Business practices and capabilities for shared value creation: Thai social enterprises

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ABSTRACT

Global pollution, climate change, and environmental disasters have been highlighting the role of business innovation and practices and their impact on the economy, society, and environment. There has been a corresponding rise in social entrepreneurship, which aims at creating shared value among an entrepreneur, its stakeholders, society, and the environment. Social entrepreneurship represents an innovative process that drives social and environmental benefits. Although, a social enterprise's primary purpose is to solve societal problems, it simultaneously needs to generate revenue for itself to survive through business practices that involve the combination of resources, the exploitation of opportunities for stimulating social change, satisfying social and environmental needs. Furthermore, the social entrepreneurship can be represented as a transitional vehicle leading to a new capitalist system for creating shared value.

Similar to other entrepreneurs, social entrepreneurs must acquire resources and develop appropriate capabilities for effectively using their resources to ensure a positive social and environmental impact occurred to the society and remain at a competitive advantage. Social entrepreneurs often operate in environments that make it difficult to acquire resources at reasonable costs while avoiding conflict with their social and environmental missions. The resource-based view (RBV) has always brought to research to understand how enterprises derive economic sustainability and remain competitive advantage from available resources and capability development. Nevertheless, regarding specialty and uniqueness of social enterprises, literature has been showing the idea that economic, environmental, and social resources are needed to manage and utilize simultaneously. In order to cover social and environmental constraints and resources, the extensions of the RBV (i.e., the natural resource-based view (NRBV) and social resource-based view (SRBV)) are also included in the study.

This dissertation aims to identify essential capabilities and supportive business practices that encourage shared value creation based on Thai social enterprises, and to provide guidelines to social entrepreneurs and other shared value-oriented entrepreneurs who want to advance the social and environmental conditions by creating shared value among themselves, society, and the environment. Particularly, this dissertation attempts to address the major research question: *"What are business practices and essential capabilities for creating sharing value for Thai social enterprises?"*. This study used a combination of fuzzy-set qualitative comparative analysis (fsQCA) and case analysis as an analysis tool to explore the complex relationships between a set of capabilities (i.e., mission-driven management, stakeholder management, cross-sector collaboration management, and environmental management capabilities) and shared value creation (i.e., social, environmental, and economic value). Economic value refers to a social

enterprise's benefits in order to survive, grow, and run the business smoothly. It relates to profitability-oriented goals such as making a profit and remain competitive advantage. Social value refers to benefits for society in order to resolve social problems around local communities such as enhancing community health and safety and uplifting well-being of local people. Environmental value relates to the betterment of the natural environment. It helps to resolve environmental problems around global communities such as reducing waste and pollution.

Due to the complex nature of social entrepreneurship, identifying alternative combinations of conditions provide a better solution for examining real-world phenomena because a viable outcome depends on combinations of several antecedents, not an individual condition. To the best of our knowledge, this is the first endeavor to employ asymmetric modeling (by using fsQCA) to assess antecedent capabilities of social entrepreneurship and shared value creation grounded in the stakeholder management theory, RBV, NRBV, and SRBV. The findings from fsQCA reveal various different pathways (combinations of capabilities) that lead to successful and fail social entrepreneurship, social, environmental, and economic value creation. Moreover, the findings from extensive case analysis show the business practices that support these capabilities and encourage the opportunity for creating shared value.

Keywords: social entrepreneurship; creating shared value; Thai social enterprise; fuzzy set qualitative quantitative analysis (fsQCA); case analysis

DEDICATION

This dissertation is dedicated to my beloved father, mother, and two brothers.

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Introduction

This chapter aims to introduce basic concepts and provide an overview of the dissertation. The chapter begins with the background of the study briefly describing the evolution of social entrepreneurship in creating shared value (CSV) among the enterprise, society, and the environment. After that, the statement of problems and research gaps are provided and explained with a graphical illustration. Three research gaps are identified. As a consequence, the chapter indicates research objectives and research questions of the dissertation. Lastly, the chapter ends with an overall structure of this dissertation by shortly giving the idea of each chapter.

1.1 Background of the study

The issues of social and environmental challenges such as global pollution, climate changes, and poverty around the world have been connected to a role of enterprises and business management (Abdelkafi & Täuscher, 2016). Concerns of business practices and their impacts on society and the environment have been significantly increasing. In corresponding, the business idea of integrating social and environmental interests into a conventional business model has received considerable attention from academic and industrial research (Schaltegger et al., 2016). Researchers suggest that business managers or entrepreneurs should run their business to gain benefits not only for themselves (e.g., maximizing their own's profits) but also, at the same time, help to resolve social and environmental problems (Abdelkafi & Täuscher, 2016). There are a

number of studies suggesting that the performance of business does not solely rely on an economic dimension, social and environmental dimensions also significantly affect the business performance (Sheth et al., 2011). The business cannot operate well within a fail society or within a disaster condition of the natural environment. The business, society, and the environment need to support one another. From this point of view, the topics that relate to managing and balancing between business's and society's benefits through the business practices have been received attention from many researchers and practitioners (Wilson & Post, 2013).

Therefore, a fundamental shift towards a deeper integration of environmental and social issues and needs within business model, practices and innovation seems important (Boons & Lüdeke-Freund, 2013). Business model innovation provides a framework for the business to re-design purposes of the business, value propositions, and the value creating processes (Bocken et al., 2014). This innovation is increasingly being known as a key to generating, integrating, and delivering greater economic, environmental, and social value through a firm's thinking and actions (Lüdeke-Freund, 2010; Bocken et al., 2014). It contributes to sustainable development while creating competitive advantages through delivering superior customer value (Bocken et al., 2014).

The concept of creating shared value (CSV) has been introduced, in which it emphasizes a shift of an academic and managerial focus in corporate social responsibility (CSR), to connecting the business's interests (i.e., profits and competitive advantage) with social and environmental benefits. Corporate social responsibility is the business practices and policies that are implemented to improve societal and environmental conditions (Jackson & Apostolakou, 2010). However, the traditional practices of CSR have always been involved with clarities, donations, and other volunteering activities that exploit the business' slack resources such as profits and time (Wójcik, 2015). Therefore, researchers argued that CSR cannot represent a sustainable practice (Visser, 2010). In addition, the concept of CSV provides a theoretical framework for an alternative CSR-entrepreneurship synergy such as social entrepreneurship (Raimi et al., 2015).

Concepts like social, green, triple-bottom-line, and sustainable business models were then introduced to describe new business logic that creates a positive impact for the business and society (Peredo & McLean, 2006). Corresponding, the concept of social entrepreneurship has been arisen to represent a new phenomenon that aims to solve organizational and societal (often including environmental) problems (Tepthong, 2014). Social entrepreneurship represents an innovative process that drives social and environmental value creation because its primary purpose is to solve

societal problems and simultaneously generate revenue for itself through business practices (Mair & Marti, 2006; Morris et al., 2011; Felício et al., 2013). Furthermore, social entrepreneurship can be represented as a transitional vehicle that serve for the concept of creating shared value (Dembek et al., 2016). The concept of shared value suggests that the better the relationships of the business and the society, the better utilize of resources to create value for society and the environment, and simultaneously enhance the firm's competitive advantage. In this dissertation, shared value refers to value creation for mutual benefits among the firm, society, and the environment, including economic, social, and environmental value. Economic value refers to an enterprise's benefits in order to survive, grow, and run the business smoothly. It relates to profitability-oriented goals such as making profit and remain competitive advantage in the market. Social value refers to benefit for society, local people, local community in order to resolve social problems around local communities such as enhancing community health and safety and uplifting well-being of local people. Environmental value relates to the betterment for the natural environment. It also refers to resolve environmental problems around global communities such as reducing waste and pollution.

1.2 Problem statement and research gaps

According to the theoretical background and literature review (see more details in Chapter 2: Theoretical background), this dissertation shed light on three research gaps, as summarized and demonstrated in Figure 1.1. Similar to other entrepreneurs, social entrepreneurs or other shared-value-oriented entrepreneurs must acquire resources and develop capabilities for their resources' utilization to remain a competitive advantage and create shared value (i.e., social, environmental, and economic value for themselves, society, and the environment) (Bacq & Eddleston, 2016). Although the social enterprise initially concerns about society and the environment, it also needs to achieve not only its social and environmental goals but economic goals in order to survive, grow, and sustain. Importantly, they have to cope with constraints and barriers because their initial goals are not just profit-oriented. It often operates in environments that make it difficult to acquire resources at reasonable costs to avoid conflict with their social and environmental missions (Zahra & George, 2002).

Many previous business studies have focused on how firms achieve superior economic performance or sustain competitive advantage (Wernerfelt, 1984). The resource-based view (RBV) has always brought to research to as a theoretical framework to analyze based on available resources and capability development. Nevertheless, regarding specialty and uniqueness of social enterprises, studies has been showing that economic, environmental, and social resources are needed to manage and utilize simultaneously (Murphy & Coombes, 2009; Tate & Bals, 2016). However, social and environmental resources and capabilities have been always overlooked by researchers and entrepreneurs (Bloom & Smith, 2010; Bacq & Eddleston, 2016). Limited number of studies have focused on the integration of economic, social, and economic resources and capabilities in social enterprises.

Apart from the gap from the theoretical perspective, another research gap regarding research methodology is also highlighted. Most of the studies empirically analyzed based on case analysis (Tate & Bals, 2016) and regression-based analysis (Felício et al., 2013). However, there are some limitations of these methods. For example, a regression-based analysis such as multiple regression or structural equation model is not capable of analyzing asymmetric data (non-normal distributed data) or equifinality (multiple solutions to the same outcome) (Fiss, 2007). A social enterprise depends on combinations of various antecedent conditions, not a single condition (Woodside, 2013; Wu et al., 2014). Thus, based on the literature gaps in the framework and methodological perspectives, the 1st research gap of this dissertation can be identified as presented in Figure 1.1. Respectively, this dissertation includes the RVB and its theoretical extensions including natural resource-based view (NRBV) and social resource-based view (SRBV) to cover all economic, social, and environmental layers of resources and capabilities. The dissertation employed Fuzzy Set Qualitative Comparative Analysis (fsQCA) as a tool to explore the complex relationships between capabilities and shared value in social enterprises.

Obviously, social enterprises aim to create positive changes in society and the environment, and attempt to create mutual benefits between the enterprises and their stakeholders. However, the concept of shared value in social entrepreneurship has been criticized in the literature and is still in a rather nascent stage (Crane et al., 2014). In addition, Dembek et al. (2016) and Tate and Bals (2016) claimed that there has been still a need to understand how the social enterprise create shared value. Many previous studies focused on definitions and theoretical development (Porter & Kramer, 2012). Despite theoretical developments, there is still a limited understanding of how the CSV

strategies might be undertaken in practice and how shared value is practically created (Short et al., 2014). This dissertation identifies the lack of implementation guidelines and mechanism in CSV as the 2nd research gap, as presented in Figure 1.1.

Furthermore, researchers have shown that a society in different social contexts has different characteristics of social entrepreneurship and CSV strategies depending on culture, historical background, and business practices. Many studies have been conducted in Western or developed countries (Høvring, 2017). Therefore, there is academic curiosity about social enterprises' practices and their impacts within emerging market contexts that have different economic, social, and cultural background (Vezzoli et al., 2015). While, research of social entrepreneurship and shared value in emerging markets is limited, it is almost entirely absent in Thailand (Srinaruewan et al., 2015). Thai social enterprises create shared value. As an emerging country in Southeast Asia, public concerns on social and environmental issues in Thailand are somehow different from that of Western and developed countries due to unique characteristics of social enterprises in Thailand (Prayukvong & Olsen, 2009). While the interest of social entrepreneurship in Thailand has been significantly increasing, it remains ambiguous how it operates as well as what are required capabilities that act as a catalyst for shared value creation. The context of an emerging market, using Thailand as a representative, refers to the 3rd research gap, presented in Figure 1.1.

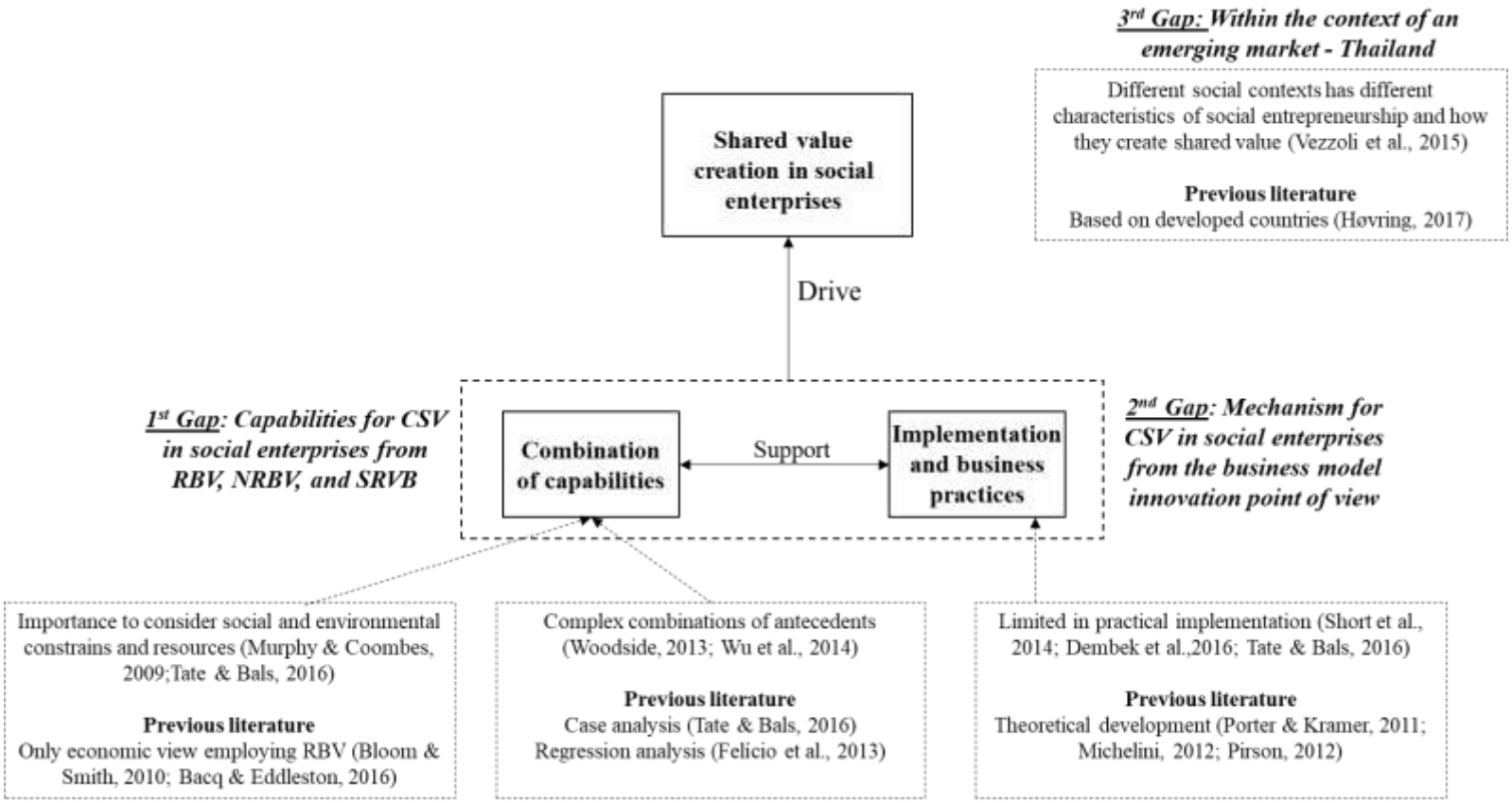

Figure 1.1: Research gaps

1.3 Research objectives

Apart from filling previously identified research gaps, this dissertation aims to achieve three overarching objectives, as listed below:

1) To identify essential capabilities of social enterprises that encourage shared value creation for the enterprises, society, and the environment
2) To understand the supportive business practices of the capabilities that enhance the opportunity for shared value creation
3) To provide initial guidelines and recommendations to social entrepreneurs and other shared value-oriented entrepreneurs who want to advance the social and environmental conditions by creating shared value

1.4 Research questions

As a result, in order to accomplish the research objectives, this dissertation attempts to address the following research questions which are divided into one major research question (MRQ) and three subsidiary research questions (SRQs). In order to be a successful social enterprise that create shared value among itself, society, and the environment, business practices and capabilities as practical guidelines are necessary.

1.4.1 Major research question (MRQ)

1) What are important capabilities and business practices for creating sharing value (CSV) in Thai social enterprises?

1.4.2 Subsidiary research questions (SRQ)

1) What are combinations of capabilities that facilitate shared value creation in social enterprises?

2) What are suggested business practices that enhance the opportunity for creating shared value?
3) How is shared value created from social enterprises' practices?

1.5 Structure of the dissertation

The structure of this dissertation is organized as follows. This dissertation consists of 7 chapters. First, the dissertation starts with the introduction section. Next, theoretical background is discussed in Chapter 2. The following chapter illustrates the research methodology in chapter 3. As a consequence, Chapters 4 and 5 explain findings of study 1 (fsQCA) and study 2 (case analysis), respectively. Chapter 6 then discusses over all findings from both studies. Finally, the Chapter 7 explains the theoretical and practical implications, limitations, and directions for future studies. Details of each chapter are explained as the following.

Chapter 1 introduces an overview of this dissertation including problem statement, research objectives, research questions, and structure of the dissertation. This chapter briefly explains the scope, goals, and importance of this dissertation.

Chapter 2 provides theoretical background based on literature review. The chapter presents the definitions of corporate social responsibility (CSR) and its challenges, creating shared value (CSV) and its transitions, business model innovation for sustainability, social entrepreneurship, stakeholder management theory, organizational resources from different points of views (i.e., resource-based view (RBV), natural resource-based view (NRBV), and social resource-based view (SRBV), organizational capabilities, and the uniqueness of the context of Thailand. This chapter aims to provide a better understanding of the theoretical foundations that are relevant and important to analyses and discussion of the dissertation.

Chapter 3 explains the research methodology, including research design, methodology sequences, and sub-studies research methods for each analysis. The chapter explains how this dissertation achieves research objectives and addresses major and subsidiary research questions. The step-by-step diagram of research flowchart is also included in this chapter.

Chapter 4 presents the findings of Study 1 "Examining combination of capabilities for social enterprises in creating shared value using fsQCA". The chapter includes research background, research objectives, theoretical model, findings, discussion, and a chapter's summary. The main purpose of this chapter involves identifying different pathways from combinations of capabilities that are important for social entrepreneurship and social, environmental, and economic value creation based on the fsQCA. This chapter also provides the fuzzy XY plots to deeper analyze each suggested pathway. Findings emphasize the role of social entrepreneurship (comprising of social innovation and entrepreneurship-oriented practices) and combinations of capabilities (not an individual condition) for social entrepreneurship and shared value creation.

Chapter 5 focuses on the findings of case analysis that investigated into two social enterprises' practices for CSV through business model innovation for sustainability framework and business model components lens (i.e., value proposition, value creation, and value capture). This chapter includes research background, research objectives, findings, discussion, and a chapter's summary. After specifying the combination of capabilities in the previous chapter, this chapter aims to provide evidence associated with the essential business practices that support these capabilities and shared value from real cases in Thailand.

Chapter 6 discusses findings from all analyses. The chapter includes the integration of findings showing interrelation among studies and how they support one another to answers the major research question.

Chapter 7 highlights the theoretical implications, practical implications, limitations, and directions for future studies.

Chapter 2
Theoretical background

This chapter aims to provide the theoretical background, important concepts, and literature review that are related to the dissertation. The chapter includes ten subsections i.e., (1) introduction, (2) corporate social responsibility (CSR), (3) creating shared value (CSV), (4) differences between CSR and CSV, (5) business model innovation for sustainability, (6) social entrepreneurship, (7) stakeholder management theory, (8) organizational resources including resource-based view (RBV), natural resource-based view (NRBV), and social resource-based view (SRBV), (9) organizational capabilities, and (10) the context of Thailand.

2.1 Introduction

This chapter reviews relevant literature regarding important concepts and terminologies used in this dissertation. First, the concept of CSR, its definitions, evolutions, and challenges are presented prior to the introduction of the CSV concept. Basically, CSR is business's practices and policies that aim for society and the environment (Jackson & Apostolakou, 2010). However, there are many constraints that restrict the traditional idea of CSR to fully create benefits for society and the environment. Therefore, the concept of CSV, which is the main focus of this dissertation, is described in the following section. The next section describes the development and importance of CSV and followed by the table illustrating the differences between CSR and CSV.

Next, literature review is presented to highlight the importance of the emergence of social entrepreneurship in CSV. This section starts from describing the definition of business model, business model innovation, and the business model innovation for sustainability. Basically, business model innovation refers to a new integrated logic of how a firm creates value and how it captures value, and the implementation of a business model that is new to the firm (Björkdahl & Holmén, 2013). It provides a necessary idea to create changes for the firm and advancing benefits for society and the environment because technology or social innovation alone are not sufficient. After this section, the concept of social entrepreneurship is introduced to describe its definition and explain a relationship between social entrepreneurship and CSV.

After that, the concept of stakeholder management theory is explained as a fundamental idea for economic, social, and environmental dimensions in shared value, organizational resources and capabilities. Organizational resources and capabilities of any type of businesses needed to be well managed and utilized in order to achieve the business's missions. Particularly, due to specialty and uniqueness of social entrepreneurship, resources and capabilities requires special organizational capabilities and resources to cope with its missions, not only economic (i.e., making profit) but also social and environmental goals. Therefore, only RBV that emphasizes on the economic aspects to achieve a firm's competitive advantage is not adequate for social entrepreneurship, the extensions of RBV (i.e., NRBV and SRBV) are added into this dissertation to cover social and environmental constraints, capabilities, and resources. Thus, this chapter also reviews relevant studies of organizational resources from RBV, NRBV and SRBV points of view, and essential capabilities for CSV.

Finally, the last section of this chapter explains why Thailand was selected as the representative of an emerging market and included in the analysis. The section describes the significance of the different context and the current status of social entrepreneurship in Thailand.

2.2 Corporate Social Responsibility (CSR)

Corporate Social Responsibility (CSR) generally refers to business practices, management, and policies that aim to enhance well-beings of society and improve environmental conditions (Jackson & Apostolakou, 2010). The concept of CSR is closely related to legitimacy, social and

environmental responsibility (Motilewa et al., 2016). Nevertheless, the definition of CSR has not been concluded into one absolute idea (McWilliams & Siegel, 2001). A broad definition of CSR has remained ranging from conceptual to practical ideas.

Initially, the concept of CSR was introduced to respond to stakeholders' pressure. Stakeholders such as customers and local people required a business to take a responsibility for its activities that negatively effect society and the environment. However, studies showed that there have been a number of challenges of the traditional perspective of CSR (Visser, 2010). First, the concept of CSR has mostly implemented in form of charity, philanthropy, donation, volunteering activities (Camilleri, 2017). These practices relate to usurping the businesses' resources with little benefits really created for society, the environment, or even for the businesses. Second, the traditional perspective of CSR refers to practices that create social and environmental value without considering costs of effort (Voltan et al., 2017). The businesses scarify their profits for CSR activities in a hope that the practices and policies will create changes to society and the environment (Reinhardt et al., 2008). In addition, researchers argued that CSR practices cannot be sustain and continuously generate benefits because a business's main purpose and social needs are far different (Visser, 2010).

2.3 Creating Shared Value (CSV)

Corresponding to challenges of the traditional practices of CSR, the concept of CSV has emphasized the relationship between the business, society, and the environment through the business practices and prism of value creation (Burke & Logsdon, 1996). The conventional CSR practices such as charities or volunteering activities should be broadened and amplified to create shared value among the business, society, and the environment (Abdelkafi & Täuscher, 2016).

The concept of creating shared value (CSV) was initially coined by Porter and Kramer (2011), aiming to provide an alternative business idea to resolve social and environmental problems through business practices, while at the same time these business practices also generate benefit for the business. Porter and Kramer (2011) suggested that the business can easily access to social and environmental resources when it concerns and try to address social or/and environmental issues. The concept of CSV presents an innovative business practice and social responsibility that bridge

between social needs and business needs by balancing between social value, environmental value, and economic value (for the business such as making profits and remaining competitive advantage) (Høvring, 2017). Creating shared value can be referred to *"the policies and operating practices that enhance the competitiveness of a firm while simultaneously advancing the economic and social conditions in the communities in which it operates"* (Porter & Kramer, 2011). The CSV strategies consider the social responsibility that goes beyond required law and regulation (Voltan, 2017). Specifically, the concept of CSV suggests the business to involve social and environmental issues into its goals and practices. It is internal-oriented management that focuses on sustainable value creation, rather than external-oriented practices (in CSR) that aim to create value temporarily (Tate & Bals, 2016; Høvring, 2017). Importantly, the concept of CSV provides the theoretical framework for an alternative CSR-entrepreneurship like social entrepreneurship (Raimi et al., 2015).

