business models are classified by different perspectives from GDL to SDL. The figure 3.1 describes the classification of business models.
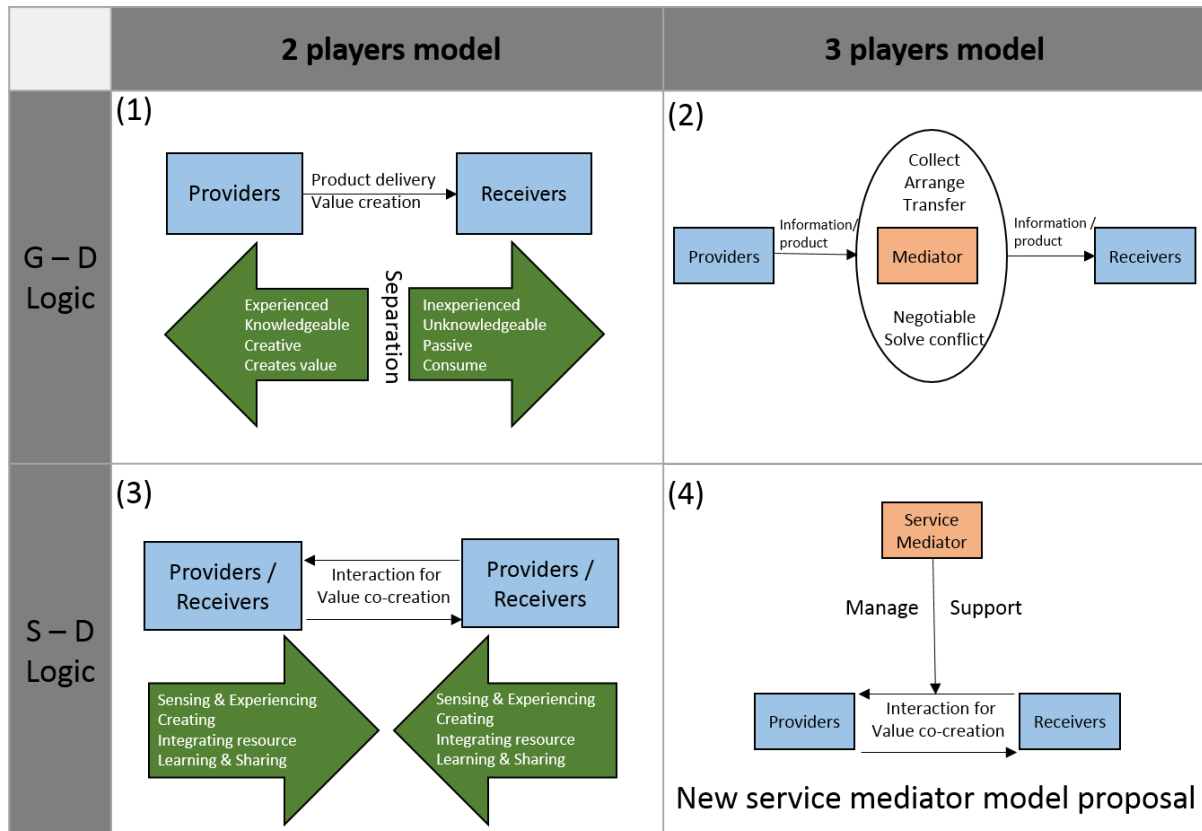
Figure 3.1 Classification of business models

The first model has two players and based on GDL. It is a simple and basic model in which suppliers are the providers selling the products and giving value to the recipients (customers). This model is popular in the logic of good distribution. In which, manufacturers are the ones who decide the goods' value and deliver them to users. Manufactures on their own build the goods and add the value that they think customers like and need. In this way of exchanging, customers passively receive the added value, not the value they actually want, explaining why the products hardly satisfied customers. This organization-centric orientation in this model has been reconsidered in recent years for a better model to bring more

satisfaction to customers.

The second model, based on GDL, has three attendants in the business exchange. This conventional mediator is a mediator to help transfer or resale the products/information from providers to receivers. The mediator is here to help providers and customers by receiving the products/information from providers and trying the best way to deliver to customers fast and conveniently. The mediator acts as an agent just collecting and passing what it received to others. Conventional mediator neither engages in value creation process nor assists it. It does not make any changes with the value added but rather simply shift it from one to another. Characteristics of this model are:

- Provide simple service related to goods provision.
- Decision making for profit maximization.
- Organization-centric thinking.
- No value co-creation

For example: Traditional travel agencies, which only provide information, not service. Providers give some services based on customers' requirements but do not fulfill the customers' needs. Most of their business processes are paper works so it is not good in data storage and management. This model could fill some gaps between providers and receivers such as long distance, from wholesale to retail, or lack of information. However, it cannot completely satisfy both sides and response to all of their expectations.

The third model based on the alternative logic, SDL and has two players in the business exchange. In this model both the suppliers and users play the roles of providers/recipients in the business and they together co-create value. The providers are not the only one to decide the service value like the GDL two players model. Customers also join in the value creation process and together decide it. The two shares vision, knowledge and resources in the service exchange for the final service value. When value is mutually agreed, both sides are satisfied. Customers are satisfied because the value is chosen and decided by them. Providers are also satisfied because they received the services exchange by customers, which could be knowledge, operant resources or financial feedbacks for compensations. The service is co-created by both providers and receivers thus bring highest satisfaction.

From the classification, there are three types of business model existed. The models based on GDL are focused on products/goods distribution so that they do not support value co-creation. Therefore, satisfaction is at low level. In this research, a service mediator model

is proposed in order to bring optimized value co-creations in business exchange. In two players model based on SDL, value co-creation is emphasized between providers and users but there are not any mechanisms to support the co-creation. Providers and receivers have to find a way to interact with each other themselves. In many business transactions, it is difficult since providers and receivers do not know well about each other, thus it would be hard for them to co-create and collaborate. The service mediator model aims to propose a concept helping suppliers and users build value co-creation and together cooperate for a better service value.

3.1.2 Proposal of a service mediator model

As explained above, value co-creation is not well supported by the three existing business models. Therefore, a business model for value co-creation is suggested. This model has three players in which the service mediator is the bridge for providers and receivers. Based on SDL mindset, it manages and supports the value co-creation between two sides of business exchange. Service values differ due to variation in circumstances, people, and time. If optimal service values for both customers and providers are notably required, these elements and processes are consequently concerned. The service field is the mechanism for enhancing the value co-creation. SDL and the service field are called alternative and innovative mindsets in the trend of services.

In the proposed model, there are three players in the exchange and the service mediator acts as a bridge to support the business transactions. The service mediator must have those below characteristics:

- Manage the relationship of providers and receivers.
- Focus on enhancing the value co-creation between providers and receivers.
- Organize and manage a mechanism for collecting supplies and demands of two sides, then analyzing them for adequate matching.
- Organize and manage a mechanism for promoting value co-creation.

Above are the ideas for a service mediator to solve the issues in business management. In order to realize how to define the proposed model, foundations of SDL and service field is discussed for determining the proposed model.

3.2 Foundations from SDL

3.2.1 Importance of SDL in the service mediator model

SDL is an alternative mindset presenting perspectives on services and their impacts on organizations, markets, and societies. The foundational proposition of SDL is that every social activity is fundamentally concerned with service exchanges (Vargo and Lusch, 2004). This means that in service exchange, all attendants are providers/receivers so that all of them are beneficiaries in the exchange process. It is also true in the business management. All business activities are service activities, so in business management, relationship between firms and customers or employers and employees are equal. They are both providers and receivers in participation and exchange services for services. From this point on, this research argues the equipollent propositions of attendants in the business process. When firms and customers or employers and employees are equal in the service exchange, they not only have to provide supplies but also can receive the suitable demands in exchange of services.

Using SDL as a foundation for this research, the proposed model will concentrate on premises and potential ideas of SDL. SDL actually changes the way people do business, besides many great advantages, and embraces the concepts of the "value-in-use" and "co-creation of value" rather than the "value added" approach of GDL. Instead of simply providing or delivering values to customers, firms cooperate with customers as well as understand and tighten their relationships to build more useful and satisfying values for customers. Thus, this leverages the values created. When firms and customers understand each other, the information is exchanged more comfortably and reliably. Therefore, based on the data, firms can provide adequate services to satisfy customers. Customers can also directly stipulate their demands through the co-creation process. It means that customers are able to totally agree with the services provided and hence gain the highest satisfaction. The service mediator model highlights the value co-creation and tries to support it for satisfaction on both attendants in business exchange.

3.2.2 How have SDL supported for the service mediator model

In the SDL mindset, value co-creation is the most important value, which is built by

both providers and receivers and can satisfy all of them with mutual agreement. When providers and receivers can exchange their knowledge, seeds and needs are exchangeable to be acknowledged by both. When requirements are indubitably understood and completely matched with suitable solutions agreed by both, the value extraction is co-created and becomes optimized value that can satisfy all players in business. Because value co-creation has important meaning in satisfaction, the value co-creation making process is significantly focused. The proposed model acts as a mediator to encourage the value co-creation. It must be equipped with effective functions to support value co-creation. This is the target that mediator aims to reach.

As a matter of fact, the mediator uses SDL as a fundamental foundation to propose a service mediator to business management process. From this foundation of SDL, the roles of the service mediator have been clarified. First, it must do its best to enhance the value co-creation process. If providers and receivers work directly with each other but cannot cope well to exchange service due to lacks of specific knowledge or tools, the existence of service mediator is significantly needed. The service mediator with useful functions and specific information would reduce the gaps and assist the collaboration to help producing higher value co-creation.

Second, as an intermediary, it must balance out the requirements and propositions of two sides and match them adequately. Providers and receivers have many seeds and needs, but not all are matched and can satisfy each other. The service mediator must clarify those demands and supplies and deliver them to suitable ones. When seeds and needs are completely matched, the value extract are optimized and during the exchange, values are co-created more easily and smoothly. Using SDL, the service mediator has more beneficial resources for service exchanges.

By summarizing the premises above, the service mediator applied in the business management must balance between the relationship of attendants in the business exchange and support the value co-creation process. Helping both sides in a fair way, collecting and matching seeds and needs efficiently, and promoting the value co-creation process are works of a good service mediator.

3.3 Foundations from service field concept

3.3.1 Importance of service field concept in service mediator model

Based on SDL's foundations, roles of the service mediator have been determined. Nonetheless, how can the service mediator perform their works well is still a question. To form the factors, which could enhance the value co-creation, the service field concept is considered. As mentioned in the literature review, the service field concept is a very important point for value co-creation. If people can identify the service field and manage it well, service values would be increased. The service field is also a nurtured place for value co-creation. Congregating in a convenient and well-equipped service field, providers and receivers are easy to cope and together build service value. Final co-created value certainly has the highest value extraction and thus gains satisfaction.

The service field is a cooperative environment containing all contexts of services, and it is a mechanism to increase value co-creation and collaboration. When all contexts of services are gathered in the service field, the service mediator finds it easy to identify the seeds and needs of suppliers and users. A good service field is a favorable mechanism for extracting high value co-creation. Consequently, the service mediator must identify and organize an accomplished service field to encourage the value co-creation process between providers and receivers. In addition, the service mediator can also leverage the service quality by spirally co-create value with both sides in business process. When value is step by step co-created and improved in the service field, final service has maximum value that can fulfill expectations of all parties in the business.

Supporting functions of service field are also fundamentals for increasing the co-creation. Those functions are places and mechanisms to collect and share the data from both providers and receivers. Other functions include data analysis or data processing tools for better mining the data collection. These functions expressively promote value co-creation.

3.3.2 How have the service field concept supported for the service mediator model

The role of service mediator is supporting the value co-creation by knowing requirements and service offerings well to analyze and match them suitably and correctly. However, it is not so easy if the service mediator do not have a good mechanism to finish its

works. The service field concept is considered to be the ideal mechanism thanks to its characteristics mention above. Therefore, the service mediator must organize and manage a beneficial, comfortable, and trustworthy environment for providers and receivers to exchange supplies and requirements, thus the service mediator supports interactions of them so that their service attributes can match the levels of satisfaction of one another. The service field is defined as a place that contains all the contexts of the services to extract high value co-creation between suppliers and users (Kosaka et al., 2011). The mediators should act as referees who control and standardize the service quality to leverage service values, not only organizers. Supplies and requirements in concern should be analyzed to fulfill customers' needs. An ideal environment with prepared data processing tools will help in matching seeds and needs and so generate superior service values that can fulfill customers' requirements and bring them satisfaction.

Furthermore, the service field is viewed to support value co-creation from the analogy of field theory in physics. The situation (e.g., consumer characteristics, place, time, and cost) should generally be considered in the values of services. Even if an identical service is provided, the service values will differ from that due to consumers' characteristics or unique situations. The "value in use" concept in SDL (Lusch and Vargo, 2006) greatly depends on the situation.

The concept of using the service field in service systems is proposed to create service values depending on the situation created by users' needs, services provided, and the environment for the services. This concept of the service field has been proposed based on an analogy of the electro-magnetic field where electro-magnetic power is determined by the relationship between the charge of electrons and the electro-magnetic field. Similarly, there would be no service value even in a good service, if there were no potential in service fields related to the one in question (Kosaka, 2012). In other words, the service value is created from the relationship between the services itself and its service field, which demonstrates how the service is needed by the customers. Thus, the service field model can be specified as:

$$(\text{Service value}) = (\text{service}) \times (\text{service field})$$

where $\times$ denotes the relationship between the service and the service field. The concept of a

service field is outlined in Figure 3.2. A high service value is generated when the services are provided based on high potential values in the service field. High potential means that the requirements for the provided services are high. Otherwise, the provided services cannot obtain a high service value. To maximize the service value, a service field should be identified first and then suitable services that correspond to the customers' characteristics and/or requirements.

This proposal to create and improve service values based on the concept of service field and service systems, and can be applied to various services where service providers and receivers co-create service values. This consideration means that the service system and the concept of service fields can be applied to form a model of service value creation.
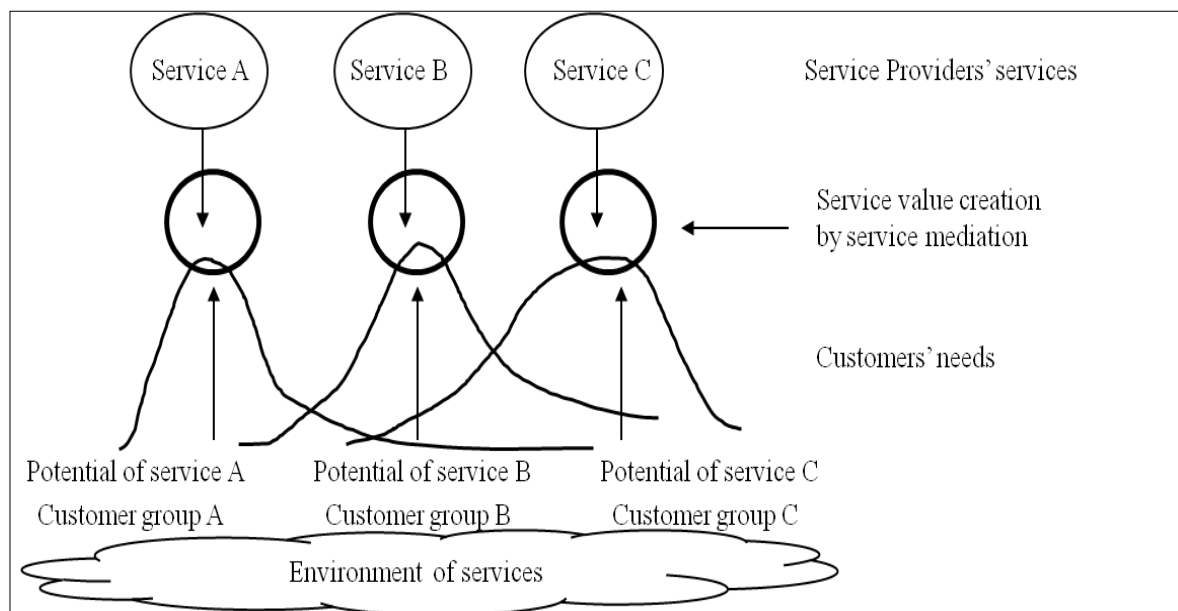
Figure 3.2 Service field and service value creation

Source: Kosaka 2012

3.3.3 Identification of the service field to find suitable services for value co-creation

Figure 3.2 above outlines the basic idea for identifying the service field to create high service values by the service mediator. Once the service field is identified, it is easy to determine what kind of service is most preferable for the target customer. Customers can

then be informed about optimal services or service providers and service providers can be informed about target customers. The service field is formed by the relationship between customers and target services, and it expresses the intensity of service matching.

The identification of the service field is to clarify what services customers in various environments and situations require.

- Collecting data related to customers' needs, services of service providers, and environmental data on services
- Analyzing data using various methods or technologies for identifying service field
- Conducting some experiments from analysis of collected data

After the service field is identified, the service mediator should find and provide suitable services or information from service providers to users. This will markedly leverage the service values from the beginning since seeds and needs are matched. Consequently, suppliers and users are eager to cooperate in further exchanges to make services increasing and mutually satisfying through interaction in the co-creation process. Finally, service exchanges benefit all players in business with optimal service values as all parties co-create the services that they want through the environment of the service field.

3.4 Hypotheses for the service mediator model in the business management

3.4.1 Hypotheses from SDL and the service field concept

The relationship between providers and receivers has existed since the beginning of business exchange. It has changed from organization centric-oriented to customer centric-oriented and now is balanced between both sides' benefits. This research agues the role of the service mediator model in supporting this relation. It would be very complicated and confusing in service businesses if there are no mediators supporting collaboration between providers and users because a great deal of information would be exchanged by users and providers, who are not good at managing these contexts. It could even mess up the services and waste a huge amount of time, costs, efforts and the results might not even be success. Therefore, the existence of mediators is extremely important to support higher extraction of values to convey satisfaction.

Hypothesis 1: *"The service mediator is the intermediary to bridge providers and receivers cope with each other and balance the relationship for both benefit and satisfaction".*

In order to mediate well for providers and receivers, the service mediators must be equipped with good functions and tools. Hypotheses below describe the necessary functions and tools of service mediator.

Hypothesis 2: *"The service mediator must identify and organize the service field for value co-creation".*

It is not easy for mediator to control and balance the relationships and benefits of both clients by acting as an bridge between providers and receivers. How to build good relationships and encourage clients to efficiently work with one another are the roles of service mediator. Therefore, the service mediator must know its capabilities and requirements to reach mutual agreement between both sides. The service mediators help customers exchange their values and ideas to thoroughly understand seeds and needs by organizing and managing a constructive service field. Therefore, knowing their partners well is the key leading to high values in co-creation.

When users want services, they receive a huge amount of information from service providers and cannot choose the best one for their solutions. It is also hard for service providers to find customers due to various reasons such as lack of market research, culture, and language barriers. This leads to the importance of the mediator who is an intermediary that collects and balances the seeds and needs of the services by managing the service field. Once all parties can trust one another and feel comfortable in cooperation, they can increasingly contribute and co-create information, requirements, and services in the service process. In the end, the final results can satisfy all parties by high value extraction.

The organization and management of the service field require many factors to build and control this essential environment. Service mediator organizes a common interactive environment since the beginning to gather information from all attendants, thus makes it useful for analyzing and matching suitable services. Organization and management of this conceptual service field is the main focused for a good service mediator.

However, it is not enough to just match seeds with needs. Another important role of the service mediator is that they must do their best to support value co-creation. Service values

here are constructed by all parties in the business. This means that one must use the applied knowledge of others (services) as a resource to benefit others (Vargo et al., 2008). Many tasks are set up for the service mediator to fulfill customers' expectations to enhance value co-creation. The mediator must be equipped with advanced data mining systems with advantageous collections from the huge data of providers and users in the market and analyze data that fit potential supply and demand. When users and suppliers are ideally matched, they are relaxed during cooperation and carefree in sharing and discussing services, after which they can build agreeable services together. When customers demand services, they always want to work with comfortable processes, and through easy interactions and friendly communications. The service mediator takes care of all functions of services to satisfy all requirements, even the tiny factors in the processes. In order to provide competitive advantage in service field and other functions for promoting value co-creation, information technology should be considered as a key component.

Hypothesis 3: "*Promotions of value co-creation are needed effective IT infrastructures and accurately data mining tools for encouraging data collection and analysis*"

This hypothesis suggests an advantageous system with the IT support in service mediator model. Information technologies can be applied to solving all data duties such as data collection, data mining, and data matching. The power of IT can help the service mediator reduce the amount of expended time and effort. However, an advanced and high technology system requires large budget for setting up and training usage. Service mediator must have prior notice if they want to apply IT to its operation.

Hypothesis 4: "*Communications and service management skills are needed for the service mediator*"

Frontline people in the service mediator must have both communications and management skills. When they work with both providers and receivers, they must have good abilities to collect information and encourage their clients to truly sharing their resources. In some cases, clients are difficult and strict, and mediated men with adequate skills have better solutions and gain more success.

Last but not least, service mediator works with attendants on two sides so a perfect communication skill for intercommunications is always a favor. How to serve both parties and please all with the services that mediator can give is not a simple task. Flexible, thoughtful, convenient are the necessary characteristics for a mediator.

