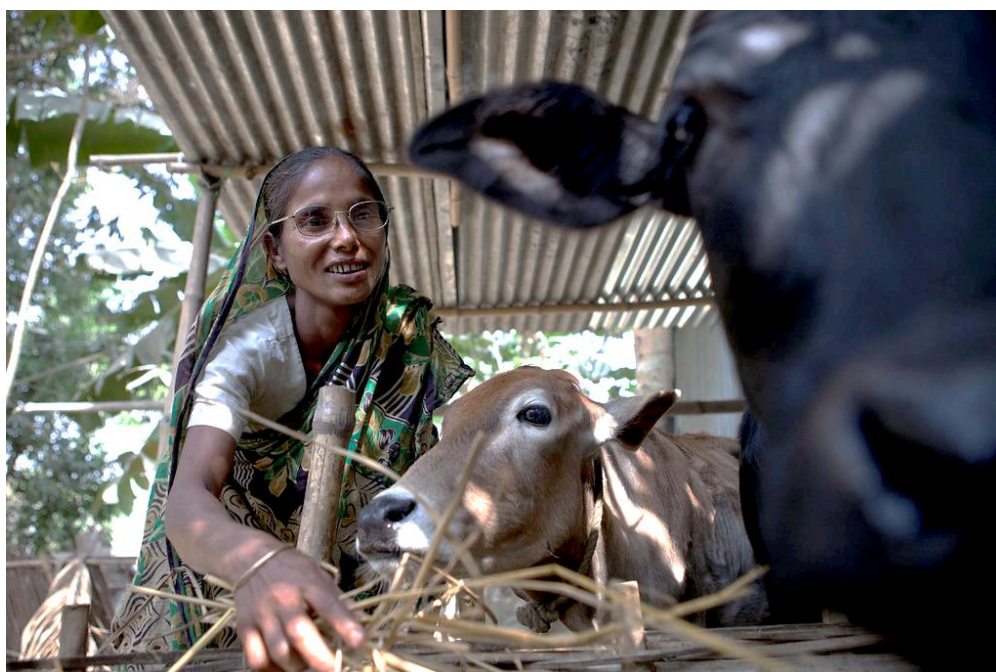


Multi-Stakeholder Partnership in Smallholding Dairy Farming - a Case Study from Bangladesh

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Multi-Stakeholder Partnership in Smallholding Dairy Farming - a Case Study from Bangladesh

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Abstract

In the era of Sustainable Development Goal 2030 agenda, development of agribusiness and poverty eradication is quite significant challenges, particularly in developing countries like Bangladesh. Smallholding dairy farming is a crucial part of agribusiness and poverty reduction in Bangladesh, though there are many economic and social challenges for smallholding farmers. Therefore, the smallholding dairy farming industry needs combined, coordinated, and comprehensive support from the government, private sector, and civil society in Bangladesh to form a formal market which may eradicate the social and economic challenges of smallholding farmers. This study reveals how the multi-stakeholder partnership (MSP) approach creates value for smallholding dairy farming business in Bangladesh and what are the consequences of adopting creating shared value (CSV) approach on smallholding dairy farmers. This study also reveals why MSP and CSV approach can be considered as essential business strategy tools to form a structured market for the economic and social development of the smallholding farmers. In this qualitative in-depth case study of smallholding dairy farming in Bangladesh, the researcher identified the economic and social problems of the small-scale dairy business and followed previous literature to find out the experts' evidence-based opinion as empirical research background. Afterward, the researcher investigated the case from Bangladesh, which adopted the MSP and CSV approach to finding out the features, importance, and evaluation of MSP and CSV. From the literature review, conceptual framework and empirical data from semi-structured interviews of multiple stakeholders, the researcher have found that MSP and CSV execute crucial roles in addressing social and economic challenges of smallholding dairy business. These approaches enable the stakeholders of smallholding dairy business to work together for mutual benefits, to form a formal value chain and to increase profit for all stakeholders. The findings contribute to the literature of business strategy and agribusiness marketing in a developing country. The study is concluded by outlining these findings and suggesting potential avenues for further research.

Abbreviations

SLU: The Swedish University of Agricultural Sciences

FAO: Food and Agriculture Organization

DLS: Dairy and Live Stock

SDG: Sustainable Development Goal

MSP: Multi-stakeholder Partnership

CSV: Creating Shared Value

PDH: PRAN Dairy Hub

DH: Dairy Hub

SIDA: Swedish International Development Cooperation Agency

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List of Definitions

Smallholding Farmers: Smallholder farmer refers to their limited resource endowment relative to other farmers in the sector.

Dairy Hub: Local milk collecting, processing, and chilling facilities for smallholding farmers, which also provides other farming facilities, e.g., veterinary services, training, and so forth. (HYSTRA, 2015)

Dairy Value Chain: Dairy value chains represent a business model in which manufacturers and purchasers of agricultural products form strategic coalitions with other supply chain actors, such as aggregators, processors, suppliers, retailers, and consumers, to enhance economic returns through product diversity that advances social or environmental values (Diamond et al., 2014).

Multi-stakeholder Partnership: Multi-stakeholder Partnerships are cross-sector sustainable development partnerships, seen as a method to scale up innovation, capacity, and resources to deliver on the sustainable development goals (Nel, 2017)

Creating Shared Value: Creating Shared Value is outlined as policies and practices that enable businesses to upsurge competitiveness while simultaneously addressing social problems (Porter and Kramer, 2011).

Gowala/Ghosh: Local Market Intermediaries in Bangladesh (Hystra, 2015)

1. Introduction

This chapter presents the background of the study and the problem defined. Further, the aim, the research questions, and delimitations of the study, and last, the outline of this thesis is presented and illustrated.

1.1. Problem Background:

To ensure food for everyone, both for the present generation and generations to come is one of the most significant challenges facing the world community (FAO, GDP, and IFCN, 2018). Cheng and Zepada (2001) have mentioned in a report of Food and Agricultural Organization that food security is defined as the capability of people to meet their essential level of food consumption; it is measured by many to be a fundamental human right. However, around 1.1 million people in low-income, food-deficit developing countries cannot meet such basic needs (ibid). Among them, around 800 million live in rural areas, depending directly on agriculture for their food supply, employment, and income. Therefore, boosting the rural economy, mainly through increased agricultural production, is one of the chief means of alleviating poverty and improving food security (Pinstup-Andersen and Pandya-Lorch, 1998).

Agriculture is an essential tool for addressing poverty eradication (Townsend, 2015). It is the mainstay of the developing economies, underpinning their food security, export earnings, and rural development (FAO, 2002). Their agrarian production for the domestic and export markets has lagged in developing countries, with growth in per capita output declining in the 1990s (ibid). Agriculture is the procedure of producing food, feed, fiber, and many other anticipated products by the farming of individual plants and the raising of domesticated animals (livestock) for food and other resources. Dairy farming is a vital category of agriculture and a way for farmers to upsurge their earnings and access to additional nutritious food for their families. It also provides not only fresh milk and a source of primary income but also other value-added products, such as yogurt and cheese, provides a higher source of revenue for the smallholding farmers (Ward, 2017). Smallholders produce around 80 percent of milk in Asia, and there are also tens of millions of small and large traders and dairy entrepreneurs (ibid). In recent research of the World Bank, Gautam et al. (2016) have argued that agriculture played a vital role in poverty reduction in Bangladesh. The average poverty rate has been declined from 49% in 2000 to around 32% by 2010, with more than 87% of rural people part of their some income from agricultural activities. The report also suggested that Bangladesh should shift toward high-valued agriculture, including horticulture, livestock, poultry, and fisheries to adopt future growth and further reduce poverty.

The agricultural economy of Bangladesh largely depends on livestock. Livestock contributes about 1.66 percent to national GDP (Gross Domestic Product) and shares 14.21 percent of agricultural GDP in 2016 (DLS, 2016). Dairying is a decent source of income to small and marginal farmers. Approximately more than 60% of the families involved in dairying consist of small and marginal farmers and even agricultural laborers (Shamsuddoha et al., 2000). The smallholder dairy shares a large portion of the animal farming GDP. However, the overall dairy value chain including production, processing, marketing and preservation activities are influenced by the poor operating of the input sector with added risks such as adulteration, absence of technical know-how, and mismanagement of staff (Shamsuddoha and Edwards, 2000; Bari, 2008). This kind of mismanagement in the dairy industry requires in-depth research

to identify the problems, to analyze them, and to find out the proper solution for the development of effective mitigation strategies for dairy in Bangladesh.