2.4 Differences between CSR and CSV

The differences between the traditional concept of CSR and CSV have been debated and mixed up (Wójcik, 2015). Some researchers have questioned about the newness of CSV and how this concept is differentiated from CSR (Crane et al., 2014). While, some researchers argued that the CSV concept represent an innovation, useful, and beneficial concept (Høvring, 2017). The main differences between CSR and CSV are presented in Table 2.1.

Furthermore, Figure 2.1 demonstrates the different impacts and value creation of CSR and CSV when the both concepts interact with stakeholders, including employees, partners, customers, society, and the environment. Italic words and sentences represents the traditional idea of CSR practices. Normal words and sentences represents the CSV practices.

Regarding CSR, firms conduct social and environmental activities from an external-oriented point of view. They treat their employees ethically according to the requirement of laws and other regulations and trade fairly with partners and customers. They also connect to the society and the environment by organizing charities and other volunteering activities for the community. The firms' environmental management focuses on public regulations and requirements from the government. From these kinds of practices, the corporate value, customer value, social, and environmental value are created only for a short period of time. When the CSR practices are over,

the society and the environment will no longer get benefits. This is because firms' CSR policy only focus on legitimacy and stakeholder pressure.

In a contradictory, the concept of CSV closely engages with the society and the environment by including social and environmental problems into the core business policies. Firms connect with stakeholders and aim for generating mutual benefits. For example, firms allow local people to be their partners to increase their well-being, educate them which help to improve the social conditions. The CSV strategies encourage the mutual interdependencies between all stakeholders and the business (Abdelkafi & Täuscher, 2016).

Table 2.1: Differences between CSR and CSV

CSR	CSV
• Separating from the business strategies • External-oriented practices • Overlook opportunities to co-create • Unsustainable value • Little business benefits and social gains	• Involving social and environmental issues • Internal-driven motivation • Reinforce the mutual interdependencies • Sustainable value creation • More customer, societal, and the environmental, business value

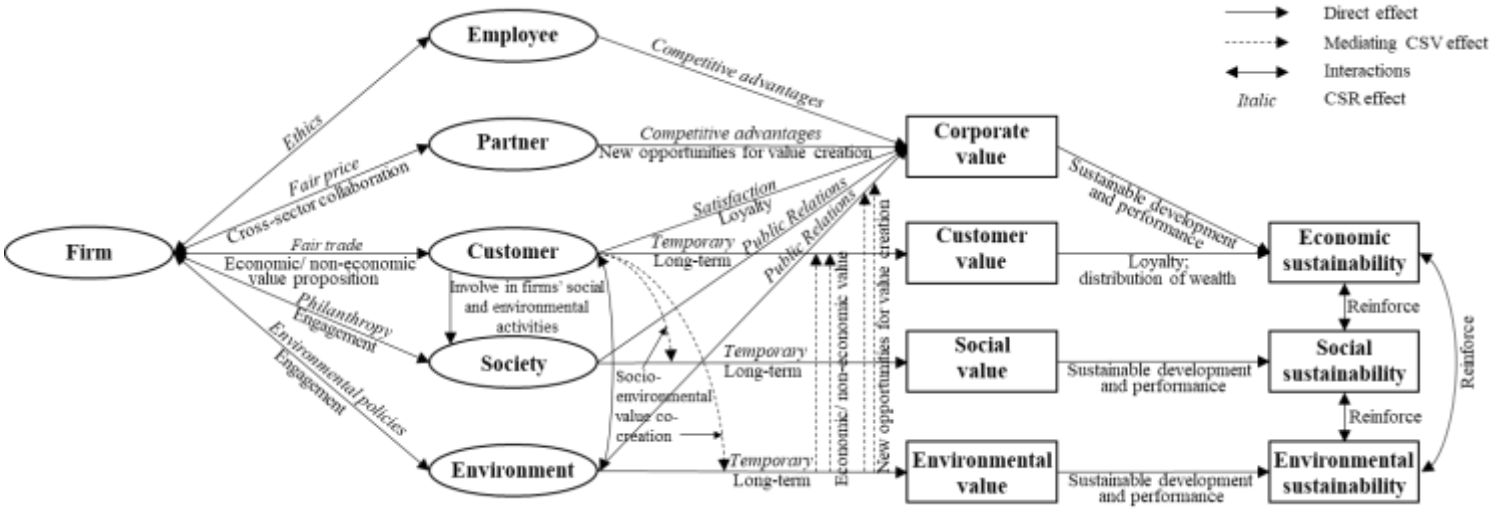

Figure 2.1: Differences between CSR and CSV

2.5 Business model innovation for sustainability

2.5.1 Business model

A business model refers to a representation of the underlying core logic of a firm and strategic choices for proposing, creating, and capturing value within a value network (Shafer et al., 2005; Osterwalder & Pigneur, 2010). It is how a firm defines its strategies to obtain competitive advantages and differentiates itself from others through the design of the products or services it offers to its customers, price strategies, and how the firm integrates its own value with those of other external stakeholders in a network to create new value (Bocken et al., 2014). A business model also describes how a firm creates value through the exploitation of business opportunities (Chesbrough, 2010; Amit & Zott, 2012; Rosca et al., 2017). Business model components includes value proposition, value creation, and value capture (Richardson, 2008). Value proposition refers to value that is offered to customers and other stakeholders (Boons & Lüdeke-Freund, 2013). Value creation includes resources and capabilities, the process of resource integration, and a position in the value network. It also refers to how value is created and delivered or the process of value co-creation by stakeholders (Bocken et al., 2017). Value capture signifies how a firm generates revenue and profits from the provision of value. It includes economic and non-economic values that are perceived by all members in the ecosystem (Richardson, 2008).

2.5.2 Business model innovation

Business model innovation represents an advanced business thinking, idea, and model that changes a way the business operates and manages (Björkdahl & Holmén, 2013). In contrast with product, service, and technological innovation, the concept of business model innovation is beyond a design of a new product/service/technology. It refers to different ways to create new value from existing resources, new ways to propose value to customers, and new ways to capture value. In other words, the business model innovation alters the core business thinking not just focuses on technology, products, and processes (Amit & Zott, 2012). The business model innovation has been claimed to unlock potential value from advanced technologies within limited resources and transform it into valuable products and services (Yang et al., 2017). Moreover, it has been considered to be an important lever for change in tackling pressing sustainability issues (Bocken &

Short, 2016). Furthermore, business model innovation has also been recognized as a key to the creation of sustainable business (Boons & Lüdeke-Freund, 2013; Frank et al., 2013; Carayannis et al., 2014).

2.5.3 Business model innovation for sustainability

A business model for sustainability is defined as a business model that concerns with social and environmental needs and simultaneously creates benefits for the business (Lüdeke-Freund, 2010). The core of a business model for sustainability is still creating customer value like general business models, but in which social value is embedded (Chesbrough, 2010; Osterwalder & Pigneur, 2010). A business model for sustainability can serve as a vehicle to coordinate technological and social innovations with system-level sustainability (Stubbs & Cocklin, 2008). It is necessary to consider the integration of economic, social, and environmental goals into a more holistic meaning of value in business models to develop a business model for sustainability (Schaltegger et al., 2012). Therefore, business model innovation for sustainability can be defined as innovations that aim at creating significantly positive impact or those that at least have diminished the negative impact on the society and the environment by altering how the business propose, co-create, and capture value (Bocken et al., 2014). The business model innovation for sustainability considers both social and environmental benefits, not only aims at maximizing economic gains (Bocken et al., 2014). This may refer to changes in the design of a firm's value propositions, the strategy for value creation, and how and what value is captured.

2.6 Social entrepreneurship

J. A. Banks first coined the terminology of social entrepreneurship in The Sociology of Social Movements in 1972, tried to differentiate from conventional entrepreneurship (Jones et al., 2010). However, the concrete definition was not provided. Therefore, there is no consensus definition. The literature contains numerous definitions of social entrepreneurship (Tepthong, 2014). It can be referred to entrepreneurs' willingness to have fair practices in the society (Thake & Zadek, 1997). Alternatively, Weerawardena and Mort (2006) provided the definition of social

entrepreneurship as an enterprise that aims to achieve social and environmental missions and these missions become a source of competitive advantage.

In this study, social entrepreneurship is defined as the business process that use, combine, and manage resources, idea, and capabilities to pursue opportunities for advancing the society and the environment for this sustainable social transformation and also to accomplish its commercial or economic goals (Tepthong, 2014; Carraher et al., 2016). The importance of social entrepreneurship is the balancing practices and management between its impact on economic and social development (Peredo & McLean, 2006). Social entrepreneurship can be considered as an innovative process and business model innovation that drives social and environmental value creation because of the initiative in seeking solutions to societal problems through its business practices (Mair & Marti, 2006; Morris et al., 2011; Felício et al., 2013). From this point of view, social entrepreneurship can be represented as a transitional vehicle leading to new capitalist system for CSV (Dembek et al., 2016).

Social entrepreneurship can be referred as a sub-discipline within entrepreneurship (Austin et al., 2006). Social enterprises need to develop its capacity to manage both business stakeholders such as trade partners and non-business stakeholders such as non-profit organization (NPOs) private business (Rey-Martí et al., 2016). Studies showed that social entrepreneurship composed of social-oriented and entrepreneur-oriented practices. Social innovation, proactiveness, and risk management are important components of social entrepreneurship. Social innovation is seen as the main criterion for social entrepreneurship to achieve social and environmental missions (Kraus et al., 2017). It relates the utilization of resources and capabilities in addressing social problems (Dwivedi & Weerawardena, 2018). Like other enterprises, social enterprises need to be proactive and manage risk to survive and to grow its business. Risk-taking involves making decisions from uncertainty choices and situations to minimize risks for business and all stakeholders (Weerawardena & Mort, 2006). Whereas, proactiveness reflects the tendency to actively scan the external environment, actively monitor external forces, and prepare for future uncertainty (Dwivedi & Weerawardena, 2018). It involves forecasting both finance and non-finance to avoid surprises.

2.7 Stakeholder management theory

A stakeholder management theory refers to managing and balancing stakeholders' interests rather than maximizing gains from them (Joyce & Paquin, 2016). Stakeholders are a group of individuals or organizations that connect and influence or is influenced by organizations' goals and practices. Stakeholders can be consumers, employees, business partners, or others such as society and the government. Managing stakeholders is important for accessing and acquiring valuable resources. The stakeholder management theory plays a role emphasizing the relationship development with a network of social contacts that provides organizations with resources which can be converted into value (Schlange, 2009).

Particularly, a social enterprise finds it more difficult to manage stakeholders as compare to a conventional enterprise because it has to balance between social and economic value creation (Smith & Woods, 2015). Social enterprises need to consider a decision making that relates to both economic and social value creation and their impacts for society and the enterprise (Dacin et al., 2011). The barriers and constraints of social enterprises are more than those from the conventional enterprise due to more numbers of stakeholders involved such as local people or non-profit organizations. Moreover, Schlange (2009) suggests that a stakeholder environment of social enterprise involves higher levels of complexity. Successful relationship management relies on how well social enterprises manage the relationship with their stakeholders such as customers, suppliers, local people, NGOs and the government. In social entrepreneurship, the stakeholder management theory provides a framework that helps in connecting with broader stakoeholders and suggesting a direction for transforming intangible social and environmental issues into tangible economic and social stakeholder interests (Hossain et al., 2016). Considering stakeholders from economic, environmental, and social dimensions supports a more robust and holistic view of the enterprises' practices (Joyce & Paquin, 2016).

2.7.1 Economic dimension

A social enterprise must acquire an ability to gain necessary profits and revenues in order to cover its operating costs to survive, expand, and run the business smoothly. The social enterprise needs to develop a good relationship with key economic-related stakeholders such as customers,

business partners, creditors, and other authorities. These stakeholders play a major role because they relate to main business operations (Schlange, 2009).

2.7.2 Social dimension

Regarding a social dimension, connecting and managing stakeholders (e.g., local people or NGOs) encourage mutual benefits and shared value creation. The social dimension of stakeholder management refers to enterprises' missions which focuses on creating benefits for its stakeholders and society more broadly. Social enterprises cannot survive when society or local communities fail. Social enterprises' activities also positively influence the well-being of society (Joyce & Paquin, 2016). From this perspective, value created from social enterprises covers a wider range of potential beneficiaries. Social enterprises can be viewed as stakeholder organizations because their assets and resource mainly based and owned by many stakeholders in a community rather than by a specific group of shareholders (Schlange, 2009). Social-related stakeholder management is a foundation for approaches for measuring social impacts through different indicators and standards such as ISO 26000 (Guidance on social responsibility).

2.7.3 Environmental dimension

An environmental dimension of the stakeholder management theory refers to natural and ecological value that social enterprises create through reducing negative environmental impact, increasing positive ecological value, and improving environmental degradation (Joyce & Paquin, 2016). The stakeholder theory regarding the environmental dimension shows the relationship development with environmental-related stakeholders such as environmentalists, NGOs, scientific communities, political parties, or a variety of dedicated pressure groups (Schlange, 2009). Different environmental standards and indicators such as environmental, social and governance (ESG) issue fundamentally developed from the stakeholder management theory.

2.8 Organizational resources

2.8.1 Resource-based view (RBV)

A resource refers to anything the firm receives in an exchange and give a strength or weakness. Grounded in the RBV, resources can be tangible resources such as machines or intangible resources such as experiences, motivation, relationships among of employees and with employers (Wernerfelt, 1984; Barney, 1991). The RBV argues that firms achieve competitive advantages through the application of resources that are valuable, rare, inimitable, and non-substitutable such as know-how and organizational learning (Wernerfelt, 1984; Branco & Rodrigues, 2006; Hörisch et al., 2015; Fortis et al., 2018). The RBV thus portrays an organization as a bundle of resources and capabilities that are developed over time as the organization interacts with stakeholders (Bacq & Eddleston, 2016).

Analyzing social entrepreneurship through a theoretical framework of RBV emphasizes important capabilities on resources' utility for financial performance (Bacq & Eddleston, 2016). Since, the profit-making capabilities to generate revenues helps social entrepreneurship to pursue social and environmental missions (Miller & Wesley, 2010). Although social enterprises may not aim to get rid of their rivals, they need to remain competitive advantage (Desa & Basu, 2013).

2.8.2 Natural resource-based view (NRBV)

An NRBV framework is proposed as an extension to the RBV. While the RBV highlights the economic-oriented resources as an important element for a firm's competitive advantage and superior performance, the natural environmental resources and capabilities have been overlooked (Hart, 1995). Therefore, the NRBV extends to cover the capabilities to manage natural environmental resources and barriers by connecting and accessing to the natural resources (Cristina De Stefano et al., 2016). This view emphasizes the importance of natural environment management due to many environmental issues such as limited natural resources, climate change, and pollution (Tate & Bals, 2016).

The concept of the NRBV was broaden from the economic-oriented RBV to cover the natural and environmental concerns and link business with the natural world (Tate & Bals, 2016).

Regarding the domain of the NRBV, environmental resources and capabilities are important for the business to achieve a competitive advantage.

2.8.3 Social resource-based view (SRBV)

An SRBV extends from the RBV and NRVB to cover social resources and constraints by dealing with a wider range of stakeholders both from the business and non-business sectors such as local people or NPOs (Tate & Bals, 2016). The SRBV deals with social capabilities in the three areas i.e., commitments, connections, and consistency, in which Tate and Bals (2016) suggested that these social capabilities are important for economic, social, and environmental value creation (Jenkins & Fries, 2012)

2.9 Organizational capabilities

Certain capabilities are required for social entrepreneurship to manage, control, and deploy different tangible and intangible resources in economic, social, and environmental dimensions to enhance the ability of a social enterprise to achieve economic and social goals and gain a competitive advantage (Rey-Martí et al., 2016). In this study, four social entrepreneurship capabilities (i.e., mission-driven-, stakeholder-, cross-sector collaboration-, and environmental-management capabilities) were our main focus. They represent potential driving factors in the enhancement of social entrepreneurship for CSV and gaining a competitive advantage. These capabilities are in line with the RBV, NRBV, and SRVB in that they consider economic, social, and environmental perspectives.

2.9.1 Effects of a set of capabilities on social entrepreneurship

A mission is the important component of organizational philosophy that can enhance the common visions and understanding of the business role, purposes, and practices with respect to its stakeholders. It has potential to support social entrepreneurship for CSV (Grant & Sumanth, 2009). The mission-driven management capability supports a decision-making process in social

entrepreneurship (Tate & Bals, 2016). However, in order to accomplish missions of social entrepreneurship, it is essential to consciously build up other capabilities in economic, social, and environmental dimensions. The stakeholder management capability has been shown to support social entrepreneurship in helping to respond to external pressures and incentives set by main stakeholders such as partners, customers, and shareholders. Cross-sector collaboration management connects the social enterprise to peripheral stakeholders (e.g., local people and NPOs), and helps the entrepreneur to take a leadership position in resolving social problems around local communities and enhancing social entrepreneurship. The capability of cross-sector collaboration helps to bridge the boundaries of the private, public, and non-profit sectors and to reconcile conflicting institutional goals, structures, and processes in a way that benefits social entrepreneurship (Pache & Santos, 2012). A business will most likely fail unless local social partners are brought into the business during the market creation and product development/distribution phases, so identifying these local social partners is one of the key capabilities for a social entrepreneur (Calton et al., 2013). Similarly, the environmental management capability supports social entrepreneurship by connecting the social enterprise to natural resources, such as ecological systems, and helps the entrepreneur to take a leadership position in resolving social and environmental problems in global communities.

2.9.2 Effects of a set of capabilities, and social entrepreneurship on CSV

Grounded in the RBV, NRBV, and SRBV, the influence of capabilities and social entrepreneurship on CSV in social, environmental, and economic (i.e. revenue- and competitive-advantage-related) dimensions is understood through the analysis of fundamental tangible and intangible resources and capabilities (Fortis et al., 2018). A clear mission that promotes social entrepreneurship appears to be an important element that contributes to the establishment of CSV practices. Incorporating a clear mission into a business's strategy tends to obtain positive results for stakeholders and social rewards in forms such as an improved reputation and a perceived good image from customers (Flota Rosado & Ocampo Figueroa, 2016). These rewards can in turn generate a sustainable competitive advantage for the enterprises and develop a trusting network that is manifested both directly and indirectly in mutual benefits.

Based on the SRBV, a social capability is essential because it connects the enterprise with a wide range of stakeholders for assessing and exchanging valuable resources with one another. Exchanged resources can include, from an economic perspective such as training sessions, materials and from a social perspective, such as cultural and social capital. These resources encourage more than just purely economic motives (Tate & Bals, 2016). Therefore, the ability to configure and manage the main stakeholders as well as cross-sector stakeholders by effectively managing social entrepreneurship appears to be another key capability that encourages CSV. Exchanging resources with both business and non-business stakeholders becomes very important (Kolk & Lenfant, 2015). Aligning with non-business stakeholders, such as non-profit organizations (NPOs) or local communities, to access valuable resources that fit the enterprise's mission and interests and maximizing that alignment is very important for CSV (Dees, 1998).

According to the NRBV, the social entrepreneurship capability of managing natural environmental resources can become valuable for CSV (Majumdar & Marcus, 2001). The environmental management capability, including practices such as regulating pollution and waste, employing more efficient operation and production, and reusing materials, may lower costs (Sharma & Vredenburg, 1998). It is also highly effective for creating and increasing positive reputations and perceptions from customers while simultaneously improving environmental conditions.

2.10 Context of Thailand

Researchers have shown that a society in different social and environmental contexts has different characteristics of social entrepreneurship depending on culture, historical background, and business practice. This leads to academic and practical curiosity about the operation and performance of the social enterprise and CSV in Thailand, an emerging market in Southeast Asia. According to the (World Bank, 2016), Thailand can be categorized as an upper-income country and as a developing country, located in Southeast Asia. The impact of Thai social entrepreneurs in CVS may be different from other contexts (Srinaruewan et al., 2015).

Thai business model on social responsibility is unique and significantly influenced by Buddhist values, in which the practice of merit-making through philanthropy, charity, volunteering,

and sharing is a part of Thai culture (Prayukvong & Olsen, 2009). Nevertheless, Thai enterprises are moving toward integrating CSV into their core business practices leading to the significantly increase in the number of social enterprises in Thailand (Kraisornsuthasinee & Swierczek, 2009). While the interest of social entrepreneurship and CSV in Thailand is increasing, it is ambiguous how the concept of CSV influence a social enterprise's competitive advantage and performance as well as what are required capabilities that act as a catalyst.

Initially, Thai CSR appeared in Thai media in 2003 described as a new trend of global standard (Prachachart Turakij, 2003). After that, Thai CSR was pushed to public and private sectors both international and domestic organizations in implementation. Nowadays, the term CSR in Thailand is heavily visible and audible to the public. However, Thai CSR has been generally associated with reputation and image-building activities such as making donations and other societal marketing programs that appear in mass media. As a result, critics questioned whether these kinds of CSR activities could distinguish between CSR and public relations/societal marketing, and whether Thai CSR can really lead to economic, social, and environmental value creation that benefits the business, society, and the environment in a sustainable way (Srisuphaolarn, 2013). Obviously, CSR in Thailand is attempting toward solving social or/and environmental problems. It may be concerned with creating a better society and dealing with environmental issues such as pollution and waste. Nevertheless, little relatedness is made into core businesses when it comes to implementing a CSR strategy. Many businesses focus on how to manage profits and distribute a portion to society (Srisuphaolarn, 2013).

Thailand is the first country among the Southeast Asia that develops the social entrepreneurship when the 1998 Thai constitution initially promoted the participation of civil society and social initiatives. This served as a beginning of public interest to concern about social and environmental benefits, as well as enterprises' economic benefits. However, social enterprises just came to public in a form of formal identification in 2010. Thai government has settled and helped to manage the network of social enterprises for solving Thai social and environment problems (Tepthong, 2014) by establishing the Thai Social Enterprise Office (TSEO), which was under the Thai Health Promotion Foundation Act in The Office of the Prime Minister Regulation of National Promotion of Social Enterprises 2011. The TSEO helps to develop and support Thai social enterprises networks.

Chapter 3
Research methodology

This chapter describes the research methodology in achieving the research objectives and addressing the research questions of the dissertation. The chapter starts with an overview of the research design explaining how this dissertation is organized and structured to answer each subsidiary research question that leads to the answers for the major research question. The research design is also illustrated in the figure. After that, the methodological sequences section is presented to express details of the research procedure. Finally, this chapter presents the sub-studies research methodology including sample, data collection, and method.

3.1 Research design

The problem statement, research gaps, theoretical background and relevant literature reviews in chapters 1 and 2 highlight the importance of economic, social, and environmental resources and capabilities in creating shared value among the social enterprise, society, and the environment. Further studies are needed to advance our understanding of social enterprises' resources and capabilities that help in creating shared value. This also links to the dissertation's major research question that attempted to identify "What are important capabilities and business practices for creating sharing value (CSV) in Thai social enterprises?". In order to address this major research question, this dissertation is divided into two main studies, i.e., (1) the examination of capabilities for social enterprises in CSV using fsQCA based on 22 Thai social enterprises, and (2) the investigation of social enterprises' business model for CSV based on analysis of two social

cases. The research design of this dissertation is summarized and demonstrated by an input-process-output-outcome diagram in Figure 3.1.

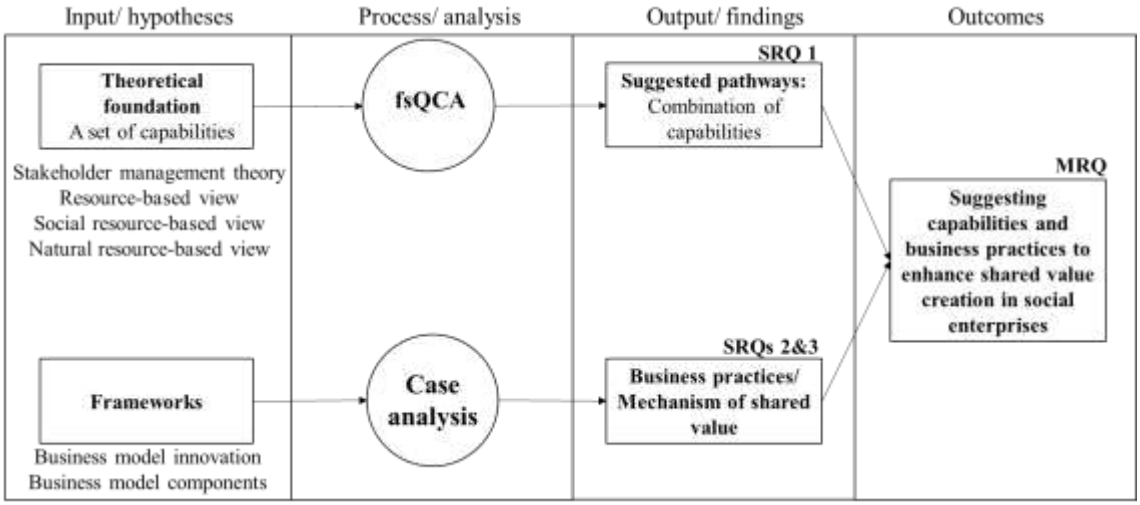

Figure 3.1: Research design

The analysis starts with identifying a set of capabilities based on stakeholder management theory, resource-based view (RBV), social resource-based view (SRBV), and natural resource-based view (NRBV) to cover economic, social, and environmental dimensions of capabilities that are important for social entrepreneurship and shared value. Then, the set of capabilities (i.e., mission-driven management, stakeholder management, cross-sector collaboration management, and environmental management capabilities, and social entrepreneurship) is empirically analyzed using fuzzy set qualitative comparative analysis (fsQCA) based on 22 social enterprises in Thailand. This study employs the fsQCA as an analysis tool because it is suitable to explore complex relationships, support the theoretical hypotheses, access the complexity theory, and is capable to analysis a small to medium sample size. This first study aims to address the first subsidiary research question "What are combinations of capabilities that facilitate shared value creation in social enterprises?". Findings provide the suggested pathways in a form of the combinations of capabilities that help social enterprises to create shared value. These findings are also expected to fill the first and third research gaps.