3.4.2 Structure of the proposed service mediator model

This chapter has proposed the service mediator model concept. Based on above discussions, a service mediator model can be raised and considered to leverage the value co-creation for the business organization. Figure 3.3 summarizes the structure of the service mediator model.
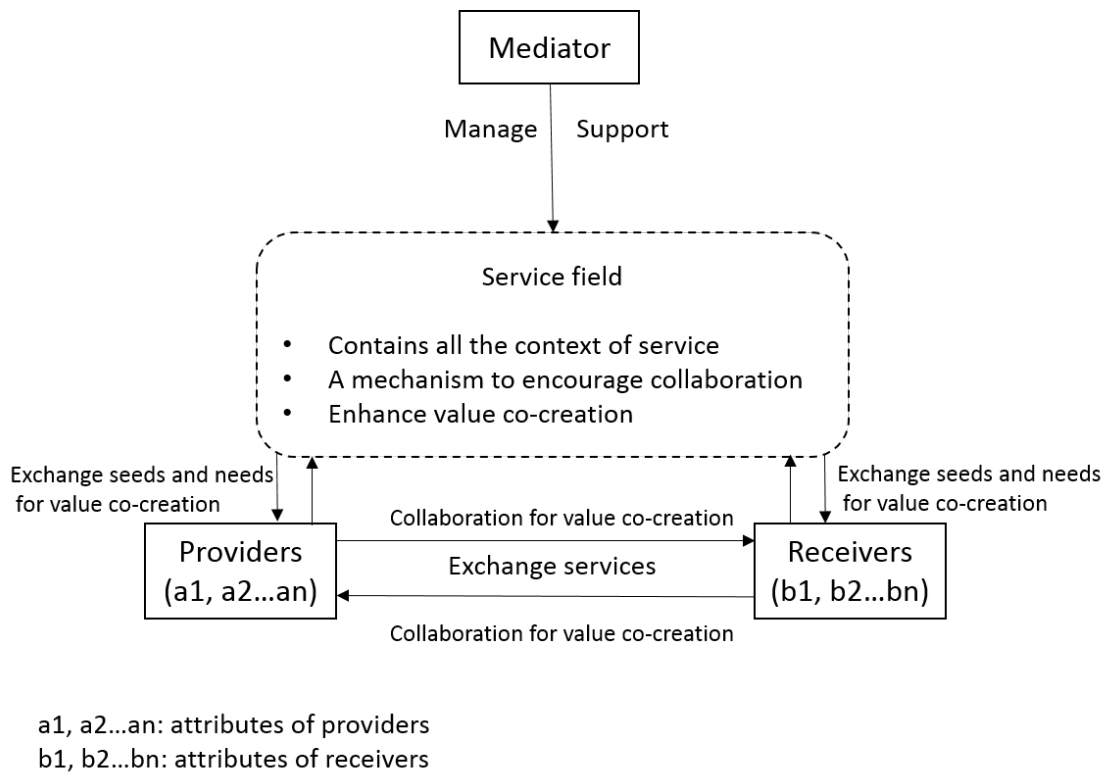
Figure 3.3 Structure of proposed service mediator model

The service mediator model based on both SDL and service field concept to support value co-creation between providers and users. As providers and receivers have many seeds and needs while exchanging services. For example those seeds and needs could be the

attributed as a1, a2… an, or b1, b2… bn. Because providers and receivers have different requirements and expectations, it is not straightforward for them to collaborate and match those attributes correctly. In the proposed model, the service mediator organizes a propitious service field as a mechanism to manage and support the co-creation. Providers and receivers are given a comfortable, trustworthy and convenient service field to exchange their seeds and needs. They do not have to worry about the difficulties in how to exchange resources. The service mediator encourages them to exchange seeds and needs by organizing effective mechanisms. When the service field is identified and managed well by the service mediator, the service values have an environment for co-creation and innovation. All attendants can comfortably and trustily share their information in the location managed by the mediator, and all their contexts related to the services to cooperate in a comfortable environment. Thus, the service mediator uses its own advanced resources and technologies to promote value co-creation. They engage both to interact and cope with each other so as to understand one another for better collaborations. As a result, the mediator is able to response to customers' expectations and satisfy them by increasing service values via supportive co-creation process. By that, the service mediator will enhance the service value for greater satisfaction

In conclusion, the roles and proposed functions of the service mediator are summarized in table 3.1.

Table 3.1 Roles and proposed functions of the service mediator

Roles of the service mediators	Functions of the service mediators
• Identify and manage the service field as a mechanism to collect, share and analyze seeds and needs of providers and receivers. • Match providers and receivers' seeds and needs. • Promote value co-creation between providers and receivers.	• A convenient, user-oriented, trustworthy, and effective service field. • Strong and reliable IT infrastructures. • Well-equipped databases. • Good data processing and mining tools • Well-trained people with good communications and management skills.

Chapter 4 Case studies in IT service management

4.1 Introduction

The first business process management this research will study is the IT service business. To verify the potential of service mediator in IT business, two IT companies were chosen for three reasons. First, they work in the information service business; second, they represent two types of business (B2B and B2C); and last, they were very succesful leading companies in their fields. The first company is Hitachi TWX-21, a large powerful IT solutions company in Japan who creates new applications for industrial companies by optimally matching providers and users' supplies and demands. The second was Cookpad, the No.1 cooking website in Japan, who provides recipe information to users and co-creates knowledge with users by sharing cooking experiences. Their frameworks were investigated to find out what were the required functions a service mediator should have to bring satisfaction to customers (Doan M., C., Shirahada K. and Kosaka M., 2013)

4.2 Case study of Hitachi TWX-21

4.2.1 Organization profile

Hitachi Ltd is a very powerful company in Japan, which has an over 100-year history. The company is active in various fields ranging from social infrastructures to home appliances, materials, logistics, and services. In the era of globalization, the necessity of building the system which can share information between two or more companies in a short period of time is increasing dramatically. Catching up with the trend, Hitachi set up a business media service that has so far provided approximately 55,000 companies. Hitachi has organized TWX-21, a useful and effective place for business transaction on the Internet. TWX-21 means "trade winds on extranet-21" (Kojima et al., 1998), which is a cloud computing service equipped with many applications such as SaaS, EDI, etc. For 15 years, thousands of companies have been served and supported by this system and satisfied with it. Domestic and overseas can carry out the cooperation of a design, supply, production, sale, etc.

from the abundant menus of business SaaS only in the browser environment on the Internet. Being a mediator for the business process, Hitachi TWX-21 manages service exchange and leverages service value. Its system enhances the collaborations between providers and users, thus boosting up the value co-creations. This business model is considered as the best to convey benefits to all players in business.
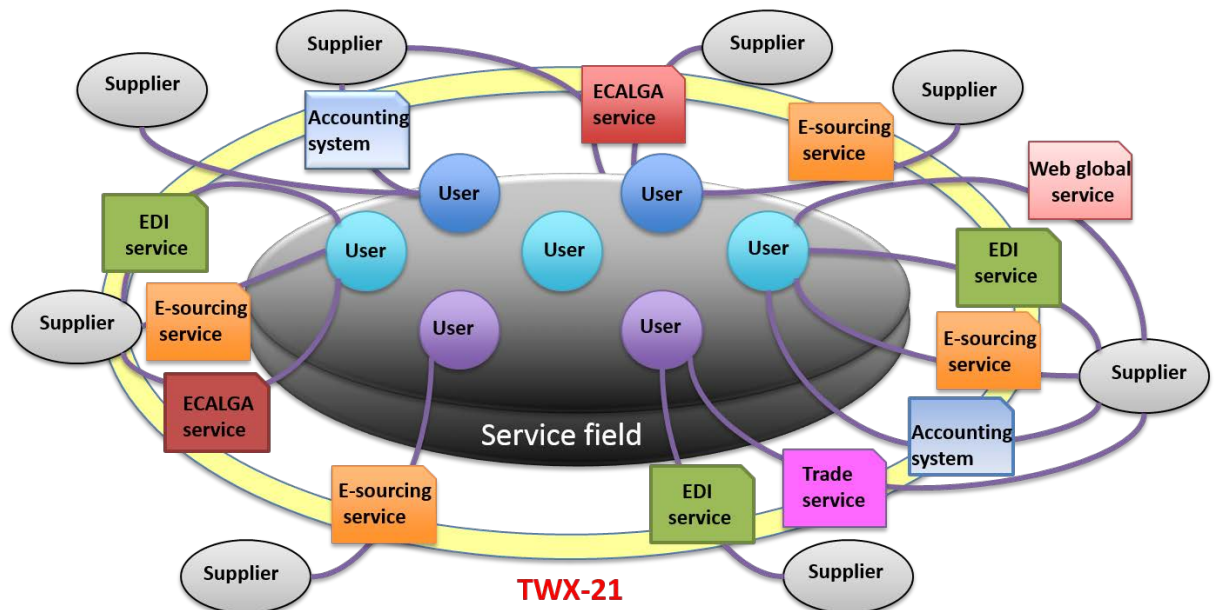
Figure 4.1 Structure of Hitachi TWX-21

Translated from Japanese version of Hitachi TWX-21's documents

4.2.2 Analysis of Hitachi TWX-21

(1) Data analysis from Hitachi TWX-21 business framework

Hitachi is excellent at offering customers high quality services and has provided the service business of TWX-21, which is called a "business media" or eco-system model. Figure 4.1 outlines the concept underlying TWX-21 in which an eco-system is proposed to build collaboration between users and venders. TWX is the mediator who connects the seeds and needs of business partners and its users in this framework.

TWX-21 collects service demands, and through standardizing service quality, it develops the requirements of customers and then links them to suitable suppliers. TWX-21

uses its huge database and tools to match the seeds and needs of users and business partners in this process. TWX-21 proposes a service field to connect this supply and demand, which is its cloud platform, to collect and correctly analyze the requirements of customers. This is not an easy task since it must satisfy customers from the beginning by choosing the best partners; otherwise TWX-21 will fail to satisfy customers with their services.

TWX-21's powerful services such as E-sourcing and EDI services are used through domains and servers, even via the Internet to bring up the fastest, friendliest, most effective services to customers. Hitachi creates an evironment for customers to present their ideas and check whether their requests have been solved. That provides effectiveness and productivity to service exchanges. When all its services are organized within the service field, TWX-21 assists customers to access and manage their services proficiently. Figure 4.2 outlines the business model for Hitachi TWX-21, which supports the construction and operation of electronic commerce systems including networking and business applications for the coming era of virtual enterprises, thus conveying high levels of satisfaction to all users.
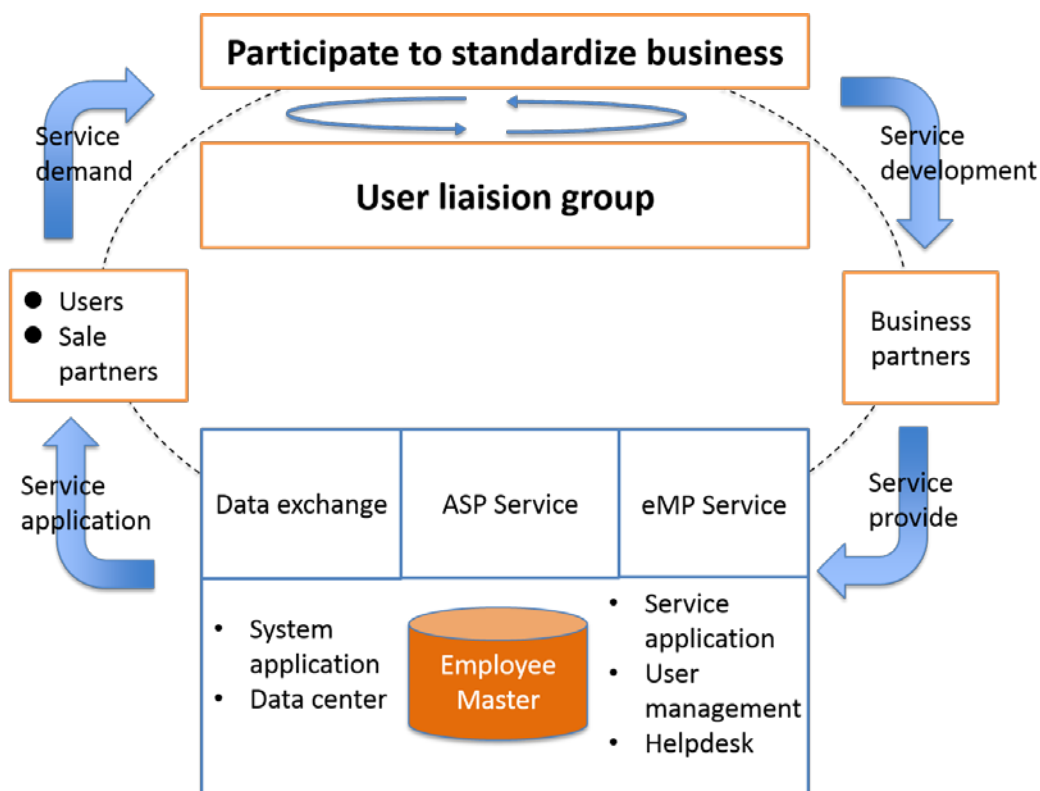
Figure 4.2 Hitachi business framework

As illustrated in Figure 4.2, we can see that Hitachi TWX-21 is:

1. A collection of inter-enterprise, electronic commerce (EC) services for affiliated members.

2. A company that provides a highly reliable global network.

3. A company that provides various services that enhance business efficiency.

4. A company that provides a business infrastructure to service providers.

TWX-21 builds a good environment for all players in the business and contributes and creates beneficial services for all by being a bridge that connects business partners and users and assists them to co-create service values.

The service mediator model of Hitachi TWX-21 business is viewed from the real example of its business. An instance of Hitachi TWX-21 mediator model is the system dealing with issues in outsourcing manufacturing overseas. Japanese manufacturers have expanded their productions to China by establishing sites for cost cutting. However, they came to face up many issues with supply chain management (SCM) and engineering chain management (ECM). Related to issues of SCM, manual procedures with paper works limit the productivity of inventories and distributions. Lacking of knowledge transfer, unclear price decision-making process and no value co-creation between local suppliers and production sites are also big problems for the organization. Regarding to ECM's issues, recognition gaps between Japan and China must be coordinated well. Moreover, information transferring between two sides takes time due to lack of completed IT infrastructure for integration.

In an attempt to response and solve the issues, Hitachi established the TWX-21 cloud platform between production sites in China and their local suppliers, and between head office in Japan and production sites in China. TWX-21 introduced its services such as the global EDI service, document exchange service, global supply change management service, and etc. to resolve the issues. Hitachi has offered its services to allow all attendants to develop service on the platform. The cloud platform works as a service field equipped with many tools (Hitachi's service) has provided a safe and reliable platform for SCM and encouraged sharing and collaboration by information sharing and visualization. Moreover, it has assisted speed and flexibility in knowledge transfer and feedback. Most importantly, the cloud platform provides a place for all attendants understand about each other and co-create for mutual goals. Finally, the Hitachi TWX-21 has helped providers and users clear their problems. Figure 4.3 describes the operation of Hitachi TWX-21 in China-SCM project

Figure 4.3 Hitachi TWX-21 mediator system in China – SCM project.

Adapt from Kiuchi et al. (2012)

(2) Analysis of Hitachi TWX-21 from the interview

We interviewed the Senior Director Mr. Kamada of TWX-21 and obtained survey data from the company to know what the key reasons for TWX-21's success are. Understanding the TWX-21 model gives us the chance to explore its supporting functions and how those functions contributed to the value co-creation process. Those functions are:

(a) Strong Brand

First, Hitachi has a good brand that can gather together suppliers and users to work smoothly under the TWX-21 umbrella. It is one of the most well-known IT service firm in Japan so that many business partners and customers want to do business with it. It also has a

high standard of quality that helps control and qualify the services provided. Suppliers and customers can believe in the services provided and enjoy joining in the environment that TWX-21 has organized and prepared for them because of its good reputation. TWX-21 has attracted around 55,000 customer companies globally from over 20 countries and regions and is considered a trustworthy and effective company for all IT solutions. It emphasizes the well known, strong brand of TWX-21 in enticing customers and creating favorable impressions.

(b) IT infrastructure

The second reason, also one of the most powerful functions of TWX-21, is that it has an outstanding IT infrastructure and systems. Today's business market demands a high rate of change in information technology (IT) by which organizations are required to handle problems. Organizations face rapidly changing market conditions, new competitive pressures, new regulations that demand compliance, and new competitive threats. All these situations drive for the need of IT infrastructures for organizations to respond quickly to support new business models and requirements. Fortunately, Hitachi TWX-21 has a strong foundation in its IT system that can provide all services from maintenance to e-sourcing services. TWX-21 focuses on its IT infrastructure to create a robust and suitable space for its customers to cooperate in creating values in services. TWX-21 also leads customers to the best services for the sake of satisfying even the most difficult clientele in every area of computer science and engineering such as Web services, databases, software, hardware, and security.

Customers require much more convenience and comfort in the Internet era. TWX-21 uses a high speed Internet network to ensure that relaxed operation is free from being affected by speed or time. Customers expect powerful, fast, cutting-edge, and easy methods of receiving information and knowledge. The need for self-service has arisen, as the ability to communicate. Customers do not want to travel through long distance to have the services they want. Therefore, TWX-21's powerful IT infrastructure gives it the chance to compete with others and be successful in satisfying customers' needs and make the business more comfortable for users. TWX-21 helps users obtain high quality service standards with its professional knowledge in the information field.

The three most remarkable functions of TWX-21 are Web-EDI services, Document Exchange Services, and SaaS support services. Figure 4.4 shows the structure of the SaaS business support service that is a useful function to help suppliers and users launch their

businesses quickly and inexpensively. Its powerful system creates a comparative service with other competitors and exceeds the others in excellence. TWX-21 has solved all problems and provided direct interactions between suppliers and users at lower cost by providing outstanding services and making coordination between firms and customers become more efficient and responsive. Therfore, Hitachi's TWX-21 has become one of the leading global providers of IT solutions in cloud computing in Japan and China.
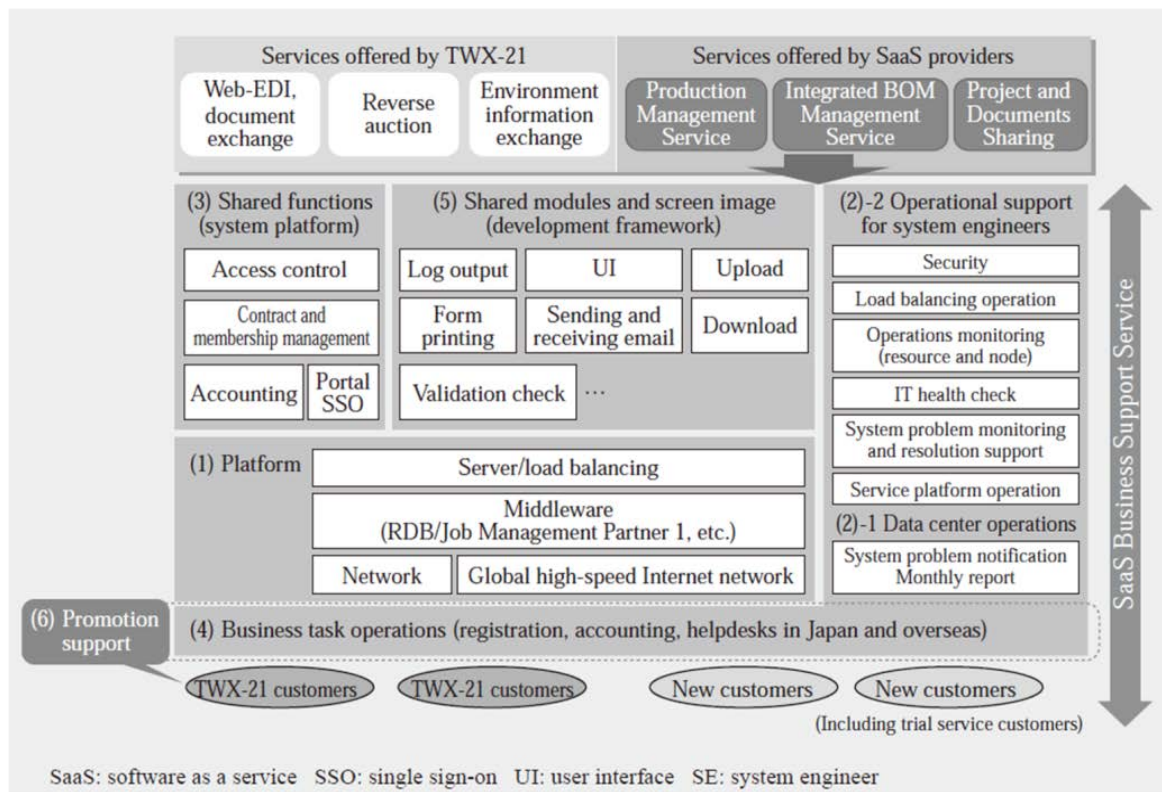
Figure 4.4 Structure of SaaS business support service

Source: Kiuchi et al., 2012

(c) Efficient system of data processing

Hitachi's TWX-21 has an enormous data center that helps its employees analyze the supply and demand of suppliers and users and match them fully. Moreover, its feedback system and spiral data processing with a trial and error process are repeatedly implemented to leverage the data after feedback. The spiral model is applied in the development process as it continues to develop, provide feedback, and revise data until agreement is obtained from users. This system provides customers with more valuable and useful information. As a result,

this model establishes professional levels of performance that satisfy customers.