1.2. Problem:

According to Sustainable Development Goal (SDG) 2030, zero hunger and no poverty are two top prioritized agenda, and smallholding dairy farmers are directly related to these agendas (Colglazier, 2015). In Bangladesh, around two-thirds of the labor force depends on agriculture (Tengnäs & Roy, 2018). Agricultural production is mostly carried out by small-scale farmers. Even in the dairy sector, more than 70 percent of farmers are smallholders, producing 70 to 80 percent of the milk generated in the country (ibid). However, dairy production in Bangladesh stays far below its potential. These smallholder dairy farmers have still lagged these development agendas. Poverty reduction and hunger alleviation are not possible without the sustainable development of smallholding dairy business.

The problems of smallholding dairy farming have been presented in many previous studies. The dairy market and processing systems in Bangladesh are not yet developed (Ghosh and Maharjan, 2001). A report 'The Private Sector as a partner for sustainable development,' from Swedish FAO Committee (2018) also claims that in many developing countries, smallholder farmers do not have a reliable market for their milk and other products. The smallholder dairy farmers are still suffering some constraints like less access to a regular market of dairy, less profit from milk, less yielding of milk from cows, costly investment of farming, less financial access of farmers, and so forth (Ghosh and Maharjan, 2001). This informal or traditional dairy market system leads to food losses and a reluctance from farmers to invest in their production.

Ghosh and Maharjan (2001) also argued that since milk is a perishable item which needs appropriate and special attention to the market, so it is challenging of milk marketing (FAO, 1990). Maximum smallholder milk producers sell milk directly to consumers or milk supplier/intermediaries at local markets (Haque, 2009). Generally, rural milk producers sell their excess milk to several marketing intermediaries existing locally who sell the milk to the individual consumers, restaurants & local traders in the urban area. In this procedure, market intermediaries buy the milk from the farmers at a low price and are said to appropriate significant profit. Lack of active marketing organization in the grass-root level is a drawback for the farmers' position in selling milk (ibid). Smallholder farmers are often at the pity of these mediators or intermediaries, known by predatory terms in many cultures around the world, such as 'Ghosh' or 'Gowala' in Bangladesh. The liquid milk trader, mainly traditional 'gowalas' and companies, take advantage of this uncertainty and unstructured, informal dairy value chain. So, the farmers are losing money and profit.

Beside the market accessibility problem, smallholder farmers have other economic challenges as well. Usually, the rural families mainly live by selling cash crops have very little substantial savings, and the little they have can be streaked out in a single bad harvest. The generation sold practices, inputs, and equipment employed by smallholder farmers are relatively inefficient, and often produce low yields. Alam (1995) reported that the production cost of milk (per liter) from local cows was much higher than the selling price. One of the essential reasons for the loss incurred by farmers in dairy farming was the low price of milk. Availability of large quantities of low pay, imported powder milk in the local market has contributed significantly to the low cost of milk. The vast majority have no names to the land on which they work, necessary market information, or any form of training (Hystra, 2015). Compositing these difficulties, as weather patterns become more impulsive and worldwide food prices more

unpredictable, smallholder farmers are gradually vulnerable. As a result, the smallholder farmers cannot live up to their living standard. They are suffering from poverty, inequality, and malnutrition. Under these circumstances, the farmers are incapable of progressing their socio-economic conditions as well. Earning money and improving productivity will be vulnerable if they are unorganized. So, the evidence shows, in many ways, these problems are caused (not in a linear fashion) by an informal market structure, which is considered as an empirical problem for this study.

To address these difficulties, holistic resolutions are required (Hystra, 2015). The dairy industry of Bangladesh grasps the excellent potential for sustainable food security and development of the country, and the government alone cannot ensure the growth of this industry. Therefore, this industry needs care from all the operators (farmers, investors, milk traders, dairy processors) and supporters (livestock health staffs, input suppliers, and government and non-government institutions) of the dairy value chain. According to Ghosh and Maharanjan (2001), collaborative marketing structure can play a vital role in providing a channel that can linkage the farmers to the urban markets/consumers smoothly and ensures higher price for their products. The perception of dairy progress through smooth marketing arrangement under a cooperative umbrella is well established in India and elsewhere as well. This is also established for Bangladesh by studies made earlier (ibid). Particularly products and services need to come with financial solutions and adequate training to ensure optimum use; growing productivity needs to come with access to markets, and rising incomes need to come with prospects to grow larger farms and operations (Hystra, 2015).

More specifically, moving from a somewhat informal dairy market to a more formal dairy market is considered to be a more sustainable pathway in Bangladesh. It may contribute to these positive effects, such as poverty, malnutrition, and equality. However, we know very slight about how such processes develop and proceed in the context of their developments. Thus, the theoretical gap in knowledge is how to frame and make sense of process through which more sustainable markets develop. Therefore, this study focuses on an initiative in Bangladesh that aims to create a more formal dairy market. Drawing on business study perspective and marketing, this study applies the multi-stakeholder partnership (MSP) concept and Creating shared value (CSV) framework to address this theoretical gap in knowledge. In this paper, the term ‘multi-stakeholder partnerships’ has been defined as formalized arrangements in which organizations from diverse sectors (private, public, and not-for-profit) obligate to work together in mutually beneficial ways to achieve goals that they could otherwise not achieve alone (Solan and Oliver, 2013). On the other hand, creating shared value is about creating new policies and operating procedures that allow a company to maximize its revenues, while also offering benefits that add to the local community (Gatley, 2016). This analytical approach will contribute to a better understanding of how the more sustainable dairy value chain is developing in its context.

The primary rationale of this study is to find out the probable strategies to solve the existing challenges faced by farmers of small-scale dairy farming business in Bangladesh. There are many kinds of literature regarding scientific dairy production, milk management, increasing profit, social and economic analysis, dairy farmer cooperatives, and so forth on Bangladesh context. However, few studies were conducted to investigate multiple stakeholder’s contributions to addressing the challenges by forming a formal dairy value chain in the dairy industry in Bangladesh. Very few literature focused on in-depth analysis of multi-stakeholder partnership and value creation approach by multiple stakeholders, particularly by the private

dairy enterprises in Bangladesh. So, this research can be a contribution to the literature for future research in the dairy value chain in Bangladesh perspective.

1.3. Aim and Research Question:

This thesis aims to investigate how a multi-stakeholder partnership (MSP) approach can create values to form a formal value chain to meet the challenges of a smallholding dairy business in Bangladesh. This study also aims to find the impacts of MSP and creating shared value (CSV) approach on farmers' income in the dairy industry. MSP is a smart business strategy in which multiple stakeholders in business create values by sharing their knowledge and resources which motivated the researcher to observe deeply about the features and functions of MSP and CSV approach.

The analysis of these phenomena has been built based on a project, which is the investigated case study of this thesis. This study focuses on a multi-stakeholder partnership project led by a dairy enterprise that connects smallholding dairy farming in Bangladesh with the market. PRAN Dairy Food (PDF) is one of the leading dairy enterprises in Bangladesh which has been executing a project called 'Pran Dairy Hub' (PDH) along with a partnership with several value chain actors like UNIDO (NGO in Bangladesh), Tetra Laval AB (packaging supplier), the farmers, and Ministry of Fisheries and Livestock's Department of Livestock Services (DLS). This project has been started in 2011, which adopted different business and marketing strategy like MSP and CSV to improve the income of farmers and to develop a more sustainable dairy value chain in Bangladesh. The detailed description has been presented in the literature and empirical data chapter of this study. In-depth research on this project will be helpful to provide evidence on the market linkage mechanism and evaluation of its impacts for establishing more sustainable dairy value chain in Bangladesh. Based on this aim, the research questions are the following:

- a) How does a multi-stakeholder partnership approach play a decisive role in forming a formal dairy value chain in Bangladesh?
- b) Why are a multi-stakeholder partnership and creating shared value approaches important for smallholding farmers in Bangladesh?

1.4. Limitation of the study:

This study has been delimited geographically, demographically, theoretically, sectoral, and also interims of time and number of case studies used. Geographically, the research focuses on dairy farming development in some villages of Bangladesh, where the project has run. Demographically, the research shall focus only on smallholder dairy farmers, even though agrarian development usually involves both large scale farming parastatals and smallholder farmers. Further delimitation has also been done, concerning the number of case studies chosen for this study. One out of the numerous NGOs and Private companies involved in smallholder dairy farmer's development in Bangladesh has been selected for this study. Moreover, only one project has been chosen for empirical study among several potential cooperatives and collaborative business projects which are currently running beside the selected one. Reasons to motivate both the choice of the case has been presented in Chapter 2 of this paper.