In corresponding to the findings from fsQCA, different sets of combinations of capabilities are suggested. The case analysis based on two Thai social enterprises aims to reveal the business

practices and the mechanisms of value creation for social enterprises, society, and the environment. This second study of this dissertation aims to answer the second and third research questions "What are suggested business practices?" and "How is shared value created from social enterprises' practices?". It also aims to fill the second and third research gaps of the dissertation. The findings highlight the real implementation of the existing social enterprises. Therefore, a case-based analysis is selected to investigate the existing cases through their business model components and business model innovation for sustainability lens. The theoretical framework of business model components consists of value proposition, value creation, and value capture.

Lastly, the findings from two studies support one another and lead to the suggestion of capabilities and business practices that enhance the opportunity of shared value creation in social enterprises. These findings also help to address the major research question "What are important capabilities and business practices for creating sharing value (CSV) in Thai social enterprises?".

3.2 Methodological sequences

This section explains the methodological sequences, as graphically presented in Figure 3.2, to give better understanding on how this dissertation is conducted to achieve the research objectives and answer the research questions in a step by step manner. In brief, this dissertation involves seven main steps, including (1) reviewing relevant literature, (2) setting clear problem statement, (3) designing the structure of dissertation, (4) Study 1: fsQCA, (5) Study 2: case analysis, (6) integrating results and discussion, and finally (7) making conclusion. Details of each step are explained in the following sub-sections.

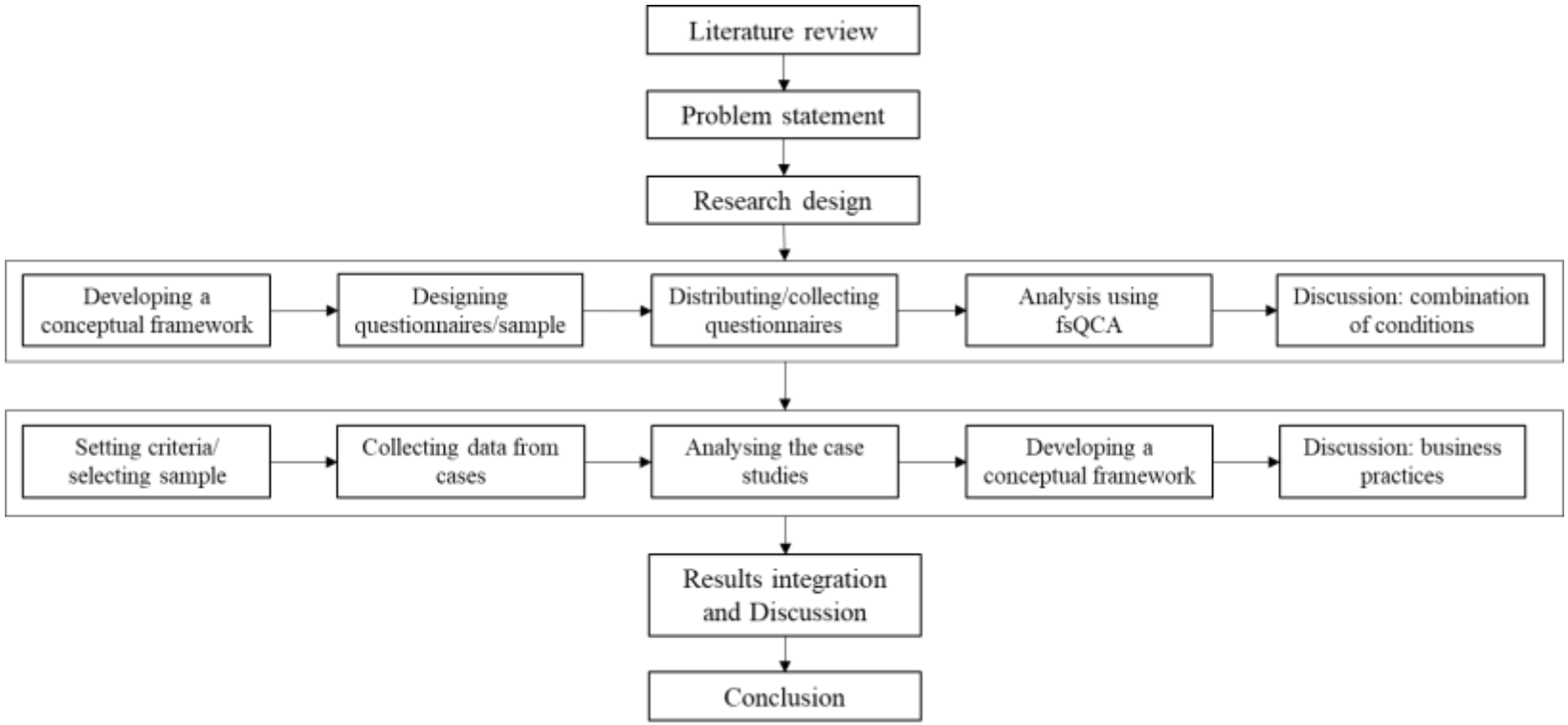

Figure 3.2: Methodological sequences

3.2.1 Literature review

Gathering all information relating to the research interests, scopes, and goals. This step begins with collecting previous papers and articles relating to CSR, CSV, business model innovation for sustainability, social entrepreneurship, sustainability, shared value (i.e., economic, social, and environmental dimensions), social and business contexts within developed and developing countries. A broad range of literature was collected and review.

Selecting and classifying literature. Literature was then selected and classified into categories to make it easy to review. Selected literature was reviewed in detail to capture theoretical background, research gaps, objectives, concepts, methodology, findings, limitations, and directions for future studies.

3.2.2 Problem statement

Identifying problem statement and research gaps. After the literature review, clear problem statement was identified. The purposes of the problem statement are to declare and explain problems or issues that literature or theories are facing and needed to be addressed. In this dissertation, the problem statement led to three research gaps, as presented in Chapter 1. These identified research gaps helped to bridge the gap between problems and the dissertation's objectives.

Setting research objectives. This dissertation aims to achieve three main objectives. These objectives were set according to problem statement, research gaps, research motivation, and expected significant of studies both academic and practical aspects.

Raising research questions. Research questions were specified to achieve the research objectives and served as a direction for the analyses. This dissertation consists of one major research question and three subsidiary research questions.

3.2.3 Research Design

Designing research. This step involves designing the structure of analyses that is suitable to answer each research question efficiently and efficiency. To successfully achieve research objectives and address research questions, the dissertation was divided into two analyses.

3.2.4 Study 1

Developing a conceptual framework. A set of capabilities, including mission-driven management capabilities, stakeholder management capabilities, cross-sector collaboration management capabilities, environmental management capabilities, and social entrepreneurship were set as hypotheses to test their impact of on shared value creation from social, environmental, and social dimensions.

Designing questionnaires/sample. After setting the scope and having hypotheses, questionnaires were designed and developed based on literature. In total, there were eight constructs from 37 questions.

Distributing and collecting questionnaires. Then, these questionnaires were distributed to 200 social enterprises in Thailand, under certain criteria. As a result, data were collected from 22 responsive social enterprises for further analysis.

Analysis using fsQCA. The analysis started with calibration of raw data into the fuzzy membership scores and followed by necessity analysis and sufficiency analysis.

Discussion. Both necessity and sufficiency analyses were discussed based on the stakeholder management theory, RBV, NRBV, and SRBV. This step also involved the discussion relating to how the findings answered the first and second subsidiary research questions.

3.2.5 Study 2

Selecting sample. The study started with setting criteria for the sample selection based on the purposes of the analysis. As a result, two successful cases in Thailand were selected to analyze their business model components and business practices.

Collecting data from cases. Data were drawn from various secondary sources such as official website and online articles.

Analyzing the case studies. Collected data were analyzed through business model components, including value proposition, value creation, and value capture in order to find out how suggested combination of capabilities (findings from fsQCA) can be supported and enhanced. In

addition, this step also analyses the case to identify the mechanism of shared value creation in social enterprises.

Developing a conceptual framework. After analyzing and comparing two cases, the conceptual framework was developed to demonstrate the important characteristics, mechanism, implementation of CSV in Thai social enterprises.

Discussion. Findings from this qualitative analysis were discussed and examined on how these findings answered the second and third subsidiary research questions and support a set of capabilities identified in the previous analysis.

3.2.6 Results integration and discussion

Integrating results. Results from all findings were integrated to specify how findings from each study support one another. Business practices from case analysis were found to supports capabilities suggested from fsQCA.

Discussion. An overall discussion describes how analyses addressed to the major research questions.

3.2.7 Conclusion

Making conclusion and implications. This step indicates contributions in both academic and practical implications of the overall findings. The significance and originality of the dissertation is highlighted.

Identifying limitations and directions for further studies. Finally, this step involves clearly explanation of limitations that this dissertation could not cover and deliver. It also mentions the directions of future research.

3.3 Sub-studies research methods

3.3.1 Study 1: Examining combination of capabilities for social enterprises in creating shared value using fsQCA

Sample and data collection

Our focused sample was a group of social enterprises based in Thailand create significant social and environmental impact. A number of criteria were set for selecting the sample. First, the selected social enterprises had to have the aim of CSV among itself, society, or/and the environment. Second, these CSV practices had to be a core aspect of the business that drove it internally, not just an extension of main business practices. Third, the social enterprises had to create changes in society and/or the environment.

This study employed a cross-sectional mail survey of a sample, encompassing of various sectors. The questionnaire was sent to 200 social enterprises during February and April 2018. These social enterprises were selected under the identified criteria and listed in the Thai Social Enterprise Office (TSEO), a public organization organized by the Thai government to manage and support social enterprises in Thailand. The respondents to this survey were owners, managers, or employees estimated as having adequate knowledge of the operations and performance of their businesses. This method of data collection is designed to achieve the research objectives and match with research questions.

As a result, our sample remains 22 Thai-based social enterprises (11% response rate). Although a number of sample size seems small, it is adequate for fsQCA, as suggested by Ragin (2008). Upon the 22 usable responses, the detail of social enterprises is summarized in Table 3.1. There are 4 anonymous social enterprises that did not want to disclose their organization name.

Table 3.1: List of social enterprises

No.	Name of enterprise	Responders	Established year	Industry
1	Art of Life Social Enterprise	Employee	2017	Health and Social Services
2	Techfarm	Owner	2015	Agriculture, Forestry, and Fisheries
3	Yellowhello	Owner	2015	Food and beverage
4	Chomthailand	Manager	2004	Tourism
5	Mae Fah Luang	Employee	1972	Wholesale and retail trade
6	Anonymous	Owner	2011	Health and Social Services
7	Able	Employee	2013	Wholesale and retail trade
8	InPoo	Owner	2001	Education
9	4DekDoi	Manager	2010	Education
10	Hope Academy Kanchanaburi	Employee	1995	Education
11	Anonymous	Manager	1989	Health and Social Services
12	Lok Kid	Owner	2009	Tourism
13	PLANT:D	Owner	2017	Health and Social Services
14	Anonymous	Owner	2017	Wholesale and retail trade
15	Thai Health Promotion	Employee	2001	Health and Social Services
16	Farm To You	Owner	2016	Wholesale and retail trade
17	141	Owner	2012	Education
18	TP solution	Owner	2016	Wholesale and retail trade
19	Akha Ama Coffee	Owner	2010	Food and beverage
20	Anonymous	Owner	2017	Education
21	Nokhook Group	Owner	2014	Food and beverage
22	Makhampom	Employee	1980	Education

Measures

A questionnaire was developed in which all measurement models were specified as reflective, given that the items were manifestations of their underlying construct (Jarvis et al., 2003). Regarding measures for shared value creation, there has been no universal measures (Dembek et al., 2016). Therefore, based on the stakeholder management theory, RBV, NRBV, and SRBV, this study measured shared value from the scale of the economic, social, and environmental impact that social enterprises create. These measures were built on Bloom and Smith (2010)'s method of rating organizations' economic, social, and environmental achievements. For the measurement of social entrepreneurship, the questionnaire included the perspectives of social innovation and entrepreneurial orientation, as suggested by Felício et al. (2013).

The five-point Likert empirically validated scale was applied. In total, there were 8 constructs from 37 questions. Tables 3.2 shows the raw data for every constructs. The list of questions and Cronbach's alpha values for internal consistency are presented in Table 3.3. The threshold for Cronbach's alpha and composite reliability is 0.60 (Flatten et al., 2015).

Table 3.2: Raw data

Social enterprise no.	Mission-driven capabilities (m)	stakeholder management capabilities (s)	cross-sector collaboration capabilities (c)	environmental management capabilities (e)	social entrepreneurships (se)	social value (sv)	environmental value (env)	economic value (ecv)
1	19	20	20	10	38	20	18	14
2	19	13	18	16	34	20	16	14
3	20	20	9	14	28	10	18	14
4	18	18	18	10	25	18	17	11
5	20	18	14	18	29	18	18	14
6	16	17	20	16	43	20	19	15
7	18	17	18	9	35	16	12	13
8	16	16	16	14	27	16	15	13
9	18	16	19	15	36	20	16	13
10	16	16	15	8	29	14	11	8
11	20	18	16	16	38	20	17	8
12	14	13	16	13	28	12	14	14
13	18	19	20	8	37	16	18	16
14	20	17	8	12	38	14	19	16
15	20	20	20	18	41	20	20	12
16	13	14	13	13	32	16	16	12
17	20	20	17	12	32	6	20	13
18	20	9	18	13	38	20	15	14
19	20	19	18	13	44	18	20	20
20	14	13	11	11	28	8	7	13
21	16	15	18	16	35	18	15	16
22	20	19	20	16	42	20	18	17

Table 3.3: Measurement of variables and Cronbach's alpha values

Mission-driven management capabilities (Cronbach's alpha = 0.797)	
1. We have clear missions and management philosophy.	(Wang, 2011)
2. We are self-motivated for social and environmental advancement.	
3. Employees know and are able to interpret missions and management philosophy.	
4. Employees can explain missions and management philosophy to external parties if required.	
Stakeholder management capabilities (Cronbach's alpha = 0.758)	
1. We communicate to main stakeholders (e.g., customers and business partners) on what we do regarding social and environmental issues.	(Bacq & Eddleston 2016; Johnson, 2017)
2. We inform key stakeholders (e.g., customers and business partners) about the value of what we do.	
3. We communicate efficiently.	
4. We receive cooperative support from main stakeholders (e.g., customers and business partners).	
Cross-sector collaboration capabilities (Cronbach's alpha = 0.890)	
1. We exchange operational information with cross-sector partners such as non-profit organizations and/or local communities.	(Sanders, 2007)
2. We share cross-functional processes with cross-sector partners such as non-profit organizations and/or local communities.	
3. We engage in collaborative planning with cross-sector partners such as non-profit organizations and/or local communities.	
4. We exchange cost information with non-profit organizations and/or local communities.	
Environmental management capabilities (Cronbach's alpha = 0.738)	
1. We are concerned with environmental impacts.	(Suto & Takehara 2016)
2. We promote the procurement of eco-friendly goods and services.	
3. We enable ecolabelling (e.g., ISO14020 series).	
4. We manage environment-related compliance (e.g., environmental disasters).	
Social entrepreneurships (Cronbach's alpha = 0.808)	
[Social innovativeness]	
1. Social innovation is important for our company.	(Kraus et al., 2017)
2. We invest heavily in developing new ways to increase our social impact or to serve our beneficiaries.	
3. We come up with new ideas to solve social problems very frequently.	
[Risk taking management]	
1. We always engage in managing risks associated with our projects.	(Dwivedi & Weerawardena, 2018)
2. We will not undertake a project without considering associated costs and benefits.	
3. We have a cautious approach to making resource commitments.	
[Proactiveness]	
1. We engage in forecasting to avoid surprises.	(Dwivedi & Weerawardena, 2018)
2. We engage in financial modeling to prepare for the future.	
3. We actively monitor external forces affecting us.	
Social value creation (Cronbach's alpha = 0.882)	
1. We have made significant progress in alleviating a problem.	(Bacq & Eddleston, 2016; Maletic et al., 2018)
2. We improve overall stakeholder welfare or betterment.	
3. We improve community health and safety.	
4. We improve awareness and protection of the claims and rights of people in the community served.	
Environmental value creation (Cronbach's alpha = 0.822)	
1. We consume resources effectively and efficiently.	(Paulraj, 2011; Maletic et al., 2018)
2. We minimize resource consumption.	
3. We minimize waste (liquid and/or solid).	
4. We improve environmental conditions in communities.	
Economic value creation (Cronbach's alpha = 0.700)	
1. We have a high-profit growth rate.	(Paulraj, 2011; Maletic et al., 2018)
2. We have a high return on investment.	
3. We have high sales growth.	
4. We have a good reputation.	

Method: Fuzzy set Qualitative Comparative Analysis (fsQCA)

A Fuzzy set Qualitative Comparative Analysis (fsQCA) using fs/QCA 2.5 (Ragin & Davey, 2014) was employed to examine the complex antecedent conditions on the targeted outcomes. It is an analytical tool that simultaneously investigates within- and cross-case and helps to fill the methodological gap between qualitative and quantitative analyses. The fsQCA is based on fuzzy set theory and Boolean minimization (Ragin, 2008). Recently, these fuzzy concepts have been applied in interdisciplinary studies, including business management and sustainability literature (Liu et al., 2016) because a phenomenon in the reality depends not only on a condition but combinations of many conditions (Woodside, 2013; Pappas et al., 2017). fsQCA does not analyze variables to explain the outcome; instead it analyses how variables combine in the complexity to generate an outcome (Toth et al., 2015). Furthermore, there are several advantages of fsQCA compared to traditional statistical analysis techniques. The first is equifinality, in which fsQCA is able to explain different paths leading to the same outcome (Fiss, 2007). The second is asymmetry, which is when fsQCA explains the presence and absence of a condition leading to an outcome that requires different explanations (Fiss, 2007). The Third is that fsQCA can analyze a small sample size that cannot be examined through regression analysis (Patricia et al., 2016).

The fsQCA identifies necessary or sufficient conditions or combinations of conditions for producing an outcome (Legewie, 2013). Necessity analysis is to investigate necessary conditions, which are conditions that are required to produce the outcome (Toth et al., 2015). It looks into an individual condition that may be necessary for the outcome. Simply, all conditions or combinations of conditions that facilitate the outcome are considered as a necessary condition. A condition is necessary for producing an outcome if the occurrence of the outcome is not possible without the presence of this certain condition, but it is not enough to solely produce the outcome. If the findings show that there is a necessary condition, an analysis for sufficient conditions can be omitted (Ragin, 2008). Figure 3.3 shows the fuzzy conditions for necessary conditions. The outcome set is a subset of the causal necessary condition set and the degree of outcome membership score is lower than or equal to the degree of condition membership.

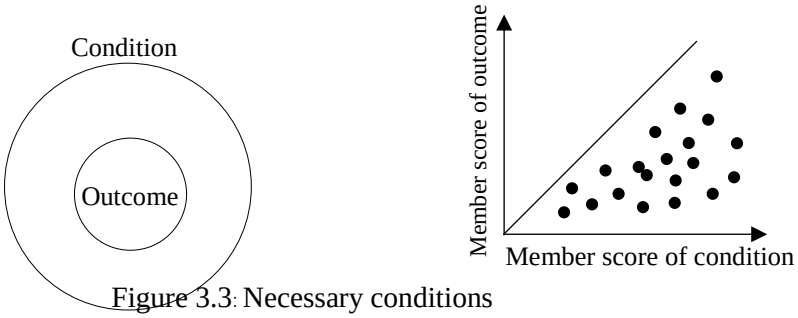

Figure 3.3: Necessary conditions

On the other hand, sufficiency analysis is to investigate sufficient conditions, which are conditions that always lead to the outcome, and may not be the only conditions that lead to the outcome. A condition or causal combination of conditions is sufficient for the outcome when the outcome always occurs if that condition is present (Legewie, 2013). Figure 3.4 shows the fuzzy conditions for causal sufficient conditions. The outcome set is a subset of the causal sufficient condition set, and the degree of outcome membership score is high than or equal to the degree of condition membership.

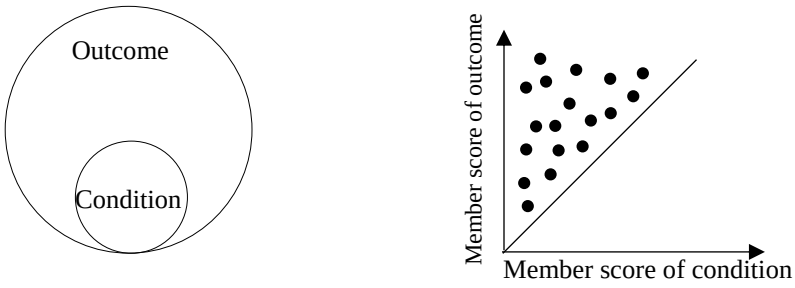

Figure 3.4: Sufficient conditions

Analysis of fsQCA may not produce a perfect fit. Therefore, there are two fit parameters in fsQCA, including consistency and coverage scores. They both assess the fitness of a data set for necessity or sufficiency conditions. Consistency and coverage work against one another, meaning high consistency may lead to low coverage, and vice versa. Consistency represents the extent to which a causal combination leads to an outcome, ranging between 0 and 1 (Ragin, 2008). Solution consistency represents a proportion that the set of solution terms is a subset of membership in the outcome. Equation 1 is computed for consistency scores, where X is the membership score in causal combination, and Y is the membership score in the outcome set.

$$Consistency\ score = \frac{\sum min(X,Y)}{\sum X} \quad (1)$$

Coverage represents how many cases with the outcome are represented by a particular causal condition. It measures the proportion of the extent to which the solution explains the outcome and captures the empirical importance of an identified configuration (Fiss, 2007). Raw coverage measures the proportion of memberships in the outcome explained by each term of the solution. Unique coverage measures the proportion of memberships in the outcome explained solely by each individual solution term (memberships that are not covered by other solution terms). Solution coverage measures the proportion of memberships in the outcome that is explained by the complete solution. The coverage score is calculated with Equation 2, where X is the membership score in causal combination, and Y is the membership score in the outcome set.

$$Coverage\ score = \frac{\sum min(X,Y)}{\sum Y} \quad (2)$$

FsQCA is based on the concept of set membership. Therefore, prior the analysis, the raw data of every measure need to be transformed into fuzzy membership scores ranging from 0 (indicating full non-membership or full exclusion) to 1 (indicating full membership or full inclusion). It is important to well-constructed fuzzy sets (Ragin, 2008). Fuzzy sets fill the methodology gap between quantitative and qualitative approaches. Full membership and full non-membership scores are based on a qualitative approach. Scores between these two points are varying degrees of membership. To successfully transform raw data into fuzzy membership scores, the calibration process depends on both case-oriented and variable-oriented (Ragin, 2008). The case-oriented helps in pre-fining the threshold points. Fuzzy sets are also variable-oriented in their allowance for degrees of membership and thus for fine-grained variation across cases. The perfect calibration in fsQCA should totally ground in the theory-oriented foundation or based on the researcher's knowledge (Ragin et al., 2006). Unfortunately, studies of social enterprises and shared value using fsQCA are still limited and in their infant stage, knowledge base is not sufficient to set as a calibration value. However, the calibration can still take place.