(d) Communications by human

Hitachi knows that communications is the means to approaching customers' perceptions and decisions. Therefore, it concentrates intently on building excellent frontline teams to serve customers. All customer-service employees are qualified in communicating with people and helping customers to choose the most suitable services for them. They can also provide customers with consultations giving professional advice and recommendations. Technical expertise has also been taken into consideration with a professional helpdesk that can help customers with 24/7 assistant and immediately solve their problems. Moreover, all services and helpdesks are meant to offer in multiple languages (English, Chinese, and Japanese) to enable customers to easily communicate and collaborate. Hence, human resources represent one of the most significant functions of TWX-21 operations in satisfying customers.

(3) Effects in introducing the service mediator model in Hitachi TWX-21

TWX-21 provides an effective environment for business partners and users to communicate and exchange services with the eco-system business. It helps in developing innovative services and applications to promote service values by involving both suppliers and users to make contributions to the service creation process. The framework spirally develops the TWX-21 society by encouraging users to take part in creating values and enhancing cooperation between all players in the business. As describes in the real example, Hitachi has helped local suppliers, production sites in China and head office in Japan cut down the cost by solving the obstacles between them. The establishment and management of a cloud platform is cost budget but worthy enough for smoothening collaborative process. The interaction is now more effective which leads to a better performance of all attendants. Mr. Kamada has affirmed that: "the success which the mediator model has brought to providers and receivers is worth for the cost investment". Moreover, the excellent functions of TWX-21 help providers and receivers to expand their business and become a beneficial platform for global corporations. More and more clients come to Hitachi TWX-21 according to its effective service (43,500 users in 2012 to 55,000 users in 2014 according to the company's documents).

The research hypotheses have been justified with the case of Hitachi TWX-21.

Table 4.1 Hypothesis justification of Hitachi TWX-21 and future implications

Hypothesis	Hitachi TWX-21	Future implications
<u>Hypothesis 1</u>: *"The service mediator is the intermediary to bridge providers and receivers cope with each other and balance the relationship for both benefit and satisfaction"*.	• The Hitachi TWX-21 is the mediator to encourage business partners and users (provider sand receivers) cope with each other to help them solve the obstacles between.	• N/A
<u>Hypothesis 2</u>: *"The service mediator must identify and organize the service field for value co-creation"*.	• TWX-21 established a cloud platform as a service field for service partner and users co-create the service value.	• N/A
<u>Hypothesis 3</u>: *"Promotions of value co-creation are needed effective IT infrastructures and accurately data mining tools for encouraging data collection and analysis"*	• TWX-21 provides a strong and reliable IT infrastructure supports data collection and mining. • Applications of IT tools such as EDI, SaaS, and databases of TWX-21 are effective and helpful for both providers and receivers.	• More simple and user oriented system to make customers more interactions and co-creations.
<u>Hypothesis 4</u>: *"Communications and service management skills are needed for the service mediator"*	• Hitachi TWX-21 has helpful helpdesk and customer support for assisting customers.	• Speed up the support time to make customers more satisfy.

4.3 Case study of Cookpad

4.3.1 Organization profile

Cookpad Inc. was founded in October 1997 and has developed from a small website (*www.cookpad.com*) providing information about cooking and recipes to a successful service company with a huge number of users. It is now the No.1 recipe website in Japan with nearly 45 million views per month and the number of premium members is 1,4 million (7/2014). Through its 17 years of operations, Cookpad has gradually made service innovations to become the largest cooking website in Japan. By providing an interest website for cooking knowledge, Cookpad has attracted not only woman in 20-30 years old as their targeted viewer but also men and women of all ages. With nearly 2 million recipe data uploaded and shared by users, the website has been created a fancy place for cooking lover. Users love to surf Coopad.com whenever they need a recipe to cook or simply to share their dishes. Operated as a SNS for cooking lovers, Cookpad is a good system mediating both manufactured firms and customers. They have all the reasons to be the mediator in IT service business. This research has surveyed Cookpad as a case study to explore the key functions that made up its success.

4.3.2 Analysis of Cookpad

(1) Data analysis from Cookpad's business framework

Cookpad is Japan's top website allowing visitors to search and upload original or user-created recipes. With Japanese culture of bringing lunch box and eating together on dinner, Cookpad has become an essential tool for preparing a nice family meal. More and more users come to Cookpad.com to experience its services and enjoy the recipes, pictures, and cooking tips it offers. Figure 4.5 describes the operations of the Cookpad firm.
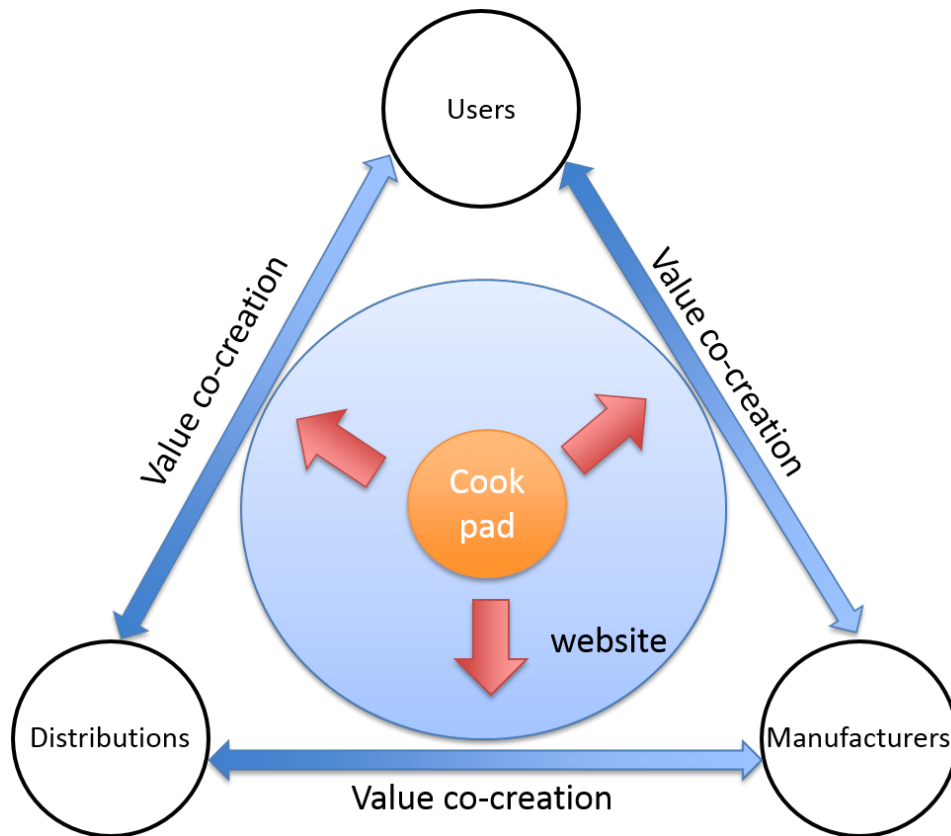
Figure 4.5 Cookpad's framework

Source: Adapted from Japanese version

As can be seen from Figure 4.5, Cookpad works with both business partners and users as a mediator. Cookpad supports users by giving them food recipe and tips to enjoy cooking and eating healthily. Besides that, Cookpad supports manufacturers with mining users' data and provide customers' insights for manufacturers. Moreover, manufacturers can reach customers through advertising on the website. The company operates in three business sectors. They are the membership, the marketing support, and the advertising sectors. Cookpad always tries its best to provide effective environments and services to help suppliers and users cooperate in the service creation process in all three sectors, thus leading to value co-creation in service exchanges.

For instance, the membership sector provides friendly and easy search for website so that users can interact. Most Cookpad users are housewives who have less or no prior experience with technical issues related to the website. What they want are easy self-service website, fast and accurate information retrieval, and attractive format design. The Cookpad

website is well organized for cooking lovers to come together, share their recipes, and learn from other people's experiences. Users can then co-create service values and provide satisfaction by providing services.

The second business sector is marketing support, which provides tie-up advertising services including recipe contests and sponsored kitchens for manufacturers, sellers, and distributors of food, beverages, home electronics, and cooking equipment such as that for the Ajinomoto, Meiji, and Denki Meikan companies. Cookpad provides an analysis tool @ tabemiru.com to analyze the search log data of identity (ID) login users for Cookpad.com. Business suppliers identify customers' needs, learn from their perspectives, and make plans to create the value-in-use for customers based on this service. Both business partners and users in these kinds of services obtain benefits from Cookpad's services. It connects the demand and supply of customers and helps them to understand one another. Co-created value is built from the service field such as contests or the Tsukurepo, which presents what Cookpad provides to customers.

The last sector is the advertising, which sells companies advertisement spots on the Cookpad website through advertising agencies and media representatives. Advertising on its website is a good choice as Cookpad is one of the most popular sites for cook lovers. Business partners can advertise their products to users and users can find the information they want from the advertisements posted on Cookpad website. As values are beneficial for both types of customer, they can collaborate to extract values they both agree on.

Overall, Cookpad has built a suitable business model that assists service providers and users in becoming aware of, communicating with, and sharing information with one another and then exchanging the services through collaboration. That is an excellent way of satisfying customers.

(2) Analysis of Cookpad from interview and data survey

After conducting several interviews, we obtained survey information mainly from the site *www.cookpad.com*. We could identify some supporting functions that contributed to the success of Cookpad from information the interviews provide. Furthermore, a survey on the Cookpad website was carried out to obtain further information that could help explore key factors leading to the Cookpad phenomenon. The functions below are considered in

organizing a first-class place (Cookpad website) for cooking lovers to interact and co-create service values.

(a) Popular brand

Cookpad is ranked 27th among all japanese websites (Alexa, 11/2014), and among all recipe website in Japan, it is the number one. Cookpad is a sweet place for cooking lovers and housewives despite the various other interests of Japanese. Cookpad obtains nearly two million recipes from their website and most of which are contributed by users. This demonstrates strong cooperation by customers to develop Cookpad as No. 1 recipe website. People are usually worried about what they should make and eat on a daily basis so that they are interested in website like Cookpad, which offers meta-recipes for them. Number of access to the site reaches its peak at about 4-5 PM when people in Japan start grocery shopping for the day's dinner ingredients.

Cookpad is attractive because it gives people a way of enjoying good food and makes cooking fun and exciting. Users consider Cookpad to be their home on the Internet to have fun, to learn to cook, and to make friends with one another, like a small world in which people are always happy. Moreover, Cookpad is more competitive than other companies by having a very large database on food recipes. 1,87 million recipes both original and users-made is a huge number, which proves the popular of Cookpad. Users come to Cookpad not only for searching recipes but also making it by themselves. It is a hobby that brings happiness to users. That is the value Cookpad bring to their visitors and users.

Day by day, the visitors and paid users using Cookpad keep on skyrocketing. From 1 million paid users in 2012, now there are 1,4 million paid users. And the page views are also continually increasing. This affirms the dominance of Cookpad in recipe website services. It means the Cookpad brand is very popular with people who love preparing food because increasing numbers of people have joined the website and everybody is contributing efforts to developing the Cookpad database. Cookpad with its popular brand has the power to make business partners and users work together and co-create service values to bond mutual satisfaction.

(b) Friendly and productive interface

The second function, which is believed to be Cookpad's strongest weapon, is the high quality of its IT infrastructure. Cookpad has created a speedy, easy, and friendly website for its customers. As most of Cookpad's customers are women, the company assumed that most

of them would be not good at IT technology. A friendly website should help them find the information they wanted immediately and most accurately. As Cookpad uses state-of-the art security to protect its data, this makes users have confidence and trust when exchange information on its site. We know it is very important to ensure the safety of personal information because hackers can use that information to harm customers. Such issues could damage the relationship between firms and customers. The Cookpad's website is an enjoyable place to look out for food recipes.

In addition, we also found that the scientific and logic system on the website could help users easily find the recipes they wanted or quickly choose the food corner they were interested in from the survey of the Cookpad website. They classified recipes in systematic categories, which made searches more effective and accurate. For example, they created corners for everyday nutrition, cakes, and bread. Moreover, they had a list of the five most popular keywords that changed every hour of every day to help users update their needs along with the interests of others and what the most searched foods were. This made it more convenient for customers to find the recipes they were interested in. Figure 4.6 gives examples of Cookpad categories that provide instructions to users to choose the most popular recipes.

Figure 4.6 Example of Cookpad.com categories (translated from Japanese version)

Its strong IT infrastructure also enabled Cookpad to expand its services to users using mobile devices. Increasingly more people are getting stuck with their phones and tables rather than their usual computers. Cookpad understands this trend and made innovations in website design to attract more users. Combined with mobile and smartphone services that can be used on the go and in stores, Cookpad plays a significant and influential role in the making shopping decisions of consumers in their everyday lives.

Users are satisfied with Cookpad, and so are their business partners. The reliable IT infrastructure provides a lot of good marketing and advertising tools for partners, and helps them to reach customers on a personal level. Thanks to its dependable IT infrastructure, Cookpad can satisfy both kinds of customers.

(c) Uniquely shared experience through additional recipes

Cookpad has a huge database of food recipes, pictures, and tutorials that can be uploaded for free due to contributions by users. These satisfy the rest of the users. The

information provided by over millions of users is invaluable and it could help business partners such as food and kitchen appliance companies understand their customers and prepare goods/services that suit them.

Furthermore, Cookpad lets users upload recipes and pictures of the dishes to the website in their folders and share these with other users. Other users who try these recipes upload small changes to the recipes to improve them or provide more suitable tastes. The process continues spirally with more and more people, thus enhances the values provided to customers. These experiences certainly are invaluable and more attractive to customers. Clearly, the "shared experience" satisfies customers more than just "information sharing". It enhances value co-creation by connecting people to share great experiences in cooking. With Cookpad, customers reduce the time they need to learn about preparing food and learn from others' experience. This is the best service to satisfy their requirements.

(d) Online Communications

As a mediator, it is very important to understand customers' needs to connect the requirements of users and business partners. Cookpad always tries its best listening to customers and defining problems with customers to assist them quickly. Consequently, Cookpad lets users provide feedback online and it responds to all inquires as soon as possible. Cookpad has made an effort to try to create an English website to receive feedback from users. However, Cookpad.it is not yet as complete as Cookpad.com but it is a good way for English speaking users to exchange their ideas and knowledge with the company. This is a particularly clever achievement by Cookpad. Customers really want their feedback to be listened to and their problems solved. This process secures the relationship between firms and customers and leads to long-term commitments. The longer customers use services, the more successful a company becomes.

(2) Effects in introducing the service mediator model in Cookpad

The case study of Cookpad provides evidence about the effectiveness of its business model and points out functions that enabled the company to succeed. Cookpad rapidly increased the number of members and recipes and thus became the No. 1 recipe website in Japan by attracting cooking lovers. That is a great achievement for a company to succeed in such competitive market like Japan. Cookpad has become successful because it has provided

services to build a friendly and interesting society for cooking lovers. Customers come to Cookpad to have fun, enjoy cooking, and share interests. The way Cookpad encourages customers to co-create service values by spirally sharing recipes is a smart strategy to spirally increase value offerings. Therefore, Cookpad has been able to gain the interest of customers and address their concerns to become the best.

The study of Cookpad case has given the justifications with the hypotheses and future implications.

Table 4.2 Hypothesis justification of Cookpad and future implications

Hypothesis	Cookpad	Future implications
Hypothesis 1: *"The service mediator is the intermediary to bridge providers and receivers cope with each other and balance the relationship for both benefit and satisfaction".*	• Cookpad is the mediator to encourage manufacturers and users (provider sand receivers) cope with each other to help them interact and collaborate for value co-creation.	• N/A
Hypothesis 2: *"The service mediator must identify and organize the service field for value co-creation".*	• Cookpad offers a website as a service field for manufacturers and users together finding the others' seeds and needs for understanding each other.	• N/A
Hypothesis 3: *"Promotions of value co-creation are needed effective IT infrastructures and accurately data mining tools for encouraging data collection and analysis"*	• Cookpad provides a friendly and reliable IT infrastructure to support data collection and mining. • Applications of IT tools such as denki meikan, advertising tools are effective and helpful for both providers and receivers.	• Categories in the website should be designed simpler and more effective for users to look for the recipe.
Hypothesis 4: *"Communications and service management skills are needed for the service mediator"*	• Cookpad provides online supports with mail inquires, and form inquires. • Cookpad also prepares the frequent Q&A for customers easy to search.	• Instant chatting could response to customers immediately. • Support through telephone should be considered.

4.4 Consideration of required functions of service mediator

Analyzing the two organizations in IT service, the research hypotheses have been justified as seen in table 4.3. Some factors were identified to enable the success of Hitachi TWX-21 and Cookpad, two real companies, were analyzed to be understood. They have similar functions that support the co-creation process in service exchanges. These functions are also categorized to contribute to the two roles of a service mediator model based on SDL and the service field. Table 4.3 summarizes the actual useful functions of the two ISFs that verify the functions of the service mediator we proposed.

Table 4.3 Comparison of roles and functions

between proposed model and case studies' models in IT business

	The proposed service mediator model	Hitachi TWX-21	Cookpad
Role	• Identify and manage the service field as a mechanism to collect, share and analyze seeds and needs of providers and receivers.	• Identify and manage the service field as a mechanism to collect, share and analyze seeds and needs of business partners and users.	• Identify and manage the service field as a mechanism to collect, share and analyze seeds and needs of website's users and providers.
	• Match providers and receivers' seeds and needs.	• Match providers and users' seeds and needs.	• Match website's users and products/ service providers' seeds and needs.
	• Promote value co-creation between providers and receivers.	• Promote value co-creation between providers and users.	• Promote value co-creation between website's users and products/ service providers.

Functions	• A convenient, user-oriented, trustworthy, and effective service field.	• Well-known brand. Nearly 55,000 users. Ecosystem based on IT.	• No. 1 recipe website in Japan. 44 million users /month. User friendly website.
	• Strong and reliable IT infrastructures.	• Strong ICT, IT infrastructure.	• Fast and convenient website.
	• Well-equipped databases.	• Huge data center	• Huge database of users' information.
	• Good data processing and mining tools.	• Powerful with eMP, SaaS, and ASP Trial & error feedback system.	• Effective marketing tools. Near 2 million recipes. Shared experience through additional recipes.
	• Well-trained people with good communications and management skills.	• Frontline employees. Help desk. Support in multiple languages.	• Online feedback Bilingual feedback system.

From knowing the required functions of service mediator in IT service, the research discovers the real procedures of the service mediator in IT business in mediating providers and receivers.

Step 1: Collect the information from both providers and receivers

*Step 2: Analyze the data collectio*n

Step 3: Match providers and receivers' seeds and needs.

Step 4: Promote value co-creation between providers and receivers.

Chapter 5 Case study of HRM

5.1 Introduction

5.1.1 Human resource management as service management

As employees are stakeholders of organization (Jones, 1997) and also contribute to its success, employers have to treat them with more respect and deal with the service aspect. When service is exchange for service (Lush and Vargo, 2006), employers and employees exchange resources for each other's benefits. Employers exchange their service such as compensations, benefits, trainings, and etc. while employees exchange their skills, abilities, and contributions to organizations. In that way, employers and employees are both service providers and service receivers having objectives and propositions in the exchange. This activity is the service activity and it requires an effective model for managing the service exchange.

Regarding to the human resouces management (HRM), people usually think that it is a part of an organization, which manages labor force for a company. Actually, HRM is a bridge connecting employees and employers. HRM must balance the requirements and expectations of both sides and bring it up to their satisfactions. Thus, "mediator" is an adequate concept for HRM. As a mediator, HRM involves in the value co-creation process between companies and employees. By supporting collaboration, HRM can leverage the value extract between the organization and its staffs. Firms realize employees's expectations and create a good environment for them to work, and people work harder and efficiently for the mutual goal of the exchange. Harmonization managed by HRM will lead to higher quality of service that a company can provide the market.

Table 5.1 below explains the objectives and propositions of service providers and service receivers in the service exchange between employers and employees.

Table 5.1 Objectives and propositions of providers and receivers in HRM

	Objectives and propositions	
Municipal hospital	• Service providers/ service receivers (Doctors): - Objectives: Nurses with high quality skills, responsible manners of nurses. - Propositions: Trainings, treatments.	• Service providers/ service receivers (Nurses) - Objectives: Good working environment, good treatments. - Propositions: Assist doctors with specific skills.
Suntory PepsiCo Vietnam Beverage	• Service providers/ service receivers (Employers): - Objectives: Employees with high quality skills, more contributions to organizations. - Propositions: Compensations, Trainings, career developments.	• Service providers/ service receivers (Employers): - Objectives: Good working environment, good treatments. - Propositions: Abilities and skills, commitments to organization.

5.1.2 Chapter's objectives

This chapter analyzes the mediator system and strategies of two organizations to justify the potentiality of service mediator model in HRM. The target of this research is to clarify the hypotheses raised through actual HRM works in real organizations. Moreover, the study wants to define the functions of real HRM system and learn how they can solve the issues in human management. Data analysis for the case studies will show how a mediator in HRM can reduce the gaps between employers and employees and how value co-created is promoted.