Theoretically, the concept and theories of multi-stakeholder partnership theory and creating shared value are chosen for the analysis of the empirical data for this study. There are numerous theories, strategies, and business model approaches for sustainable business development, co-operatives and value chain management, which could have significant implications on the

outcome of the analysis of the empirical data in this study. Arguments to motivate the choice of these theories and concepts have been presented in chapter 2 (Method), of this report.

1.5. The Outline of The Study

The structure of this paper is presented diagrammatically in Figure below.

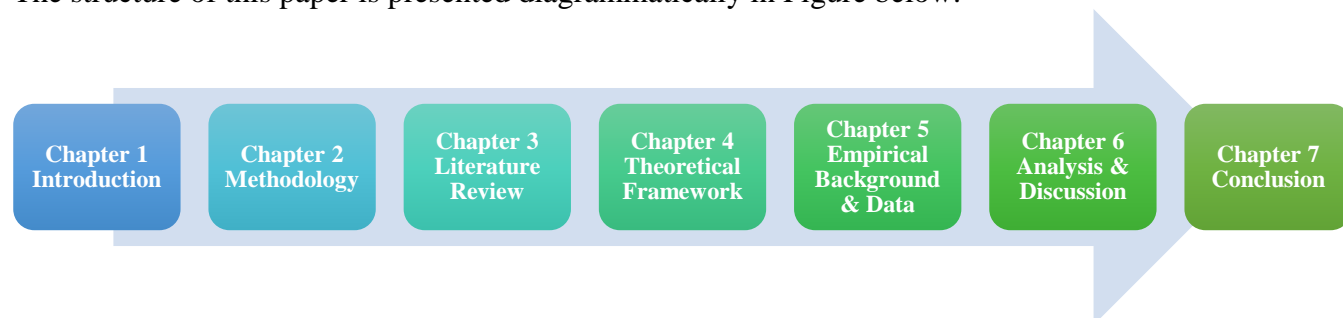


Figure 1 The Outline of the Thesis

The paper begins in Chapter 1, with an introduction, consisting of a brief presentation of the problem background, the aims of the study, applicable delimitations, and definition of keywords and terms. Chapter 2 presents the methodology. In this chapter, data collection techniques, analytical approach, choices of case studies and theories, are presented. Chapter 3 is an extensive literature review of critical concepts and previous work in the substitute field of research. In Chapter 4, there is the appearance of the theoretical framework used in the analysis of the empirical material collected. Chapter 5 consist explicitly of empirical data, both primary and secondary, of the various case studies chosen for the study. Chapter 6 shows an analysis of the empirical data collected by making use of the chosen theories and concepts. This chapter also discusses the analytical outcomes with findings and opinions of other researchers who have conducted previous research in related area(s). The final chapter is Chapter 7, with concluding statements, and recommendations for further research in this area.

2. Methodology

This chapter aims to explain the research methods used in answering our research question and describe how the data was collected and analyzed. Our research utilizes a qualitative approach using one case study from the Bangladesh dairy industry supported by primary and secondary data collection. Our study is focused on understanding the entrepreneurship in smallholding dairy business and the impact of business model innovation on the value chain of dairy farming. This chapter gives a detailed explanation of the research approach and design and the implications for validity and reliability.

2.1. Qualitative Research Design

This research aims to investigate and explain multi-stakeholder partnership and creating shared value approach based on experiences from the perspective of stakeholders related to smallholding dairy farming in Bangladesh, and emphasizes the importance of personal perspectives and interpretations of the stakeholders. Therefore, the subjective approach is a suitable fit for this research, because it is concerned with the study of experiences from the individual perspective, and highlights the importance of personal perspectives and interpretations (Siegesmund, 2008).

Research methodology starts with defining paradigm. Philosophy of science plays an essential role during paradigm selection. Alignments in the philosophy of science refer to world opinions and ways of thinking related to understanding the nature of knowledge and reality. These alignments form the basis of the methodological choices in the study (Shuttleworth & Martyn, 2009). The orientations in the philosophy of science form a background for research strategies, data collection, and data analysis. Lather (1986) explains that a research paradigm inherently reflects the researcher's beliefs about the world that s/he lives in and wants to live. It constitutes the general beliefs and principles that shape how a researcher sees the world, and how s/he interprets and acts within that world. According to Lincoln and Guba (1985), a paradigm comprises four elements, namely, epistemology, ontology, methodology, and axiology. It is crucial to have a strong understanding of these elements because they comprise the underlying assumptions, beliefs, norms, and values that each paradigm holds. Particularly epistemology and ontology are two essential elements of paradigm selection (Given, 2008).

Epistemology is used to describe how individuals come to know something; how people know the truth or reality based on knowledge (Bryman & Bell, 2013). Positivism and Interpretivism are two basic types of epistemology (ibid). Positivism regards knowledge as something definite and that individuals own subjective opinion on a matter is not of interest; in other words, a positivist researcher can be said to aim for objectivity. When the researcher has an interpretive perspective, he/she is more interested in finding every individual own subjective way of reasoning. This thesis aims to investigate and analyze every participating stakeholder's subjective perception of the impacts of MSP and CSV in smallholding dairy farming business in Bangladesh. The researcher has identified the underlying factors or themes for each stakeholder's reasoning. From these factors or themes, relevant conceptual theories will be analyzed. Therefore, this study can be positioned as the interpretive paradigm.

Ontology is related to a central question of whether social entities should be perceived as objective or subjective (Bryman & Bell, 2013). Accordingly, objectivism (positivism) and subjectivism (constructionism) can be specified as two essential aspects of ontology (ibid). Bryman & Bell (2013) defines Objectivism as “...an ontological position that declares that social phenomena and their meanings have a presence that is independent of social actors.” In

contrast, constructionism has been described as “*ontological position, which asserts that social actors are continually accomplishing social phenomena and their meanings.*” As the researcher has aimed a more in-depth analysis of the stakeholders’ own subjective opinions regarding what impacts MSP and CSV have had on their dairy farming value chain, she is placing herself in the constructionist paradigm. In short, this research has been conducted based on interpretive and constructionist paradigm with a subjective approach, which influenced the study in the selection of research strategies, data collection, and data analysis.

Since this research aims to investigate the phenomenon, impacts of MSP and CSV in the smallholding dairy farming business in Bangladesh, hence the researcher has chosen qualitative research design for this study. Qualitative Research refers to investigative research (Bryman & Bell, 2013). This method is frequently used for understanding views and observations. With investigation to look deeper into problems, the qualitative approach helps to discover new thoughts and personal views (ibid). Bryman & Bell (2013) also stated this approach uses several kinds of unstructured or semi-structured practices for data collection such as group discussions, individual interviews, diary and journal exercises, and contribution of others. It involves spotting gestures, postures, and body languages and studying them to identify problems and providing solutions to them (ibid). Since the purpose of this study is to explore how multi-stakeholder partnership can address the economic and social challenges in the small scale dairy farming business in Bangladesh by creating shared value, so qualitative research approach fits for this study.

According to Eisenhardt et al. (2016), inductive research approach can be helpful when addressing social challenges. This study has identified the economic and social challenges in the dairy value chain in Bangladesh as problem background and poverty eradication as a holistic problem. Therefore, the researcher has found the inductive approach as the most relevant when exploring the influence of MSP and CSV in smallholding dairy farming in Bangladesh. Inductive approach, which is also known as inductive reasoning, starts with the observations and theories which are proposed to the end of the research process as a result of observations (Goddard & Melvill, 2004). Inductive research “*involves the search for an outline from observation and the progress of explanations – theories – for those patterns through a series of hypotheses*” (Bernard, 2011). The main argument for using an inductive approach because the researcher is permitted in terms of changing the direction for the study after the research process had commenced and no theories or hypotheses would apply in the studies at the beginning of the research. The concept MSP and CSV have not investigated from stakeholder’s perspective in the dairy industry of Bangladesh, especially from private sector perspective; so the inductive approach was found especially suitable to investigate these concepts deeply (Bryman, 2011; Robson, 2011). To have an inductive approach, when studying a case study and having a qualitative research design, is the most common approach to the relation between theory and research (Bryman & Bell, 2015). In this research, the author has analyzed the data to find out the answer to the research question by the conceptual framework. Following the qualitative research method with the inductive approach, the researcher has chosen empirical research strategy for data collection and analysis.

2.2. Case Study Approach

As outlined above, this study uses a qualitative approach through a case study from Bangladesh dairy industry. A case study is a category of research method that mostly looks in depth at one of the few events, organizations, or individuals (Easterby-Smith, Thorpe & Jackson, 2015).