This study applied the direct method proposed by Ragin (2008) to calibrate the data. This calibration technique focuses on pre-determined three different anchors to structure the calibration: the threshold for full membership (indicated by a fuzzy score of 0.95 or greater), a crossover point (indicated by a fuzzy score of 0.50), and the threshold for full non-membership (indicated by a fuzzy score of 0.05 or less) (Ragin, 2008). The continuum between full membership and full non-membership reflects varying membership scores. In this analysis, these determined calibration values were set at the upper 95th percentile, median, and lower 5th percentile, as shown in Table 3.4. The table also lists the descriptive statistics of raw data, including maximum and minimum. Having the three pre-determined anchors, the calibration procedure is proceeded by the log-odds method, the formula is shown in Equation 3 (Ragin, 2008). Raw data was initially calculated into the log odds, which later transformed into the degree of fuzzy membership from Equation 4.

$$Odds\ of\ membership = \frac{degree\ of\ membership}{1 - (degree\ of\ membership)} \quad (3)$$

$$Degree\ of\ fuzzy\ membership = \frac{exp(log\ odds)}{1 + exp(log\ odds)} \quad (4)$$

Table 3.4: Descriptive statistics and calibration values

Statistics	mission driven capabilities (m)	stakeholder management capabilities (s)	cross-sector collaboration capabilities (c)	environmental management capabilities (e)	social entrepreneurships (se)	social value (sv)	environmental value (env)	economic value (ecv)
Mean	17.95	16.68	16.45	13.23	34.41	16.36	16.32	13.64
Std. Dev	2.30	2.90	3.53	3.01	5.63	4.17	3.20	2.66
Max.	20	20	20	18	44	20	20	20
Median	18.5	17	18	13	35	18	17	14
Min.	13	9	8	8	25	6	7	8
Calibration values at								
Full membership point (95th percentile)	20	20	20	17.9	42.95	20	20	16.95
Crossover point (50 th percentile)	18.5	17	18	13	35	18	17	14
Full non-membership point (5 th percentile)	13.95	12.80	8.95	8	26.90	7.90	10.80	8

3.3.2 Study 2: Investigating social enterprises' business model for creating shared value based on case analysis

Sample and data collection

The sampling involves the selection of social enterprises that comprise of the innovative business model and successfully create shared value for themselves, society, and the environment. The samples need to present their sustainability potential and the availability and accessibility of information (Flyvbjerg, 2006). In addition, the main aim of this study is to explore business practices of social enterprises within the context of Thailand. So, it is set as the criterion for case selection. As a result, two Thai-based social enterprises (i.e., Socialgiver and Local Alike) were selected for analyses. These two cases present the successful and innovative business models, in which they can be used as good examples for other social entrepreneurs and shared value-oriented entrepreneurs. In addition, findings from these social enterprises reveal business practices that support the combinations of capabilities, as suggested in the first study, in successfully creating shared value.

The data collection procedure involved collecting data from diverse secondary sources, including published information in the public domain, online articles, official Websites, interview reports, and other reports. These sources of data indicate business operations, goals, stakeholder management policies, collaborative approaches, business model elements, and the mechanism how shared value is created. Information that gathered from the social enterprises directly such as from the official Websites were validated and checked with other external sources such as from public comments from social enterprises' activities. This is because the collecting data from various is important for validity. The findings from within-case analysis have been tested across other cases, increasing reliability and the validity of the conclusions drawn (Yin, 2009). Details of each social enterprise are described in the following subsections.

Case 1: Socialgiver

Socialgiver (https://www.socialgiver.com/) is a deal Website with a social twist, based in Thailand, that provides customers with a wide range of products and services online. The platform virtually connects profit organizations i.e., product and service providers, non-profit organizations (NPOs) such as fundraising organizations for social and environmental projects, non-governmental

organizations (NGOs) and foundations, and customers, and aimed at creating shared value together. Its motto is where living meets giving. Socialgiver.com presented a revolutionary fundraising online service.

Socialgiver provides benefits not only to businesses and customers, but also to society and the environment, in which it combines business activities and social activities into one platform. It provides breakthrough innovation for business and social innovations to enhance economic and social value. First, Socialgiver encourages its partners to offers their left over products or service that currently generate no value such as that from unsold tickets at concerts or vacant rooms in hotels during the off season for donations, which will return in form of corporate social responsibility (CSR) activities. Partners also benefit from marketing through Socialgiver.com that connects customers with social projects. They can thereby participate in CSR projects inexpensively and yet receive high returns. This provides an alternative way for CSR and marketing activities to enhance brand value and increase profitability. It also creates a positive image of business partners in the minds of customers. NPOs are then connected into the platform so that customers can procure deals where seventy percent of the purchased amount is donated to these different types of NPOs selected by customers. Thirty percent of the proceeds go to Socialgiver to cover necessary costs. , which mainly related to fixed costs (e.g., employee salaries, Website domain), operating and managing costs (e.g., contacting business partners or social organizations, advertising to potential customers). Nevertheless, the operations of Socialgiver involve a low financial risk because it does not have to purchase products/services from business partners in an advance. These products/services are only offered to customers when customers made a deal. Similarly, Socialgiver does not have to pay to social organizations until the customers successfully made the deal.

Case 2: Local Alike

Local Alike (https://www.localalike.com/) provides tour packages online to rural communities, consisting of food, accommodation, local guides, and transportation. Local Alike was established in 2012, Thailand. Its business model creates significant impact on more than 30 rural communities from 12 social projects. Local Alike connects with both partners in the local communities and non-partners in the local communities. Local people become a direct partner by temporary share their under-utilized resources such as houses to tourists. These business model

develops the tour packages that are friendly to the local people and the environment. Local Alike claims that its business stands on community-based tourism.

Through the platform, the role of Local Alike is to connect and build good relationship with partners and non-partners in the local communities. It also assists and educates partners to develop unique selling points of the local communities. The main source of revenue comes from an additionally charge of an approximately ten to thirty percent from the total costs. This cost-profit structure guarantees that Local Alike does not suffer a loss when customers purchase their tour packages to rural communities because the packages price cover all costs with the additional profits. Most operating costs of Local Alike rise from connecting and persuading local people to be the partners, training and planning the package tour, and advertising activities.

Method

This study aims at understanding the key characteristics of business practices of Thai-based social enterprises that encourage the opportunity for creating shared value and support combinations of capabilities through the frameworks of business model innovation and business model components comprising of value proposition, value creation, and value capture. The research involved using a mix of deductive-inductive logic for conceptualizing business model innovation and CSV within the context of economic, social, and environmental dimensions. The deductive phase involved undertaking a literature review to understand and clarify the key characteristics, mechanism, and implementations, whereas the inductive phase complemented the empirical evidence and case-based understanding. The logic of the deductive-inductive approach has enabled researchers to undertake case-based qualitative research in an informative manner (Miles et al., 1979). A case-based research design was selected due to the nature and purposes of this analysis, which was adopted to obtain extensive insights into the implementation of CSV and how they create economic, social, and environmental value for the business, society, and the environment. The case-based approach has been used to provide a basis for evaluating research questions, understanding emergent phenomena, and generalizing findings (Miles & Huberman, 1994; Yin, 2009).

The collected data was analyzed based on grounded theory, which is is suitable when there has no or little explicit testable hypotheses yet exist (Rosca et al., 2017). The characteristics of shared value creation and business practices of social enterprises were analyzed through business model for sustainability lens proposed by Bocken and Short (2016). This framework included three

elements of a business model: value proposition, value creation and delivery, and value capture. All data from two selected cases were mapped and compared and concepts with the same phenomenon were grouped to form categories.

Chapter 4

Examining combination of capabilities for social enterprises in creating shared value using fsQCA

This chapter explains a theoretical model and its findings on an empirical examination of a set of capabilities (i.e., mission-driven management, stakeholder management, cross-sector collaboration, and environmental management capabilities) that are necessary and sufficient for social entrepreneurship and shared value creation (social, environmental, and economic value). The chapter begins with the research background briefly recalling the important concept of social entrepreneurship, and the relationship among social enterprises' capabilities and shared value creation through the theoretical perspectives of RBV, NRBV, and SRBV. After that, the study's objectives are given. Based on the theoretical research background and literature review presented in Chapter 2, the theoretical model of this study was developed for the empirical examination, as graphically shown in the consequent section. Next, the findings from necessary and sufficient analyses using fuzzy set qualitative comparative analysis (fsQCA) are presented, along with the discussion. The fuzzy XY plots of each suggested combinations of capabilities versus high social/ environmental/ economic value are also illustrated. Lastly, the chapter ends with a chapter's summary.

4.1 Research background

Due to social and environmental challenges, social entrepreneurship has been risen to solve organizational and societal (often including environmental) problems (Tepthong, 2014). In order to do so, a social enterprise needs to develop capabilities to create a positive social and environmental impact occurred to the society in which it also contributes to entrepreneur's success (Rey-Martí et al., 2016). Social

entrepreneurship represents a sustainable and innovative business model innovation that can be linked with the concept of the CSV strategy (Tate & Bals, 2016). The concept suggests that the more enterprises closely connect and concern to social and environmental issues, more opportunities for firms to enhance their firm's competitive advantage.

Social entrepreneurship is a sub-discipline within entrepreneurship (Rey-Martí et al., 2016), that still remains a poorly understood with a complex phenomenon (Tepthong, 2014). As a result, social entrepreneurship must acquire resources and develop capabilities for their resources' utility to create shared value and remain a competitive advantage (Bacq & Eddleston, 2016), and to cope with significant resource constraints because their primary goals are not just profit-oriented. Studies about social entrepreneurship has been argued that economic, environmental, and social resources are needed to manage and utilize simultaneously (Murphy & Coombes, 2009). Nevertheless, the capabilities that deal with social and environmental issues and sustain the business have been still comparatively unexplored and integrated (Hart & Milstein, 2003). While rarely applied, the resource-based view (RBV) is well suited to study social entrepreneurship as it is concerned with the combination, management, and utilization of resources and their flow internally and externally to lead to more effective processes (Bacq & Eddleston, 2016). The RBV brought to research and practices to understand how enterprises achieve superior economic performance and remain competitive advantage. Furthermore, in order to cover social and environmental constraints and resources, the extensions of RBV i.e., natural resource-based view (NRBV) and social resource-based view (SRBV) were included in this analysis to focus resources and capabilities on the environmental and social constraints and outcomes (Tate & Bals, 2016).

4.2 Research objectives

The overarching objectives of this study are to theoretically develop and empirically test the proposed model and to provide recommendations for social entrepreneurs and other shared value oriented-on essential capabilities that help in CSV by deploying stakeholder management theory, RBV, NRBV and SRBV. More specifically, this study attempts to address the first subsidiary research question "What are combinations of capabilities that facilitate shared value creation in social enterprises? ". The findings are also expected to fill the first and third research gaps of the dissertation. This study employed fuzzy set qualitative comparative analysis (fsQCA) as an analysis tool to explore a combination of essential capabilities that lead to social entrepreneurship and CSV based on 22 social enterprises in Thailand. Identifying complex combinations of conditions provided a better understanding on a real-world

phenomenon of social entrepreneurship because a real social enterprise consists of combinations of different antecedents, not an individual condition (Wu et al., 2014).

4.3 Theoretical model

Regarding to the theoretical background and literature review provided in Chapter 2, this study was based on the premise that a set of capabilities (i.e., mission-driven management, stakeholder management, cross-sector collaboration, and environmental management capabilities) plays an important role in social entrepreneurship and shared value creation. In this study, the theoretical research model was designed using a Venn diagram to illustrate the complex antecedent conditions under high (or success) and low (or fail) of outcomes (i.e., social entrepreneurship, social value, environmental value, and economic value), as demonstrated in Figure 4.1. A high level of a condition is indicated by a fuzzy membership score of that factor that is greater than or equal to 0.50, and a low level of a condition is indicated by a fuzzy membership score that is less than 0.50 (Kent, 2008). The notation *"~"* in the equation represents the low level of a condition.

The combinations of antecedent conditions from mission-driven management, stakeholder management, cross-sector collaboration, and environmental management capabilities are used to investigate high and low social entrepreneurship, as illustrated with arrow A and presented in Equations 5 and 6. As a consequence, these combinations of conditions (i.e., mission-driven management, stakeholder management, cross-sector collaboration, and environmental management capabilities, and social entrepreneurship) are investigated towards the causality of high and low of social and environmental value, as depicted with arrows B and C, respectively and Equations 7 -10. Finally, the arrow D and Equations 11 and 12 illustrate an analysis between the combinations of all conditions and high and low economic value.

Social entrepreneurships = f (mission-driven management, stakeholder management, cross-sector collaboration management, environmental management) *(5)*

~Social entrepreneurships = f (mission-driven management, stakeholder management, cross-sector collaboration management, environmental management) *(6)*

Social value = f (mission-driven management, stakeholder management, cross-sector collaboration management, environmental management, social entrepreneurships) *(7)*

~Social value = f (mission-driven management, stakeholder management, cross-sector collaboration management, environmental management, social entrepreneurships) *(8)*

Environmental value = f (mission-driven management, stakeholder management, cross-sector collaboration management, environmental management, social entrepreneurships) *(9)*

~ Environmental value = f (mission-driven management, stakeholder management, cross-sector collaboration management, environmental management, social entrepreneurships) *(10)*

Economic value = f (mission-driven management, stakeholder management, cross-sector collaboration management, environmental management, social entrepreneurships, social value, environmental value)

(11)

~ Economic value = f (mission-driven management, stakeholder management, cross-sector collaboration management, environmental management, social entrepreneurships, social value, environmental value)

(12)

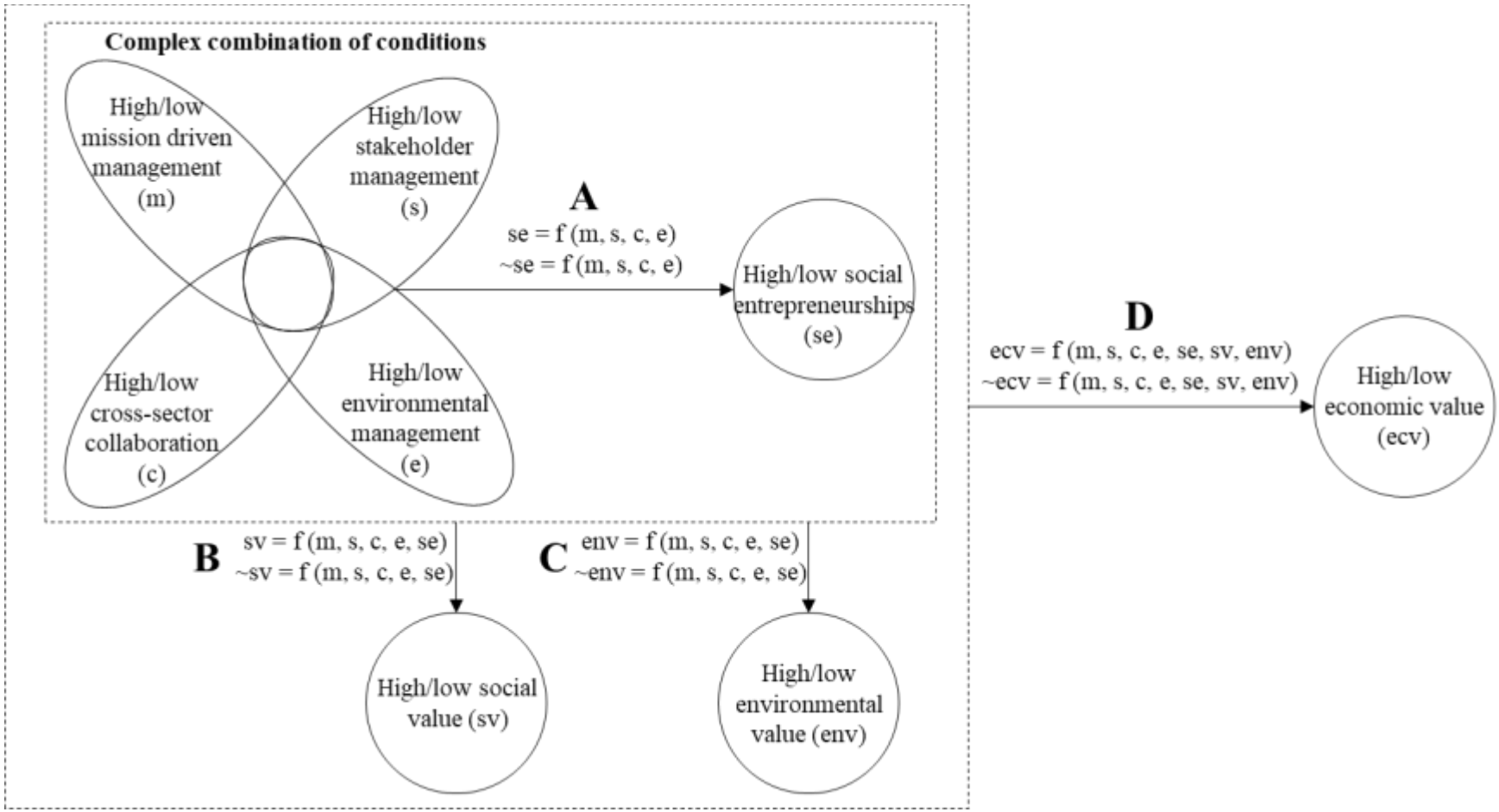

Figure 4.1: Theoretical research model

4.4 Necessity analysis in fsQCA

If the consistency score of a condition exceeds the threshold of 0.90, the condition is regarded as a necessary condition (Ragin, 2008). The high and low levels of each condition were tested in relation to a high and low level of social entrepreneurship, social value, environmental value, and economic value. The results of the necessity analysis revealed that none of the conditions exceeded a consistency score of 0.90, as shown in Table 4.1. Consequently, it can be concluded that there is no necessary condition for high and low social entrepreneurship, social value, environmental value, and economic value. These outcomes are not necessarily caused by any single condition.

Table 4.1: Result of necessity analysis

Condition	Parameters	m	~m	s	~s	c	~c	e	~e	se	~se	sv	~sv	env	~env
Necessity conditions of social entrepreneurships (se)	Consistency	0.813	0.433	0.739	0.501	0.811	0.500	0.712	0.523	-	-	-	-	-	-
	Coverage	0.680	0.475	0.665	0.503	0.782	0.467	0.636	0.530	-	-	-	-	-	-
Necessity conditions of ~social entrepreneurships (~se)	Consistency	0.568	0.655	0.552	0.664	0.485	0.796	0.581	0.632	-	-	-	-	-	-
	Coverage	0.526	0.795	0.551	0.738	0.518	0.824	0.574	0.709	-	-	-	-	-	-
Necessity conditions of social value (sv)	Consistency	0.756	0.441	0.671	0.561	0.798	0.501	0.752	0.470	0.740	0.476	-	-	-	-
	Coverage	0.716	0.548	0.683	0.637	0.870	0.530	0.760	0.539	0.837	0.487	-	-	-	-
Necessity conditions of ~social value (~sv)	Consistency	0.577	0.652	0.630	0.639	0.485	0.862	0.533	0.724	0.418	0.833	-	-	-	-
	Coverage	0.471	0.698	0.553	0.626	0.456	0.786	0.464	0.716	0.407	0.734	-	-	-	-
Necessity conditions of environmental value (env)	Consistency	0.841	0.391	0.829	0.402	0.705	0.584	0.714	0.550	0.725	0.542	-	-	-	-
	Coverage	0.780	0.476	0.828	0.447	0.753	0.606	0.706	0.618	0.804	0.543	-	-	-	-
Necessity conditions of ~environmental value (~env)	Consistency	0.521	0.737	0.449	0.808	0.577	0.744	0.623	0.671	0.493	0.804	-	-	-	-
	Coverage	0.435	0.807	0.403	0.810	0.556	0.694	0.555	0.678	0.492	0.725	-	-	-	-
Necessity conditions of economic value (ecv)	Consistency	0.737	0.504	0.700	0.563	0.728	0.636	0.774	0.630	0.763	0.576	0.694	0.591	0.822	0.553
	Coverage	0.581	0.504	0.594	0.563	0.661	0.560	0.630	0.602	0.719	0.490	0.578	0.571	0.699	0.522
Necessity conditions of ~economic value (~ecv)	Consistency	0.625	0.571	0.600	0.613	0.596	0.698	0.662	0.665	0.763	0.576	0.694	0.591	0.822	0.553
	Coverage	0.609	0.729	0.629	0.716	0.669	0.760	0.689	0.602	0.719	0.490	0.578	0.571	0.699	0.522

4.5 Sufficiency analysis in fsQCA

For a sufficiency analysis, the frequency cut-off of data set was set to one, which meant that any configuration with less than one empirical observation was considered a remainder and not included in the analysis. This sufficiency analysis was based on complex solutions, which do not allow any simplifying process during the analysis (Lisboa et al., 2016). This is contradictory to parsimonious and intermediate solutions. However, they will not provide contradictory solutions in terms of logical truth (see Appendix B for additional results in complex, parsimonious, and intermediate solutions).

Results of the sufficiency analysis revealed multiple sufficient combinations of conditions leading to high and low outcomes for social entrepreneurship and social, environmental, and economic value. All of these combinations of conditions possessed a predefined consistency value greater than 0.75, which was considered sufficient for producing the expected outcome (Woodside, 2013). All findings are summarized in Tables 4.2-4.5 and Figure 4.2. The solutions present the high and low level of each condition and a "do not care" condition for the targeted outcomes (Fiss, 2007). The "do not care" condition is not presented in the solutions and may be at either a high or low level without affecting the outcomes (Pappas et al., 2017).

4.5.1 Pathways to high and low social entrepreneurship

Regarding the outcome of high and low social entrepreneurship, the findings suggested the significance of two different pathways. These pathways showed consistency scores exceeding 0.75, which mean that they were all sufficient to produce the outcomes (high and low level of social entrepreneurship), as shown in Table 4.2. For high social entrepreneurship, the first pathway suggested that high capabilities of mission-driven management, high stakeholder management and cross-sector collaboration led to a high social entrepreneurship (consistency = 0.862; raw coverage = 0.539). The second pathway suggested that even though social enterprises possessed low mission driving and stakeholder management capabilities, high cross-sector collaboration and environmental management capabilities could result in high social entrepreneurship (consistency = 0.804; raw coverage = 0.274). These two identified pathways explained about 66.97% of the membership in the outcome.

For low social entrepreneurship, the only single pathway was suggested by the sufficiency analysis. Lack of well managed internal mission with poor stakeholder management and cross-sectional collaboration capabilities caused low social entrepreneurship (consistency = 0.983; raw coverage = 0.513). This outcome identified about 51.28% of all possible outcomes.

Table 4.2: Result of sufficiency analysis for high and low social entrepreneurship

Complex solution	Raw coverage	Unique coverage	Consistency
Pathways to high social entrepreneurship			
Model: se = f (m, s, c, e)			
frequency cutoff: 1.000000			
consistency cutoff: 0.803757			
1. m*s*c	0.539	0.395	0.862
2. ~m*~s*c*e	0.274	0.131	0.804
solution coverage: 0.669676			
solution consistency: 0.836348			
Pathways to low social entrepreneurship			
Model: ~se = f (m, s, c, e)			
frequency cutoff: 1.000000			
consistency cutoff: 0.995682			
1. ~m*~s*~c	0.513	0.513	0.983
solution coverage: 0.512774			
solution consistency: 0.982852			

4.5.2 Pathways to high and low social value

Findings of high and low social value showed consistency scores greater than 0.75, meaning that they were sufficient to produce the outcomes (high and low social value), as presented in Table 4.3. The solution of high social value could be derived from three different pathways. The first pathway suggested that high stakeholder management and cross-sector collaboration capabilities, and high social entrepreneurship helped low environmental management capabilities social enterprises to obtain high social value (consistency = 0.830; raw coverage = 0.286). The second pathway suggested that all high of mission-driven management, stakeholder management, environmental management capabilities, and high social entrepreneurship in social enterprises could have high social value (consistency = 0.932; raw coverage = 0.394). Lastly, the social value was sufficiently caused by social enterprises with high cross-sector collaboration, environmental management capabilities, and high social entrepreneurship but suffered from low capabilities of mission driving and stakeholder management (consistency = 0.986; raw coverage = 0.239). These three identified configurations accounted for about 61.30% of the membership in the outcome.

Regarding low social value creation, two pathways could be derived as follows. First, poor mission driving, stakeholder management, cross-sector collaboration capabilities and low social entrepreneurship in social enterprises sufficiently led to social value (consistency = 0.932; raw coverage = 0.394). Second, although social enterprises have high mission driving and stakeholder management capabilities, but if they had bad cross-sector collaboration and environmental management, and low social entrepreneurship, these social enterprises sufficiently suffered from low social value creation (consistency = 0.929; raw coverage = 0.300). These two identified configurations accounted for about 65.12% of the membership in the outcome.

Table 4.3: Result of sufficiency analysis for high and low social value

Complex solution	Raw coverage	Unique coverage	Consistency
Pathways to high social value			
Model: sv = f (m, s, c, e, se)			
frequency cutoff: 1.000000			
consistency cutoff: 0.851048			
1. s*c*~e*se	0.286	0.105	0.830
2. m*s*e*se	0.394	0.207	0.932
3. ~m*~s*c*e*se	0.239	0.107	0.986
solution coverage: 0.612995			
solution consistency: 0.897134			
Pathways to low social value			
Model: ~sv = f (m, s, c, e, se)			
frequency cutoff: 1.000000			
consistency cutoff: 0.901375			
1. ~m*~s*~c*~se	0.535	0.351	0.919
2. m*s*~c*~e*~se	0.300	0.116	0.929
solution coverage: 0.651217			
solution consistency: 0.920830			

4.5.3 Pathways to high and low environmental value

All pathways for high and low environmental value showed consistency scores greater than 0.75, meaning that they were sufficient to produce the outcomes (high and low environmental value), as presented in Table 4.4. The solutions of having high environmental value were derived from two pathways. The first pathway indicated that social enterprises that had a low capability of cross-sector collaboration, but high capabilities of mission driving, stakeholder management, and environmental management, resulted in good environmental value (consistency = 0.954; raw coverage = 0.366). The second pathway presented that high social entrepreneurship with high capabilities of mission driving, stakeholder management, and cross-sector collaboration sufficiently led to high environmental value (consistency = 0.898; raw coverage = 0.437). These two identified configurations explained about 61.36% of the membership in the outcome.