New findings from the case studies encourage the mediated role of HRM in organizations and propose future implications for business organizations.

5.1.3 Cases selection

Two organizations have been chosen as case studies of this research. One is a municipal hospital in Ishikawa, Japan and another is Suntory Pepsico Vietnam Beverage (SPVB). By choosing the 2 cases in different country, this research aims to clarify the potential of HRM as a mediator in different types of organization and in different countries.

In the first case study, the data has been collected through many sources: preliminary surveys, reports of the MOT class in Ishikawa and Tokyo of JAIST, documents of organizations, and the interviews. The municipal hospital has been selected as a case to study because it is one of the effective HRM mediator among Ishikawa organizations. During the MOT class, some actual cases have been discussed and the hospital has been chosen because of its innovations and effectiveness in using a mediator in management of employers and employees' relationships. When municipal hospital has been chosen, deep interviews with hospital HR managers are conducted to discover more about the mediated system

Next, in the case of SPVB, it has been selected because of its successful in HRM. Not only that it is one of the most famous brands in the world, PepsiCo International is also usually in the top demand companies for employees (from the survey of LinkedIn 2014). PepsiCo Vietnam is the owned by PepsiCo International before and now is acquired by Suntory and changed in to Suntory PepsiCo Vietnam Beverage from April 2013. In Vietnam market, SPVB is one of leading companies in fast moving consumer goods (FMCG) and is a very successful company. It has been awarded and recognized by government organizations, social organizations and global PepsiCo International for its contributions and success. The HRM of SPVB has done a good job to support the collaborations between employers and employees to leverage the company's value. This research has studies the success of SPVB to identify its mediator model and explore its functions, which manage and support well for solving HR issues and promoting the value co-creation in the company. Staffs of SPVB have been surveyed for the necessity of a service mediator model in HRM. Top managers of SPVB have been interviewed for new findings about its HRM as a mediator model. Documents offered from company also help revealing the detailed of mediator model.

The two cases were selected for the above reasons. Although these might not be symbolic case of Japan or Vietnam's mindset but in fact it can justify how the service mediator model are organized and managed to encourage cooperation within company and

leverage the value that can be extracted.

5.1.4 Chapter organization

This chapter includes four parts. The first part is the introduction. The second part is the analysis from the preliminary survey and reports in MOT Class in Ishikawa and Tokyo then going on with deep interview and survey with the hospital's HR managers to research about its service mediator model. The third part is the case study of SPVB and knowledge about their HRM model and strategies. Considerations on the hypotheses and actual model of SPVB have been also discussed in the third part. The last part contains comparison of the proposed service mediator model and the two mediator models in HRM of the hospital and SPVB to acknowledge the differences between proposed model and the two HRM service mediators.

5.2 The case study of municipal hospital in Ishikawa prefecture

5.2.1 The case study methodology

To justify the potential of the service mediator model in HRM, three phases of data collection have been done in the case of municipal hospital in Ishikawa. The first phase is the preliminary survey with joiners of JAIST MOT class in Ishikawa and Tokyo. The second phase is analysis of MOT reports of group discussion in Ishikawa class. The last phase is semi-structured interview with the HR managers of the hospital. By analyzing data collected from three phases, the research can discover detailed information about the HRM mediator in the hospital and how it became successful to clear up the problems in HRM and strengthen the value co-creation.

(1) Preliminary survey and reports of MOT class in Ishikawa and Tokyo

The preliminary survey has given us a general view about the necessity of mediator in HRM and how mediator could help intermediate employers and employees in organizations. In MOT class operated in Ishikawa and Tokyo in 2013, we surveyed managers and employees in big companies in Japan such as NEC, Eizo, RB Controls, etc. to see whether they are

interested in service mediator and want to apply it in their organizations. 35/42 surveyed people had interests in the mediator model. 25/42 people thought that service mediator is a suitable system for their company. 16/42 said that they already had similar HRM system working as a mediator and it was really effective to support the organizations performance.

When being asked their expectations about HRM as a mediator, interviewers show many demands and hope in the new model based on service perspectives. They await to see the service mediator model help employers and employees to collaborate smoothly and work on projects effectively. Moreover, this model is also expected to encourage motivations of employees and teamwork spirits. Project times and performances are also supposed to be fastened with the service mediator model in HRM. With a service mediator proving an effective service fields, they hope employers and employees could understand each other's requirements and together feedback well for others' needs. Good atmosphere and creative attitude are also to be looked forward in organization.

(2) Group discussions and reports of MOT class in Ishikawa

Among the reports of the MOT class in Ishikawa, the case study of municipal hospital in central Ishikawa prefecture has been notably discussed. In the hospital, to reduce the gaps between doctors and nurses, Administration Management Department (AMD) has organized a mediated system to encourage cooperation. This system has been successful in matching seeds and needs of doctors and nurses, thus increases the value co-creation and leverages performances of the hospital. The HRM mediator system of the hospital has been discussed widely among MOT class' attendants. People are interested in the mediator model and consider how HRM is optimized to resolve its difficulties. In this case, we focused on studying how its HRM works as a mediator and solves the hospital's issues.

(3) Semi-structured interview with hospital HR managers

In the last phase, semi-structured interviews with the HR managers of the hospital will give more data about hospital HRM mediator model. Results of this case study will find out what the main functions of the HRM mediator are and how those functions support value co-creation. In the interviews with managers who created the mediator system, originality of

HRM as a mediator in the hospital was determined and its characteristics and functions were demonstrated to explain how the service mediator model in HRM of the hospital reinforces relationships of employers and employees.

5.2.2 Outline of case organization

(1) Organization profile and philosophies

The hospital was established in April 1989 by the government. Throughout the 26 years in operation, the hospital has served thousands of patients, taken care of people's health and saved lives of citizens in local area. In 2010, it has been rebuilt and become one of the biggest hospitals in Ishikawa prefecture in Japan. With 28 specialties and research centers, it has served the people in central Ishikawa and also provided high tech medical equipment for other partners. Having high quality of medical machine such as PET-CT, the hospital has been promoted to be the joint of using advanced medical equipment and worked to expand medical cooperation.

As a core hospital in the area, the hospital always tries to enhance medical system to give better service to patients. Their philosophies to support healthy life for people are:

- Strive for the good medical treatment, which can meet the expectations.
- Strive for the safe and trusted medical treatment.
- Strive for comprehensive medical treatment without a break.

(2) Hospital's visions

The hospital also introduces its visions, which aim to encourage all managers, doctors, nurses and staffs to follow. They provide warmth and respect to their customers by rights and dignities for the medical treatments. They try their best striving for full reinforcement of advanced medical treatments and an emergency care system. Improvement in a medical level and cooperation with medical treatments, health, and a welfare agency are also promoted for being a substantial medical service organization.

In this hospital, a patient's human rights are protected. Whoever the patients are, they shall receive reliable standard medical treatments that bear responsibility and collaboration.

The patient's privacy is protected, and totally secured. Patients also have their rights to be informed about their sickness contents, the necessity for an inspection, and plans of medical treatment. All of these are explained plainly for the patient. When the patient fully understands and agrees with the plan, suitable medical examinations will be performed. The treatment progress must be co-created by customers.

All the managers, doctors, nurses and staffs of the hospital together follow these visions to assure their commitments. 505 people of the hospital strive to give good quality services, respect the rights and dignities of everyone, keep standard care with anyone, reinforce the advanced medical care and emergency medical system, promote cooperation with others and enhance the value co-creation in the hospital. Those efforts guided them to be one of the best hospitals in Ishikawa prefecture and gained the trust of their patients.

(3) Issues in the organization

As a large hospital on Ishikawa prefecture with 505 employees, the hospital has many issues in managing its human resources. In hospital, the Administration management Department is the one who takes care of the hospital's HRM. This figure below shows the hospital's structure organization.
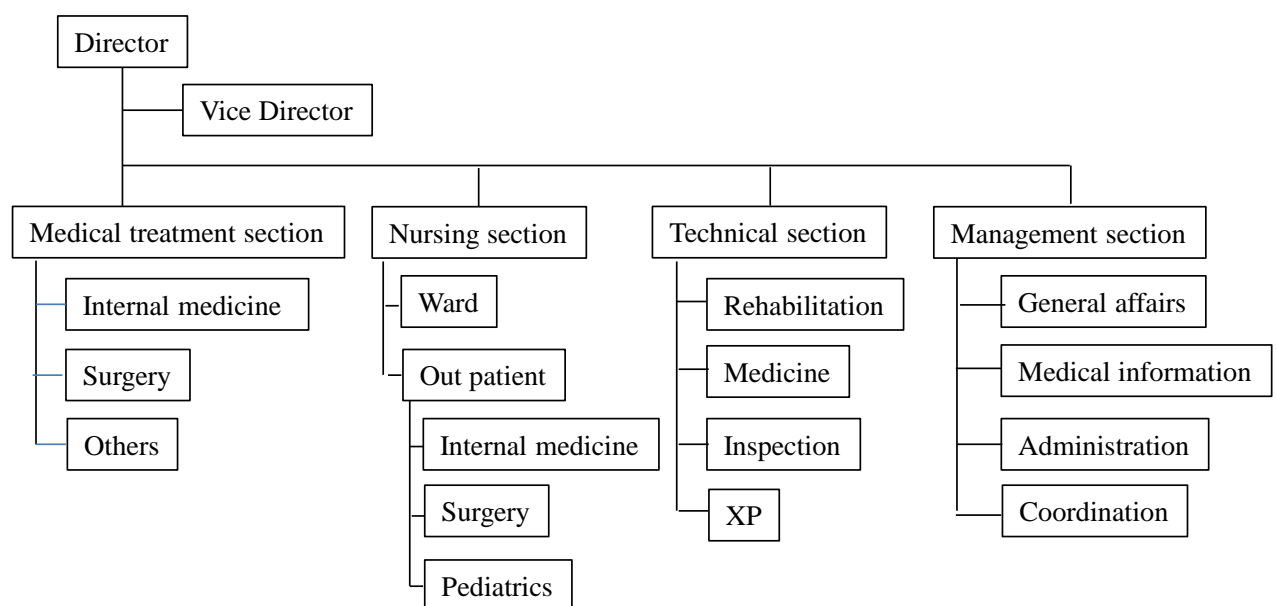
Figure 5.1 Management structure of municipal hospital in Ishikawa, Japan

There are many issues in a hospital's operations because there are many layers in hospital systems. Collaboration between the general director, board, and staff is very loose because of infrequent contacts resulted from the figure. There are many layers preventing staffs from listening and following the vision of the directors and also preventing the directors from understanding obstacles in the working environments of the employees. There are difficulties and problems in transferring the ideas and visions of the hospital president to all employees. Although the directors' and board's visions are very important, the employees are too busy to listen to or understand them. This causes problems and even misunderstandings at work, which lead to disputes, low motivations, and high turnover rates. Moreover, Japanese people has the culture of following orders from older people or experienced ones so that they rarely feedback or share their real thoughts or feelings. That will drive to long-term conflicts and stresses when working together.

Another issue in the hospital is the gaps between the managers and the technical sections. Sometimes they do not understand each other and thus not working well in building budgets for purchasing medical equipment or medicine supply. They have troubles with mutual goals, and limited budgets hence it gets hard to make efficient decisions. It is necessary to match each other's requirements and conditions so that they all satisfied and have effective collaborations. Those all reasons have driven the effectiveness of hospital operations below standard, and patients cannot be treated effectively.

Those issues above need an effective solution. I have deeply analyzed the case of municipal hospital to verify its mediator model.

5.2.3 How to solve issues using the service mediators' functions

(1) The mediator model and its framework in the municipal hospital

The mediator model has been developed 4 years ago and it has been successful day by day. The existence of the mediator is the innovation of the AMD of the hospital (AMD of hospital is considered as the one in charge of HRM in the hospital). The idea was raised by the AMD Head when facing with low collaborations between employers and employees in the hospital. The AMD Head realized that the doctors and nurses had ineffective communications that make them feel unwell and uncooperative with each other. The same problems happened

with the Technical section and doctors when they work together to buy medical equipment. Conflicts and gaps between them reduce the performance and take more time in making decisions. Therefore AMD Head decided to assign a mediator for coordinating managers and employees. The chosen one was a staff of AMD, who was a nurse. He was chosen because his experiences in working with doctors and nurses, the advantages to be a mediator. Deeply understanding the nurse's job, being trusted by them and flexibly communicating with doctors helped him to be a suitable candidate for mediating doctors and nurses.

After being chosen, he was trained in one year in management skill and other soft skills to do mediator's work well. At that time, he had to learn much new knowledge about management, service, communications, etc. The AMD trained him to have both skills of service and technical knowledge so that he can be able to collect data from doctors and nurses and analyze it well to have useful information for AMD to support the collaborations and decision making. The job of mediated man is supporting employers and employees' collaborations by helping them to coordinate meeting, engage sharing section, plan and set up the interactions. Moreover, he also analyzes the feedback data to report to AMD Head. Based on the information analyzed by mediated man, AMD Head can have enough information about the seeds and needs of employees and employers, therefore he could come up with right strategies to treat both of them and support the decision making by a group meeting for mutual goals.
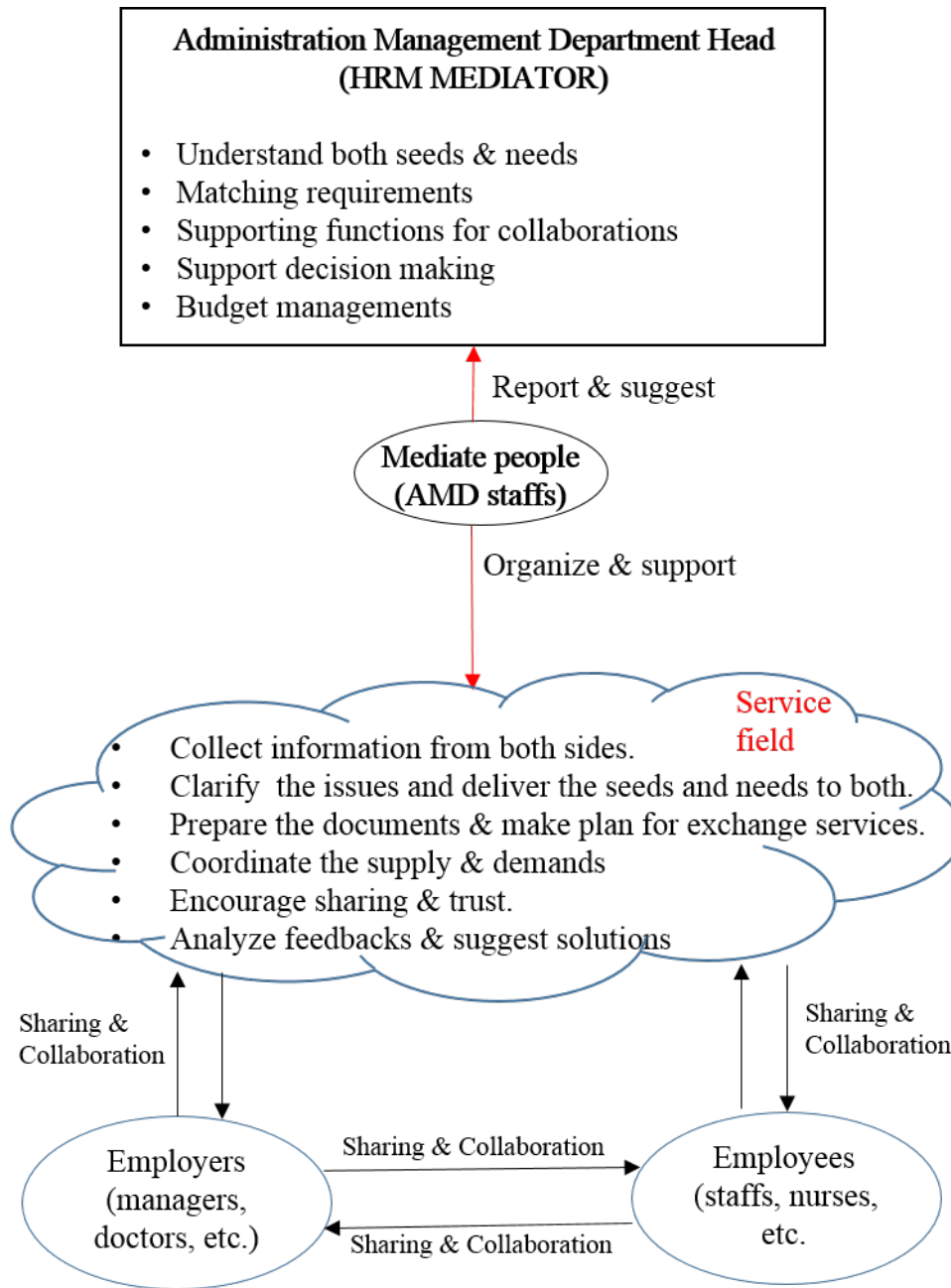
Figure 5.2 Mediator model in hospital's human resource management

Figure 5.2 above illustrates the model of mediator in the hospital. AMD creates a mediator to support employers and employees in sharing and collaborating with each other. By sharing and collaborating, they can together create higher values for the hospital. The final goal is benefits for all and extracting the satisfaction for both sides. The value is finally co-created because it was agreed by all players in the exchange.

(2) Analysis of how mediated people mediates doctors and nurses

(a) How to collect information and share information

The first concrete example of issues in the hospital is low cooperation between doctors and nurses. Because two sides do not understand each other, it leads to struggles and low cooperation. The responsibilities of mediated man are to reduce that gap and match seeds and needs from employers and employees.
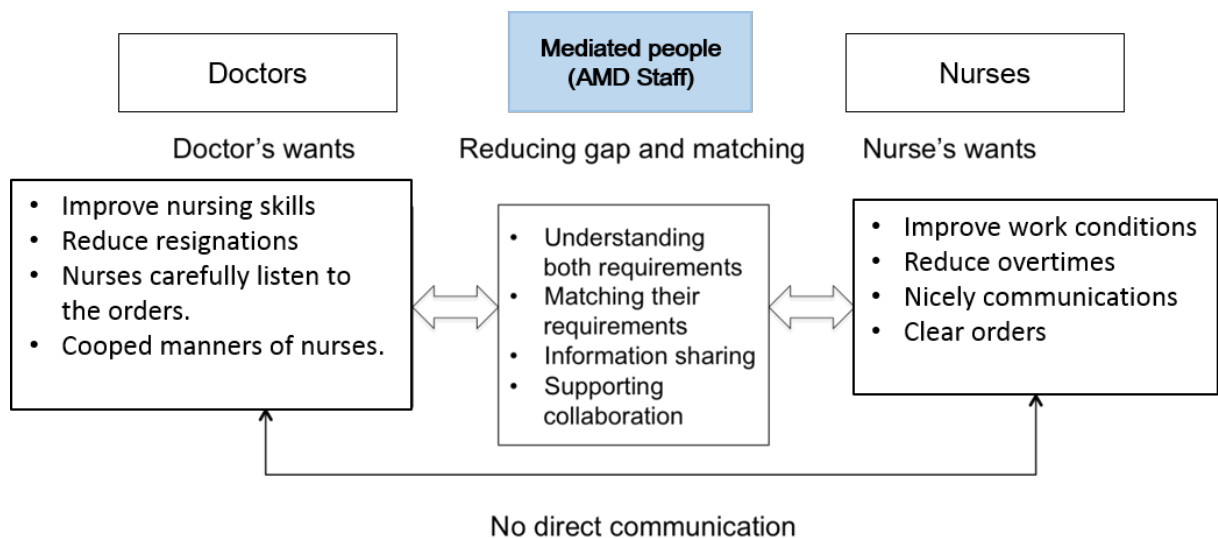
Figure 5.3 Gaps in collecting and sharing information between doctors and nurses

As shown in the figure 5.3 there is no direct communications between doctors and nurses when they want to express their requirements. Doctors and nurses are too busy and do not have time to exchange and share their seeds and needs. Moreover, they do not acquire the skills to transfer those demands clearly for the purpose of getting solutions from the others. In that circumstance, mediated people will be the intermediary to collect information and deliver it to suitable one. The first reason that mediated man could be able to collect and share information well is his advantaged experiences. The AMD's staff who was a nurse before has strong ability to listen to nurses' requirements, understand these requirements, and collect them without any troubles. Because he was a nurse before, he can clearly understand the nurse's work and how hard it is. This is the important point of mediator. Nurses' duties are very heavy and they always work under pressure. It is very difficult to understand their works

and situations unless you work as one. The mediated staff was a nurse so he knew clearly about stressful circumstances and how nurses dealt with obstacles and overcame them. Therefore, he could mediate nurses' requirements and expectations with doctors and hospital directors. When directors on the board of the hospital understood the staff's expectations, they could treat them suitably. Thus, this increased staff motivation, ensured they remained committed, and reduced high attrition rates.