Case studies can be useful in obtaining in-depth information, highlighting the uniqueness of each unit of analysis, and enabling comparisons (Bryman & Bell, 2015). Moreover, case studies are plentiful as the empirical descriptions are collected from a variety of data sources, including archival data, interviews, survey data, and observations (Eisenhardt & Graebner, 2007). On the other hand, in the management field, case studies as theory-building methods are not much advocated as they usually do not allow generalizations, lack the rigor of scientific designs and produce any data that can be interpreted in various ways (Easterby-Smith, Thorpe & Jackson, 2015).

Eisenhardt et al. (1989) suggested having a specified research question before starting case study research conduction. A prearranged research question can help to identify sampling and data collection since case studies usually involve many data. The researcher can also identify an already developed theory in an area as it serves as a useful tool when determining which approach and measurements are suitable when studying a research area. In this research, a literature review has been done, which gave the idea of the dairy value chain of Bangladesh and existing challenges over there. Along with this pre-conducted review as a foundation, the research question for this study has been determined, and its relevance verified.

Eisenhardt et al. (1989) also suggested that theoretical sampling can be useful while conducting sampling in a case. It helps to determine the sample based on the already existing theory in a particular field. When a researcher aims to fill theoretical gaps in a specific field further, this approach can be useful. During the data collection, Eisenhardt (1989) also recommend to nonstop data analysis during the whole data collection process in order to find new insights which might need further data collection. During the data collection process, questions can be changed or added/discarded for further development of theory. This permits the researcher to preserve adaptability to new topics which might arise during the data collection and which could enable better theory improvement.

2.2.1. Choice of Case

‘PRAN Dairy Hub (PDH) Project’ is the chosen case for this study, which is leading by multiple stakeholders of Bangladesh dairy industry for creating values for small-scale dairy farmers. This case study has been considered as an explanatory case study, and multi-stakeholder partnership concept has been chosen as the unit of analysis. Unit of analysis refers to the vital component of what is analyzed in a study (Bryman & Bell, 2015). According to Vogt (2005), the unit of analysis in social science study can be an individual or an organization; it can also be, groups, schools, and perceptions, for example. The unit of analysis should be chosen out from the conception of what the investigator would like to understand at the end of the study (Mirriam, 1994; Yin, 2009). This study has been investigated the mechanism of MSP concept and its impact on smallholding dairy farming business in Bangladesh. Therefore, the researcher has chosen the MSP concept as a unit of analysis.

2.3. Literature Review

The literature review helps the researcher understand existing literature and current research within the concepts and theories to create more extensive theoretical insights and perceptions of different perspective (Fetters et al., 2013). The literature review opens the prospect to find an area in theory that has not been discovered earlier or referred to as gap spotting (Alvesson & Sandberg, 2011). For this study, an extensive literature review has been conducted to figure the conceptual framework and provide different standpoints on the problem (Bryman & Bell,

2015). In turn, this directed the study into a more appropriate analysis of the collected data (Robson, 2011).

When conducting the literature review, there is often two different ways stated, systematic or narrative (Bryman & Bell, 2015). For this study, it was desirable to enrich the knowledge within the research field as the study developed, and therefore, a narrative review suited this study well. The narrative method of conducting the literature review is less strict in its form compared with the systematic literature review and allows the possibility to find new and more in-depth understandings of the subject (Yin, 2009). Google Scholar, Scopus, Web of science, and SLU Library database – Primo has been used to find literature. The keywords have been developed from the aim and research questions to find relevant literature (see table 1). Further keywords were found by using the reference lists in informative studies to find further literature of interest for the study. The before-mentioned process can be described as a snowball method (Bryman & Bell, 2015).

The result of the literature review formed the basis for the analytical labels used in the conceptual framework. To ensure the quality of the literature review and increase the study's trustworthiness, the literature was sorted after if it was peer-reviewed, its relevance, and if it was well-cited and discussed.

Search words		
Dairy Value Chain in Bangladesh+	Multi-stakeholder partnership+	Creating Shared Value-
Poverty-	Business Strategy-	Business strategy-
Live-Stock industry-	Sustainable development-	Global knowledge sharing-
Smallholding Dairy farmers-	Multiple stakeholders-	

Table 1 Keywords for literature review and conceptual framework

2.4. Sampling

Sampling can be described as a specific principle used to choose members of the population to be incorporated into the study (Dudovskiy, 2018). Proctor (2003) has argued that “*because many populations of interest are quite large to work with straight, techniques of statistical sampling have been formulated to obtain samples taken from larger populations.*” Sampling methods are generally divided into two categories: probability and non-probability. In non-probability sampling approach, sampling group members are selected in a non-random way; therefore, not every population member has a possibility to participate in the study. In this study, the population is quite significant, and all the samples of the population are not involved with MSP concept in the dairy industry of Bangladesh. Therefore, non-probability sampling may only target the samples related to MSP and CSV concepts.

Eisenhardt (1989) stated to avoid randomized sampling while conducting case studies. Instead, she recommended the researcher to choose the samples enthusiastically, which can be useful to draw inferences from the sample to the population. Because sometimes the values, beliefs, and attitudes that form the core of qualitative investigation are generally not distributed among the population and this may cause much time and resources to find the answer of the research question (Marshall, 1996). Therefore, a non-probability sample can be useful to provide purposive insight and understanding for the researcher. In this study, the researcher has chosen a purposive sampling strategy to select the most productive sample to answer the research

question. Since all the dairy collaboratives or projects or organizations in Bangladesh are not related to the multi-stakeholder partnership concept and this study is investigating the influence of MSP and CSV on smallholding dairy farming. Therefore the researcher has chosen the case related to the analytical concepts.

Moreover, the farmers and other stakeholder representatives are chosen who are related to this project and have a clear idea about this practice. However, Marshall (1996) warned that purposive sampling method might have a low level of reliability, high levels of biases, and inability to generalize research findings, still, due to the large size of the population and lack of time, the research has found this sampling method more suitable.

2.5. Data Collection

Data collection is a crucial part of both qualitative and quantitative research. Inaccurate data collection process may lead the study to invalid results (Hashemnezhad, 2015). In qualitative research, interviews are the most suitable way for primary data collection (Kvale & Brinkman, 2014). To choose a method for data collection, the type of interview technique is mostly resolved by the nature of the study. There are three common types of interview: unstructured, semi-structured, and structured (Nunan, 1992; Hancock 2002). This study has applied semi-structured interviews and secondary sources to provide a full picture of the case since Bryman & Bell (2013) suggested using several sources to gather data. The secondary sources have mainly been obtained through the published annual report, articles, project brochure, and websites to strengthen the portrait of the case, Pran Dairy Hub (PDH) Project.

Furthermore, Bryman & Bell (2013) suggested that the method of semi-structured interviews is more suitable for standard data collection, which enables the prospect of a deeper understanding of the interviewee's social reality. It can provide reliable, comparable qualitative data since they allow informants the freedom to express their views in their terms (Hashemnezhad, 2015). A more general interview guide categorizes semi-structured interviews with open-ended questions compared to what is naturally found in structured interviews (Bryman & Bell, 2013). There is a possibility that the interview guide can get open-ended, resulting in missing out essential data. Risk can be decreased by dividing the interview guide into specific themes (Bryman & Bell, 2013). The interview guide for this study tried to follow this advice and got constructed from two vital themes, identified from the literature reviews to address the function and impact of MSP and CSV strategy on smallholding dairy farmers' income as well as on forming formal dairy value chain. The questions in each theme were then structured in the same way, starting with general questions followed by more specific ones. The interview guide has been presented in the Appendix chapter and delivers a picture of how the interviews were conducted and how the questions are connected to each theme.

The semi-structured interview has been started designing by stakeholder identification. Stakeholder identification is an essential part of this study since it investigating the multi-stakeholder partnership concept and its impacts. The first phase of a stakeholder analysis is to categorize the key stakeholders — i.e., those who are affected by the result, negatively or positively, or those who can affect the outcomes of a proposed intervention (NETSSAF, 2008) — from the broad array of institutions and individuals that could possibly influence or be influenced by the proposed intervention (Rietbergen et al. 1998). According to NETSSAF (2008), stakeholders can be categorized into three basic types: Primary, secondary, and tertiary (Table 2).