The solutions of having low environmental value could be derived from two pathways. The first pathway suggested that low social entrepreneurship with low capabilities of mission driving, stakeholder manager, and cross-sector collaboration led to low environmental value (consistency = 0.977; raw coverage = 0.556). The second pathway suggested that lack of good mission driving and environmental management from high social entrepreneurship and high stakeholder and cross-sector collaboration social enterprises sufficiently produced low environmental value (consistency = 0.977; coverage = 0.556). These two identified configurations explained about 61.10% of the membership in the outcome.

Table 4.4: Result of sufficiency analysis for high and low environmental value

Complex solution	Raw coverage	Unique coverage	Consistency
Pathways to high environmental value			
Model: env = f (m, s, c, e, se)			
frequency cutoff: 1.000000			
consistency cutoff: 0.882932			
1. m*s*~c*e	0.366	0.177	0.954
2. m*s*c*se	0.437	0.247	0.898
solution coverage: 0.613603			
solution consistency: 0.906441			
Pathways to low environmental value			
Model: ~env = f (m, s, c, e, se)			
frequency cutoff: 1.000000			
consistency cutoff: 0.875409			
1. ~m*~s*~c*~se	0.556	0.388	0.977
2. ~m*s*c*~e*se	0.223	0.055	0.875
solution coverage: 0.611026			
solution consistency: 0.932010			

4.5.4 Pathways to high and low economic value

Results regarding high and low economic value showed consistency scores greater than 0.75, meaning that they were sufficient to produce the outcomes (high and low economic value), as shown in Table 4.5. There were four pathways derived for high economic value. First, high social entrepreneurship with high capabilities of cross-sector collaboration and environmental management, and high social value creation were a set of sufficient condition leading to high economic value (consistency = 0.834; raw coverage = 0.207). Second, social enterprises with high capabilities of mission driving, stakeholder management, and environmental management that also had high environmental value creation produced high economic value (consistency = 0.882; raw coverage = 0.254). Third, high stakeholder management, and cross-sector collaboration capabilities, high social entrepreneurship, and high environmental value creation could cause high economic value (consistency = 0.942; raw coverage = 0.158). Fourth, high capabilities of mission driving, stakeholder management, and cross-sector collaboration, high social entrepreneurship, and high social and environmental value creation resulted in high environmental value (consistency = 0.857; raw coverage = 0.254). These four identified configurations explained about 52.42% of the membership in the outcome.

Regarding the low economic value, three pathways were identified. The first pathway showed that a low level of mission driving, stakeholder management, and cross-sector collaboration capabilities, low social entrepreneurship, and low social and environmental value caused low economic value creation (consistency = 0.875; coverage = 0.390). The second pathway indicated that low level of cross-sector collaboration, low social entrepreneurship, and low social value sufficiently lead to low economic value (consistency = 0.933; coverage = 0.263). Finally, the combination of low capabilities of mission driving

and stakeholder management, and low environmental value was sufficient to create low economic value (consistency = 0.905; coverage = 0.182). These three identified configurations explained about 40.79% of the membership in the outcome.

Table 4.5: Result of sufficiency analysis for high and low economic value

Complex solution	Raw coverage	Unique coverage	Consistency
Pathways to high economic value			
Model: ecv = f (m, s, c, e, se, sv, env)			
frequency cutoff: 1.000000			
consistency cutoff: 0.833530			
1. ~m*~s*c*e*se*sv*~env	0.207	0.076	0.834
2. m*s*~c*e*~se*~sv*env	0.254	0.158	0.882
3. ~m*s*c*~e*se*~sv*env	0.158	0.023	0.942
4. m*s*c*~e*se*sv*env	0.254	0.103	0.857
solution coverage: 0.524210			
solution consistency: 0.840690			
Pathways to low economic value			
Model: ~ecv = f (m, s, c, e, se, sv, env)			
frequency cutoff: 1.000000			
consistency cutoff: 0.905363			
1. ~m*~s*~c*~se*~sv*~env	0.390	0.245	0.875
2. m*s*~c*~se*~sv*env	0.263	0.147	0.933
3. ~m*~s*c*e*se*sv*~env	0.182	0.069	0.905
solution coverage: 0.407937			
solution consistency: 0.852129			

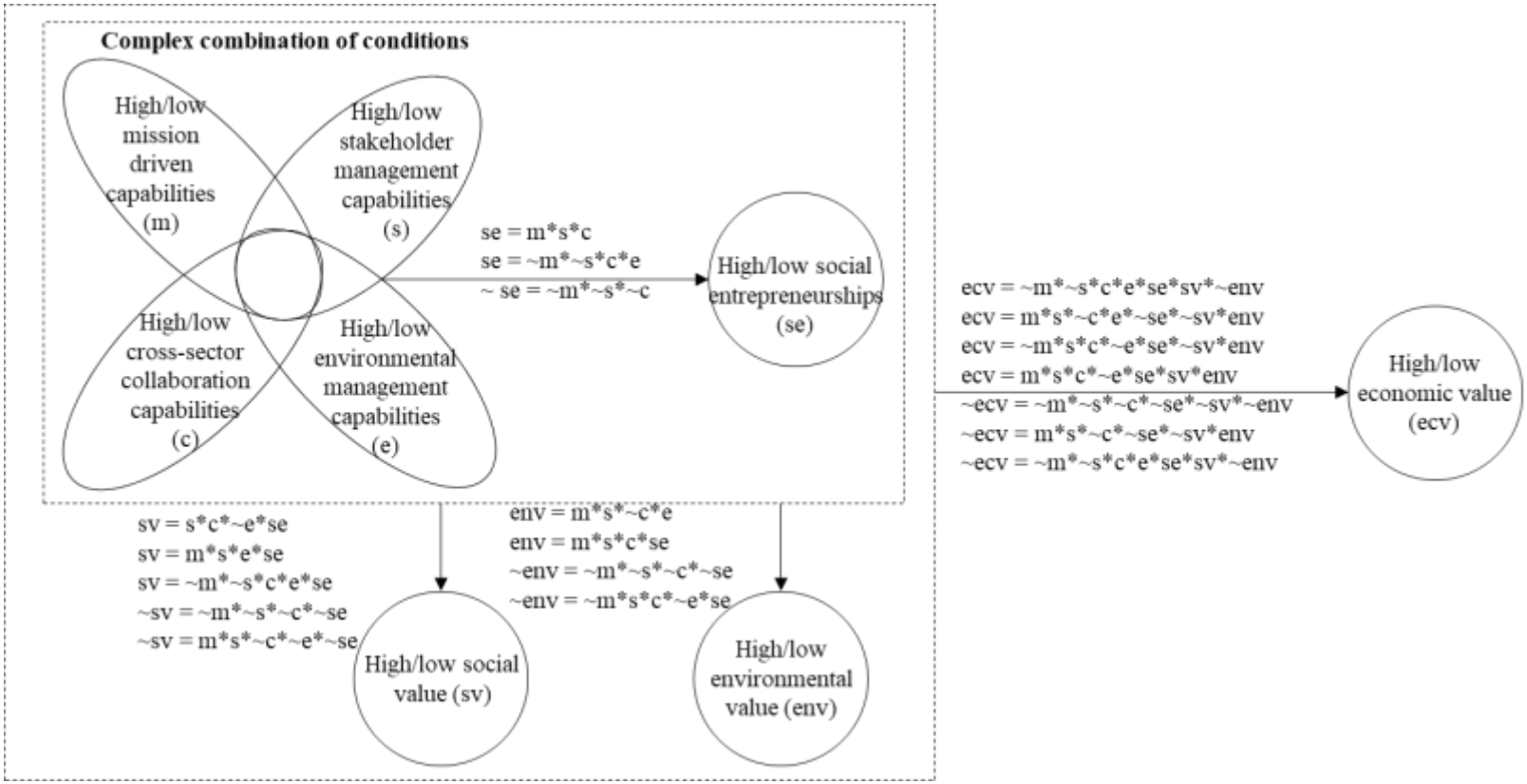

Figure 4.2: Result of sufficiency analysis in the proposed model

4.6 Fuzzy XY plots

The fuzzy XY plots were conducted to deeply analyze each pathway for high social value, environmental value, and economic value in order to specify which type of social enterprises that are suitable or highly consistent with the suggested pathways. These fuzzy XY plots demonstrated the relationship between the pathway (e.g., the 1st pathway for high social value: s*c*~e*se) and the outcome condition (e.g., high social value), consistency and coverage scores. The numbers near the blue points represent the order of the social enterprise from Table 3.1.

4.6.1 Fuzzy XY plots for high social value

*Pathway 1 for high social value (sv = s*c*~e*se)*

The fuzzy XY plot of the 1st pathway for high social value *(sv = s*c*~e*se)* is presented in Figure 4.3. From the graph, it is found that social enterprises that have high consistency and high coverage scores for this pathway include Art of Life Social Enterprise (1), Akha Ama Coffee (19), and Nokhook Group (21). On the other hand, Able (7), PLANT:D (13), and 141 (17) show no consistent with this combination of capabilities for social value creation. The finding shows that environmental management is not important for social value. The business models of Akha Ama Coffee (19), and Nokhook Group (21). Whereas, Able (7), PLANT:D (13), and 141 increase well-being of local people and the society, without managing the environment by themselves.

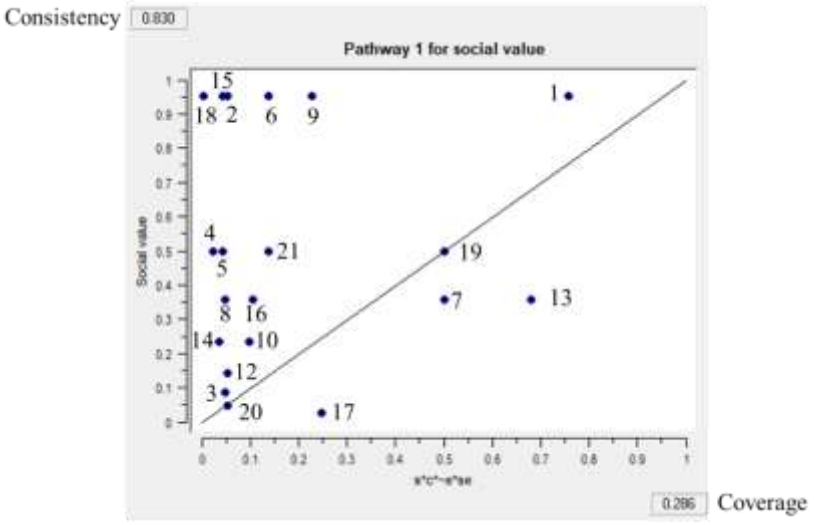

Figure 4.3: Fuzzy XY plot of pathway 1 for high social value

*Pathway 2 for high social value (sv = m*s*e*se)*

The fuzzy XY plot of the 2nd pathway for high social value *(sv = m*s*e*se)* is presented in Figure 4.4. This combination of capabilities represents ideal social enterprises and suitable for old social enterprises. Social enterprises that have high consistency and high coverage scores include Thai Health Promotion (15) (found in 2001), Makhampom (22) (founded in1980), and anonymous social enterprise (11) (founded in1989). Social enterprises that are not consistent with this pathway, including anonymous social enterprise (20) (founded in2017) and 141 (17)(founded in2012). They are quite new enterprises which also show to support the discussion.

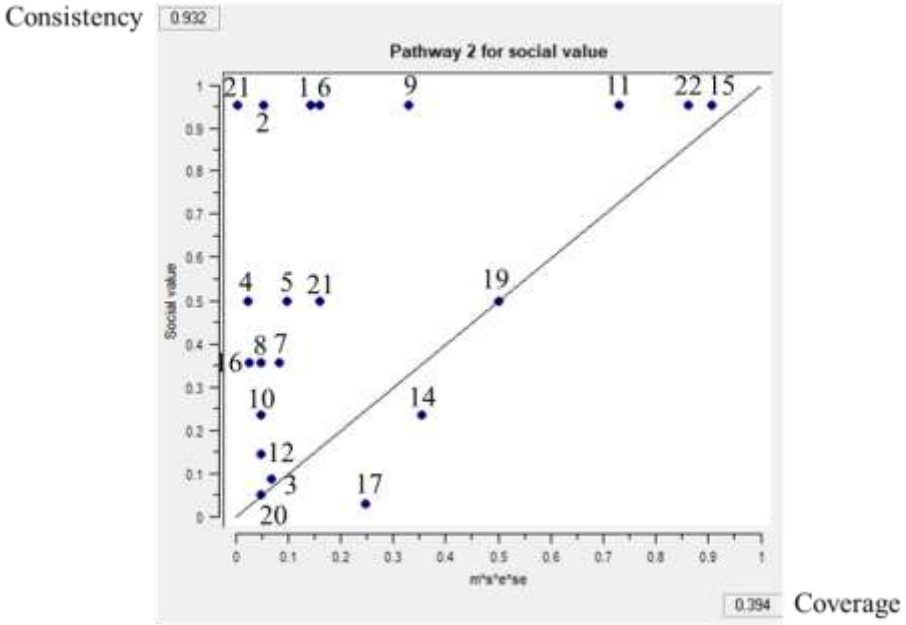

Figure 4.4: Fuzzy XY plot of pathway 2 for high social value

Pathway 3 for high social value (sv = ~m~s*c*e*se)*

The fuzzy XY plot of the pathway 3 *(sv = ~m*~s*c*e*se)* for high social value is presented in Figure 4.5. In contradictory to the previous pathway, this pathway is suitable for quite new social enterprises. Social enterprises of high consistency and high coverage include 4DekDoi (9) (found in 2010), anonymous social enterprise (founded in 2010), and Techfarm (2) (founded in 2010).

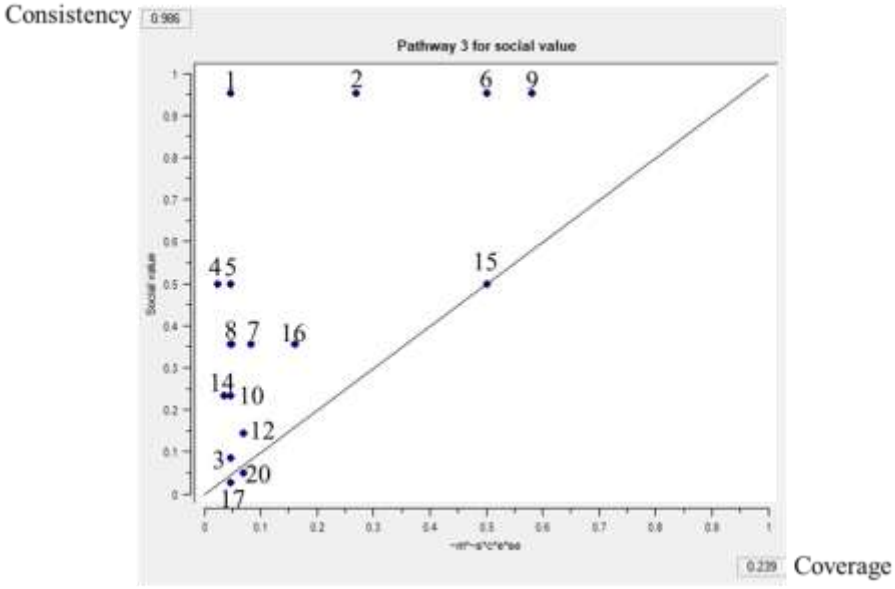

Figure 4.5: Fuzzy XY plot of pathway 3 for high social value

4.6.2 Fuzzy XY plots for high environmental value

*Pathway 1 for high environmental value (env = m*s*~c*e)*

The fuzzy XY plot of the 1st pathway for high environmental value *(env = m*s*~c*e)* is presented in Figure 4.6. High consistency and high coverage social enterprises include Yellowhello (3), Mae Fah Luang (5), Akha Ama Coffee (19), 141 (17), and anonymous social enterprise (14). These social enterprises show the lack of cross-sectional collaboration management capabilities. Whereas, non-consistent social enterprises include 2 anonymous social enterprises (11 and 20).

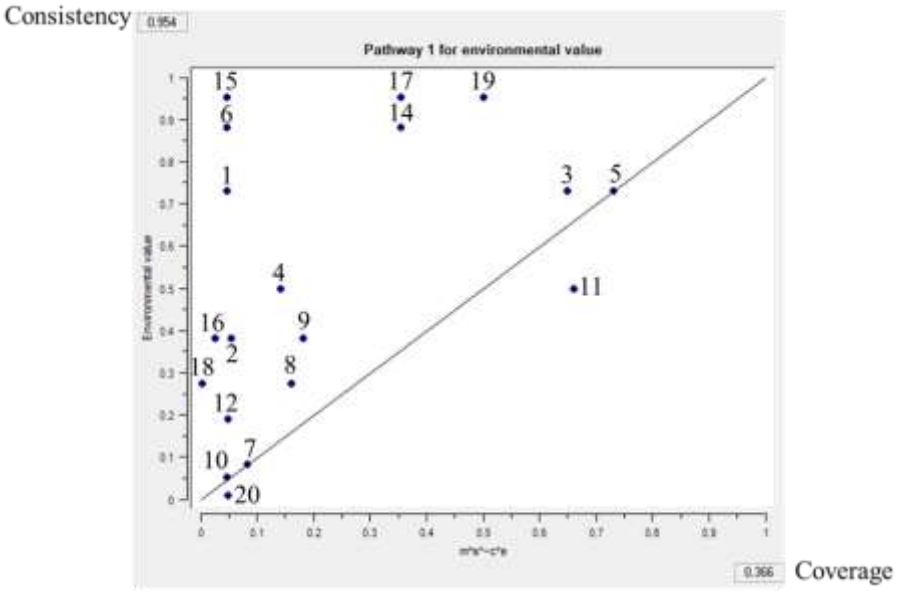

Figure 4.6: Fuzzy XY plot of pathway 1 for high environmental value

*Pathway 2 for high environmental value (env = m*s*c*se)*

The fuzzy XY plot of the 2nd pathway for high environmental value *(env = m*s*c*se)* is presented in Figure 4.7. This pathway represents ideal social enterprise and difficult to acquire high capabilities in mission-driving management, stakeholder, cross-sector collaboration management, and high social entrepreneurship. Social enterprises that show high consistent and high coverage with this pathway include Thai Health Promotion Foundation (15), Art of Life Social Enterprise (1), PLANT:D (13), and anonymous social enterprise (11). They are all from the health and social services section. In contradictory, Makhampom (22), Hope Academy Kanchanaburi (10), Able (7), and anonymous social enterprise (20) are not consistent with this pathway.

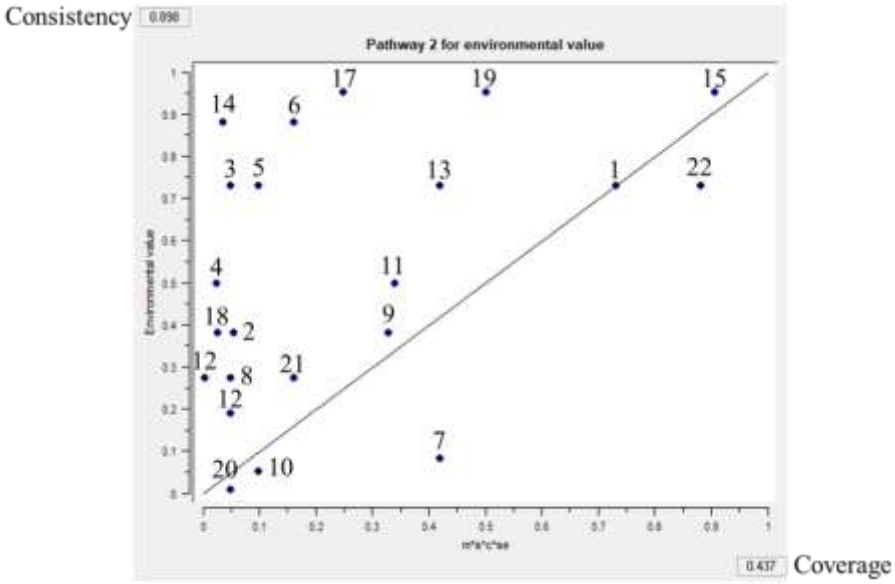

Figure 4.7: Fuzzy XY plot of pathway 2 for high environmental value

4.6.3 Fuzzy XY plots for high economic value

Pathway 1 for high economic value (ecv = ~m~s*c*e*se*sv*~env)*

The fuzzy XY plot of the 1st pathway for high economic value *(ecv = ~m*~s*c*e*se*sv*~env)* is presented in Figure 4.8. Social enterprises that show high consistent and high coverage with this pathway include Nokhook Group (21), Techfarm (2), and Farm To You (16). They are new social enterprises that still do not have clear goals or good mission-driving capabilities.

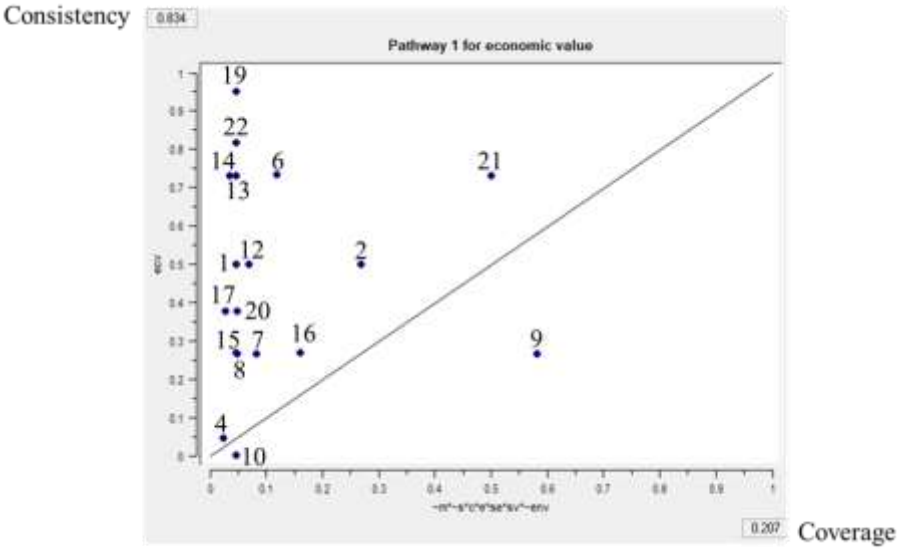

Figure 4.8: Fuzzy XY plot of pathway 1 for high economic value

*Pathway 2 for high economic value (ecv = m*s*~c*e*~se*~sv*env)*

The fuzzy XY plot of the 2nd pathway for high economic value *(ecv = m*s*~c*e*~se*~sv*env)* is presented in Figure 4.9. Social enterprises that show high consistent and high coverage with this pathway include Mae Fah Luang (5), 141 (17), InPoo (8), anonymous social enterprise (14), and Nokhook Group (21). These groups of social enterprises concern about the efficient environmental management and create high environmental value. Three social enterprises are not consistent with this pathway include Yellowhello (3), Chomthailand (4), and Hope Academy Kanchanaburi (10).

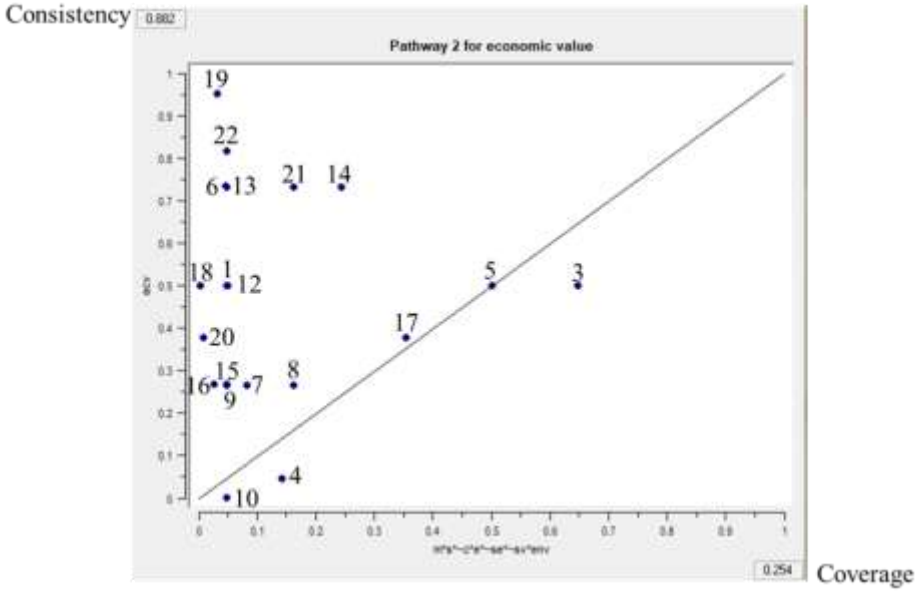

Figure 4.9: Fuzzy XY plot of pathway 2 for high economic value

*Pathway 3 for high economic value (ecv = ~m*s*c*~e*se*~sv*env*

The fuzzy XY plot of the 3rd pathway for high economic value *(ecv = ~m*s*c*~e*se*~sv*env)* is presented in Figure 4.10. This pathway is suitable for new and small social enterprises such as PLANT:D (13) (founded in 2017), Nokhook Group (21) (founded in 2014), and Farm To You (16) (founded in 2016). Their consistent and coverage scores are high. On the other hand, old social enterprises including Hope Academy Kanchanaburi (10) (founded in 1995) and anonymous social enterprise (11) (founded in 1989) are not consistent with this pathway.