Moreover, having worked as a nurse before, mediated man had real experience with doctors and he was used to doctors' working habits. That helped him quickly understand doctors' requirements and orders. He would collect those requirements and needs from the doctors then delivered them to nurses immediately without any mistakes. Being trusted by both sides, he easily collected the seeds and needs of them and matched it smoothly, helping doctors and nurses to feel easier to cooperate. Sometimes, there are gaps that doctors and nurses cannot share to each other, but with one trustworthy mediator, they can truthfully sharing their problems and requirements. He can help doctors deliver their orders and requirements to nurses in more flexible way and make it more comfortable. When nurses can completely absorb the visions from doctors. They can make it clear and focus on following this. The visions of the hospital now are co-created from managers' boards, doctors and nurses to be optimized. That will increase the service performance of the hospital.

(b) How to promote the value co-creation

Co-created values built by both doctors and nurses are necessary for the hospital's performances. Once the doctors and nurses totally agree with an issue, the value extraction is co-created and highest satisfaction is brought up. Consequently, everyone will do their best to make works done well. In promoting co-creation between doctors and nurses, the mediated man has tried out some strategies.

Normally, one on one meeting is the basic way to interchange requirements and feedbacks for employers and employees but in the situation of doctors and nurses, they are too busy to have such meeting with each other. Mediated staff then supports them by coordinating all of the administrative tasks and prepare all the documents for their meeting. This step reduces time and efforts for doctors and nurses before the meeting. Speeding up moments and saving efforts help both sides feel comfortable and more ready for the meeting.

Thus the exchange process at the meeting will be smoother and more effective. When both sides are encouraged to exchange information and share knowledge, the co-creation progress happens more easily and then the value extraction is optimized. The more people interact and are willing to share, the more value co-creation has been built, and final results are productiveness and efficiency.

Furthermore, the mediated staff organized a comfortable, friendly environment for employers and employees feel free to share and feedback information. This service field could be informal chatting or officially sending email to him. Given a place to share and exchange requirements and concerns without any hesitation, people are engaged to cope and enthusiastic to co-create value with the others. When people know that their demands are received and appreciated they feel better and eager to exchange more. Spirally sharing, feedback and revising make the circle of value continually co-creates and leverages itself. End value is co-created and satisfied all the attendants in service exchange.

(3) Analysis of how mediated people mediates doctors and technicians

(a) How to collect information and share information

Another problem in the hospital is collaboration between doctors and technicians (Figure 5.4). The doctors frequently have to order medical equipment or need medical treatment repaired. When working with technicians, some problems might arise. They usually have disagreements about purchasing new medical equipment due to different situations and requirements. When there are gaps, there will be conflicts and struggles that make the service value low. It takes time, cost and efforts when doctors and technicians cannot exchange seeds and needs, sometimes even mutual agreement. Therefore, the existence of mediated people is needed.

The mediated man will mediates seeds and needs of doctors and technicians for better results. First, he will work with doctors to find what doctors want. By close connection with the doctors, he will collect this information quickly and correctly. In the other side, technicians also provide him their information. Because the doctors are too busy to share problems with technicians, the mediated man will help collect information from the technicians.

He will prepare detailed information for both sides when sharing the knowledge so that they can conveniently communicate with him. Being able to arrange suitable time and place, he is easy to get the information needed.
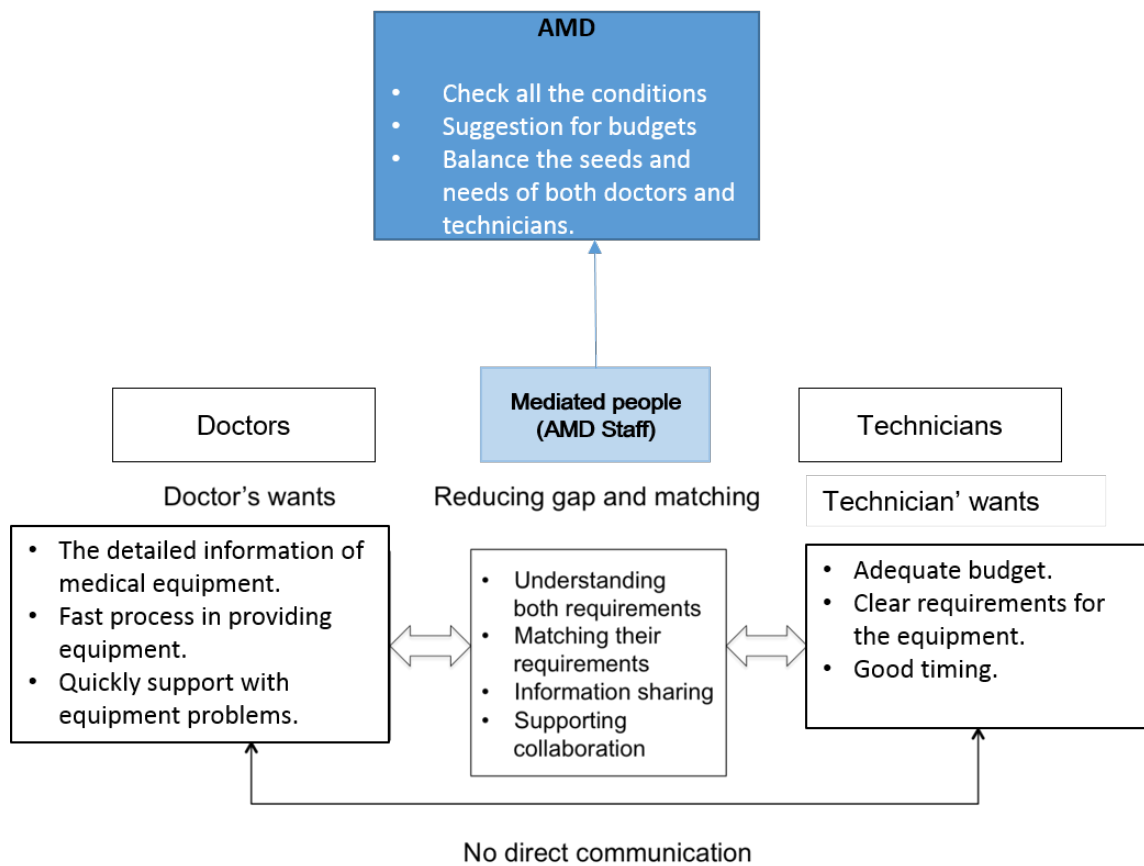
Figure 5.4 Gaps in collecting and sharing information between doctors and technicians

After collecting all necessary data, the mediated man will analyze, and make a report for AMD managers. Those AMD managers will check these documents to understand the seeds and needs of the doctors and technicians. Then they will make balance between those requirements and abilities of each side and make suggestions for the budgets. Those suggestions will be widespread to doctors and technicians via mediated man. By collecting information, analyzing and share it back to providers and receivers, mediated man will have useful information exchanged and spirally leveled up.

(b) How to promote the value co-creation

Based on the information giving by mediated man, the doctors and technicians have the processed data that could reduce their time and efforts to decide. When understanding clearly about seeds and needs of the other and having suggestion from AMD, both of them will easily figure out the agreements. The final meeting arranged by the mediated man is a good place to have mutual goals. The mediated man coordinates for the meeting. He has done all the administrative works in order to prepare an effective meeting. The collaboration between doctors and technicians has been promoted through this event. They are supported with prepared documents with detailed information. With those supports, the doctors and technicians clearly understand about the others' needs and feel free to exchange their ideas. When communicate and interact in a comfortable atmosphere with abundant knowledge provide, doctors and technician are easy to co-create the service value and quickly reach to mutual agreements. The final result gets the highest satisfaction thanks to promotions of the value co-creation by mediated man.

5.2.4 Effects in introducing the service mediator model in the hospital

From the AMD managers' interview, people in hospital are satisfied with the mediator model and they feel happier when they have chance to express their feeling and share their concerns with him. Turnover rate is cut down and more employees affirm the long-term commitment for hospital sustainable business. Doctors and nurses now can deduct the stresses and conflicts when working with each other. Therefore, they can cope with each other better and bring more effective services for the patients. When the patients are treated well, the hospital can leverage the satisfaction from its customers.

Furthermore, the time of making decision for buying new equipment is shortened through quickly agreement of both managers and technician because they already understood the others' requirements. Cost budget is also well managed thanks to well alliance between doctors and technicians. The mediator has brought changes for the associations especially between employers and employees. By keeping up with the relation and taking care of even tiny little things of the relationship, mediator strengthens the connection and improves the value co-created for the sake of the hospital's performance.

According to its success, the manager of the AMD has affirmed, "*there is a plan to train more mediated people to develop this model and enhance the motivation of employees*". Through 4 years of carrying out mediator model in HRM of hospital, the motivations of employees are boosted up and employers are easy to reach their staffs' concerns and issues. The mediator model supports the internal communications and makes it clearer for both employers and employees. When all the misunderstanding and gaps are listened and taken care of, they will be solved immediately. This is the good result for a fruitful HRM by using mediator model.

5.2.5 Considerations

A case study of a municipal hospital was a good example for the model of value co-creation. The AMD of the hospital was regarded as the Human Resource Department, which took care of HRM. The AMD of the hospital did a good job at organizing and managing the service field and mediating in human relationships. Technology was not a crucial factor in the actual business of the hospital, so that hypothesis 2 of our model was not justified through this case study. However, we encouraged that IT technology should be applied to the HRM of the hospital because from our point of view, it could help greatly in collecting data and analyzing seeds and needs of employers and employees. Nonetheless, the service field provided was still not so convenient but rather simple. A more friendly, attractive, and comfortable space was suggested in this case. However, some of issues at the hospital could be considered to be successfully solved were related to the hypotheses. Table 5.2 summarizes the case study, compares the results with the hypothesis, and lists the suggested concepts

Table 5.2 Hypothesis and summary of hospital case study.

Hypothesis	Hospital case	Future Implications
Hypothesis 1: "*The service mediator is the intermediary to bridge providers and receivers cope with each other and*	• AMD proposes mediator model to solve the issues in HRM of the hospital • AMD organizes a	• Always remember that staffs are also stakeholders so that the exchange of values is a key point in collaboration. • SNS is good but its

balance the relationship for both benefit and satisfaction".	middleman to help encourage collaboration and assist value co-creation.	management is more important. It must be a stress free, non-pressure, non-ordered place. • The service field is a place for interacting and sharing resources. • Advanced embedded technology is also needed to enable convenient usage. • A warm atmosphere and sincerity will help to make colleagues closer and enhance value co-creation.
Hypothesis 2: *"The service mediator must identify and organize the service field for value co-creation".*	• Mediated man plans and coordinates meeting for employers and employees to co-create. • Mediated man always listens to and is willing to receive information from people. He is a service field.	• Provide more attractive and trustworthy service field such as team building; informal lunch meeting, etc. • Booklet for spreading employers' visions. • SNS or opened system to feedback.
Hypothesis 3: *"Promotions of value co-creation are needed effective IT infrastructures and accurately data mining tools for encouraging data collection and analysis"*	• N/A	• Encrypt all information on employees in a database. • Use IT for mining the collected information. • Train mediated man about IT skills for better data analyzing

Hypothesis 4: *"Communications and service management skills are needed for the service mediator"*	• Mediated man was a nurse so that he knew how to communicate and balance between doctors and nurses or doctors and technicians. • He has been trained with communications and management skills which benefit for his work.	• HRM should be empowered to enable effective mediation. • Lunch with doctors and nurse to engender closer relations. • Team building events for enjoyment and creating closer relationships outside of work.

With the real procedures, actual protocols of the hospital has been describes in the below table.

Table 5.3 Real procedure of the service mediator in the hospital

Proposed service mediator model	The mediator model in the municipal hospital
Step 1: Collect the information from both providers and receivers • The mediator organizes and manages a service field as a mechanism to collect the information from both sides. This service field must be well equipped to attract and encourage information exchange from both providers and receivers.	*Step 1: Collect information from both providers and receivers* • The mediated man communicates with doctors and nurses/technician to collect their information. • He is trusted by both sides and has communicated skills so that he can attract and encourage doctors, nurses and technicians to share and exchange the information.

Step 2: Analyze the data collection • The mediator has analyzed the data by its own resources. The more database and data mining tools are utilized, the more productive and efficient data are processed. • The analyzed data then could be shared back to both sides and spirally leveraged by co-creation process.	*Step 2: Analyze the data collection* • The mediated man analyzes the data by his ability and skilled. He was supported with some analyzed software but most of works are done by his analytic skill. • After understanding the analyzed data, mediated man shares information to doctors, nurses and technician for them to understand more about the others and continuously exchange more information for more understanding.
Step 3: Match providers and receivers' seeds and needs. • With the analyzed data, the mediator will categorize those data and match seeds and needs adequately.	*Step 3: Match providers and receivers' seeds and needs.* • By analyzing the data, the mediated man determines what doctors, nurses and technician needs. He categorizes the seeds and needs of the two sides and offers the suitable seeds to the suitable needs. For example that when knowing the doctors' wants about the machine and what technicians have had, the mediated man matches them and helps both sides know about the others' demands and supplies. The mediated man shows the matched seeds and needs that can provide solutions for both.

Step 4: Promote value co-creation between providers and receivers. • The mediator engages the providers and receivers to co-create with each other. • The mediator helps providers and receivers to understand about each other, and clears the misunderstandings or conflicts then they can feel free to exchange service for value co-creation.	*Step 4: Promote value co-creation between providers and receivers.* • The mediated man helps doctors and nurses/technician understand about each other. Then they can communicate and collaborate for mutual goals. For example: when doctors can understand the nurses' pressure, they can have better management activities to balance the environments. Thus lead the nurses feel better and they will co-create more in engaging the medical treatments for patients. It makes the performance of the hospital better by co-creation between doctors and nurses.

The findings in the hospital case study describe the effectiveness of mediator model in HRM. In fact, the innovative model of AMD did solve issues in human resource in the hospital. The way AMD mediated employers and employees made changes in hospital operations and thus improved its performance. Through the case study, the potential of a mediator model in HRM is verified. The specific mediator model of the hospital has the same structure at the proposed model. They both have a core mediation system equipped with functions to collect seeds and needs from both sides and aim to match them. Although there are still some concerns that should be focused on more, the concept of a SDL mediator is suitable for municipal hospitals and should be expanded and leveraged to intensify performance.

5.3 Case study of Suntory PepsiCo Vietnam Beverage (SPVB)

After having conducted a case study of municipal hospital in Japan, we have decided to carry out another case study to see if the potential of service mediator model in HRM differs with the kinds of organization. We decided to choose Suntory PepsiCo Vietnam Beverage, one of the biggest FMCG companies in Vietnam. By choosing SPVB, we want to clarify its HRM system and see how it is matched with the proposed mediator model.

5.3.1 Case study methodology

In the case study of SPVB, we have done three phases of data collection. The first phase is the preliminary survey with staffs who are working in SPVB to see whether they had any considerations about a mediator model and what they thought of employers and employees' relationship. The second one is semi-structured interview with SPVB top managers to study the detailed system of organization's HRM. The last phase includes analyzing company's documents. By analyzing the data collected from three phases, the research can discover detailed information about HRM mediator in SPVB and how it is successful in an attempt to clear up the problems regarding HRM and strengthen the value co-creation.

(1) Preliminary survey with SPVB's staffs

The preliminary survey gave us a general view about the necessity of mediator in HRM and how mediator could help intermediate employers and employees in SPVB. We have delivered short surveys to 10 employees in SPVB and ask them about what they thought about the employers and employees relationship. 8/10 people thought that "Employees are customers of the company and employers concentrate on their knowledge to develop business". When being asked, "what are the roles of HRM"? 7/10 people agreed that HRM should be the bridge between employers and employees by balancing the need of people and benefit of business. They also pointed out the issues of employees and employers are "The needs of employees conflict or uneven with the resources and expectations of employers". Therefore, the mediating role of HRM is necessary. Employees expect HRM to have suitable systems and strategies to help them feedback and propose their information to employers.

(2)   Semi-structured interview with top managers of SPVB

After doing survey with SPVB employees, interviews with top managers of SPVB has been conducted to verify the system of HRM in organizations and study how HRM response to expectations of both employers and employees. HRM of SPVB has been divided into many HR branches under management of HR Head office because it has many operation plants in Vietnam. With the huge number of workers and operation plants and sales agency, SPVB must build thick-layered HRM system in order to take good care of all its branches. Each local HR has different strategies to treat its human according to local or specific workers' characteristics. Nonetheless, all are under the management of HT Head office. The deep interviews gave us wide and detailed functions of SPVB's HRM in order to enhance the value co-creation in organizations.

(3)   Analysis of organizations documents

Organization documents have been provided to this research for further analyzing and evaluating the success of SPVB's HRM system. Through the archival records, what HRM has done and has not done can be analyzed and answer whether this model is congruous with the hypothesis raised.

5.3.2 Outline of case organization

(1) Organization profile and visions

Suntory PepsiCo Vietnam Beverage (SPVB), 100% owned by foreign capital, a strategic alliance between PepsiCo Inc. and Suntory Holdings Limited, was officially formed in April 2013. PepsiCo Vietnam has a long history in Vietnam market since 1991. It is now one of the biggest beverage companies in Vietnam. The new alliance is expected to build on PepsiCo's existing position in Vietnam and create new growth opportunities for PepsiCo and Suntory in the market. PepsiCo is one of the leading players in Vietnam's liquid refreshment beverage space, and the alliance is designed to combine the capabilities of both companies in ways that are mutually beneficial to their businesses, customers and consumers. (From

The company's mission and vision are to continue on strengthening and maintaining the leading position in the beverage industry while living with the company's values. Sustainable developments, benefits to its employees and business partners, and contributions to the communities are the objectives SPVB tries to approach.

Forming by the collaboration between Suntory and PepsiCo International, both in the list of top wanted company among employees, the HRM of them is one significant case for studying and research.

(2) Issues at Suntory PepsiCo Vietnam Beverage

Being a huge company with over 2000 employees, SPVB faces a lot of difficulties in managing its human resources. With 4 big operation plants located from North to South region of Vietnam, the HRM model must be incredibly systematic, specific and outstanding in organization to manage the issues of human resources and embolden them to collaborate for company's success.

There are too many segments in the staffs that make the HRM to come up with different strategies to work with them. The white-collars in offices have different kinds of demands and supplies, whereas the worker in plants needs different treatments and communications. Every employee has his/her own expectations about the job, on the other hand, his/her managers also has their request to them. Those expectations sometimes do not meet and that is when gaps arise. In some cases, managers and staffs can handle them, and together they find the solutions. However, in worse cases, the managers and employees cannot understand each other, and they refused to communicate or keep going on working with a bad feelings or manners. That leads to ineffective performance that affects company's services.

How HRM collects all the seeds and needs of all employees then analyze them to match the seeds and needs between company and employees are huge issues that HRM must deal with. Besides, balance out the requirements and help employers and staffs work closely to one another in a collaborated attitude, convenient environment, and trustworthy feeling are also the tasks of HRM even though those are not easy to handle.

5.3.3 How to solve issues using the service mediators' functions

(1) The mediator model and its framework in SBVP

We met Mr. Pham Phu Ngoc Trai, former PepsiCo President and CEO and Ms. Van Thi Anh Thu, Senior Vice President HR of SPVB in September 2014 to learn from them about SPVB's visions regarding the relationship between employers and employees and their actual actions for leverage and keep long-term commitment of this relationship. The vision of the management board focused on human for the sustainable of the company's development. At SPVB, human resource is the most precious asset they always try to nurture and support. Employers of SPVB consider employees as their customers and exchange the services for other benefits and consequently, both are beneficiary in the exchange. The employers care about the staffs and consistently provide opportunities for them to express themselves and innovate competitively the company.

In order to manage and support employers and employees' collaboration with each other, HRM set up plans and strategies to encourage this relationship. HRM is the bridge balancing the seeds and needs of both sides and manage for better co-creation. In fact, SPVB do not notice about the term "value co-creation" but they do concerns on collaborations and interactions. Roles of HRM in relationship engagement are to develop people skill/capability and increase their contribution to organization and utilize organization's resource to satisfy people's needs both in mental and physical manners.

As we know, SPVB is one of the biggest fast moving consumer goods (FMCG) companies in Vietnam. With over 2000 employees and 4 operations plant, human resource management is inevitably complicated. In order to manage and control the people well and collect the data of human resource effectively, SPVB has set up HR branch for separated plants and sales areas. This model aims to take care of every people in a company with one hundred percent caring and understanding. The slogan "Do the right thing in a nice way" is applied significantly with HRM job. HRM Department tries its best to bring about a friendly, trustworthy and highly appreciated environment for both employers and employees.