Primary	Secondary	Tertiary
<ul style="list-style-type: none"> • Users / Beneficiaries (male, females, children, elderly, etc.) 	<ul style="list-style-type: none"> • Local authority • Direction of municipality technical services • Traditional authorities • NGO and development projects • Businesses and suppliers • Decentralised government services • Research institutions • School and university • Services providers 	<ul style="list-style-type: none"> • Financial institutions and donors • National authorities (at all levels) • Opinion leaders • Civil society • Foreign cooperation agencies • Media

Table 2 Example of one possibility of how to categorize stakeholders. Source: NETSSAF (2008)

Primary stakeholders are the direct beneficiaries and directly concerned person who is directly influenced by the project outcome (NETSSAF, 2008). Farmers are the primary stakeholders in this study since they are the primary focus of Pran dairy hub project. Secondary stakeholders are usually the intermediaries in the process of delivering aid to primary stakeholders (e.g., consultants, experts, governmental, NGO, and private sector organizations, etc.) (ibid). In this study, local private dairy enterprise ‘Pran Dairy Food,’ dairy packaging supplier ‘Tetra Pak AB’ and international donor NGO ‘SIDA’ has been considered as secondary stakeholders.

After identification of the stakeholders, the semi-structured interview questions have prepared. As mentioned earlier, the structure of open-ended questions divided into two central themes (MSP & CSV concepts) matched this study well since it allowed a comparatively open approach to extend the questions for further discussions in the areas the interviewees found important, which also increased the possibility of providing a full picture within the themes. Kvale & Brinkman (2014) and Bryman & Bell (2013) argues for the importance of an open tactic for further arguments and the importance of add follow-up questions to clarify the interviewee's answers to increase the possibility of lifting aspects that are not emphasized in the literature.

Based on stakeholder categorization, three different open-ended question set has been prepared. To response, the first research question, which is mostly related to the mechanism of MSP concept, PDH project coordinator, and a representative from Tetra Pak has been interviewed as a secondary stakeholder. To answer the second research question, which investigates the impact of MSP and CSV on the smallholding dairy business, all the stakeholders have been interviewed. Table 3 and 4 show the details of the secondary stakeholders of this project. Moreover, Table 5 shows the information of the farmers.

The details of the interviewees have been provided in following three separate tables:

Stakeholder's Interview: Tetra Pak Laval AB Representative				
PRAN Dairy Hub Project				
Interviewee	Date	Duration	Title	Organization
Katarina Eriksson	16-Jan-19	1.5 Hour	Project and Partnership Development Director	Tetra Laval Food for Development
	14-Mar-19	2 Hours		
	08-May-19	1 Hour		

Table 3 Interview of NGO Representative

Stakeholder's Interview: Pran Dairy Enterprise Representative				
PRAN Dairy Hub Project				
Interviewee	Date	Duration	Title	Organization
Dr. Md. Rakibur Rahman	08-May-19	Around 2 Hours	Chief Dairy Coordinator (Extension), PRAN Dairy Ltd	Pran Dairy Food Ltd.

Table 4 Interview of Local Private Dairy Enterprise representative

Stakeholder's Interview: Smallholder Farmers						
PRAN Dairy Hub Project (Hub#5)						
Bera, Pabna						
Sl No	Farmer Name	Gender	Address: District	Total Cattle	Duration	Interview Date
1	Adnan Ferdous	Male	Sirajgong	5	30 minutes	30-04-19
2	Abdul Hannan	Male	Sirajgong	13	25 minutes	
3	Raju Ahammed	Male	Sirajgong	7	30 minutes	
4	Mamunur Rashid	Male	Sirajgong	5	30 minutes	
5	Sufia Khatun	Female	Pabna	7	30 minutes	05-05-19
6	Shariful Islam	Male	Pabna	14	30 minutes	
7	Saiful Islam	Male	Pabna	10	30 minutes	
8	Sumon Mia	Male	Pabna	16	30 minutes	
9	Habibur Rahman	Male	Pabna	12	30 minutes	
10	Sultana Razia	Female	Pabna	17	20 minutes	

Table 5 Interview of Smallholder Farmers

The researcher has held all the interviews by herself. The farmers and the local dairy enterprise representative have been questioned through a video phone call. The Tetra Pak representative has been interviewed through face-to-face conversation, which helped to get a clear idea of the case. The interviewed farmers have been chosen from a village where the activities of this project are implemented, who is involved in this project's activities. The interview has been taken flexibly, which allowed the interviewees to feel comfortable about the interview and to speak freely about the subject. During the interview, the researcher should be prepared with an interpretive approach so that after some period of data collection s/he may able to change or adjust some questions if any unexpected theme arises (Gioia et al., 2012). Therefore, notes were taken to enable additional questions, and each interview was recorded with permission from the interviewees during interviews conduction. Recording the interviews enables the researcher to go back and analyze the specific points of the interview and go back and find relevant data that has previously been overlooked (Bryman & Bell, 2013). It also minimizes the risk of missing out or losing sufficient data. All the interviewees also permitted to post their acquaintances.

2.6. Data Analysis

To analysis the results from the semi-structured interviews, which is one of the most critical tasks in qualitative research design (Bryman & Bell, 2015), the study applied the method of thematizing as the first step in the analyzing process. Thematic analysis is the procedure of classifying patterns or themes within qualitative data (Maguire & Delahunt, 2017). The thematic analysis aims to classify themes, i.e., outlines in the data which are appropriate or attractive and use these themes to address the research question. This is much more than merely sum up the data; mostly thematic analysis explains and makes sense of it. A common drawback

is to use the main interview questions as the themes (Clarke & Braun, 2013). Clarke & Braun (2013) stated about the six-phased framework of thematic analysis (figure 2), which has been followed in this study.

Step 1: Become familiar with the data, Step 2: Generate initial codes, Step 3: Search for themes,	Step 4: Review themes, Step 5: Define themes, Step 6: Write-up.
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Figure 2 Braun & Clarke's six-phase framework for doing a thematic analysis

Bryman & Bell (2015) claimed that identifying what the specific data is about, what it represents or what is said to be happening is a helpful method to organize the data. To make the analyzing process of the data more similar at the beginning, the interview guide was separated into specific themes. Since the interviews were recorded, transcription of the data was chosen to reduce the risk of misinterpreting the data (Bryman & Bell, 2013) and miss out relevant information for the analysis (Robson, 2011). Even though dictation is time-consuming (Bryman & Bell, 2015; Robson, 2011), it was significant for the study to collect specific sentences and clarify the interviewees' point of view. By transcribing the data, it reduces the risk of incorrect interpretation of the data. However, it does not remove the risk. To lower the risk of misinterpretation, even more, the focus was to type the exact phrases which decrease the risk of missing out essential information for the analysis (Bryman & Bell, 2015).

2.7. Ethical Consideration & Trustworthiness

By using a case study approach, it is possible that the result can be challenging to generalize though it based on a specific context (Bryman & Bell, 2015). Because of the criticism, it is especially crucial to ensure the quality the method entails (Yin, 2009). Even though Eisenhardt (1989) concluded that the case study approach was exceptionally well suited for new research because of its independence from past empirical observations and previous literature. To evaluate the quality of a qualitative study, Bryman & Bell (2015) presents Guba Lincoln (1994) trustworthiness and authenticity as a different way to assess the quality. Bryman & Bell (2015) mean that the usual criteria, reliability, and validity, are defined very similarly as in quantitative research, saying that it needs an absolute truth of the social reality. In another hand, Yin (2009) claims that the reliability and validity criteria are suitable and proposes some adjustments.

Furthermore, Mason (1996) means that these criteria are different measures in quantitative and qualitative research. However, to stimulate and explain the quality of this study in a suitable way, trustworthiness and authenticity were chosen to give the reader an accurate picture of the quality assurance and are presented in the below table:

Trustworthiness & Authenticity criteria	Samples of Suggested techniques	Functional in this thesis
Credibility	Interviewees authentication - reduces the possibility of mistake	Informed the interviewees about conclusions of the interviews for validation
Transferability	Thick explanation – a sufficient amount of details of a culture	Providing a thick picture of the case Pran Dairy Hub Project & empirical data
Dependability	Description of the research process	The method chapter aims to give the reader a description of this thesis research process
Confirmability	Clearly shown that personal assessments or theoretical orientation influenced the conduct of the research	The author has acted in good faith, and the thesis has been read by several students and by the supervisors.
Fairness & truthfulness	Present different viewpoints from the interviewees to provide a decent picture.	Interviewees authentication has been made to erase misunderstandings and ensure a fair picture of the interviewees

Table 6 Overview of quality assurance criteria

Ethical consideration is also essential when conducting, writing, and reading a study performed with a case study approach because of the notion of partialities (Merriam, 1994). Therefore, the researcher needed to consider the benefits against the disadvantages of the methods used when conducting a case study and be sensitive to the techniques and the context. Throughout data assortment in this study, the interviewees have been told in advance what the study was aiming to understand further, and the interviews were sent the interview guide in advance. Participants contributed to the interview voluntarily. During the interviews, the interviewees were asked if they wanted to add anything that the researchers had not asked, and they also got the opportunity to change, add or extraction any statements when sent the summary of their interview. Also, known as interviewee validation, a technique to strengthen the validity of the study (Bryman & Bell, 2013).