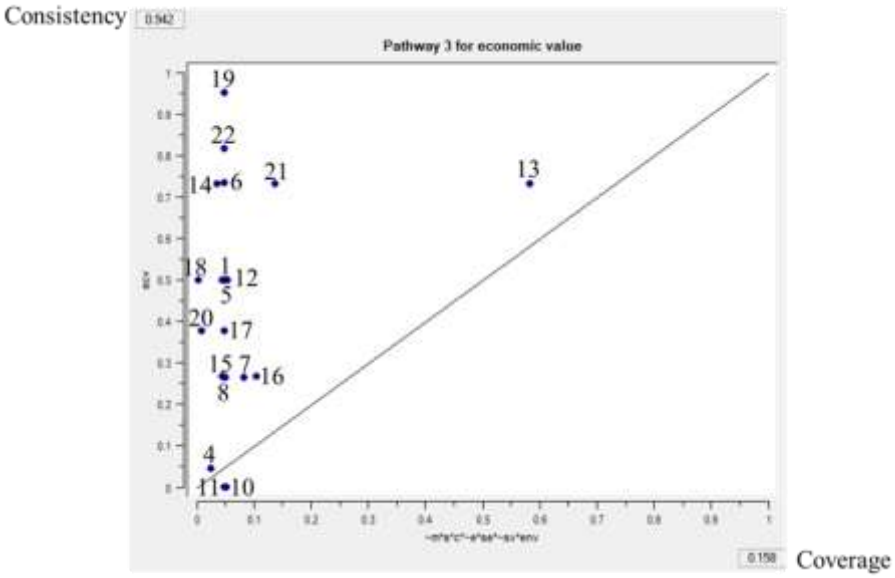

Figure 4.10: Fuzzy XY plot of pathway 3 for high economic value

*Pathway 4 for high economic value (ecv = m*s*c*~e*se*sv*env)*

The fuzzy XY plot of the 4th pathway for high economic value *(ecv = m*s*c*~e*se*sv*env)* is presented in Figure 4.11. The numbers near the blue point represent the order of the social enterprise from Table 3.1. Social enterprises that show high consistent and high coverage with this pathway include Akha Ama Coffee (19), PLANT:D (13), Nokhook Group (21), and Makhampom (22). On the other hand, Art of Life Social Enterprise (1), Hope Academy Kanchanaburi (10), and anonymous social enterprise (11) are found to be not consistent with this pathway.

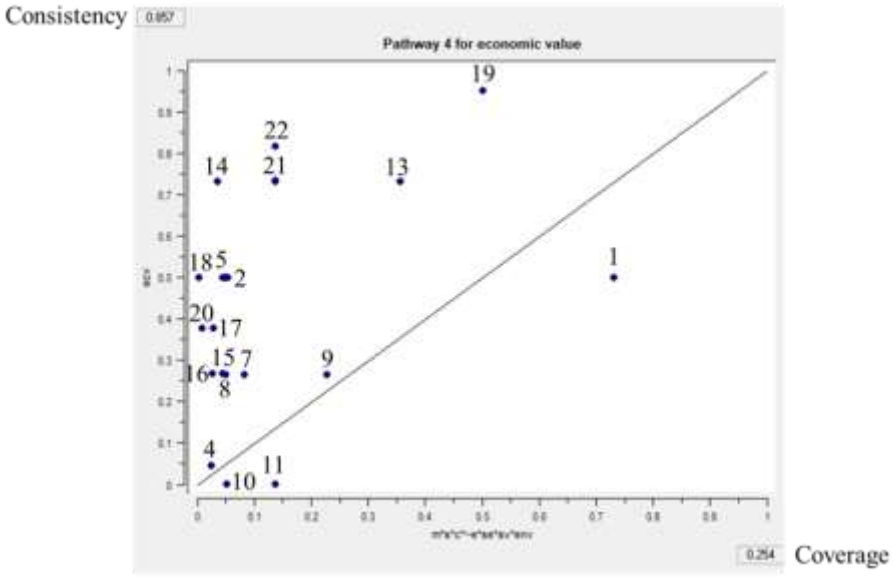

Figure 4.11: Fuzzy XY plot of pathway 4 for high economic value

4.7 Evaluation of key tenets from complexity theory

Our findings from necessary and sufficiency analyses from fsQCA supported the six complexity theory tenets, proposed by Woodside (2014). These tenets were examined in order to confirm the complexity theory of our proposed configurational model, as presented in Figure 4.1. Our findings in Tables 4.2-4.5 show that most of the pathways consisted of multiple antecedent conditions that led to high and low social entrepreneurship and shared value (in social, environmental, and economic dimensions). These findings support the first tenet: *"A simple antecedent condition may be necessary, but a simple antecedent condition is rarely sufficient for predicting high or low scores in an outcome condition."* (Woodside, 2014).

The combinations of more than two conditions from alternative pathways produced the high social entrepreneurship, social value, environmental value, and economic value. For example, the pathway suggests the combination of three and four capabilities for high social entrepreneurship in the 1st and 2nd pathways, respectively. These findings supported the second tenet: *"The recipe principle: A complex antecedent condition of two or more simple conditions is sufficient for a consistently high score in an outcome condition."* (Woodside, 2014).

According to the results of necessity and sufficiency analyses in Tables 4.1-4.5, all suggested pathways that sufficiently led to the high and low social entrepreneurship, social value, environmental value, and economic value were not necessary conditions. In addition, multiple sufficient pathways were shown. For example, there were three alternative pathways for high social value and two different pathways for low social value. These findings show the consistency with the third tenet: *"The equifinality principle: A model that is sufficient is not necessary for an outcome having a high score to occur."* (Woodside, 2014).

The findings show that pathways for high level of outcomes were not opposite from low level of outcomes, which supported the fourth tenet: *"The causal asymmetry: Recipes indicating a second outcome (e.g., rejection) are unique and not the mirror opposites of recipes of a different outcome (e.g., acceptance) principle."* (Woodside, 2014).

Woodside (2014) defined the fifth tenet 5 as *"An individual feature (attribute or action) in a recipe can contribute positively or negatively to a specific outcome depending on the presence or absence of the other ingredients in the recipes."* Our findings showed to support this tenet. For example, regarding pathways for high environmental value, pathway 1 consisted of low cross-sector collaboration management capabilities and pathway 2 consisted of high cross-sector collaboration management capabilities. These two pathways led to the same outcome of high environmental value.

Lastly, our findings revealed that the coverage value for any pathway was less than 1 as shown in Tables 4.2-4.5. This evident confirmed the sixth tenet: *"For high Y scores, a given recipe is relevant for some but not all cases; coverage is < 1.00 for any one recipe."* (Woodside, 2014).

4.8 Discussion

The necessity analysis showed that there was no a single condition that necessarily and solely contributed to high or low social entrepreneurship, social, environmental, and economic value. Whereas, the sufficiency analysis revealed several conditions that sufficiently produced high and low expected outcomes. Therefore, this discussion was mainly focused on the findings from the sufficiency analysis.

Regarding a set of capabilities towards social entrepreneurship, two alternative pathways were suggested for high social entrepreneurship and a single pathway was derived for low social entrepreneurship. From these findings, three key points can be highlighted. First of all, these pathways confirmed that to be a successful social entrepreneurship, social enterprises should be well documented for social innovation and have good entrepreneur-oriented practice that contributed to both social (or/and environmental) and economic (i.e., making profit and gaining competitive advantage) advancement. Towards high social entrepreneurship, social innovation could be supported and enhanced through the cross-sector collaboration capability and the entrepreneur-oriented practice could be supported from the stakeholder management capability. The mission-driven management capability helped to drive these two capabilities, as presented in Pathway 1. Furthermore, the analysis towards low social entrepreneurship showed the consistent finding. It revealed that the missing of mission driving, stakeholder management and cross-sector collaboration capabilities sufficiently caused low social entrepreneurship. The second key point specified that good environmental management could be compensated for low capabilities of mission-driven management and stakeholder management in achieving high social entrepreneurship, as shown in the second pathway. In addition, the adoption of midrange environmental strategies focused on eco-efficiency to reduce energy and waste has been found to reduce environmental impacts and simultaneously provide business with a competitive advantage through reduction of costs and addition of net value (AlbertoAragón-Correa et al., 2008). The third key point toward social entrepreneurship highlighted the importance of cross-sector collaboration capability. It appeared in all identified pathways for achieving high social entrepreneurship and was absented in the pathway for low social entrepreneurship. The cross-sector collaboration enabled to extend and connect with a wider range of stakeholders including private, public, and non-profit sectors that helps to reduce conflicts of institutional goals, that benefit the social entrepreneurship (Tate & Bals, 2016).

Calton et al. (2013) suggested the cross-sector collaboration is one of keys capability for social entrepreneurship.

As a consequence, social entrepreneurship was also found to be one of the core elements for high social value. It appeared in all three pathways towards high social value, as well as was absented in all two pathways towards low social value. As previously mentioned, good social entrepreneurship represented good social innovation and entrepreneur-oriented. Therefore, high social entrepreneurship led to high social value. Nevertheless, necessity and sufficiency analyses emphasized that there was no any individual condition that resulted in high social value. The good social entrepreneurship practice must be compatible with other capabilities. Grounded in the SRBV, social value could be created and enhanced by the cross-sector collaboration capabilities in achieving social resources and overcoming social challenges and constraints. This collaboration provides answers to the escalating social challenges that are mostly considered insolvable due to the failure of the conventional solutions and the paradigms that permeate society, resulted in larger social value (Bitencourt da Silva & Bitencourt, 2018). The combination of social entrepreneurship and cross-sector collaboration was appeared in Pathways 1 and 3 for high social value. Low of both conditions led to low social value, as shown in both pathways for low social value. Furthermore, environmental management capability was also an important supportive capability for social value. Environmental management such as controlling waste and pollution advances the quality of life for local people, and thus increases social value. However, when social entrepreneurs suffered from low environmental capability, stakeholder management together with cross-sector collaboration capabilities should be high in high social entrepreneurship for high social value.

Regarding to environmental value, interesting findings could be found. Basically, environmental management capability was straightforward importantly related to the environmental value. Good environmental management led to high environmental value and bad environmental management leads to leads environmental value. However, findings surprisingly highlighted the importance of mission-driven management and stakeholder management capabilities for creating high environmental value, as shown in all pathways for both high and low environmental value. Clear purposes and missions of social entrepreneurs and the relationship with stakeholders influence the environmental value. Cooperation with stakeholders provides a valuable source of knowledge and resources for adopting social and environmental commitment (Touboulic & Walker, 2015). In addition, Klassen and Vachon (2003) found that the mutual effort between the enterprise and its partners motivates changes to enhance environmental value. Another point to be discussed here was that maintaining high mission driving and stakeholder management capabilities, well environmental management could be compensated for the lack of cross-sector collaboration capability. But when other capabilities were high with high social entrepreneurship,

environmental management can be omitted, as suggested in Pathway 2 for high environmental value. This is because the relationship among business and non-business stakes can indirectly create the environmental value (Sakarya et al., 2012).

For acquiring high economic value, social entrepreneurship also played a major role, as suggested by most of the pathways. It also supported and strengthened other capabilities. Social entrepreneurship emphasizes the capabilities to manage and acquire important knowledge and resources that are essential for social enterprises to survive and sustain financially, and achieving their social missions (Lasprogata & Cotten, 2003). Moreover, social and environmental value was also found to be important for economic value. Grounded in the RBV, NRBV, and SRBV, the effects of social and environmental value on economic value were examined through the analysis of organizational capabilities and resources in achieving competitive advantage (Branco & Rodrigues, 2006; Fortis et al., 2018). Although social enterprises did not expect to get rid of their competitors, but they still needed to gain competitive advantage and create economic value for themselves in order to grow and survive. The social and environmental value could be a source of competitive advantage and superior economic value through the identification and creation of new market opportunities, social changes or satisfaction of social needs (Bitencourt da Silva & Bitencourt, 2018). In addition, well-managed natural and environmental resources, such as preventing and controlling pollution and waste, have an impact on economic value by reducing costs and creating reputation (Christmann, 2000).

4.9 Summary

This study attempts to identify the complex combinations of a set of capabilities (i.e., mission-driven management, stakeholder management, cross-sector collaboration management, and environmental management capabilities) on social entrepreneurship and these conditions towards shared value creation in terms of social, environmental, and economic value based on an asymmetric modeling using fsQCA. The analysis was set to examine conditions and combinations of conditions that were necessary or sufficient to produce the targeted outcomes. Findings showed that there was neither low nor high level of any individual conditions that necessarily led to a high or low level of expected outcomes. However, the sufficiency analysis suggested various different possible pathways that sufficiently led to high or low social entrepreneurship, social, environmental, and economic value. The fuzzy XY plots were further conducted to specify which social enterprises are suitable or highly consistent with the suggested pathways for high social value, environmental value, and economic value. These findings shed light on the role of the

combinations of capabilities proposed in this study, grounded in the RBV, NRBV, and SRBV. In addition, the findings from fsQCA support the six tenets of complexity theory, which confirm that the relationship between social enterprises' practices and shared value are complex and require complex causal analysis. This study was developed and empirically tested based on 22 Thai social enterprises.

To sum up, the findings of this study suggest the combinations of capabilities that lead to the answers for the first subsidiary research question and also fill the first and third research gaps.

Chapter 5

Investigating social enterprises' business model for creating shared value based on case analysis

This chapter describes the findings of the case analysis that investigated insight into business practices and business models of two Thai-based social enterprises i.e., Socialgiver and Local Alike that support capabilities (from previous studies) and shared value creation. This study analyzed the cases through business model components, which consist of value proposition, value creation, and value capture, and the business model innovation for sustainability points of view. The chapter starts with the research background briefly explaining the importance of business model components and business model innovation for sustainability in investigating social enterprises and their shared value creation. The next section describes the study's objectives explaining how this study helps to address the dissertation's second and third subsidiary research questions. Consequently, findings and discussion are provided. Lastly, the chapter ends with a summary.

5.1 Research background

A business model represents a core logic of a firm, which refers to how a firm defines its strategies to obtain competitive advantages and create new value (Osterwalder & Pigneur, 2010; Bocken et al., 2014). The business model lens is suitable for analyzing the business practices not only that of commercial enterprises, but it can be applied to investigate business practices of social enterprises. The major components of a business model are conceptualized into (1) value proposition, (2) value creation, and (3) value capture (Richardson, 2008). Value proposition concerns what value is embedded in the products or

services offered to customers by a firm/social enterprise (Boons & Lüdeke-Freund, 2013). Value creation includes resources and capabilities, the process of resource integration, and a position in the value network. It also refers to how value is created and delivered or the process of value co-creation by stakeholders (Bocken et al., 2017). Value capture refers to a firm/social enterprise's profits and other economic and non-economic values that are perceived by all members in the ecosystem (Richardson, 2008). Business model innovation offers a potential approach to delivering the required change through re-conceptualizing the purpose of the firm/social enterprise and the value creating logic, and rethinking perceptions of value (Bocken et al., 2014). A social enterprise as business model innovation for sustainability is increasingly being recognized as a key to generating, integrating, and delivering greater economic, environmental, and social value (Bocken et al., 2014), that are important for shared value creation.

In addition, empirical exploration has largely focused on developed countries. Therefore, there is a research gap in how social enterprise represents the business model innovation and provide economic, social, and environmental value within emerging market contexts (Vezzoli et al., 2015). Studies have found that business models in emerging markets differ from business models in developed markets (Eyring et al., 2011; George et al., 2012; Landau, 2016). An emerging market requires firms to develop a thorough understanding of the marketplaces' unique characteristics (Pels & Kidd, 2015) because business, political, economic, and social environments differ considerably from those in developed countries (Hossain et al., 2016; Winterhalter et al., 2017). Nevertheless, the concepts of shared value in social enterprises in emerging economies still remains underexplored (Emili et al., 2016). This study was based on Thailand as a representative of the emerging market.

5.2 Research objectives

This study aims at exploring key characteristics and business practices of social enterprises that support shared value creation through the theoretical perspectives of the business model innovation for sustainability and business components including value proposition, value creation, and value capture. The study investigated two selected social enterprises in Thailand, as a representative of an emerging market. The findings of this study also expected to reveal the business practices and policies that support the suggested pathways from the combinations of capabilities (from findings in Chapter 4) for high social entrepreneurship, social, environmental, and economic value. This study links with the dissertation's second and third subsidiary research questions "What are suggested business practices that enhance the

opportunity for creating shared value?" and "How is shared value created from social enterprises' practices?". This study also aims to fill the second and third research gaps.

5.3 Analysis through the business model components

5.3.1 Analysis of Socialgiver

Socialgiver facilitates the co-production of value propositions from its partners and NPOs to customers. Business partners offer economic value propositions to customers in the form of products and services. However, NPOs propose social and environmental value, which may lead to a sense of fulfilment and pride in knowing that they are helping others. These co-produced value propositions can generate more value than the simple sum of individual propositions. Customers not only obtain the services they require, but they feel happy and satisfied that their investment will benefit society and make a social contribution. The value propositions offered by NPOs are generally different from those of profit-organizations in that they are usually non-economical and provide low value returns. These NPOs propose non-economic values (social and environmental values) to people; in contrast, people economically accept these social value propositions by making financial donations, for example. This makes the value propositions of NPOs difficult for partners to accept. Social value propositions are bundled with economic value propositions to address the difficulty of accepting them. This is one of the unique characteristics of the Socialgiver business model, which enhances the attraction of value propositions on Socialgiver.com.

Value is created from the integrated collaboration of product/service providers, NPOs, and customers in ways that have sustainable economic and social impact. The excess service capacities of businesses that currently do not generate value (e.g., vacant rooms in hotels and unsold tickets at concerts) are changed by collaboration with customers into funding NPOs. In addition, customers can customize their demands for both products/services and social organizations that they want to donate to.

Value capture is structured in a way that benefits all stakeholders, which include society and the environment. Customers visit Websites and search for the products/services that they want from various product/service providers. These customers initially select products/services and pay for them; after that, 70% of their payment goes to selected social projects. Thirty percent of every purchase goes to Socialgiver for its operations and corporate sustainability. This process enhances customer satisfaction; even if they do not intend to donate, they will eventually feel fulfilled about their social contribution. Some customers, on the other hand, visit Socialgiver.com for charity purposes because the Website collects various social and environmental projects from different NPOs for different purposes such as education, wildlife, children,

and natural disaster relief. After they have made a donation, they receive gift cards that they can spend on products/services. This also amplifies the donators' sense of satisfaction and encourages them to make further donations in the future. Customers not only obtain enhanced value from the co-production of value propositions, but business partners and NPOs also perceive amplified value. Business partners can use the platform of Socialgiver.com as a tool to promote their CSR and marketing in low investment situations because they are using their available resources that are being under-utilized. This practice increases customer perception and public awareness. Selected NPOs also receive financial funds for their social and environmental fundraising projects and to increase public awareness. This also motivates people to make more donations in the future and encourages an environment of giving and sharing within a community.

Figure 5.1 summarizes the Socialgiver business model that involves the co-produced value propositions between those of partners (products or service providers) and NPOs, and offers to customers (buyers), value creation, and value capture. Partners propose what resources are being under-utilized to their customers, by which they can benefit from CSR practices and marketing. This also contributes to environmental value, by maximizing usage of available capacities, and social value by changing resources into funds for NPOs. Customers raise NPOs' public awareness, and returns in terms of non-economic values, such as feeling happy, proud, and self-fulfilled in making social contributions.

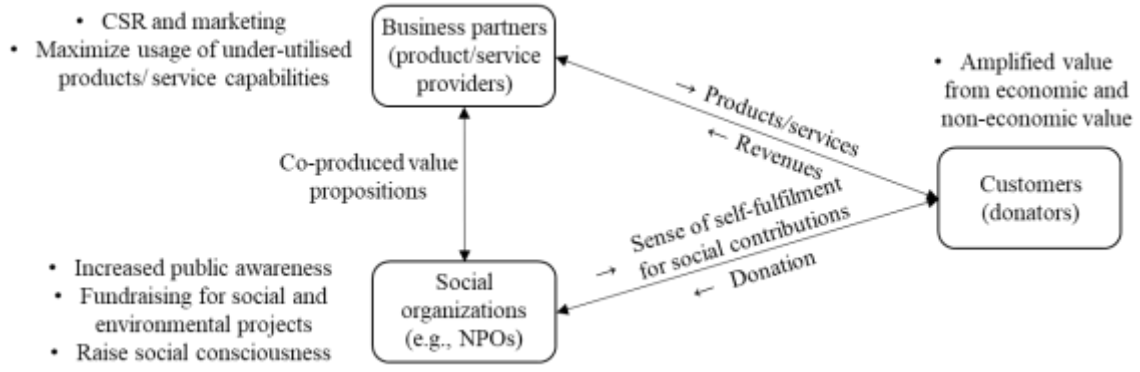

Figure 5.1: Socialgiver business model

5.3.2 Analysis of Local Alike

The value proposition of Local Alike is designed to meet customer needs (e.g., new experiences and tourist packages), relational needs (e.g., good relationships with local people), and social and environmental needs (e.g., social and environmental developments in the community) by co-producing value propositions from partners and the local community, and offering these co-produced value

propositions in forms of tourist packages to customers. Partners (formerly local residents that became Local Alike' partners) shared their underutilized resources, such as unoccupied room in their houses or unused cars, with customers during their stays. This sharing contributed to environmental preservation by maximizing underutilized resource capacities and reduced the number of new constructions. The value propositions from local communities in rural areas were generally difficult for people to accept due to accessibility and safety reasons. However, it was easier when these value propositions were integrated with economic value from Local Alike, as presented in the form of package tours. More importantly, Local Alike made these co-produced value propositions explicitly and publicly seen. Furthermore, creating social responsible value propositions helped Local Alike access social capital and contribute to its improved economic performance.

Value creation is an attribute that links value propositions and value capture and its monetization (Baden-Fuller & Stefan, 2013). Value is created from the integrated collaboration of local people, who are both partners and non-partners, and customers. Local Alike and tourists yield optimized solutions that balance economic, social, and environmental values in collaboration with partners and non-partners in local communities. The capacity to draw resources from the social context that encompasses various people with different cultural norms generally enables resource exchanges and integration to attain value creation (Altinay et al., 2016). Therefore, the involvement of local communities enables Local Alike to fully utilize capacity to gain access to natural and human resources. It is very important to use local techniques within social and cultural contexts that help to create value in local heritage to access local resources and social capital inside a community. Local Alike allows local people to be its partners that can fully participate to maximize usage of their under-utilized resources and potentials. These under-utilized resources, natural resources, cultural value, and unskilled humans in the local communities are integrated and transformed into valuable resources by education and training. Local Alike explains and helps both partners and non-partners to identify their capacities and abilities by providing knowledge on how they should manage their resources within the local context of generating mutual benefits.

Local Alike operates to create common benefits with their stakeholders and society. First, Local Alike needs to capture economic benefits in term of profits to smoothly survive and run businesses. Collaborating with rural communities provides Local Alike with competitive advantages through the accessibility of unexplored resources. Similarly, partners also need to capture profits to survive. Their underutilized resources are explored with the training from Local Alike. While Local Alike and partners are capturing value, economic, social, and environmental values are also mutually created for local communities and tourists. For instance, an employment opportunity is created in the community, which leads to improvements in the standard of living. The environment is preserved from a sustainable tourism

platform from an ecological perspective that promotes environmental friendly tours and reduces the number of new constructions. The value captured by customers is magnified in addition to ordinary benefits from co-produced value proposition from partners and non-partners in the local community. Customers should feel proud and have a sense of self-fulfillment in making their social contributions.

Figure 5.2 summarizes the business model of Local Alike, which focuses on the co-produced value proposition offered to customers (tourists), value creation, and value capture. Local Alike's partners are local residents who share their underutilized properties to create economic value for customers and generate environmental value by reducing the number of new constructions such as hotels that serve the growing amount of tourism in the community and promote environmentally friendly tourism. The local community endows customers with pride and a sense of self-fulfillment. Employment opportunities emerge, which lead to improved standards of living for local people nearby. Mutual benefits from economic, social, and environmental value are important keys that lead to sustainability for Local Alike and its shareholders.