Figure 5.5 shows us the view about the HRM model of SPVB.
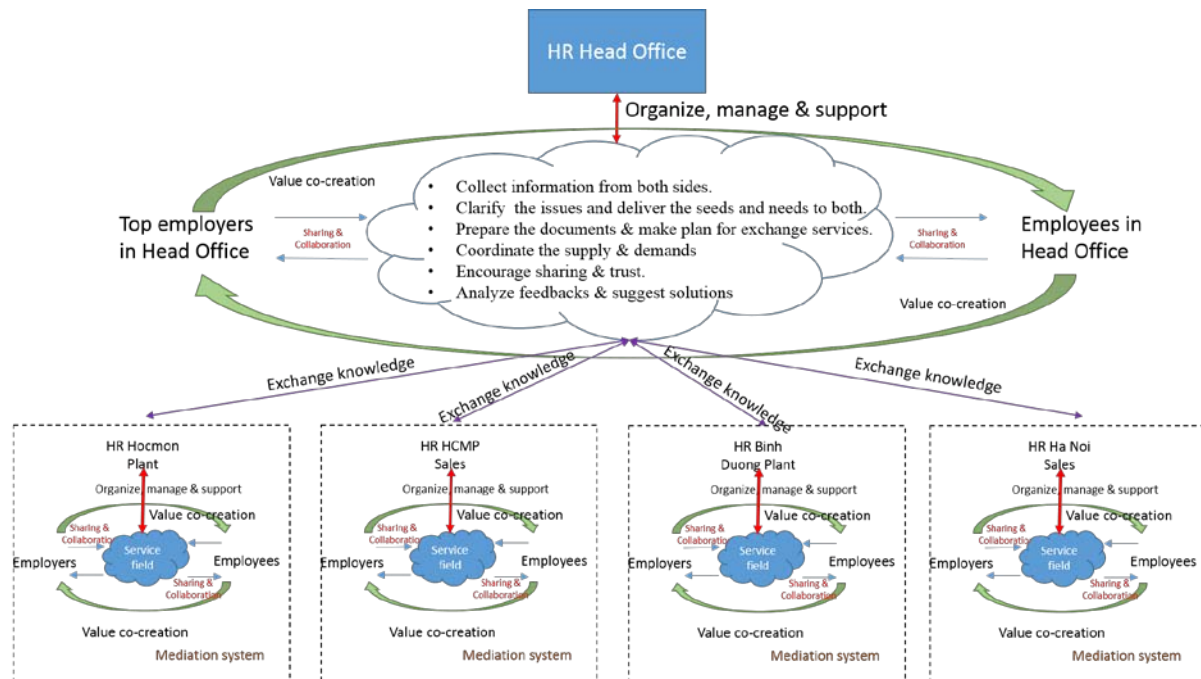
Figure 5.5 Structure of mediator model in SPVB human resource management

In each plant and sale area, the HR branch is also a service field created by HR Head Office, which is in charge of all the HRM. HR head office has assigned the mediation task between employers and employees for HR of each branch. The HR branches have their own strategies and innovations to encourage the sharing and collaboration between employers and employees. Moreover, whichever branch has excellent ideas to encourage the interaction or solve the conflicts between managers and staffs will be reported and awarded. The helpful ideas will be learnt from other HR branches and together they spread those tips throughout the whole company to enhance the value co-creation.

In fact, each HR branch has a small mediation system for employers and employees' relationship. Each HR branch itself organizes and manages a service field for employers and employees to interact with each other. They could share and exchange their seeds and needs through the service value then having collaborations for value co-creation. Not only that, each HR have connections with HR head office to exchange knowledge and support employers and employees in the whole organization.

As mentioned above, the structure of SPVB's human resource is a layered system in which each HR branch is a mediation system on its own and also a service field of company's HRM. Each HR branch is itself a service field which employees could utilize to feedback and share their knowledge to their employees. The HR head office has designed the HR branches

in order to create a closed and convenient place for local employees to express their expectations instead of distance or human with HR head office. This is one smart and valuable system for organizing HRM. With HR branch in each local operation plant, HRM can be closer to all workers to understand them immediately. If there are any issues with people in local branches, HR head office could be aware of it through reports from the HR branches. The functions of the service mediator model are explained through examples of concrete issues in SPVB.

(2) Analysis of the MQPI function

(a) How to collect information and share information

SPVB has yearly assessment called management quality performance index (MQPI) to identify immediately what employees think about employers and quickly provide the solutions. This system is very opened with 12 questions for all employees, evaluate directly their managers and show what they actually think about their boss. The employees were asks questions about their managers' working style, about the environment provided, or the conflicts between interviewees and their managers. After receiving feedback from employees, managers are encouraged to have a direct meeting up with staffs to discuss and share what they have learned from the feedbacks and together they could plan for future collaborations.

(b) How to promote the value co-creation

Collecting information and sharing them are not enough to be a good service mediator. The HRM of SPVB has also made efforts to promote the co-creation and support collaborations between employers and employees. Relating to the process of MQPI, HRM takes more actions to encourage the co-creation between managers and staffs. In case that managers do not like to meet directly with their employees so that HR will help them to setup a meeting. HR also help coaching the way to communicate with employees, setting up the interactive process and supporting the sharing time for both employers and employees to better understand each other. Though the formal way in meeting time or informal way in team building time, HR always flexibly connects the two sides by getting them to sit together,

sharing their real thoughts and finding the best way to collaborate.
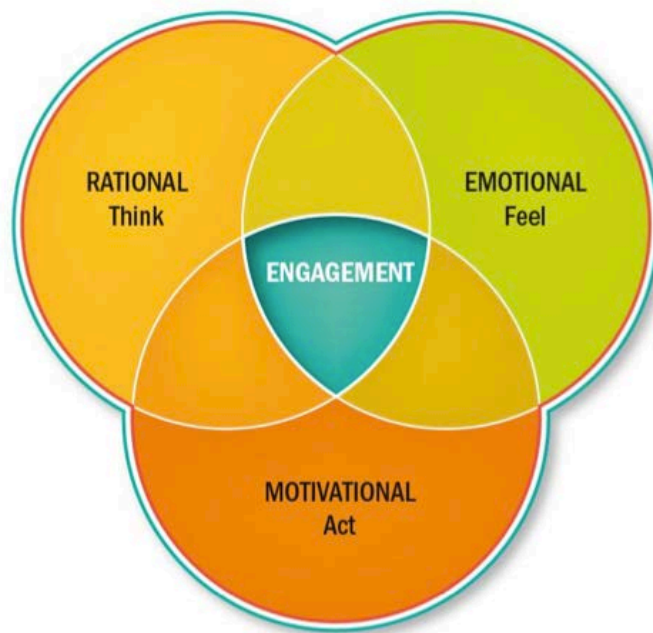
Figure 5.6 Think – Build – Act process of SPVB

Source: SPVB's documents

Figure 5.6 shows the way HR help people Think, Feel and Act to build highest value for a strong organization. To be fully engaged, employees must THINK – by learning and understanding the organization's strategic goals, values, and try to collaborate with those.; FEEL – Employees show emotional attitude / feedback to the organization for interactions to have more co-creation; and ACT – Employees have motivation and willingness to contribute for the success of the company as the exchange of service. This is how HRM encourages and trains the employees towards better co-creation for the company value in the MQPI process.

(2) Analysis of the OHS function

(a) How to collect information and share information

The system of SPVB's HRM is invested and supported so that it can have large budget and power to mediate employers and employees. Fully empowered by the organization, the

HRM can equip itself with effective tools and functions to better mediating the relationship between employers and employees. The most value and effective tool to analyze what employees think about the company is called organization health survey (OHS) which is conducted biennially. This system has been used to check up the whole company's performance and actual thoughts of people in company. The results of this project are used to marking up vision for the 2 years ahead of the company. So, it is very important to all the human resources management.

In the past, the OHS uses the data of PepsiCo International. However, since 4.2013, Sunstory has acquired PepsiCo Vietnam to form the joint venture SPVP so that from 2013 onwards, SPVB has to build their own system and data. It was a big challenge for HR team, said Ms. Thu. The project lasted from October 21, 2013 to November 15, 2013. After nearly one month of hardworking, the results so far bring big value to the company. With huge amount of money investment and efforts on it, SPVB also asked professional from outside in HRM for help. Tower Waston, a leading global professional services company, is in charge of taking care the data mining and supporting functions for SPVB OHS. The main questionnaire is built mostly by HR Head office, with comments from other HR branches. Without the system of PepsiCo International, SPVB HRM team has built their own questionnaire with 88 intuitive questions in 16-targeted categories that measure key aspects of SPVB's organizational health. The HR head office has done a few samplings with various departments to have a trial feedback and see whether employees cooperate with the questionnaires. When carrying out the final questionnaire, which is carefully revised, HR delivers it to all employees in the whole company and expects to get in return what they truly think of the organization. With this, the HRM can collect the information of employees from their feedbacks. Thus they can make plans to analyze and share it back to employers for future collaborations.

(b) How to promote the value co-creation

After getting the results from OHS questionnaires, the HRM will analyze those data to understand what the employees really need or concern. For example, the most concerned aspect among employees is the safety in operation plants. Being aware of these issues, HRM come up with some solutions and feedback this information to top managers thus support employers and employees to together find a solution.

First, HR organizes the safety-training course for all workers in the operation plants to educate them about the safety knowledge and awareness. Then it suggests managers about budget to supply more safety equipment for workers. It also arranges the place for staffs to report dangerous threats in the plants. When managers acknowledged the concerns of workers, they will have them taken care of to comfort them. On the other hand, when workers see the actions of the organization, they know that their feedback is appreciated and treated appropriately. It is the commitment of organization for their employees. When both sides understand and appreciate each other, they are willing to cope and interact. The service value extraction will be co-created and maximized according to the collaborations.

Another concern of employees from the OHS is recognition and rewards. Some feel that the company has not given them adequate compensations and benefits for their contributions. It is a very sensitive topic because HRM must balance the needs of employees and the benefit of organization. It makes some activities to make employees feel better about their treatment. Not all the recognition and reward are estimated by salary, HRM have other strategies to make employees feel well with organizations treatment without spending a lot of budget or changing the margins of salary. The treatment could be come from tiny things but held with big warmth and care. They care for employees not only in special occasions but also in daily routines. Employees will have small gifts and awards during Vietnamese special days such as Woman day, Labor Day, and Independent day.

In daily care, HRM has some caring activities to gather up employers and employees' relationship such as tea breaks or small food parties for informal interactions between them. Although considered as informal, it creates friendly atmosphere for managers and staffs to talk and share their feelings. They get a chance to understand each other more through those activities. When the relationship is closed and stress-free, the value co-creation boosts up thanks to the will to contribute of both attendants.

Moreover, at SPVB, there are urgent contacts such as hotline, hot mail that help employees promptly send their feedback to headquarters to assure that the feedbacks of employees can be reported immediately and confidentially. This system has been utilized and helped employees feel free to speak up without any hesitation.

5.3.4 Effects in introducing the service mediator model in SPVB

The two examples above show the functions that HRM have been equipped with to support employers and employees' collaborations. With huge amount of efforts on mediating employers and employees, HRM (human resource department) has successfully become a bridge between employers and employees. The feedback results of the latest OHS shows the trust of employees for company and their positive think about what they have been treated.

Figure 5.7 Response rate of employees in OHS

Source: SPVB's documents

Figure 5.7 shows the high portion of responds for the OHS project. 2143/2177 questionnaires have been returned with answers show the percentage of trust from employees for this survey. 98.4% people have answered the questionnaire shows that employees totally agree with the OHS program and they are interested in taking part in the projects. The OHS is a field for employees to feedback about their true feelings about their works, their concerns and what they really think about managers and company. OHS is the way for employees to

raise their voices and let organization know what they think. On the other hand, OHS is also the way for managers know about employees' expectations and perspective about their organization. Result is shown as below figure 5.8.

SPVB 2013 Summary Category Score

SUNTORY PEPSICO
Suntory PepsiCo Vietnam Beverage

Favorable Scores

Category	Score
Values	93
Diversity and Inclusion	90
Senior Management Quality	89
Company Strategy	88
Communication	87
Customer Driven	86
Safety and Security	85
Teamwork	84
Resources and Efficiency	84
Ethics and Integrity	83
Career Advancement and Growth	81
Work Life Balance and Working Environment	81
Manager Quality	79
Engagement	78
Rewards and Recognition	74
Action Planning	63

SPVB Overall 2013 (N=2,143)

Figure 5.8 SPVB 2013 summary category score

Source: SPVB's documents

Based on the result, it can be seen that employees of SPVB are very proud of company values and they trust in the quality of senior management and company strategy, which have the highest score from employees' evaluations. The senior management and company strategy are highly evaluated, affirms the firm belief of employees for organization's visions and future plans. They feel convicted about the long-term commitment of the company and assured about their future career with the company. It proves that employees completely understand about the senior managers' conception. To have employees understand about company vision, HRM has great efforts on it. Every employee when enter the company must

learn the Code of Conduct program of the company and they must do the test to verify their knowledge. Every year, they must learn and do the test once again to reassure that they all remember company visions and values. That really helps employees to understand the organization's perception and focus on doing that.

Communications, which is also highly appreciated from the employees, means that the HRM has done a good job helping employers and employees to understand each other and together solving the conflicts. Whenever there are gaps between managers and staffs, communications are supported and the issues are quickly solved by effective communications supported by HRM. Overall, all asked criteria scored over the average point (over 50 percent) shows that most of employees satisfied with the organization in all criteria and they feel well contributing in SPVB. The low point criteria are chances for HRM to improve their service and try harder to better the results.

For example Rewards and Recognition of SPVB is quite low point in employees' evaluations. 26 percent of employees still think that their benefit is rather not good so they dissatisfy with it. Reward and recognition criteria should be focused points to be leveraged. However, compare to other companies in Vietnam and APAC FMCG, reward and recognition criteria of SPVB still stands at over the standard line and have higher points of satisfaction from the benchmark.
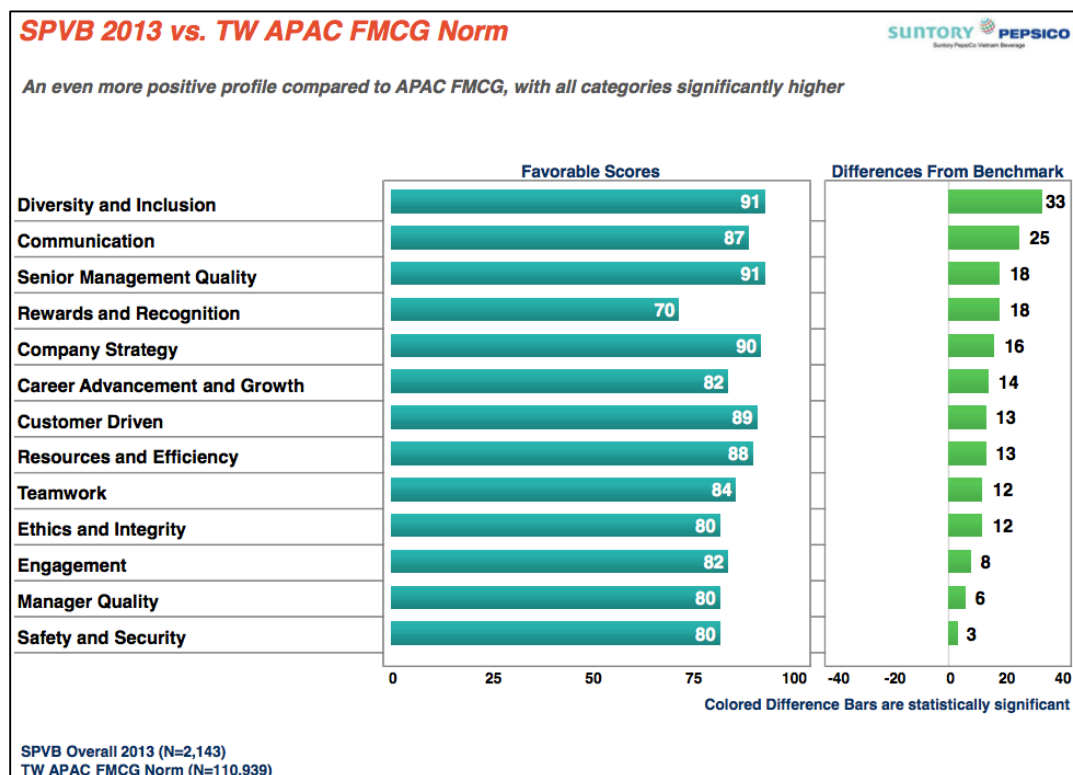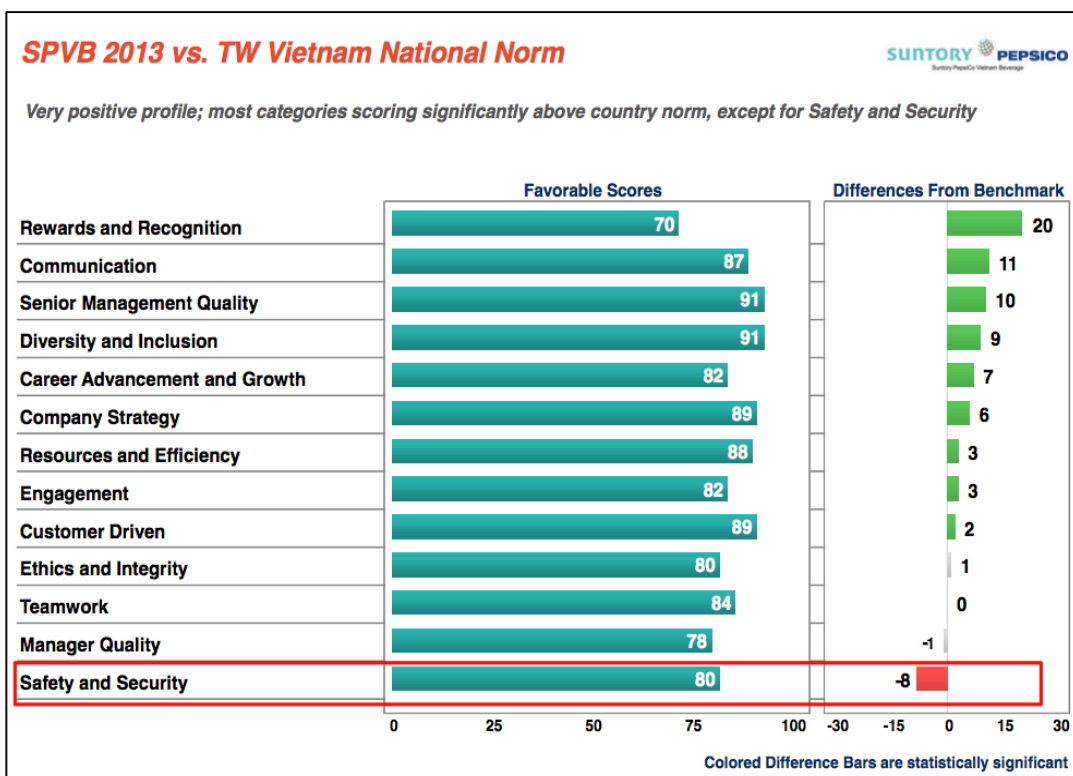
Figure 5.9 Comparisons of SPVB's OHS results with Vietnam and APAC norm

Source: SPVB's documents

Through the results of the feedback, HRM also makes a strategic plan to encourage employers and employees' engagement. Since SPVB has higher benchmark from other norms, HRM decided not to concentrate on the reward and recognition criteria to enhance the employees' satisfaction but on other issues such as manager quality, safety and security. Manager quality directly affected on employees feeling and motivations, so concentrating on it is the best way to encourage the relationship of employers and employees. Besides, safety and security will also be focused for staffs in operation plant because its benchmark is lower than other norms and thus should be leveraged.

5.3.5 Consideration from viewpoint of the service mediator

From the hypothesis, we can compare the SPVB case study and our hypothesis to propose our recommendations as in table 5.4

Table 5.4 Hypothesis and summary of SPVB case study.

Hypothesis	SPVB case	Future implications
Hypothesis 1: "*The service mediator is the intermediary to bridge providers and receivers cope with each other and balance the relationship for both benefit and satisfaction*".	• HRM is the mediator to encourage employers and employees (providers and receivers) cope with each other to maintain the sustainable relationship.	• N/A
Hypothesis 2: "*The service mediator must identify and organize the service field for value co-creation*".	• HR branches are one of the service fields for employers and employees. • Hotlines, Hotmail for confidential feedback are also another service field.	• N/A

	• OHS or MQPI is another channel that help managers and staffs co-creating by exchange feedback of each other.	
Hypothesis 3: *"Promotions of value co-creation are needed effective IT infrastructures and accurately data mining tools for encouraging data collection and analysis"*	• Using online library to train and educate staffs about Code of Conduct of company to reduce the time and cost. • Analyze OHS data by specific data mining system. • Invest budget for IT system in mining data.	• Encrypt all information on employees in a database. • Prepare a paper free (IT base) for setting up 1:1 meeting or Intranet system for reserve meeting room or annual leave permission. • Train HR staffs about IT skills for better data analyzing
Hypothesis 4: *"Communications and service management skills are needed for the service mediator"*	• HR staffs have been trained and equipped with special skills. • HR staffs are chosen carefully with flexible, friendly, sympathy characteristics.	• HRM should have more power to enable effective mediation. • More education courses about services and communications for HR staffs.