3. Literature Review

This chapter goal to provide the reader with an understanding of prior research within the concept of informal dairy value chain in Bangladesh, the importance of multi-stakeholder partnership (MSP) and creating shared value (CSV) concept in developing formal dairy value chain. Further, the researcher discussed current constraints to productive smallholder dairy farming and the importance of collective action and the role of different stakeholders in smallholding farming. Finally, the researcher presented current dairy cooperatives to find out the gap of literature about MSP and CSV concepts. This total literature review will be used to help address the research questions of the study.

3.1 Importance of Smallholding Dairy Farms in Bangladesh

The population of Bangladesh is increasing sharply, and according to researchers, it will exceed over 300million by 2030, which increased urgent attention to growing food production (Uddin et al., 2012). Much of the need for dairy products will be focused on the urban and peri-urban area (ibid). Small-Scale dairy farmers can be a potential supplier of this raising demand in peri-urban and urban areas of Bangladesh. Besides, Small-scale dairy farmers are the main concerns about globalization because they are the most significant employment and small business group among the world's poor (von Braun, 2004). Like other developing countries, Bangladesh is the venture of smallholders (Raha, 2005). The livestock sector currently accounts for around 1.60 % of total GDP and formed 20% directly and 50% partially of employment opportunity (DLS, 2016). Bangladesh has more than 24 million cattle, out of which more than 6 million are dairy cows of local and crossbreds (ibid). The mass of the dairy cattle is in the hands of smallholder dairy producers (ibid). Plus, dairying is part of the mixed farming systems in Bangladesh and a significant source of income, nutrition, and jobs (Uddin et al., 2012). Dairying is also considered a secure tool to develop a village micro-economy of Bangladesh in order to improve rural livelihoods and to alleviate rural poverty (ibid). Potentially, therefore, smallholding dairying is a practical tool to spur economic growth and decline poverty and malnutrition.

Dairy accounts for about 16% of agricultural GDP and contributes to the livelihoods of many small-scale farmers in Bangladesh through income, employment, and food (Uddin et al., 2012). Smallholder dairy production has thrived since independence in 1972 owing to supportive subsidized services, and guaranteed milk markets and prices for farmers. In order to take advantage of developing market demands for reducing their poverty, smallholders have to face challenges to improve production costs and productivity (ibid).

3.2 Challenges in Smallholding Dairy Farming in Bangladesh

Studies show that the milk industry has considerable growth potential in Bangladesh. However, some barriers hinder growth. Many findings from other sources portrayed that dairy is a prospective sector but poorly developed across the country (Islam, 2017). Around 20 percent of milk produced in Bangladesh flows through formal channels of production and processing. However, 80% of milk is informally treated by local intermediaries and traders (Tengnäs & Roy, 2018). Several pieces of evidence showed that informal milk production and marketing structure is the significant cause of the challenges. The challenges in the smallholding dairy farming sector can be categorized into five primary types: input selection & purchase, financing, cultivation, processing, and market channeling. Due to poor input selection and purchasing, dairy farmers endure a shortage of high yielding cows, scarcity of land for dairy farms, shortage of high yielding and quality semen, low yield and quality of milk and so forth

(Samsuddoha & Edwards, 2000). Diseases, along with non-availability of feed resources and nutrition are other vital constraints to milk production (Imtiaz & Rana, 2014). Inadequate veterinary service, lack of technical know-how for farming, high cost of labor and feed, an inadequate treatment facility for cattle and lack of knowledge of handling milk are top milk production challenges for the smallholding dairy farmers (Samsuddoha & Edwards, 2000). They cannot get low-interest loans or other financial facilities from the financial organization (Tengnäs & Roy, 2018). Lack of enough milk processing plants, Lack of facilities for preservation of milk and milk products, and quality control causes a loss for the smallholding farmers (ibid). Mainly, they endure the most difficulty with the marketing of the produced milk with a justified price. In short, the overall milk production and sales are quite challenging for the smallholding farmers in Bangladesh.

3.3 Importance of Formal Dairy Value Chain in Bangladesh

A value chain is a collection of linked activities that run to add value to a product; it comprises of actors and actions that advance a product while linking commodity producers to processors and markets (Norton, 2014). Value chains perform best when their actors collaborate to produce higher-quality products and generate more revenue for all participants along the chain. It is not like the regular kinds of value chains, in which producers and buyers exchange only price information. Value chains vary from supply chains, which refer to logistics, including the transport, preserving, and procedural steps for growing a product from its production site to the consumer (ibid).

Norton (2014) clarified that a value chain incorporates the flow of goods, knowledge, and data, finance, expenditures, and the social capital needed to organize producers and communities. Previous studies show that information is essential to all value chain actors and flows in two orders: markets inform producers of price, quantity and quality needs, product handling and technology options, while producers notify processors and marketplaces on production quantities, sites, timing, and manufacture problems. In a value chain, processors and promoting agents may provide producers with finance, inputs, and training in technologies of production (Norton, 2014). Value chains may include an extensive range of activities. An agricultural value chain usually include development and distribution of seeds and animal genetic material, input supply, farmer association, farm production, post-harvest treatment, processing, establishment of technologies of production and management, grading principles and amenities, cooling and packing knowhows, post-harvest local processing, manufacturing processing, storage, transportation, finance, and feedback from marketplaces (ibid).

Agriculture, including the dairy market in developing countries, often is categorized by binary value chains functioning in parallel for the same product. One is informal or traditional, and the other is formal or modern (Norton, 2014). Smallholders are often comprised of informal chains that deliver products to local middlemen/intermediaries and then to small local stores. Formal value chains can distribute the same product, usually in improved or better quality, from bigger farms or more systematized groups of small farmers to more commercial wholesalers and from there to supermarkets or exporters (ibid). It can bound many small producers to markets considered by poor-quality products, and low prices and low profits — hence a common interest is to find ways to assimilate small manufacturers into more contemporary value chains, both local and export-oriented (ibid).

The milk market in Bangladesh has been segmented into formal or organized and informal or unorganized sectors (Tengnäs & Roy, 2018). Dairy cooperatives and private processors (domestic as well as multinationals) are considered as the formal sector, who procures on 18% of milk (ibid). According to Tengnäs & Roy (2018), the small dairy farmers mostly depend on the sale of their produce on informal channels like milk vendors or local milk traders and intermediaries. The previous chapter shows several challenges that small dairy farmers endure inefficient production, accessing credit from financial institutions, and proper marketing.

However, A recent study in smallholding dairy farming in India show that some of the constraints related to farmers' access to marketplaces and credit can be improved following a formal value chain approach which brings farmers, aggregators, traders, processors and financial institutions together (Birthal et al., 2017). That study shows that proper value chain enables the dairy processors and retailers to expand their business by integrating with farmers and enable the financial institutions to outreach to smallholders and reduce transaction costs and lending risks (ibid). In short, new value chains contribute to improving efficiency as well as the scale of production and mitigating production and market risks. Therefore, the Indian government, private sector, and NGOs are participating together in the dairy industry there, which increases profit (ibid). This evidence proves that a formal value chain developed by multiple stakeholders can change the situations of smallholding dairy farming industry.

3.4 Importance of Collective Action in Dairy Industry

Several studies in the previous chapter showed that small-scale dairy farming is quite challenging in developing countries like Bangladesh. Lack of data on prices and technologies, lack of networks to conventional marketplace actors, distortions or shortage of input and output markets, and credit restraints often make it difficult for small farmers earn profits or increase income (Markelova et al., 2009). Furthermore, due to structural adjustment programs, state-fund support from the government is declining, and as a result, numerous farmers find it problematic to access inputs, extension, and training (ibid).

Several experts suggested that collective action may be helpful for smallholders in lessening of barriers to entry into markets by improving their negotiating power with buyers and intermediaries. Through collective actions, smallholder farmers may able to reduce transaction costs of retrieving inputs and outputs, get the necessary market information, secure access to new technologies, and tap into high-value markets, allowing them to compete with larger farmers and businesses (Stockbridge et al., 2003). Collaborative projects improve marketing systems by filling the gaps in imperfect markets (Markelova et al., 2009). Even there are literature and substantial evidence which proved how collective actions could bring advantages for smallholder marketing by natural resource management, improving market imperfections, reducing high transaction costs, improving access to credit markets, and fill in coordination gaps (ibid). Evidence also shows that farmers become more able to get essential information, reach quality standards and operate on a larger scale, sell products to new domestic or international markets, which are otherwise out of reach for smallholder producers (ibid). Therefore, collective action is quite essential for the smallholding dairy value chain in developing countries.