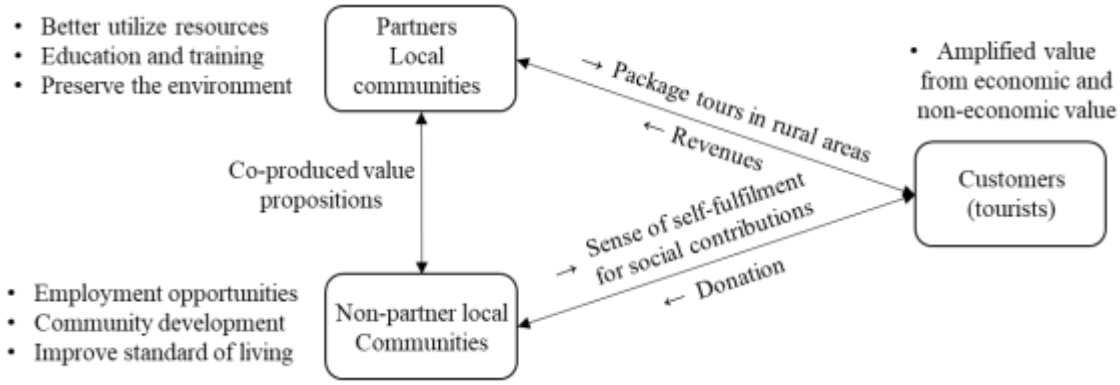

Figure 5.2: Local Alike business model

5.3.3 Summary of cases

Table 5.1 summarizes the business model elements of Socialgiver and Local Alike, which were adapted from Bocken and Short (2016). It includes value propositions, value creation and delivery, and value capture.

Table 5.1: Framework adapted from Bocken and Short (2016)

Factors	Components	Socialgiver	Local Alike
Value proposition	Products/services	Shopping deals online	Package tours in rural areas
	Customer segments and relationships	Online shoppers seeking for special deals	Travelers seeking new experiences in rural areas and unseen places
	Value proposition to customers	Amplified value from co-production of value propositions economically and socially, required products/services, self-fulfillment and pride from social contributions	Amplified value from co-production of value propositions economically and socially, new experiences from tourist packages, good relationships with local people, happy for social and environmental value contributions while traveling
	Value proposition to society/environment	Increase public awareness and social consciousness, funding for social and environmental projects	Create employment opportunities for local people, promote tourism, environmentally friendly tourists, reduce no. of new constructions
Value creation & delivery	Activities	Connect profit organizations, NPOs, and customers in ways that have sustainable economic and social impact, change surplus product/service capacities of businesses into funding for social projects	Collaborate closely with local community, involve and empower local people, maximize benefits from underutilized resources, educate and train local people
	Resources	Under-utilized products/services, leftover resources	Sharing platform, underutilized resources, local knowledge and social capital
	Distribution channels	Online platform, customers receive products/services directly from business partners	Online platform; customers receive products/services directly from partners and non-partners when they travel
	Partners	Business partners; NPOs	Partners in local communities; non-partners in local communities
	Key technologies and product features	Customers can customize their required products/services and social/environmental projects.	Sharing practices enable open access to underutilized resources
Value capture	Cost structure and revenue streams	Thirty percent from every purchase	Additional charges (10–30%) from total costs
	Value capture for customers	Amplified value that enhances satisfaction from both economic and non-economic aspects, required deals, good feelings about social contributions	Amplified value that enhances satisfaction from both economic and non-economic aspects, worthwhile package tours, new and adventurous experiences, social and environmental contributions
	Value capture for stakeholders	Business partners: low cost and high return CSR and marketing, NPOs: increase public awareness and possibility of further donations, funds	Partners: employment opportunities, better utilization of resources, education and training, local communities: employment opportunities, development in communities
	Value capture for society/environment	Long term and regular donations, shared value ecosystems, financial support for social and environmental projects	Improved standards of living, sustainable tourism, environmental preservation, employment opportunities, community development

5.4 Discussion

The characteristics and business practices of Socialgiver and Local Alike were examined through the business model innovation for sustainability and the business model components based on value proposition, value creation, and value capture. Five important business practices were found to support the shared value creation for the social enterprises, society, and the environment in economic, social, and environmental dimensions, as summarized in Figure 5.3. Details of each business practices are discussed as follows.

First, through having a clear social impact like social collaboration, involvement, empowerment, and development, considering NPOs (in Socialgiver) and local people (in Local Alike), and integrating economic, social, and environmental layers to support a holistic view of the business model through its actions and relationship development led to a more systems-level perspective of CSV and sustainability-oriented innovation (Florin & Schmidt, 2011; Sakarya et al., 2012; Bocken et al., 2015; Joyce & Paquin, 2016; Rosca et al., 2017). Sommer (2012) also pointed out a broader value-network was important for innovating and transforming the business model by involving a wide range of stakeholders. New and heightened forms of collaboration facilitate the CSV, which requires people to work together to tackle social problems (Porter & Kramer, 2011). Moreover, cross-sector alliances between firms and NPOs are explicitly formed to address social and environmental issues, which appear in the business model of Socialgiver; this is consistent with the studies done by Sakarya et al. (2012) and Selsky and Parker (2005). The close collaboration with the local community in Local Alike, on the other hand, helps to create social value by building a good quality relationship that in turn mobilizes stakeholders' willingness and motivation to exchange resources for value creation, its cultural abilities for adapting and fitting resources within the specific context, and its cognitive capital and abilities. Therefore, Local Alike gains access to those resources and utilizes them to generate mutual benefits. Successful community involvement occurs when a win-win resource exchange relationship is developed. This involvement is necessary to build trust, create a common understanding, avoid potential conflict, and motivate communities to engage in resource exchanges. Hence, the relationship development in Local Alike is aimed at elevating partners and non-partners in local communities from passive followers and supporters to strong supporters and active players in sustainable value co-creation, economically, socially, and environmentally. The business models that successfully build on the engagement and development of local and natural resources and capabilities is a success factor for CSV (Rosca et al., 2017). Successfully implemented CSV practice creates significant social impact by raising awareness and education through activities and involvement, and not just by directly giving money to the poor in the community. The business models of both analyzed cases had

significant impacts on employment and the economy. Businesses generally create employment opportunities for local people.

Second, such collaboration with NPOs and/or the local community is greatly beneficial within the context of emerging markets. There are deep societal and environmental challenges that firms can solve whilst creating economic value in an emerging economy (Motilewa et al., 2016). The interaction between firms (usually profit organizations), NPOs, or local communities (usually in rural areas that are underdeveloped or developing), and customers particularly supports underdeveloped or developing areas like in Thailand where there are many disadvantaged people in rural communities and social/environmental projects need to be financially supported. Furthermore, inequality in the distribution of per capita income has increased across the emerging world over recent decades (Jalles, 2017). The income gap is high. Therefore, such business model innovation for successful CSV is needed to promote social consciousness and social awareness throughout the high-income population through their spending activities.

Third, findings highlighted the importance of social purposes embedded in firms' value propositions, aside from the success of firms, to be a key element in implementing the business model for CSV. This could be done by co-producing the social value propositions with firm's economic value propositions, and offered to customers. Social value propositions (from social purposes) alone are generally difficult to sustain because economic value is usually expected in return i.e., donations and charity. However, co-producing with economic value propositions that create mutual benefits can address such challenges. These differentiated value propositions can be developed to appeal to consumers and create competitive advantages (Bocken & Short, 2016), which lead to successfully CSV and could lead to sustainability-oriented practices.

Fourth, customers, from their point of view, perceive amplified value and gain a high level of satisfaction compared to their usual purchases. This is because economic value complements non-economic value, which is offered to customers. This perception of customers helps to facilitate the CSV in a long term. Customers not only obtain the products or services they require, but they simultaneously contribute to social and environmental improvements through fundraising organizations in Socialgiver and direct interaction with local communities in Local Alike. According to (Aknin et al., 2012), spending money on others helps to enhance levels of happiness and lasts longer. And, importantly, this practice leads to firm's financially self-sustained to run their own businesses and address other social and environmental issues. The revenue and cost structure, as well as organizational policies, should be clearly determined.

Finally, fifty, the firm explicitly shows customers its social and environmental activities. It can be done by involving and engaging them into the processes. In the case of Socialgiver, the distributed money

to social and environmental projects is explicitly shown on the website. As a result, customers can clearly see where their money go. Whereas, customers of Local Alike are involved into the business process, where they directly help to develop rural communities that they visit.

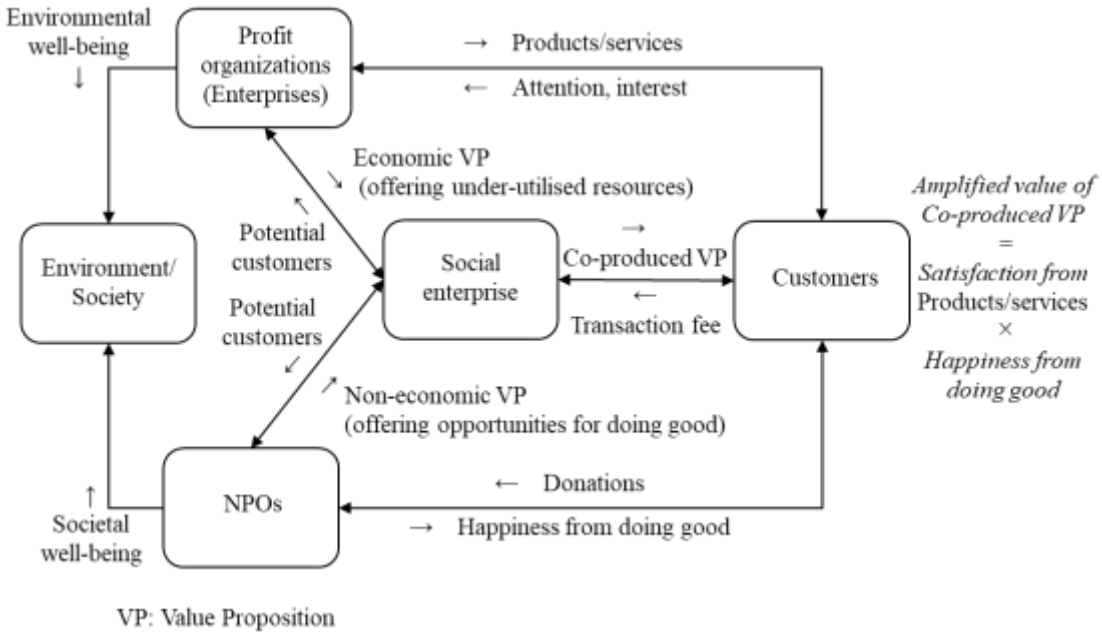

Figure 5.3: Business practices for shared value creation

5.5 Summary

This case study investigated and specified five key business practices and mechanisms that were driving business model of social enterprises for successful creating shared value based on two selected social enterprises in Thailand, which is representative of an emerging market. The findings revealed that the business model could be innovated to enhance shared value creation through collaborating with non-profit organizations and/or local people, promoting social consciousness and social awareness, embeddedness of social purposes in firms' value propositions, explicitly showing and engaging customers into the processes, and offering a high level of satisfaction for stakeholders.

The findings presented in this study fill the dissertation's second and third research gaps and lead to the answers for the second and third subsidiary research questions. The findings of this study also emphasize the business practices that help to support the combinations of capabilities suggested in Chapter 4.

Chapter 6
Discussion

This chapter discusses overall findings of studies 1 and 2 (in Chapters 4 and 5). The chapter explains the interrelation of findings on how the capabilities (including mission-driven management, stakeholder management, cross-sector collaboration, and environmental management capabilities) that are important for social enterprises to create shared value can be supported by social enterprises' business practices. The first capability is the mission-driving management capability, which can be referred to be one of core elements of organizational philosophy (Grant & Sumanth, 2009) that drives decision-making and directions of business (Tate & Bals, 2016). Therefore, the clear social and environmental missions positively influence the decision-making processes that affect the creating shared value policies.

The second capability relates to main stakeholder management capability. Business practices involve the stakeholder engagement for socio-environmental value creation. To do so, social enterprises need to promote social consciousness and raise public awareness about social and environmental issues. This practice is suitable particularly for developing countries, where there are high-income gaps, inequality of society. Many disadvantaged people needed to be supported. Through increasing public awareness, advantaged people or higher income people are encouraged to help in creating socio-environmental value for CSV within a specific design of business. As a usual business practice, it is necessary to connect and have good relations with its main stakeholders such as partners, customers and shareholders to build a good network for creating mutual benefits. Nevertheless, this dissertation focuses on shared value, therefore the stakeholder management suggested in this study aims for economic, social, and environmental value creation. The co-produced value propositions economically and socially are highlighted. They can be done by embedded social value propositions from the firm or collaborated cross-sector partners such as NPOs or

local people into the firms' conventional value propositions in forms of products or services. These value propositions encourage the CSV practice to last longer since stakeholders such as customers perceive amplified value and high satisfaction from a sense of fulfillment and pride of helping others. In addition, apart from unique value propositions, engaging stakeholders particularly customers into firm's social and environmental activities helps to raise stakeholders' interests and public awareness. In addition, the business practices for stakeholder management capability also highlight on amplified and long-term value co-creation. They influence the CSV practices and also positively affect the firm's performance and customer loyalty. Perceiving high level of satisfaction from all stakeholders such as customers, business and non-business partners enhance and support long-term value co-creation that benefit for CSV. Level of satisfaction can also be increased from previous four driving factors and their suggested implications.

The third capability highlight the cross-sector collaboration management capability with unusual partners such as social organizations, social entities like non-profit organization (NPO) or local people where business is located. Business practices for social enterprises that encourage the cross-sector collaboration management capability involve the relationship development by building mutual trust, sharing same visions, and exchanging resources such as land and equipment, or institutional resources such as traditional knowledge and culture. All these connections enable firms to access social resources and social capital. The social capital refers to the engagement in interactions and networking as embedded resources in a social network (Windasari et al., 2017). All these practices help to overcome social constraints and difficulties from different culture and create unique value propositions to encourage and increase an opportunity for CSV. Collaborating with these non-business stakeholders not only create economic value for firms as mentioned above such as gaining social resources and capitals, but also create social and environmental value. The connected social organizations or local people directly receive benefits from firms' activities such as fundraising for NPOs that help various social and environmental projects (as appeared in the case of Socialgiver), or rural community development, creation of employment opportunities, transferring technological and expert knowledge to local people, and improvement in the quality of life of local people (as appeared in the case of Local Alike). This connection helps to take a leadership position to resolve social problems around local communities and enhance social entrepreneurship. It increases new opportunities for CSV because these non-business parties enable deep understanding of local context, constraints and barriers (London, 2007), encouraging shared value creation practices.

The fourth capability concerns with the environmental management capability to connect and utilize natural and environmental resources. Business practices include the capabilities of controlling pollution, preventing environmental destruction, preserving the environment for environmental resources such as river for water supply, forest for wood supply, product stewardship, and sustainable development.

Similar to the cross-sector collaboration for creating social value and gaining social resources/ social capital, this environmental management capability creates environmental value and providing access for natural environmental resources. The capability of environmental management is also considered as an important element for social entrepreneurship and shared value creation. It directly links to the environmental value and indirectly influences social value. Environmental management can also be compensated for low mission driving and stakeholder management capabilities. Social value and environmental value are closely related and sometimes impossible to separate.

Finally, the social entrepreneurship emphasizes the role of social innovation and entrepreneurship-oriented practices. Social innovation relates to the innovation of new practices, processes, or products/services that aim in addressing social problems (Dwivedi & Weerawardena, 2018), encouraging a new opportunity for CSV. Whereas, the entrepreneurship-oriented practices mainly relate to the ability to financially self-sustain, survive, grow, and run business efficiency. If the social enterprises do not receive enough money to support themselves, the CSV practice cannot occur. Therefore, social entrepreneurship encourages both social (usually include environmental) and economic (i.e., making sufficient revenue) missions.

Moreover, after business practice of Socialgiver and Local Alike were identified in Study 2, their important characteristics regarding capabilities in Study 1 are presented as follows. They both have good mission-driven management capability through the obvious business plan and the clear direction of business. They also show to have the good relationship with business-related stakeholders such as business partners, customers and with non-business stakeholders such as local people and social organizations. In addition, they have high social entrepreneurship both high social innovation and entrepreneurship–oriented practices. Both Socialgiver and Local Alike have an innovative business model that aims for society and the environment. They also have a clear cost-profit structure showing the capabilities of good management. However, they both lack of environmental management. They do not deal with environmental issues by themselves. The business model and practice of Socialgiver and Local Alike represents one of pathways for high social, environmental, and economic value that suggested in Study 1. For example, for high social value, they follow the 1st pathway having high stakeholder management, high cross-sector collaboration management capabilities and high social entrepreneurship but lacking good environmental management capability, as shown in Table 6.1.

Table 6.1: Pathways of Socialgiver and Local Alike

Outcome	Combination of capabilities	Pathway no. (from Study 1)
High social value	s*c*~e*se	1
High environmental value	m*s*c*se	2
High economic value	m*s*c*~e*se*sv*env	4

Chapter 7
Conclusion

This chapter aims to provide the conclusion by emphasizing research implications and describing research limitations. First, the chapter provides the theoretical implications, highlighting the significance of this dissertation on how the findings confirmed existing theories and advanced the relevant theoretical foundations. Next, practical implications are given to describe how managers and entrepreneur benefit from the sufficient business model suggested by this dissertation. Lastly, this chapter ends with limitations that were left for further studies.

7.1 Theoretical implications

Apart from filling research gaps, addressing research questions, and achieving research objectives proposed in Chapter 1 of this dissertation, the findings of the dissertation from 2 studies contribute to theoretical implications by confirming existing literature and advancing literature relating to social entrepreneurship, social enterprise management, and creating shared value.

Grounding in the stakeholder management theory, RBV, NRBV, and SRBV, this dissertation investigates the causal complex relationship between a set of capabilities (i.e., mission-driven management, stakeholder management, cross-sector collaboration management, and environmental management capabilities) and social entrepreneurship and as important strategic mechanisms for enhancing shared value based on Thai social enterprises. This study emphasizes on the role of organizational resources and capabilities that enhance social enterprises to enhance

the effect of shared value creation among themselves, society, and the environment regarding the complexity phenomenon. The case analysis was further conducted to identify the business practices of social enterprises that support the suggested combinations of capabilities that link to creating shared value based on the business model components and business model innovation perspectives. In a consequence, this dissertation contributes to several aspects of the literature as follows.

First, the extensional theories of traditional RBV to cover both NRBV and SRBV helps to draw the analysis from different layers (i.e., economic, social, and environmental layers). The initial intention of social enterprises is to pursue towards social and/or environmental problems. However, research has argued that social enterprises' resources and capabilities should not be developed and limited to a particular purpose only, the integration of economic, environmental, and social resources and capabilities must be managed and utilized simultaneously (Murphy & Coombes 2009). The set of capabilities used in the 1st study was developed to represent the combination of capabilities that link to economic, environmental, and social dimensions and benefits for social enterprises, society, local people in communities, and the natural environment.

Second, since the concept of shared value is still in its nascent stage and the concept in social entrepreneurship has not been widely theoretically explained and empirically investigated. This dissertation contributes to theory development by seeking to delineate a borderline between the shared value and social entrepreneurship. Since the measurement of shared value has not been universally identified, the 1st study of this dissertation developed the set of measures to rate the impact of shared value creation from the stakeholder management theory and triple-bottom-line perspectives. The measures include social value, environmental value, and economic value.

Third, due to the special characteristics of social enterprises that need to deal with high complexity, the findings highlight the importance of fsQCA in disclosing different pathways (combinations of conditions) leading to the same outcomes of social entrepreneurship and shared value (social, environmental, and economic value). This dissertation contributes to the social enterprise, shared value, and business management literature by bundling a set of capabilities (i.e., mission-driven management, stakeholder management, cross-sector collaboration management, and environmental management capabilities), a high/low level of social entrepreneurship, with high/low shared value in social, environmental, economic dimensions and simultaneously analyzing their relationships. The findings reveal superior benefits as compared to conventional regression-based analyses that usually examined directly between conditions and outcomes. In

accordance with the findings of Ordanini and Maglio (2009), Woodside (2013), and Wu et al., (2014), complexity theory provides a better understanding into the effect of complex combinations of conditions in a real-world setting. To the best our knowledge, this is the first endeavor to employ asymmetric modeling to assess antecedent capabilities of social entrepreneurship and shared value grounded in the RBV and its social and environmental-oriented extensions of NRBV and SRBV.

Fourth, the findings from the case analysis contribute to the literature by providing empirical evidence on the business practices of social enterprises in creating shared value through the business model comments lens (value proposition, value creation, and value capture). The findings bridge the theoretical gaps regarding social enterprises' practices, their resources and capabilities, and the impact of shared value creation.

Finally, this dissertation is based on Thai social enterprises, which has unique characteristics of traditions, business culture, and social culture. This analysis also filled the literature gap regarding the absence of studies on social enterprises' shared value, important capabilities and business practices in Thailand. Although the characteristics of social enterprises in Thailand differ from developed countries, our findings show that mission-driving management, stakeholder management, cross-sector collaboration management, and environmental management capabilities that simultaneously support the ability of social entrepreneurship are important strategic mechanisms for enhancing shared value for the social enterprises, society, and the environment.

7.2 Practical implications

Regarding practical implications, several benefits can be derived from social entrepreneurs and other shared value-oriented entrepreneurs. First, the overall findings of this dissertation suggested social entrepreneurs and other shared value-oriented entrepreneurs and managers that the creating shared value for themselves, society, and the natural environment does not just increase cost but become a viable strategy for gaining competitive advantage and stay sustainable and simultaneously generating the betterment for society and the environment.

Second, the findings allow managers and shared value-oriented entrepreneurs to better understand the opportunities for enhancing the impact of the value creation for themselves, society,

and the environment from the proposed capabilities and suggested pathways (combination of capabilities). With the nature of high complexity in social enterprises, fsQCA based on the complexity theory provides different suggested pathways that lead to the same outcome. The findings in the 1st study suggest social enterprise managers and entrepreneurs various different pathways to attain high social entrepreneurship and high impact of social, environmental, and economic value creation. The findings highlight the important role of social entrepreneurship, which composed of social- and entrepreneur-oriented practices. Social innovation, proactiveness, and risk management have been viewed as the key components of social entrepreneurship. Social innovation is seen as the main criterion for social entrepreneurship to accomplish social and environmental missions. Like other enterprises, social enterprises need to be proactive and manage risks to survive and grow as businesses.

Third, by improving only individual capabilities or focusing only enhancing social entrepreneurship (social innovation and management practices), social entrepreneurs and managers will not sufficiently create the conditions to foster the impact of shared value creation. It is important to recognize that the combinations of the set of capabilities (i.e., mission-driven management, stakeholder management, cross-sector collaboration management, and environmental management capabilities) help formalize and encourage social entrepreneurship and shared value, as suggested by RBV, NRBV, and SRBV. In addition, the findings from fsQCA also reveal that social and environmental value was found to be a source of competitive advantage and lead to economic value for social enterprises.

Fourth, the findings from the 2nd study provide a primary managerial guide for social entrepreneurs and managers by illustrating real business practices of successful social enterprises through business model components (value proposition, value creation, and value capture) and business model for sustainability lens. These broader frameworks can uncover possible hidden key characteristics, mechanisms, and practices for successfully create shared value in Thai social enterprises. The findings also strengthen the understanding of how they are undertaken in practice. This study provided a managerial guide for firms, in terms of practical implications in the value proposition, value creation, and value capture. It also provided examples of the business model innovation and collaborative approach with NPOs and local communities for CSV.

Fifty, this dissertation is focused on social enterprises in Thailand, where many academic research and business practices still usually look more to benefits for only profit-organizations than be concerned about social enterprises and the well-being of society and the natural environment.

7.3 Limitations and directions for future studies

While this dissertation achieves research objectives, fills theoretical research gaps, and answers research questions, this dissertation's results need to be considered within the following limitations. However, the limitations open avenues for future research. There are a number of limitations needed to be concerned. First, the analyses of both studies were focused mainly on external stakeholders, which actually the concept of shared value covers both internal and external stakeholders. An internal- and external oriented stakeholders would provide different aspects shared value creation in social enterprises.

Second, the findings were limited to a small number of cases (22 social enterprises for fsQCA and 2 social enterprises for case analysis) in one country (Thailand). The uniqueness of Thai social enterprises challenges the generalizability to wider contexts since the impacts and antecedent conditions may be different in other countries. It will likely be increasingly important social enterprises, their capabilities, and impact of shared value across emerging markets and compare it with that of developed countries to find similarities and differences, and what room there is for improvement. This provides a positive base for further exploration.

Third, this dissertation was only examined from the perspective of entrepreneurs, but the analysis of dyadic data from stakeholders such as customers, partners, or local people would potentially present aspects of relationship mutuality. Consequently, future research might also include dyadic data to determine the dyadic effects of performance and impact of value creation.