Moreover, the actual procedures of SPVB have also been explored as the table 5.5

Table 5.5 Real procedure of the service mediator in SPVB

Proposed service mediator model	The mediator model in Suntory Pepsi Vietnam Beverage
Step 1: Collect the information from both providers and receivers • The mediator organizes and manages a service field as a mechanism to collect the information from both sides. This service field must be well equipped to attract and encourage information exchange from both providers and receivers.	*Step 1: Collect the information from both providers and receivers* • The HR organizes MPQI, and OHS functions as a mechanism to collect information from the whole companies.
Step 2: Analyze the data collection • The mediator has analyzed the data by its own resources. The more database and data mining tools are utilized, the more productive and efficient data are processed. • The analyzed data then could be shared back to both sides and spirally leveraged by co-creation process.	*Step 2: Analyze the data collection* • Information collections are analyzed by HR or sent to professional agency (Tower Waston) for specific analysis. • After understanding the analyzed data, HR can understand what employees really think about company in various aspects such as management quality, awards, career advancement, company strategy, etc.
Step 3: Match providers and receivers' seeds and needs. • With the analyzed data, the mediator will categorize those data and match seeds and needs adequately.	*Step 3: Match providers and receivers' seeds and needs.* • With the analyzing data, HR can have the total view about what employees think about the organization and plan to matching employers and employees' seeds and needs.

Step 4: Promote value co-creation between providers and receivers. • The mediator engages the providers and receivers to co-create with each other. • The mediator helps providers and receivers to understand about each other, clear the misunderstandings or conflicts then they can feel free to exchange service for value co-creation.	*Step 4: Promote value co-creation between providers and receivers.* • HR promotes value co-creation by engaging the communications between direct managers and employees. • HR promotes value co-creation of top managers and employees by setting up meetings, trainings, and etc. for all employees with top managers to prove the commitment of employers to employees. • HR tightens the relationship of employers and employees by making social team work activities, providing warm care and warm regards to all employees, supporting the empowerment, etc.

5.4 Justification and verification of hypotheses and proposals

5.4.1 Comparison of the case studies' mediator model and proposed service mediator model

Above section has explained in details the two case studies in Japan and Vietnam to see how HRM acts as a mediator for employers and employees. The results of these case studies show the potentiality of HRM to be a mediator and how it can support collaboration between managers and staffs. Compare with the hypothesis, it has affirmed our hypothesis with real situations in their businesses. However, differences still exist between two types of organizations in two countries. Table 5.6 below describes those differences and the reasons leading to those differences.

Table 5.6 Comparison of roles and functions

between service mediator model and case studies' models in HRM

	The proposed service mediator model	**The municipal hospital in Japan**	**The SPVB company in Vietnam**
Role	• Identify and manage the service field as a mechanism to collect, share and analyze seeds and needs of providers and receivers. • Match providers and receivers' seeds and needs • Promote value co-creation between providers and receivers.	• Identify and manage the service field as a mechanism to collect, share and analyze seeds and needs of doctors and nurses, doctors and technicians • Match doctors and nurses or doctors and technicians' seeds and needs. • Promote value co-creation between doctors and nurses or doctors and technicians.	• Identify and manage the service field as a mechanism to collect, share and analyze seeds and needs of employers and employees • Match employers and employees' seeds and needs. • Promote value co-creation between employers and employees

	The proposed service mediator model	The municipal hospital in Japan	The SPVB company in Vietnam
Functions	• A convenient, user-oriented, trustworthy, and effective service field.	• Convenient, trustworthy service field is organized by mediated man to collect and share seeds and needs.	• HR Head office and HR branches organize convenient, trustworthy service filed to collect and share seeds and needs
	• Strong and reliable IT infrastructures.	• There is no IT infrastructure supported.	• IT infrastructure supports for online educations and hot lines for feedback.
	• Well-equipped databases.	• Lack of databases	• Databases of employees
	33 • Good data processing and mining tools.	• Data processing and mining are done by human (mediated man).	• Data processing and mining is provided budget for outsourcing.
	• Well-trained people with good communications and management skills.	• Mediated man is trained for communications and management skills.	• HR staffs are trained for communications and management skills.

5.4.2 Case studies' summary

To conclude, the two case studies have given this research a clearer view of how HRM can be a mediator. The results of the case studies justified and verified the proposed models about the roles and functions of the service mediator model. In both cases, HRM does the work of mediating employers and employees, engaging them to each other's exchanges. With support from HRM, employers and employees have chance to collaborate with each other, understand the others and are encouraged to co-create the organization's value. HRM has planned system, programs, and strategies to manage this relationship and boosted it. It is true to say that HRM has done a great job in mediating and become the most suitable one to bridge employers and employees for effective performances and successful business of the organizations.

Chapter 6 Conclusion

6.1 Introduction

This chapter presents the overall conclusions of the study. First, the findings of this research are summarized to answer the research questions. The next part then discusses the theoretical findings and model proposal for business process' management. Coming after that, practical implications are provided with useful information for suppliers and receivers to collaborate better. Finally, potential future research directions will be made.

6.2 Answer for research questions

After studying previous works of preceded scholars and analyzing cases in real business, we are able to answer each of subsidiary research questions then synthesizing all to answer the main research questions.

SRQ1: **How have service mediator enhanced collaborations between providers and receivers and get satisfactions in the business process?**

This research introduces the service mediator which based on SDL and service field concept to support the interactions between providers and receivers. The key point of the service mediator is that it focuses on encouraging the cooperation to have co-created value from both providers and receivers. The mediator supports co-creation between service providers and users by matching services, sharing information, and promoting collaborations. SDL is a strong and sustainable foundation for service mediator's operational strategies. When it affirms the importance of the value co-creation in exchange to get highest satisfaction, the co-creation process is encouraged and supported. Value co-creation assures the satisfaction for all attendants in the business process because it is made by all sides and is meant to reach the mutual goal. Hence, final results are accepted by all parties so it can bring out the best satisfaction.

In the service mediator model, we introduced the service field concept so as to bring an

effective mechanism for mediators to support value co-creation between firms and customers. Service field contains contexts related to service (backgrounds, situation, supply, demand, etc.). Usually, service field is the place where firms do business with their customers, and co-created value is generated when players acknowledge about all the requirements and demands of others. Therefore, service field becomes a suitable mechanism for service mediator to gather information and support the service exchange. When all contexts of services are gathered in the service field, the mediator firm will find it easy to identify the seeds and needs of providers and receivers. When seeds and needs are matched perfectly, both providers and receivers can understand thoroughly one another, therefore they would know what the other wants to exchange adequate services. The collaboration process now occurs smoothly and productively.

As mentioned above, value co-creation is built by both providers and receivers. The goal of the exchange is to use the applied knowledge of others (services) as a resource to better one's circumstances. Therefore, knowing well about partners is the key leading to high value in co-creation. However, whenever users want a service, they receive a huge amount of information from service providers but they are not able to choose the best one for their solutions. It is also hard for service providers to find customers because of some reasons such as lacking of market researching, culture and language barriers, etc. Service mediator will be the one to help fulfilling the gaps and connects providers and receivers together for successful interactions.

The proposed model has been justified and verified with real case studies. In actual business organizations, service mediator also highly appreciates the collaboration between providers and users. They try out different strategies and invest useful functions in order to enhance the collaboration process. Not all of the studied companies realized about the term "co-creation" but they did support providers and receivers exchanging their services to satisfy the others. Figure 6.1 summaries the structure of service mediator which enhances collaboration hence gains more satisfaction.

```
                    ┌──────────────┐
                    │   Mediator   │
                    └──────────────┘
                    Manage │ Support
```

Service field

- Contains all the context of service
- A mechanism to encourage collaboration
- Enhance value co-creation

Exchange seeds and needs
for value co-creation

Collaboration for value co-creation

Exchange seeds and needs
for value co-creation

Providers
(a1, a2…an)

Exchange services

Receivers
(b1, b2…bn)

Collaboration for value co-creation

a1, a2…an: attributes of providers
b1, b2…bn: attributes of receivers

Figure 6.1 Structure of a service mediator enhancing collaborations

SRQ2: What are roles of the service mediator to support both providers and receivers in the business process?

In order to enhance the collaboration between providers and users and satisfy all attendants, the roles of service mediator should be identified to help organizations get a clear perception about the model.

When providers and receivers interact with each other, there are many concerns in this process (Figure 6.2). Each of them has various attributes such as Employers (s1, s2…sn) and Employees (t1, t2….tn). The questions raised are "how to define and match suitable s1 with t1 or suitable s2 with t2" or "how to encourage the value co-creation and service exchange". It calls for a completed solution to solve the issues. Therefore the service mediator is necessary to match those attributes and encourage the co-creation between the two attendants.
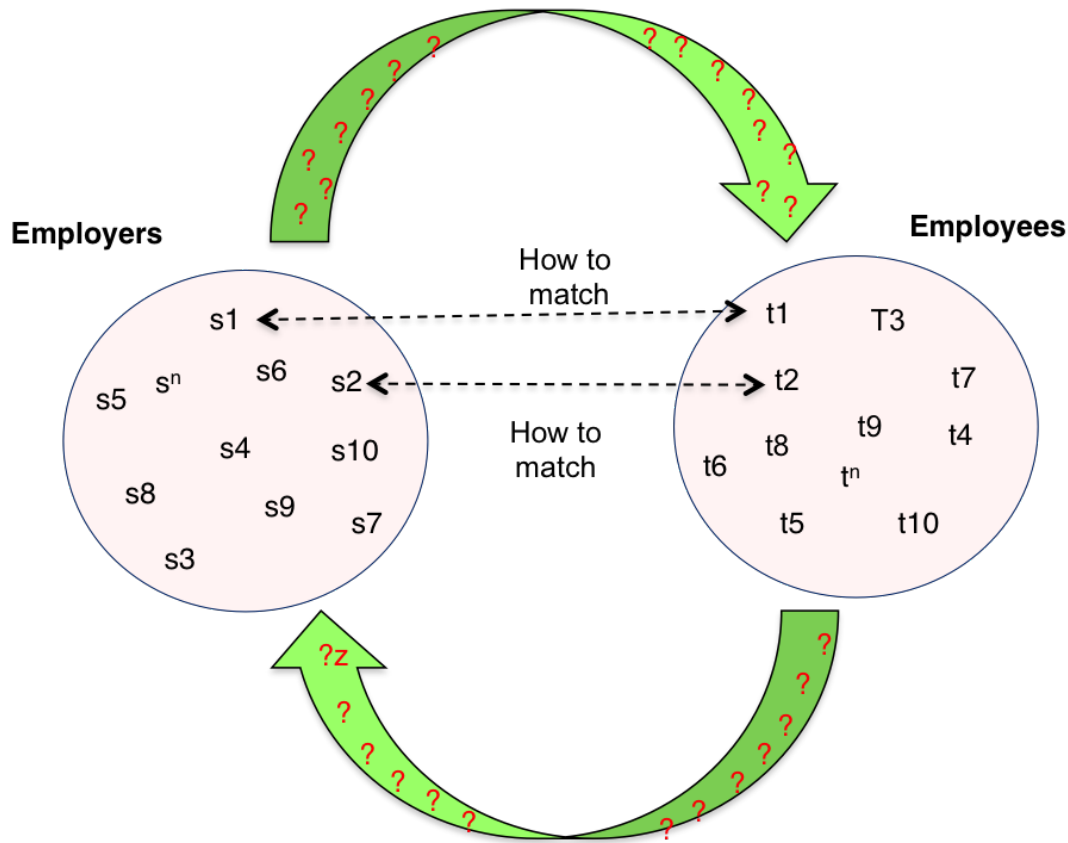
Figure 6.2 Concerns in providers and receivers interactions

In the chaos of information from providers and receivers, it is difficult to collect, analyze and share the seeds and needs of providers and users. Too many data of each party make the other confused and do not know what is suitable for that party's requirements. When providers and receivers lack of resources to summarize the data, the service mediator will do the work to help providers and receivers. In that case, the service field mentioned above is the ideal mechanism to collect, share and analyze data.

After the step of data gathering, matching seeds and needs is the second role of the service mediator. To balance the requirements and demands of two sides, the service mediator must choose suitable seeds and match them with suitable needs. This step must be done correctly without any mistakes. Because it is important for seeds and needs to be perfectly matched, and when the demands and supplies match, providers and receivers will find it easier to work with each other because they already found the best solution for their exchange. From matching proposition, both providers and receivers can reduce the cost, time and effort in seeking solutions for their needs. That makes the interaction happen more

productively and efficiently. It will leverage the co-creation process and thus strengthen the satisfaction thanks to mutual agreement regarding the service exchange.

The last role of the service mediator is to promote the value co-creation between providers and receivers. If suitable exchangers are found, providers and users will start to collaborate with each other. But sometimes, somehow, the collaboration process might not run as expected. Misunderstandings, conflicts or lacks of resources are common issues when interacting. Therefore, the service mediator must use its resources to support and promote the co-creation to extract optimized service value. The involvement of the service mediator in promoting the co-creation process develops the relationship between providers and receivers, even dismisses the conflicts or resolves the misunderstandings or supports resources that can help them in working together. These roles are essential for the service mediator model.

The SRQ2 is answered that there are three fundamental roles as the following:

• Identify and manage the service field as a mechanism to collect, share and analyze seeds and needs of providers and receivers.

• Match providers and receivers' seeds and needs.

• Promote value co-creation between providers and receivers.

SRQ3: What are the useful functions that promote value co-creation between providers and receivers in the business process?

Useful functions to promote value co-creation between providers and users in the business process have been discussed and justified with the case studies. They are:

1) A convenient, user-oriented, trustworthy, and effective service field

Having a comfortable, convenient, and efficient service field would help providers and receivers experience better service and better satisfy them. A service mediator firm must not only open a service field, but also monitor the service quality in that particular field. Generally speaking, providers and receivers in the service process always want a good place to do businesses. They need an expert to supervise the service processes. A service mediator should use its own resources to standardize and upgrade the service. High standardization is appreciated in this kind of situation. The service mediator creates an attractive service field

for providers and receivers to come and join in for service exchange process.

Collecting the seeds and needs is the mission of the service mediators for both supplier firms and users. Both these groups would work together under the umbrella of service mediators so it requires a high quality service for the best business. A good service field must be convenient, user-oriented, trustworthy and effective. Customers (suppliers and users) can have information, collaboration, agreement, pleasure, fulfillment of requirements, and complete service solutions from service field created by mediator firms.

2) Strong and reliable IT infrastructure

Today's business market calls for a high rate of change in Information Technology (IT), with which organizations are required to cope. Organizations rapidly face up with changing market conditions, new competitive pressures, new regulations demanding compliance, and new competitive threats. All of these situations drive for the need of IT infrastructure in an organization to respond quickly and support new business models and requirements. Service mediators cannot avoid this trend. Furthermore, they depend significantly on information technology to create a strong and suitable space for their customers to cooperate in creating new value in the service. IT infrastructures contain many areas of computer science and engineering such as web service, database, software, hardware, security, etc. Excellency in these areas gives mediators the chance to satisfy their customers.

In the era of Internet, customers desire much more convenience and comfort. They would expect powerful, fast, cutting-edge, easy methods to receive information and knowledge. The need for self-service rises, as does the ability to communicate. Customers do not want to travel a long way to reach the service they want. According to different service providers, the service mediator should concentrate on each type of IT infrastructure.

For example, an information retrieval service should be supported with a huge database, useful content publishing, strong network system and great servers for web services. Other services such as a data management must focus on system and security management. Because of all the factors above, it is undeniable that IT infrastructure could help solving those problems and provide direct interactions between suppliers and users at lower cost, and coordination between firms and customers becomes more efficient and responsive.

3) Well-equipped database

A database is an organized collection of data for one or more purposes. In the case of service mediator model, database is very essential for analyzing seeds and needs of business partners and customers. The data are typically organized to model relevant aspects of reality, in a way that supports processes requiring this information. That means a collection of good database could help the service mediator understand their clients, thus help them find suitable partners.

The term "database" refers both to the way its users view it and to the logical and physical materialization of its data, content, files, computer memory, and computer data storage. Well-equipped databases could strengthen the advantage of the service mediator and help them have more information for further analysis. A structured database helps service mediators identify and classify the information better when they want to analyze providers and receivers' seeds and needs. Therefore, prepare well-managed database is one functions that service mediators require.

4) Good data processing and mining tool

Analysis of data is a process of inspecting, cleaning, transforming, and modeling data with the goal of highlighting useful information, suggesting conclusions, and supporting decision making. Data analysis is a process, within which several phases can be distinguished. One example of data analysis is data mining. Data mining process starts from data integration, data selection, data cleaning, data transformation, data mining, Pattern Evaluation and Knowledge Presentation and last Decisions / Use of Discovered Knowledge.

Analyzing data is no easy work. Its process necessitates a standard criteria and performance to access and analyze data correctly. Therefore, the service mediators should focus on this performance to increase benefits. A suitable application of data analysis should be considered and customized to fit the firm's system. Good data analysis performance will help matching supply and demand of both kinds of customers (service providers and users). Investment in this function should also be considered because of its importance and relevance to understanding requirements and supplies of all attendants in the business.

5) Well-trained people with good communications and management skills

Another important factor is the people in the service mediator model, especially the

front-line employees. In most businesses, communications and customer services are needed. The service mediators are absolutely the experts in the field they work, but most users are not familiar with that scientific knowledge. IT infrastructure could provide a simple way to obtain service but sometimes it is not easy for users to understand to use it. In those circumstances, the role of human could give advantages. They work to understand customers' needs, communicate and guide customers directly whenever there is a problem or misunderstanding in the service process.

Furthermore, consulting is also needed when providers and receivers face obstacles when doing the exchange, so that specific knowledge should be provided by the specialist and experienced person in the field. Last but not least, communication is an art, and we need artists to do it. If the service mediator people are good at communications, they could help users and suppliers cooperate with each other in better ways because they can understand clearly what customers need, and negotiate beneficially for both customers. People work in service mediator model should be educated and trained with T-shape skills, both social and technical skills. Communication, management and IT applications are skills that those humans are expected to have for better promoting value co-creation.

MRQ: How have service mediator model supported for management of business process?

The three SRQs above answered most purposes of this research. The main MRQ is the novelty of the work. To understand how service mediator model have supported management of business process, 2 types of case studies have been conducted to verify the importance of the service mediator in business process management. The service mediator has been verified that it is suitable for the IT service business. In this type of business process, the whole business model has been considered for influence of the service mediator model in IT service business. The development of ICT affects the business model of information service firms significantly. Based on SDL and the service field, the service mediator model has been proposed to help information service firm thus prosperity is gained. The proposed model has support the management of the business process in IT service and affirms the possibility of each in actual business.

The second type of the case studies has been conducted in HRM, one of the business

processes. The new model considers the alternative perspective that states both employers and employees are providers/receivers and all are the beneficiaries in the exchange. It is viewed that employers and employees are equal in the relationship and they exchange services for services. Firms have funds, behaviors, environments, and visions while employees offer skills and motivation as services. The service mediator model leverages the effectiveness of HRM and thus enhancing the performance of the organization. It contributes to help manage business process in the organization.

In summary, by the results of two-type case studies, MRQ has been answered with 4 real steps which were studied and justified. Those steps are

Step 1: Collect the information from both providers and receivers

*Step 2: Analyze the data collectio*n

Step 3: Match providers and receivers' seeds and needs.

Step 4: Promote value co-creation between providers and receivers.

6.3 Theoretical implications

First, management is considered as "technical function" (Alveson and Willmott, 1992) so business management is the technical function which manages the business process. This research proposes a service model with technical functions to better manage business processes. The service mediator model reduces the time, cost and effort in managing the business process of providers and receivers and helps these processes become more productive and satisfactory by enhancing the value co-creation.

Second, there are many perspective and theoretical views in the human resource management field. Recently, the perspective is that employers and employees' relationship needs to be more opened and balanced. Employees are viewed as stakeholders of organization (Jones, 1997) who also contribute to its success. The service mediator also affirms the importance of employees in companies and suggests the value co-creation process between employers and employees. Before, HRM usually focused on organizational benefits, but in the proposed model, HRM balances the benefit of both employers and employees. It mediates the interactions and encourages collaborations. Not being along with employers as in the past, HRM in service mediator model now concentrates on promoting the co-creation between managers and staffs to reach mutual agreement for the final successful performance.

And last, the most debated and argued topic in service science is "What is service". This research has introduced a definition from Kameoka (2010) and Kosaka (2012) that stated: "*service is to support people or organizations to achieve objectives*". With this in mind, the service model has provided a service for providers and receivers to achieve their objectives, which is the source to success of their service exchange. This research has proposed a service mediator model which can be applied in many business processes such as business model or the HRM. It contributes to the focused researches of the service science in developing priorities and executing priorities. This model prefers a designed framework to value co-creation and propose mechanism to help providers and receivers co-create for service value.

6.4 Practical implications

Nowadays, we are living in the modern society and people are trying to reach cutting-edge knowledge. New knowledge and technologies have been improved to promote human development. In the new era, information technology is a very serious element to help us meet our goals. In organizational operations, IT infrastructure is really a key to overcome competitors and satisfy customers. The further service would be closed and go hand-in-hand with the internet or more convenient methods which could bring comfort to customers by reducing time, cost and efforts of them when asking for a service.

Additionally, being equipped with powerful IT technologies, firms could be able to strive against competitors and become a pioneer in their field. In the future, more and more companies will change their model from traditional one to electronic-based business for better services. Regarding the raising number of companies in the coming vision, firms must have suitable employees to adapt both service perspectives and technologies to the work. Therefore, the T-shape people are essential for the future plans. Employees have to master not only the technologies but also service knowledge. They should be educated and trained cross-disciplinary or interdisciplinary knowledge in order to have a broad range of skills. Those T-shape employees are the ideal people for creating innovation and value to the service process.