3.5 Roles and Motivation of Different Stakeholders in Smallholding Dairy Industry

As previous literature proves, collective actions can address the production and marketing challenges of smallholding dairy business in Bangladesh. Therefore this chapter will focus on why the participation of different stakeholders is essential. According to experts, value chain actors (including farmers) need specific supports and services from other enterprises and support organizations to effectively participate in the market (Markelova et al., 2009). The ultimate goal of farming is to achieve an attractive and profitable endeavor that preserves natural resources and creates shared value for all involved. Moreover, no single actor can take accountability for actions to help improve farmers' income as well as form a stable formal dairy value chain. Collaborative participation from value chain actor is quite important (Daniels, 2017).

Companies have specific roles to play; other roles can only be taken on by other actors, including farmers themselves, governments, financial organizations, local and international civil society organizations (Daniels, 2017). The role of global firms is primarily as a buyer, either in an existing market or possibly creating a new market. Companies can also perform a catalytic role, in partnership with other public and private sector stakeholders to enable training, provision of better or cheaper inputs, and to facilitate access to cheaper credit or local savings and loans schemes (ibid). In some sectors, these exertions are being coordinated by an industry body or multi-stakeholder platform, with companies playing an active role. There are many motivations for why companies should work with smallholder farmers. One of the main reasons is that smallholding farmers are the key producers of milk and the single source for securing, improving, or growing supply. In many cases, investing in local smallholder supply chains decreases allocation costs and lessens price impulsiveness and exchange risks. Progressing smallholder supply chains may also be related to a company's sustainability strategy (ibid).

Governments have the most comprehensive array of roles in creating the situations required for developments in smallholder farmers' revenues. These include setting the right policy outline, from property rights to tax policies. Essential services such as health and schooling are central to the empowering environment, alongside the creation and maintenance of infrastructure essential for market access. Governments also need to play an essential role in the delivery of useful agricultural extension and research services (Daniels, 2017).

Civil Society and donors have crucial roles in delivering knowledge on issues such as equity, farming methods, public engagement, and resilience (ibid). Another crucial civil society role is serving to bring farmers together into groups to reduce transaction costs, increase negotiating power, build a local operative partnership, and share knowledge. **Donors** have a part in advocating risks of loans from banks to farmers, as well as establishing national agricultural policies and schemes and maintaining home governments to invest in agricultural development (ibid). Figure 3 presents how different stakeholders or value chain actors can play a potential role in forming formal dairy market in Bangladesh.

National Government	International donors, UN agencies	Civil Society: International and National NGOs	Financial institutions	Private sector: local and international	Industry bodies and multi-stakeholder platforms (eg World Cocoa Foundation, Ethical Tea Partnership)
<p>Increase investment in rural infrastructure, agricultural research and extension services and provide resources, inputs and knowledge to farmers</p> <p>Ensure that all men and women have equal rights to ownership and control over land and natural resources</p>	<p>Influence and support government to start/improve services supporting smallholders.</p> <p>Fund improved agriculture programmes (including research) for smallholder communities</p> <p>Lobby govt and private sector for improved provision of affordable quality inputs</p> <p>Set up crop or sector level initiatives and support governments to facilitate public-private sector partnerships</p>	<p>Develop, implement and monitor capacity-building programmes with smallholder communities</p> <p>Ensure adequate community representation in agriculture programmes</p> <p>Form and strengthen farmer groups / associations</p>	<p>Provide low cost loans and credit to farmers and associations to cover advance purchase of inputs</p> <p>Facilitate financial skills training at both farm and enterprise levels to enable better decision making on investments</p>	<p>Support smallholder communities (direct or via partner) to access high quality low cost inputs, for example fertiliser, crop protection, machinery, postharvest storage and training on improved farm management</p> <p>Invest in agricultural research, innovations and variety development for the crops purchased</p> <p>Share experiences and knowledge and use the company's global reach to scale agricultural innovations</p>	<p>Establish knowledge sharing platforms, best practice tools, and common indicators (eg on measuring impact of capacity building)</p> <p>Lobby donors and government for effective policies and sector reform</p> <p>Convene and/or help facilitate public-private partnerships and sector platforms</p>

Figure 3 Probable Role of Different Stakeholders (Source: Daniels, 2017)

It is quite tough to connect between numbers of diverse small-scale farmers and the need for consistent supply and quality demanded by modern procurement. Improvement can be achieved if there is coordinated action by the right mix of actors.

3.6 Dairy Cooperatives and Collaboratives in Bangladesh

Several previous research studies proved the importance of a formal dairy value chain model in Bangladesh dairy industry. In this chapter, the researcher has exhibited some existing dairy cooperatives and collaboratives in Bangladesh, which are currently running in Bangladesh. It has been mentioned earlier that the dairy marketing channels in Bangladesh are not well-organized. Smallholder milk producers supply most of their domestic produced milk for the informal (open) traditional market and three-quarters of the formal processed (FAO Regional Office for Asia and the Pacific, 2009). In the open market, smallholder milk producers sell milk directly to consumers or milk supplier/intermediaries at local markets (Figure 4). The milk intermediaries play an active role by serving milk to the local market, more distant markets, and vendors. However, in most cases, they pay farmers up to 50 percent less price than the market rate.



Figure 4 Traditional Dairy Value Chain (Source: Hamid and Hossain, 2014)

According to recent data, at present Bangladesh is manufacturing only 6.09 million tonnes of milk, which is only 43.5% of the milk demand in Bangladesh (Hamid and Hossain, 2014). Bangladesh imports an enormous amount of powder milk and dairy products to fulfill the extra demand. Under these circumstances, the government and private organizations are putting efforts to enhance the present milk production status to meet up the deficiency of milk and milk products in the shortest possible time (ibid). Besides the government, there are numerous

private and collective enterprises, like Bangladesh Milk Producers' Cooperative Union limited (BMPCUL) known as Milk Vita, Pran Dairy, Bangladesh Rural Advancement Committee (BRAC), Lal Teer Livestock Limited (LTL), Gentech International, EJAB and Grameen Motso O Pashusampad Foundation (GMPF) are working for dairy reproduction progress program and providing methodological assistance to the farmers (ibid).

‘Milk Vita’ is the largest government dairy cooperative in Bangladesh (Figure 5) which started a dairy business based on the genetic enhancement of dairy cattle throughout AI services of their cooperative farmers in 1972 (Hamid and Hossain, 2014). It sells approximately 52% of the processed liquid milk and dairy products of the country. It modestly started by providing around 4300 indigent, mostly landless, remote and rural households with a broad set of milk production-enhancing technologies, organizational skills, and a milk collection-processing-marketing system (ibid). It has since developed into a thriving commercial dairy enterprise, collecting from more than 100000 smallholding farmers of around 1200 earliest village cooperatives and then processing and distributing the milk to all major cities in the country (ibid). This association has created jobs, reduced transaction costs, and improved milk quality by cutting delivery times. Democratically elected milk farmers and cooperative supplier members become the majority on Milk Vita’s board of directors. The activities and expansion of this project brought more poor people into the dairy value chain. Since this is an entirely government-run program, mostly farmers and government representatives participate in this project.

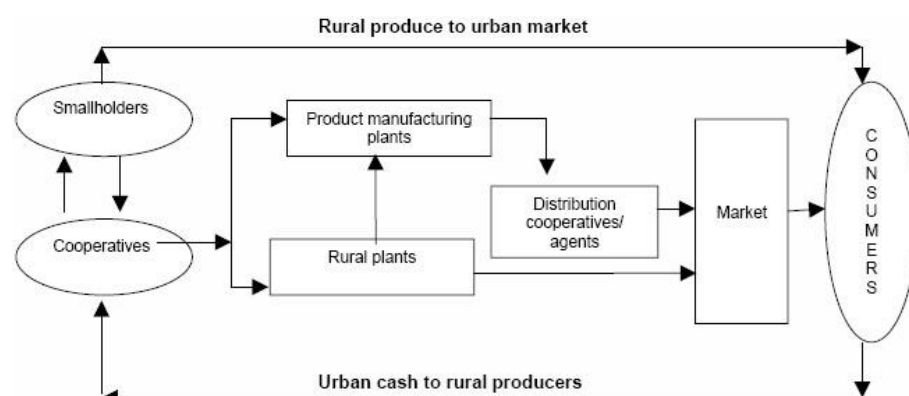


Figure 5 Milk Vita Cooperative Dairy Value Chain (Source: Hamid and Hossain, 2014)

Numbers of other private enterprises like Pran Dairy, BRAC Dairy (Aarong), Amo milk, Bikrompur Dairy, Aftab Dairy, Ultra Shelaide Dairy, Grameen, Rangpur Dairy, Akiz Dairy are also collecting and processing milk and milk products in the country (Hamid and Hossain, 2014). They are also delivering various services to the dairy farmers, like milk assortment facilities, artificial insemination services, veterinary and animal health services, balance out cattle feed, loan for cattle procurement, etc., as a part of their milk production expansion and milking animal development. The two chief competitors of PRAN on the Bangladesh dairy market are Milk Vita, which is provided by the government, and BRAC Dairy, which is maintained by donor NGOs. Subsidies and grants allow these two projects to work on tight or adverse margins. However, PRAN Dairy Hub is different from them because it adopted the MSP approach to innovating continually and differentiates its offer.