Fourth, regarding the data collection, the 1st analysis relied on self-reported information from responders about their capabilities and performance which can represent bias results and limit discussion and implications. However, it has also been argued that the business owners', managers', or employees' opinion is the one that matters most since they know their business best (Bacq & Eddleston, 2016). On the other hand, in the 2nd study, case analysis was based on only secondary data. However, the triangular data collection from muti-sources would provide validity and increase

reliability. Furthermore, both studies were based on a cross-sectional data, which made the findings relatively static. A longitudinal examination should be explored to study the relationships of capabilities, (i.e., mission-driven management, stakeholder management, cross-sector collaboration management, and environmental management capabilities), and social entrepreneurship on shared value creation with respect to changes in time.

Fifth, regarding the limitations of fsQCA in the 1st analysis, fsQCA does not identify the unique contribution of each antecedent condition for every suggested pathway. Future research may consider the integration of findings from fsQCA with the regression model to deeply analyze the effect of each condition. Findings presented in this study also need to be concerned with the technique of data calibration, which heavily relies on theoretical background and evidence (Baptist & Befani, 2015), but the fsQCA has not been widely applied in the service industry (Pappas & Papatheodorou, 2017).

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Appendices

This chapter provides additional information relating the dissertation's analyses and findings. In total, there are three appendices in this dissertation, including Appendices A, B, and C.

Appendix A shows the questionnaires used in the study 1: Examining combination of capabilities for social enterprises in creating shared value using fsQCA. The questionnaires consist of three sections i.e., general information, importance of each capabilities from responders' point of view, and shared value creation from social, environmental, and economic dimensions.

Appendix B presents why fuzzy-set qualitative comparative analysis (FsQCA) was used in the Study. In addition, the notations used in the findings of fsQCA are explained.

Appendix C provides the additional results of the quantitative analysis from asymmetric Fuzzy set Qualitative Comparative Analysis (fsQCA) using fs/QCA 2.5 (Ragin & Davey, fs/QCA [Computer Programme], version 2.5, 2014). It includes results from sufficiency analysis in complex, parsimonious, and intermediate solutions.

Appendix A
Questionnaires

Purpose: This set of questionnaires was developed to study the complex combinations of capabilities that support the business practices for creating shared value (CSV) (from economic, social, and environmental dimensions) based on Thai social enterprises. This information will be used for research purposes only and kept confidential.

Part 1: General information

Direction: Please provide general information about your business by answering questions or marking ✓on the appropriate choices for each question.

1) Name of organization: _____

2) Position of respondent

□ Owner □ Manager □ Employee □Others _____

3) Established year: _____

4) Industry

□ Health and Social Services □ Agriculture, Forestry and Fisheries □ Education

□ Food and beverage □ Tourism Wholesale and retail trade □ Finance and insurance

□ Others _____

5) Number of employees

□ 1 to 10 □ 11-20 □ 21 to 50 □ More than 50

6) Main purpose *(More than one choice, if necessary)*

□ Improving environmental conditions

□ Improving local communities

□ Help disability people

□ For training and education

□ For self-profit

Part 2: Capabilities

Direction: Please rate each capability based on its importance for your business by marking ✓on the appropriate choices (5 = Very important to 1= Not important at all).

7) Importance of mission driven capabilities

Mission driven capabilities	1	2	3	4	5
1.We have clear missions and management philosophy.					
2.We are self-motivated for social and environmental advancement.					
3.Employees know and are able to interpret missions and management philosophy					
4.Employees can explain missions and management philosophy to external people if required					

8) Importance of stakeholder management capabilities

Stakeholder management capabilities	1	2	3	4	5
1.We communicate to main stakeholders e.g., customers and business partners on what we do regarding social and environmental issues					
2.We inform key stakeholders e.g., customers and business partners about the value of what we do					
3.We communicate efficiency					
4.We receive cooperation support from main stakeholders e.g., customers and business partners					

9) Importance of cross-sector collaboration management capabilities

Cross-sector collaboration management capabilities	1	2	3	4	5
1.We exchange operational information with cross-sector partners such as non-profit organizations and/or local communities					
2.We share cross-functional processes with cross-sector partners such as non-profit organizations and/or local communities					
3.We engage in collaborative planning with cross-sector partners such as non-profit organizations and/or local communities					

4.We exchange cost information with non-profit organizations and/or local communities					

10) Importance of environmental management capabilities

Environmental management capabilities	1	2	3	4	5
1.We concern environmental impacts					
2.We promote procurement of eco-friendly goods and services					
3.We enable ecolabelling (e.g., ISO14020 series)					
4.We manage environmental-related compliance (e.g., environmental disasters)					

11) Importance of social entrepreneurships

Social entrepreneurships	1	2	3	4	5
[Social innovativeness]					
1.Social innovation is important for our company					
2.We invest heavily in developing new ways to increase our social impact or to serve our beneficiaries					
3.We come up with new ideas to solve social problems very frequently.					
[Risk taking management]					
1.We always engage in managing risks associated with our projects.					
2.We will not undertake a project without considering associated costs and benefits.					
3.We have a cautious approach to making resource commitments.					
[Proactiveness]					
1.We engage in forecasting to avoid surprises					
2.We engage in financial modeling to prepare for the future					
3.We actively monitor external forces affecting us.					

Part 3: Shared value

Direction: Please provide information relating to social, environmental, and economic value creation based on your business marking ✓on the appropriate choices (5 = Totally agree to 1= Not agree at all).

12) Social value creation

Social value creation	1	2	3	4	5
1.We have made significant progress in alleviating the problem					
2.We improve in overall stakeholder welfare or betterment					
3.We improve in community health and safety					
4.We improve awareness and protection of the claims and rights of people in community served					

13) Environmental value creation

Environmental value creation	1	2	3	4	5
1.We consume resources effectively and efficiency					
2.We minimize the resource consumption					
3.We minimize waste (water and/or solid)					
4.We improve environmental conditions in communities					

14) Economic value creation

Economic value creation	1	2	3	4	5
1.We have high profit growth rate					
2.We have high in return on investment					
3.We have high sales growth					
4.We have good reputation					

Appendix B

Explanation why fsQCA is chosen and its notations

Fuzzy-set qualitative comparative analysis (FsQCA) can overcome the limitation of regression-based analysis that assumes the symmetric relationships between variables. In this dissertation, the examination of an asymmetric relationship of the data was conducted, following the studies of Pappas and Papatheodorou (2017)[1] by conducting a correlation test. Their studies suggested that data with coefficient values of all correlations less than 0.70 can be regarded as having a general asymmetry. The correlation matrix showed consistent results, as listed in Table below, indicating that the same outcome can result from different combinations of conditions due to the asymmetric nature of the data.

As a result, the use of fsQCA is suitable for the nature of this data set and its findings also reveal different pathway (i.e., different combinations of capabilities), which help to accomplish the objectives of this study.

Table: Results of correlation test showing an asymmetric relationship of the data

Condition	m	s	c	e	se	sv	env	ecv
mission driven capabilities (m)	1							
stakeholder management capabilities (s)	.483*	1						
cross-sector collaboration capabilities (c)	.138	.131	1					
environmental management capabilities (e)	.236	.003	.084	1				
social entrepreneurships (se)	.421	.215	.477*	.270	1			
social value (sv)	.260	-.029	.603**	.396	.553**	1		
environmental value (env)	.624**	.607**	.248	.383	.498*	.305	1	
economic value (ecv)	.199	.095	.125	.136	.468*	.081	.372	1

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

[1] Pappas, I. O., Kourouthanassis, P. E., Giannakos, M. N., & Lekakos, G. (2017). The interplay of online shopping motivations and experiential factors on personalized e-commerce: a complexity theory approach. Telematics and Informatics, 34, 730–742.

The following table shows the explanation of the notations used in the fsQCA findings, which was adapted from (Tomasino, 2015)[2]. The high level of a condition is indicated by a fuzzy membership score of that condition, which is greater than or equal to 0.50, and the low level of a condition is indicated by a fuzzy membership score that is less than 0.50 (Kent, 2008)[3].

In fuzzy sets, the logical NOT (~) is the membership in the sets subtracts from 1.0. The logical AND (*) refers to when two or more sets are intersected or combined, by taking the minimum membership score of each case in the set. The logical OR (+) refers to the joint of two or more sets, representing by the maximum of the sets[4].

Table: An explanation of the notations

Notation	Logical Operator	Description	Equation
~	NOT	Negation of the original value	~X = 1-X
*	AND	Set intersection – calculated as the minimum value of two (or more) sets	X * Y = min(X,Y)
+	OR	Set union – calculated as the maximum of two (or more) sets	X + Y = max(X,Y)

[2] Tomasino, Arthur P., (2015) Fuzzy-set Qualitative Comparative Analysis Summary. Working paper. Bentley University

[3] Kent, R. (2008). Using fsQCA: A brief guide and workshop for fuzzy-set qualitative comparative analysis. Scotland: Department of Marketing, University of Stirling.

[4] Ragin, C. C. (2008). Redesigning Social Inquiry: Fuzzy Sets and Beyond. Chicago: University of Chicago Press.

Appendix C
Results from fsQCA 2.5

For high social entrepreneurship

```
**********
*TRUTH TABLE ANALYSIS*
**********
Model: se = f(m, s, c, e)
Algorithm: Quine-McCluskey
     True: 1
  --- COMPLEX SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.803757
                raw       unique
            coverage    coverage   consistency
           ----------  ----------  ----------
m*s*c        0.538961    0.395439    0.862235
~m*~s*c*e    0.274237    0.130715    0.803757
solution coverage: 0.669676
solution consistency: 0.836348

 **********
*TRUTH TABLE ANALYSIS*
**********
Model: se = f(m, s, c, e)
    Algorithm: Quine-McCluskey
     True: 1-L
  --- PARSIMONIOUS SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.803757
            raw       unique
        coverage    coverage   consistency
```

```
          ----------  ----------  ----------
m*c       0.634096    0.091882    0.867666
~s*c      0.423471    0.007824    0.775467
c*e       0.631589    0.034728    0.842180
solution coverage: 0.775094
solution consistency: 0.820774

**********************
*TRUTH TABLE ANALYSIS*
**********************
Model: se = f(e, c, s, m)
Algorithm: Quine-McCluskey
     True: 1
  0 Matrix: 0L
Don't Care: -
  --- INTERMEDIATE SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.803757
Assumptions:
                raw       unique
             coverage    coverage   consistency
            ----------  ----------  ----------
c*s*m         0.538961    0.395439    0.862235
e*c*~s*~m     0.274237    0.130715    0.803757
solution coverage: 0.669676
solution consistency: 0.836348
```

For low social entrepreneurship

```
**********
*TRUTH TABLE ANALYSIS*
**********
Model: ~se = f(m, s, c, e)
Algorithm: Quine-McCluskey
    True: 1
 --- COMPLEX SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.995682
               raw       unique
          coverage    coverage   consistency
          ----------  ----------  ----------
~m*~s*~c     0.512774    0.512774    0.982852
solution coverage: 0.512774
solution consistency: 0.982852

**********
*TRUTH TABLE ANALYSIS*
**********
Model: ~se = f(m, s, c, e)
Algorithm: Quine-McCluskey
    True: 1-L
 --- PARSIMONIOUS SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.995682
             raw       unique
         coverage    coverage   consistency
         ----------  ----------  ----------
```

~s*~c 0.602881 0.090107 0.907213

~m*~c 0.537834 0.025059 0.983638

solution coverage: 0.627940

solution consistency: 0.910584

****

TRUTH TABLE ANALYSIS

****

Model: ~se = f(e, c, s, m)

Algorithm: Quine-McCluskey

True: 1

0 Matrix: 0L

Don't Care: -

--- INTERMEDIATE SOLUTION ---

frequency cutoff: 1.000000

consistency cutoff: 0.995682

Assumptions:

	raw coverage	unique coverage	consistency
~c*~s*~m	0.512774	0.512774	0.982852

solution coverage: 0.512774

solution consistency: 0.982852

For high social value

****

TRUTH TABLE ANALYSIS

****

Model: sv = f(m, s, c, e, se)

Algorithm: Quine-McCluskey

True: 1

--- COMPLEX SOLUTION ---

frequency cutoff: 1.000000

consistency cutoff: 0.851048

	raw coverage	unique coverage	consistency
s*c*~e*se	0.286174	0.105410	0.829619
m*s*e*se	0.393841	0.207135	0.931721
~m*~s*c*e*se	0.238857	0.106596	0.985777

solution coverage: 0.612995

solution consistency: 0.897134

****

TRUTH TABLE ANALYSIS

****

Model: sv = f(m, s, c, e, se)

Algorithm: Quine-McCluskey

True: 1-L

--- PARSIMONIOUS SOLUTION ---

frequency cutoff: 1.000000

consistency cutoff: 0.851048

	raw coverage	unique coverage	consistency

---------- ---------- ----------

se 0.739611 0.739611 0.837087

solution coverage: 0.739611

solution consistency: 0.837087

****

TRUTH TABLE ANALYSIS

****

Model: sv = f(se, e, c, s, m)

Algorithm: Quine-McCluskey

True: 1

0 Matrix: 0L

Don't Care: -

--- INTERMEDIATE SOLUTION ---

frequency cutoff: 1.000000

consistency cutoff: 0.851048

Assumptions:

	raw coverage	unique coverage	consistency
se*~e*c*s	0.286174	0.105410	0.829619
se*e*s*m	0.393841	0.207135	0.931721
se*e*c*~s*~m	0.238857	0.106596	0.985777

solution coverage: 0.612995

solution consistency: 0.897134

For low social value

****

TRUTH TABLE ANALYSIS

****

Model: ~sv = f(m, s, c, e, se)

Algorithm: Quine-McCluskey

True: 1

--- COMPLEX SOLUTION ---

frequency cutoff: 1.000000

consistency cutoff: 0.901375

	raw coverage	unique coverage	consistency
~m*~s*~c*~se	0.534903	0.351307	0.918992
m*s*~c*~e*~se	0.299910	0.116314	0.929432

solution coverage: 0.651217

solution consistency: 0.920830

****

TRUTH TABLE ANALYSIS

****

Model: ~sv = f(m, s, c, e, se)

Rows: 9

Algorithm: Quine-McCluskey

True: 1-L

--- PARSIMONIOUS SOLUTION ---

frequency cutoff: 1.000000

consistency cutoff: 0.901375

```
              raw       unique
           coverage    coverage   consistency
          ----------  ----------  ----------
~e*~se     0.592860    0.029513    0.826719
~c*~e      0.641757    0.085458    0.894897
~s*~se     0.604178    0.151642    0.801405
solution coverage: 0.829960
solution consistency: 0.773765

**********************
*TRUTH TABLE ANALYSIS*
**********************
Model: ~sv = f(se, e, c, s, m)
   Algorithm: Quine-McCluskey
      True: 1
  0 Matrix: 0L
Don't Care: -
  --- INTERMEDIATE SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.901375
Assumptions:
                  raw       unique
               coverage    coverage   consistency
              ----------  ----------  ----------
~se*~c*~s*~m      0.534903    0.351307    0.918992
~se*~e*~c*s*m     0.299910    0.116314    0.929432
solution coverage: 0.651217
solution consistency: 0.920830
```

For high environmental value

```
**********
*TRUTH TABLE ANALYSIS*
**********
  Model: env = f(m, s, c, e, se)

  Algorithm: Quine-McCluskey
     True: 1
  --- COMPLEX SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.882932
                raw       unique
            coverage    coverage   consistency
           ----------  ----------  ----------
m*s*~c*e     0.366426    0.177045    0.954440
m*s*c*se     0.436557    0.247177    0.898128
solution coverage: 0.613603
solution consistency: 0.906441

**********
*TRUTH TABLE ANALYSIS*
**********
Model: env = f(m, s, c, e, se)
Algorithm: Quine-McCluskey
     True: 1-L
  --- PARSIMONIOUS SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.882932
            raw       unique
```

```
         coverage    coverage   consistency
        ----------  ----------  ----------
m*c      0.565032    0.029372    0.857285
m*e      0.590606    -0.000000   0.833116
s*e      0.583467    0.049163    0.935743
m*se     0.609922    0.073813    0.831858
solution coverage: 0.826288
solution consistency: 0.811700

 **********
*TRUTH TABLE ANALYSIS*
**********
  Model: env = f(se, e, c, s, m)
   Algorithm: Quine-McCluskey
     True: 1
  0 Matrix: 0L
Don't Care: -
  --- INTERMEDIATE SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.882932
Assumptions:
                raw       unique
            coverage    coverage   consistency
           ----------  ----------  ----------
e*~c*s*m     0.366426    0.177045    0.954440
se*c*s*m     0.436557    0.247177    0.898128
solution coverage: 0.613603
solution consistency: 0.906441
```

For low environmental value

```
**********
*TRUTH TABLE ANALYSIS*
**********
  Model: ~env = f(m, s, c, e, se)
   Algorithm: Quine-McCluskey
     True: 1
  --- COMPLEX SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.875409
                    raw       unique
                coverage    coverage   consistency
               ----------  ----------  ----------
~m*~s*~c*~se     0.555828    0.387936    0.977449
~m*s*c*~e*se     0.223090    0.055198    0.875409
solution coverage: 0.611026
solution consistency: 0.932010

**********
*TRUTH TABLE ANALYSIS*
**********
  Model: ~env = f(m, s, c, e, se)
   Algorithm: Quine-McCluskey
     True: 1-L
  --- PARSIMONIOUS SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.875409
                raw       unique
            coverage    coverage   consistency
```

```
          ----------  ----------  ----------
~s*~se     0.700240    0.010614    0.950716
~s*~c      0.672317    0.026994    0.912288
~m*~se     0.678186    0.005115    0.933903
~m*~e      0.539231    0.007836    0.931608
~m*~c      0.585138    -0.000000   0.964999
~m*s       0.334514    -0.000000   0.818119
solution coverage: 0.822424
solution consistency: 0.835888

 **********************
*TRUTH TABLE ANALYSIS*
**********************
  Model: ~env = f(se, e, c, s, m)
   Algorithm: Quine-McCluskey
     True: 1
  0 Matrix: 0L
Don't Care: -
  --- INTERMEDIATE SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.875409
Assumptions:
                    raw       unique
               coverage    coverage   consistency
              ----------  ----------  ----------
~se*~c*~s*~m     0.555828    0.387936    0.977449
se*~e*c*s*~m     0.223090    0.055198    0.875409
solution coverage: 0.611026
solution consistency: 0.932010
```

For high economic value

```
**********
*TRUTH TABLE ANALYSIS*
**********
  Model: ecv = f(m, s, c, e, se, sv, env)
    Algorithm: Quine-McCluskey
      True: 1
  --- COMPLEX SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.833530
                          raw       unique
                     coverage    coverage   consistency
                    ----------  ----------  ----------
~m*~s*c*e*se*sv*~env     0.206877    0.076110    0.833530
m*s*~c*e*~se*~sv*env     0.254310    0.157908    0.881747
~m*s*c*~e*se*~sv*env     0.157856    0.022971    0.942377
m*s*c*~e*se*sv*env       0.253637    0.103017    0.857091
solution coverage: 0.524210
solution consistency: 0.840690
 **********
*TRUTH TABLE ANALYSIS*
**********
  Model: ecv = f(m, s, c, e, se, sv, env)
    Algorithm: Quine-McCluskey
      True: 1-L
  --- PARSIMONIOUS SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.833530
                raw       unique
```

```
          coverage    coverage   consistency
         ----------  ----------  ----------
c*~e       0.480699    0.048241    0.725780
~m*c       0.422592    0.000000    0.735240
~m*se      0.379085    0.008901    0.824192
m*e*~se    0.367557    0.004748    0.756032
m*~c*e     0.427717    0.011240    0.772631
solution coverage: 0.757594
solution consistency: 0.688505
 **********
*TRUTH TABLE ANALYSIS*
**********
  Model: ecv = f(env, sv, se, e, c, s, m)
   Algorithm: Quine-McCluskey
     True: 1
  0 Matrix: 0L
Don't Care: -
  --- INTERMEDIATE SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.833530
Assumptions:
                       raw       unique
                    coverage    coverage   consistency
                   ----------  ----------  ----------
~env*sv*se*e*c*~s*~m    0.206877    0.076110    0.833530
env*~sv*se*~e*c*s*~m    0.157856    0.022971    0.942377
env*~sv*~se*e*~c*s*m    0.254310    0.157908    0.881747
env*sv*se*~e*c*s*m      0.253637    0.103017    0.857091
solution coverage: 0.524210
solution consistency: 0.840690
```

For low economic value

```
 **********
*TRUTH TABLE ANALYSIS*
Model: ~ecv = f(m, s, c, e, se, sv, env)
  Algorithm: Quine-McCluskey
    True: 1
 --- COMPLEX SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.905363
                          raw       unique
                     coverage    coverage   consistency
                    ----------  ----------  ----------
~m*~s*~c*~se*~sv*~env     0.389939    0.245154    0.874750
m*s*~c*~se*~sv*env        0.262897    0.146806    0.932609
~m*~s*c*e*se*sv*~env      0.181740    0.069343    0.905363
solution coverage: 0.606087
solution consistency: 0.890104

**********
*TRUTH TABLE ANALYSIS*
**********
Model: ~ecv = f(m, s, c, e, se, sv, env)
  Algorithm: Quine-McCluskey
    True: 1-L
 --- PARSIMONIOUS SOLUTION ---
frequency cutoff: 1.000000
consistency cutoff: 0.905363
           raw       unique
        coverage    coverage   consistency
```

~env	0.713211	0.030301	0.832175
~se	0.758608	0.045349	0.798168
~c	0.698057	0.013149	0.760182
~s	0.612804	0.016370	0.716425

solution coverage: 0.891587

solution consistency: 0.668181

****

TRUTH TABLE ANALYSIS

****

Model: ~ecv = f(env, sv, se, e, c, s, m)

Algorithm: Quine-McCluskey

True: 1

0 Matrix: 0L

Don't Care: -

--- INTERMEDIATE SOLUTION ---

frequency cutoff: 1.000000

consistency cutoff: 0.905363

Assumptions:

	raw coverage	unique coverage	consistency
~env*~sv*~se*~c*~s*~m	0.389939	0.245154	0.874750
env*~sv*~se*~c*s*m	0.262897	0.146806	0.932609
~env*sv*se*e*c*~s*~m	0.181740	0.069343	0.905363

solution coverage: 0.606087

solution consistency: 0.890104

Publications

Papers published in journals

[1] Janthorn Sinthupundaja, Youji Kohda, Effects of corporate social responsibility and creating shared value on sustainability, International Journal of Sustainable Entrepreneurship and Corporate Social Responsibility, Vol. 2, No. 1, pp. 27-38, 2017.

[2] Janthorn Sinthupundaja, Navee Chiadamrong, Youji Kohda, Internal capabilities, external cooperation and proactive CSR on financial performance, The Service Industries Journal, doi: 10.1080/02642069.2018.1508459.

Oral and poster presentations

[3] Janthorn Sinthupundaja, Youji Kohda, Examining capabilities of social entrepreneurship for shared value creation, R&D Management Conference 2018: R&Designing Innovation: transformational challenges for organizations and society, 30 June - 4 July 2018, Milan, Italy, 12 p. [Oral presentation]

[4] Janthorn Sinthupundaja, Youji Kohda, Effects of corporate social responsibility and shared value creation on economic, social, and environmental sustainability, IAFOR International Conference on Sustainability, Energy & the Environment conference, 4-6 January 2018, Hawaii, USA. [Poster presentation]

[5] Janthorn Sinthupundaja, Youji Kohda, Navee Chiadamrong, Innovating the sustainable business model: The case of Local Alike, R&D Management Conference 2017: Science, Markets & Society: Crossing boundaries and Creating Momentum, 1-5 July 2017, Leuven, Belgium, 8 p. [Oral presentation]

[6] Janthorn Sinthupundaja, Youji Kohda, Embedding transformative value in value propositions to sustain customer value, Frontiers in Service Conference, 22-25 June 2017, New York, USA. [Poster presentation]

[7] Janthorn Sinthupundaja, Youji Kohda, Navee Chiadamrong, Investigating antecedents of financial and social performance from service-dominant logic by qualitative comparative analysis, 7th IEEE International Conference on Software Engineering and Service Science (ICSESS 2016), 26-28 August 2016, Beijing, China, pp. 610-613. [Oral presentation]

[8] Janthorn Sinthupundaja, Youji Kohda, Navee Chiadamrong, Co-production of value propositions to enhance service satisfaction: Case study of Socialgiver.com, R&D Management Conference 2016: From Science to Society: Innovation and Value Creation, 3-6 July 2016, Cambridge, UK, 9p. [Oral presentation]

Papers under submission

[9] Janthorn Sinthupundaja, Youji Kohda, Navee Chiadamrong, Investigating business model innovation for sustainability: Cases from Thailand. International Journal of Innovation and Sustainable Development, Revision under review (Minor revision), submitted on 27 October 2017, 19 p.

[10] Janthorn Sinthupundaja, Navee Chiadamrong, Youji Kohda, Knowledge acquisition from intra- and inter-organizational relationships, CSR and financial performance, International Journal of Knowledge Management Studies, Under review, submitted on 18 March 2018, 31 p.