6.5 Research limitations

The methodologies of this research are conducted mainly through case studies. The

analysis of the case studies sometimes make it subjective based on the case's conditions. Two types of business processes are not big amount to evaluate the sustainability of the service mediator model. Action research is also lacked in this research due to limits in organizations' support.

6.6 Suggestions for future research

This research has verified the potential of the service mediator model in IT service business and in HRM. In fact, the mediator model is now existed in a wide range of business fields such as retailing, travelling or education. Future research should consider the study of service mediator in other business fields and how they are applied in those fields. The theory of knowledge creation from this model should be further discussed to identify a knowledge creating mode for this model.

Sustainability of the service mediator model should also be concentrated and researched in detailed for long-term contribution of this model to the service science, and to the service economy in general.

References

Allen, D. G., Shore, L. M., & Griffeth, R. W. (2003). The role of perceived organizational support and supportive human resource practices in the turnover process. *Journal of Management, 29*, 99–118.

Alvesson, Mats & Hugh Willmott (1992). On the Idea of Emancipation in Management and Organizational Studies'. *Academy of Management Review*, *17(3)*, 432-454

Arai, T., & Y. Shimomura (2004). Proposal of Service CAD System - A Tool for Service Engineering. *Annals of the CIRP, 53(1),* 397-400.

Becker, B., & Gerhart, B. (1996). The impact of human resource management on organizational performance: Progress and prospects. *Academy of Management Journal, 39*, 779-802.

Becker, B., & Huselid, M. (1998). High performance work systems and firm performance: a synthesis of research and managerial implications. *Research in Personnel and Human Resources Management, 16*, 53-101.

Bowen, D. E., & Ostroff, C. (2004). Understanding HRM-firm performance linkages: The role of the "strength" of the HRM system. *Academy of management review*. Vol 39(2), 2003-221.

Brown S. W., Fisk R. P., and Bitner M. J. (1994). "The Development and Emergence of Services Marketing Thought". *International Journal of Service Industry Management*, 5(1), pp.21 – 48.

Bryson, J. R., Daniels, P. W. (editors) (2007). *The Handbook of Service Industries*. Edward Elgar, 2007.

Charlton, R., & Dewdney, M. (2004). *The Mediator's Handbook: Skills and Strategies for Practitioners*. Pyrmont, N.S.W.: Lawbook Co.

Chesbrough, H., and Spohrer, J. (2006). A research manifesto for Service science. *Communications of the ACM*, 49(7), 35-40.

Delery, J.E., & Doty, H.D. (1996). Modes of Theorizing in Strategic Human Resource Management: Tests of Universalistic, Contingency, and Configurational Performance predictions. *Academy of Management Journal. 39(4)*, 802-35.

Doan M. C., and Kosaka M. (2011). A Proposal of New Service Mediator Model based on Service Dominant Logic. *In proceedings of The 8th International Conference on Service*

Systems and Service Management. Tianjin, China: IEEE.

Doan M., C., Shirahada K. & Kosaka M (2013). Service Mediator Model for Value Co-Creation Based on Service Dominant Logic. *Journal of Service Science and Management，6(1)*, 11-19.

Minh Chau Doan, Nguyen Dinh Le, Michitaka Kosaka, A new service mediator for human resource management, *International journal of Knowledge and System Science*, Volume 5 Issue 3, 2014.

Edvardsson, B., and Gustafsson, A. (2008). Services Science with a Focus on Academia and Company Collaboration. *Services Science: Fundamentals, Challenges and Future Developments*. Springer.

Engelmann, K. (2008). Services Science – Where Practice Meets Theory. *Services Science: Fundamentals, Challenges and Future Developments*. Springer.

Fisk, R., and Grove, J. (1992). The Service Experience as Theater. in *Advances in Consumer Research*, edited by John E. Sherry, Jr. and Brian Sternthal.

Fitzsimmons J. A & Fitzsimmons M. J., (2003). *Service Management*. New York, NY: McGraw-Hill.

Gadrey, J. (2002). The Misuse of Productivity Concepts in Services: Lessons from a Comparisonbetween France and the United States. *in Gadrey et al (2002)*, pp. 26-50.

Gronroos, C. (2006). Adopting a service logic for marketing. *Marketing Theory*, 6(3), 317-333.

Grönroos, C. (2008): Service logic revisited: who Creates Value? And who co-creates? European Business Review 20 (4): 298-314.

Gummesson, E. (2010). The Future of Service Is Long Overdue. *Handbook of Service Science*. Springer.

Hidaka, K. (2006). Trends in Service Sciences in Japan and Abroad. *Science and Technology Trends*, 19, 35-46.

Kameoka, A. (2010). Service science empower next generation MOT: Just-in-time innovation management by service layer integrated strategic road mapping. In Hefley, B., & Murphy, W. (Ed), *Service science, management and engineering: Education for the 21st century*. New York: Springer.

Kiuchi, H. et al. (2011). Business System Cloud "TWX-21" Supporting Global Corporate Activities. *グローバル時代の IT ソリューション*, 93(4), 344-345.

Kohn, M. (2004). Value and exchange. *Cato Journal*, 24 (3), 303-339.

Kosaka (2012). A service value creation model and the role of ethnography. In Naidoo, L. (Ed), *An Ethnography of Global Landscape and Corridors*. Croatia: Intech.

Kosaka, M., Shirahada, K., & Ito, Y., (2011). A concept of service field in service systems for creating service value. In Proceedings of the 4th Japan-China Joint Symposium on Information Ststems.

Kotler, P. (2002). *Marketing Management.* Millenium Edition. Custom Edition for University of Phoenix, Pearson Custom Publishing, Boston, MA.

Kuvaas, B. (2008). An exploration of how the employee-organization relationship affects the linkage between perception of developmental human resource practices and employee outcomes. *Journal of Management Studies*, *45*, 1–25.

Liu B., Fujita T., Yan Z. H., Sakamoto S., Xu D., & Abe J. (2007). QTL mapping of domestication related traits in soybean (Glycine max). *Annals of Botany*, *100*, 1027–1038.

Lovelock, C., & Wirtz, J. (2007). *Services Marketing: People, Technology, Strategy*. 6/E Upper Saddle River NJ: Prentice Hall.

Lovelock, C., Wirtz, J., and Chew, P. (2008). *Essentials of Services Marketing*. Pearson Education.

Lusch, R. F. (2006). The Small and Long View. *Journal of Macromarketing*, 26(2), 240-244.

Lusch, R. F. (2007). Marketing's Evolving Identity: Defining Our Future. *Journal of Public Policy & Marketing*, 26(2), 261-268.

Lusch, R. F., and Vargo, S. L. (2006). Service-dominant logic: reactions, reflections and refinements. *Marketing Theory*, 6(3), 281–288.

Lusch, R. F., and Vargo, S. L.(2006). Service-Dominant Logic as a Foundation for Building a General Theory. *in The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions,* Robert F. Lusch and Stephen L. Vargo eds., Armonk, M.E. Sharpe, 406-420.

Lusch, R. F., and Vargo, S. L. (2008). The Service-Dominant Mindset. *Service Science, Management and Engineering*, 89-96

Lusch, R. F., and Vargo S. L. (2011). Service-dominant logic: a necessary step. *European Journal of Marketing*, 45 (7/8), 1298-1309.

Lusch, R. F., and Vargo, S. L., and O'Brien M. (2007). Competing through service: Insights from service-dominant logic. *Journal of Retailing*, 83(1), 2-18.

Lusch, R. F., Vargo, S. L., and Malter A. J. (2006). Marketing as Service-Exchange: Taking a Leadership Role in Global Marketing Management. *Organizational Dynamics*, 35(3), 264–278.

Lusch, R. F., Vargo, S. L., and Wessel, G. (2008). Toward a conceptual foundation for service science: Contributions from service-dominant Logic. *IBM Systems Journal*, 47(1), 5-14.

Maglio, P. P. et al. (2008). The Service Systems in the Basic Abstraction of Service Science. Proceedings of the 41st Hawaii International Conference on System Sciences.

Maglio, P. P. et al. (editors) (2010). *Handbook of Service Science*. Springer.

Maglio, P. P., and Spohrer, J. (2008). Fundamentals of service science. *Journal of The Academy of Marketing Science*, 36(1), 18-20.

Meyer, J.P., & Allen, N.J. (1991). A Tree-component conceptualitazation of organizational counts. *Human Resource Management Review, 1,* 61-89.

Myungji, M., and Jay, I. (2009). Knowledge Management Model for Information Technology Support Service. *Electronic Journal of Knowledge Management*, 7(3), 353-366.

Ngo, L.V. and O'Cass, A. (2009). "Managing Innovation Capability and Co-creative Interaction with Customers to Achieve Superior Firm Performance". *Advances in Technology and Innovation in Marketing*, Rajat Gera (Ed.), 455-463, MacMillan: New Delhi, India.

Nishida, K. (1970). Fundamental Problems of Philosophy: The world of Action and the Dialectical World. *Sophia University.*

Nishida, K. (1990). An inquiry into the Good, translated by M.Abe and C.Ives. *Yale University Press.*

Noll, D. E. (2001). A Theory of Mediation. *Dispute resolution journal, 2,* 78-84.

Nonaka, I., & N. Konno. (1998). The Concept of 'Ba': Building a Foundation for Knowledge Creation. *California Management Review, 40(3),* 116-132.

Nonaka, I., Takeuchi, H. (1995). *The knowledge creating company: how Japanese companies create the dynamics of innovation*. New York: Oxford University Press, pp.284.

Normann, R., and Ramirez R.(1994). *Designing interactive strategy: From value chain to value constellation*. Chichester, England: Wiley.

Ostrom, A. L. et al. (2010). Moving Forward and Making a Difference: Research Priorities for the Science of Service. *Journal of Service Research*, 13(1), 4-36.

Payne, A. F., Storbacka, K., and Frow, P. (2008). Managing the co-creation of value.

Journal of The Academy of Marketing Science, 36(1), 83–96.

Prahalad, C. K., and Ramaswamy, V. (2000). Co-opting Customer Competence. *Harvard Business Review*, 78, 79-87.

Prahalad, C. K., and Ramaswamy, V. (2004a). *The future of competition: co-creating unique value with customers*. Harvard Business Press.

Prahalad, C. L., and Ramaswamy, V. (2004b). Co-creation experience: the next practice in value creation. *Journal of Interactive Marketing*, 18(13), 5-14.

Rogg, K. L., Schmidt, D. B., Shull, C., & Schmitt, N. Human Resource Practices, Organizational Climate, and Customer Satisfaction. *Journal of Management*, 27(4), 431-450.

Shay S. Tzafrir (2005). The relationship between Trust, HRM Practices and firm performance. *International journal of human resource management, 6 (9),* 1600-1622.

Shimizu, H. (1995). Ba-Principle: New Logic for the Real-time Emergence of Information. *Holonics*, 67-69.

Slater, S. F. (1997). Developing a Customer Value-Based Theory of the Firm. *Journal of the Academy of Marketing Science*, 25(2), 162-167.

Smith, A. (1776). *An Inquiry into the Nature and Causes of the Wealth of Nations*. Strahan, W., and Cadell, T. London, UK.

Spath, D., and Ganz, W. (ed.) (2008). *The Future of Services – Trends and Perspectives.* München: Carl Hanser.

Spohrer, J., and Maglio, P. P. (2008). The Emergence of Service Science: Toward systematic service innovations to accelerate co-creation of value. *Production and Operations Management*, 17(3), 238–246.

Spohrer, J., Maglio, P. P., Bailey, J., and Gruhl, D. (2007). Steps Towards a Science of Service Systems. *Journal Computer*, 40(1), 71-77.

Stauss, B. et al. (editors) (2008). *Services Science: Fundamentals, Challenges and Future Developments*. Springer.

Ueda, K., Takenaka, T., and Fujita, K. (2008). Toward value co-creation in manufacturing and servicing. *Journal of Manufacturing Science and Technology*, 1(1) 53-58.

Vargo, S. L. (2007a). From Goods to Service(s)*: A Trail of Two Logics. *Presentation for the Service Science Seminar*, University of California, Merced.

Vargo, S. L. (2007b). On A Theory of Markets and Marketing: From Positively Normative to Normatively Positive. *Australasian Marketing Journal*, 15(1), 53-60.

Vargo, S. L. (2007c). Paradigms, Pluralisms, and Peripheries: On the Assessment of the SDL. *Australasian Marketing Journal*, 15(1), 105-108.

Vargo, S. L. (2009). Service-Dominant Logic: An Alternative Mindset For Innovation. *Ministry of the Knowledge Economy-Conference on Service Innovation through R&D*, Seoul, Korea, Nov 10, 2009.

Vargo, S. L. (2010). Practices, systems, and meaning-making: An introduction to the special section on markets and marketing. *Australasian Marketing Journal*, 18, 233-235

Vargo, S. L. (2011). Market systems, stakeholders and value propositions: Toward a service-dominant logic-based theory on the market. *European Journal of Marketing*, 45(1/2), 217-222.

Vargo, S. L., and Lusch, R. F. (2004a). Evolving to a New Dominant Logic for Marketing. *Journal of Marketing*, 68, 1-17.

Vargo, S. L., and Lusch, R. F. (2004b). The Four Service Marketing Myths: Remnants of a Goods-Based, Manufacturing Model. *Journal of Service Research*, 6(4), 324-335.

Vargo, S. L., and Lusch, R. F. (2006). Service-Dominant Logic: What It Is, What It Is Not, What It Might Be. *The Service Dominant Logic of Marketing: Dialog, Debate, and Directions*, ME. Sharpe, 43-56.

Vargo, S. L., and Lusch, R. F. (2008). Service-Dominant Logic: Continuing the Evolution. *Journal of the Academy of Marketing Science*, 36(1), 1-10.

Vargo, S. L., and Akaka M. A. (2009). Service-Domiant Logic as a Foundation for Service Science: Clarifications. *Service Science*, 1(1), 32-41.

Vargo, S. L., and Lusch R. F. (2009). Service - Dominant Logic and the Market as a Service System. Hawaii International Conference on System Sciences.

Vargo, S. L., and Lusch R. F. (2010). "Relationship" in Transition: An Introduction to the Special Issue on Relationship and Service-Dominant Logic. *Journal of Business Market Management*, 4, 167-168.

Vargo, S. L., and Lusch, R. F., Akaka, M. A., He, Y. (2009): The Service-Dominant Logic: A Review and Assessment. *Review of Marketing Research*.

Vargo, S. L., and Morgan F. W. (2005). Services in Society and Academic Thought: A Historical Analysis. *Journal of Macromarketing*, 25 (1), 42-53.

Vargo, S. L., Lusch R. F., and Morgan F. W. (2006). Historical Perspectives on Service-Dominant Logic. *in The Service-Dominant Logic of Marketing: Dialog, Debate, and*

Directions, Robert F. Lusch and Stephen L. Vargo eds., Armonk, M.E. Sharpe, 29-42.

Vargo, S. L., Maglio, P. P., and Akaka M. A. (2008). On value and value co-creation: A service systems and service logic perspective. *European Management Journal*, 26, 145– 152.

Wright, P. M., Gardner, T. M., & Moynihan, L. M. (2003). The impact of HR practices on the performance of business units. *Human Resource Management Journal*, *13*, 21–36.

Yin, Robert K. (2009). *Case Study Research Design and Methods*, Fourth Edition. SAGE. Los Angeles, London, New Deihi, Singapore, Washington DC.

Zacharatos, A., Barling, J., & Iverson, R. D. (2005). High-performance work systems and occupational safety. *Journal of Applied Psychology*, *90,* 77–93.

Zeithaml, V. A., Parasuraman, A., and Berry, L. L. (1985). Problem and Strategies in Service Marketing. *Journal of Marketing*, 49, 33-46.

Zeithaml, V.A., Berry, L.L. and Parasuraman, A., 1993. The Nature and Determinants of Customer Expectations of Service. *Journal of the Academy of Marketing Science* **21** 1, pp. 1– 12.

http://www.twx-21.hitachi.ne.jp/

http://www.cookpad.com

http://www.wikipedia.com

Appendix A - Questionnaire in preliminary survey in MOT course in Ishikawa and Tokyo

事前アンケート

１．会社での立場
　　マネジャ・経営陣（　　　）、一般従業員（　　　）、人事ほかサポート部門（　　　）

２．業種
　　製造業（　　）、サービス産業　（　　）、公共（　　　）、その他（　　　）

３．説明したサービスアプローチの考え方に関して
　　（１）いいと思う　　　　　　YES（　）, NO（　）
　　YES なぜいいか？（　　　　　　　　　　　　　　　　　　　　　　　　　　）

　　NO なぜ NO か　　　（　　　　　　　　　　　　　　　　　　　　　　　　　）
　　（２）自分の会社に応用できる　　YES（　）, NO(　　)
　　YES どういうところが応用できるか?
　　（　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　）

　　（３）すでに似た仕組みがある　　YES(　), NO(　　)
　　　YES の場合どのような仕組か
　　（　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　）

Appendix B – Question list for interviewees in preliminary survey in Suntory Pepsi Vietnam Beverage (4-6/2014)

INTERVIEWS WITH SUNTORY PEPSI VIETNAM

The purpose of this questionnaire is to gather data about the process of building and developing strategy and policy for human resource management (HRM) to develop value co-creation between employers and employees.

The information you provided will be kept for purpose of this study only. Would you:

    □ *Wish to be anonymous under all circumstances*

    □ *Be willing to be named as a contributor to the study*

I. GENERAL INFORMATION

1. Date and time of interview: ………………………………………………………………..

2. Name of person, institution, position, years of work experience:

3. How many years have you involved in HRM? In policy making?

II. HRM IN EMPLOYERS AND EMPLOYEES' RELATIONSHIP & COLLABORATIONS

1. How do you think about the relationship between employers and employees?

    - Employer is the boss and employees have to follow all the orders. Employers are one who decide the value of the business.

    - Employees are customers of the company and employers concentrate on their knowledge to develop business.

    - Both employers and employees are co-creators in producing business value.

2. How do you think about the role of HRM in your company, especially in employers and employees' relationship?

III. HRM IN SUPPORTING EMPLOYERS AND EMPLOYEER' RELATIONSHIP

1. How do HRM do to engage the relationship between employers and employees?

2. Do you think that HR should be the intermediary to help employers and employees collaborate and interact to each other?

3. In your company, is there any cases that the relationship of employers and employees are very bad that affect the performance?

4. How HRM react with those situations? What are your company's solutions to solve the issues? (detailed)

5. What are the ideas of your HRM to enhance the relationship between employers and employees?

6. What are problems and difficulties HRM have met when trying to engage employers and employees in collaborations?

IV. QUESTION ON JUSTIFYING SUCCESS

1. Which conclusion (lesson) did you gain through the building and implementing HRM as mediator for employers and employees

2. How do employers and employees feel about your HRM system and works?

3. What are good results coming from applying those solutions mentions in III/4-5?

4. How employers and employees adjust their relationship after HRM support? Which are the key factors leading to the success of the policy/program/project?

5. What are results from company business when HRM leverage the relationship between employers and employees?

Thank you very much for your cooperation!

Appendix C – List of Interviewees in the Case studies

	Name	Position	Type and time of interview
1	Mr Kamada	General manager of **Hitachi TWX-21**	Face to face 16/3/2011
2	Mr A	Administrative Management Department Manager **Municipal hospital in Ishikawa**	Face to face 09/07/2014
3	Mr B	Manager **Municipal hospital in Ishikawa**	Face to face 09/07/2014
4	Mr Pham Phu Ngoc Trai	Former President and CEO **PepsiCo Vietnam**	Face to face 29/09/2014
5	Mrs Van Thi Anh Thu	Vice President Human Resource Department **Suntory PepsiCo Vietnam Beverage**	Face to face 29/09/2014

Publications

Refereed journal

1. Doan M., C., Shirahada K. & Kosaka M (2013). Service Mediator Model for Value Co-Creation Based on Service Dominant Logic. *Journal of Service Science and Management, 6(1)*, 11-19.

2. Minh Chau Doan, Nguyen Dinh Le, Michitaka Kosaka, A new service mediator for human resource management, *International journal of Knowledge and System Science*, Volume 5 Issue 3, 2014.

Book chapter paper

3. Michitaka Kosaka, Haruko Nagaoka, Minh Chau Doan (2013). Value creation in information business based on the service field. In Kosaka and Shirahada (Eds.), *Progressive Trends in Knowledge and System-Based Science for Service Innovation, Part of the Advanced in Marketing, Customer Relationship Management, and E-Service Series.* Business Science Reference (an imprint of IGI Global), US, pp 325-346.

International Conferences

4. Minh Chau Doan, Kunio Shirahada, and Michitaka Kosaka (2013), A Concept of Service Mediator And Its Potential Applications，*Proceedings of Service Managament and Science Forum*，August 4-6, Las Vegas, US.

5. ミンチャウドーン・白肌邦生・小坂満隆 (2012), Application of service mediator model for local government to support city, *Proceedings of* 電気学会情報システム研究会，石川，May 17.

6. Doan Minh Chau and Michitaka Kosaka (2011)，Service Mediator Model based on Service Dominant Logic，*Proceedings of The 8th International Conference on Service Systems and Service Management*，June 25-27, Tianjin, China.