4 Theoretical Framework

This chapter purposes of providing the audience with an understanding of previous research within the concept of Multi-stakeholder Partnership and Creating Shared Value. The concepts have been abstracted into the framework that will be used to help address the research questions of the study.

4.1 Multi-Stakeholder Partnership (MSP)

Multi-stakeholder Partnerships are cross-sector sustainable development partnerships, seen as a method to scale up innovation, capacity, and resources to deliver on the sustainable development goals (Nel, 2017). This concept was developed in 2015 as crucial to reaching Sustainable Development Goal agendas 2030 (ibid). There are several theories for partnership development; for example: collaborative empowerment theory, regime theory, collaborative advantage theory, welfare economics, exchange theory, transaction cost economics, network theory, resource-based view of strategy, stakeholder theory, resource dependency theory, historical institutional theory, Marxist theory, radical public accounting theory, postmodern theory, new institutional theory, complex adaptive systems theory and evolutionary theory and so forth. Also, meta-theories that have also influenced the rationalization of partnership development include New Public Management (NPM) (from the 1980s), public governance (from the 1990s), strategic management (collaborative gain from the 1990s), and postmodernist theories (from the 1990s) (ibid).

Other experts opinioned that multi-stakeholder partnerships are a tool through which interested actors can work together on specific problems or exploit opportunities in ways that achieve a more significant impact than they could achieve alone (Stibbe & Prescott, 2016). Multi-stakeholder partnerships contain organizations from different societal sectors working together, sharing risks and joining their unique resources and capabilities in ways that can generate and maximize value towards corporate partnership and individual partner objectives, often through more innovative, sustainable, efficient and systemic approaches (ibid). The influence of MSPs comes from the different approaches – public service tenure; individuals driven or market-based – and the corresponding resources – human, technological, social or economic – that partners from different areas can together bring to the table (ibid). The following figure shows how different sector in the dairy sector can come together to build an MSP network:

NGOs and civil society	Business	Government / parliamentarians	International agencies/ UN	Donors and foundations
Technical knowledge / capacity Access to and deep knowledge of communities Legitimacy / social capital Passion and people-focus	A market-based / commercial / value creation approach Power of the brand and access to customer base Technical and process innovation Power of the value chain Infrastructure / logistics	Regulatory framework (e.g. licenses for water etc.) Integration with public systems / long term planning Taxation policy Capacity building (e.g. agricultural extension services) Provision of land and supporting infrastructure Democratic legitimacy	Technical support, knowledge and experience Legitimacy and impartiality Access to a global network Political access	Funding and support In many cases foundations can be less risk adverse and support more experimental and innovative approaches, providing proof of concept that can be expanded by more traditional donors

Figure 6 Some complementary resources of different sector (Stibbe & Prescott, 2016)

4.1.1 Features of Multi-Stakeholder Partnership

Functions of MSP has been described differently by different researchers. In this study, the researcher has focused mainly on the purpose of the MSP approach, which has been addressed by experts. The first function of MSP is that it brings together multiple stakeholders to address wicked problems (Nel, 2017). Wicked problems contain nearly all public policy issues, which are tough to describe, contextualize, and define or to solve (Rittel & Webber, 1973). Rittel and Webber (1973) labeled wicked problems as part of a general theory for planning, which is often malicious, tricky, challenging, and complicated. Wicked problems are thus very complex and systemic. According to Seitanidi (2010) argue that partnership is the dynamic assemblage of entities across different sectors that can attempt to provide society with 'public goods.' A partnership as a non-regulated form of association allows different sectors and spheres in society to address complex social problems (ibid). In social sciences, partnerships are usually classified according to the specific societal level the partnership operates in. Examples include, for instance, public-private partnerships, private-private partnerships, public-public partnerships, public-science partnerships, business-science partnerships, and public social partnerships. In other contexts, partnerships may be sorted according to a specific organizational structure or type, for instance, a network, an alliance, a commission, or a concession (Nel, 2017). Some partnerships may be very formal or some informal, some specific in its purpose, while some may be almost accidental (Kresl, 2015).

Another subgroup of partnerships that are transnational, working on sustainable development, previously known as Type-II outcomes, originated as part of the second outcome of the World Summit on Sustainable Development (WSSD), in 2002 in Johannesburg (Nel, 2017). MSP concept has been built based on Type-II conclusions (ibid). These type-II outcomes turned into MSP concept with some principle called '*Bali Principle*.' A vital part of these principles is that MSPs are meant to help achieve the further implementation of SDGs (ibid). It should be voluntary and self-organizing. It will be built on be based on shared responsibility, and mutual respect which will include multi-stakeholders, ranging from governments, regional groups, local authorities, non-governmental organizations (NGOs), transnational institutions, business entities and multilateral organizations; and will have a global impact beyond the local level (ibid).

MSPs are collective/collaborative governance mechanisms which focus on public value and are solutions-oriented (Nel, 2017). MSPs are about distribution risks in society instead of shifting risks (ibid)). Nel (2017) also described these partnerships include a varied sort of institutional activities and partnership between government, private sector actors, civil society, and UN and other multilateral actors to facilitate sustainable development. MSPs are not contracting, or subcontracting arrangements, nor are they public-private partnerships (PPPs), neither are they a replacement for institutional forms of democratic decision making (ibid). MSPs can be initiated by an individual, government, or business that is concerned about a particular societal issue (ibid). MSPs are necessary because no one sector in society can deliver the complexities of sustainable development alone. Partnerships in MSPs are higher than the sum of its parts and are about creating a lasting and meaningful impact, to promote a holistic approach to development and governance (Global Knowledge Partnership 2003). Following figure (Figure 7) illustrates a basic typology of the goals of typical MSPs. Joint projects and programs are typically developed to address a specifically defined problem, whereas other strategic alliances and collective initiatives are more systemic in scope.

Goal	Address a defined problem		Address a systemic challenge	
Model	Joint project	Joint programme	Strategic Alliance	Collective impact
Definition	Short-term, one time collaborative effort among a small set of partners, often to develop or pilot an innovative product or approach	Collaboration among small set of partners to implement a programme to address a specific aspect of a social problem	Platform for ongoing collaboration around one or more related social issues, aligning partners (typically >5) in support of a common agenda and joint investments	Initiative based on long-term commitments to a common agenda by the group of cross-sector actors needed to realise system wide change around a social problem

Figure 7 A basic typology of MSPs (Nel, 2017)

4.1.2 Importance of MSP in Smallholding Farming

There are many pieces of evidence of the importance of the MSP approach in business. Even there are several perspectives to draw MSP's importance, e.g., sustainable development, sustainable business, addressing the social problem, and so forth. In this study, the importance of MSP approach has been drawn based on agricultural development perspective, particularly the development of value chain for smallholding farming. Partnerships and alliances can play a vital role in serving to overcome many social, economic, and environmental obstacles for private businesses as well. MSP is particularly vital in addressing four imperatives. MSP improves the impact of all business activities, to support growth that is more responsible, inclusive, and sustainable (Nelson, 2017). It also increases the level of new private sector investment and innovation. MSP Helps to achieve the systemic transformation of markets to work better for people and the environment; and to build mutual trust, accountability and a new social contract between business, governments and civil society (ibid). Many large companies have thousands of commercial business partners in their value chains, including suppliers, distributors, retailers, investors, investees, and joint venture partners. By putting standards, creating incentives, and providing financing and capacity building prospects for their business partners, companies can get substantial leverage in propelling change towards more inclusive and sustainable growth along their value chains (ibid).

According to other research experts, MSP has a significant influence on other factors as well. For example, MSP offers scalable approaches to poverty eradication through cross-sector dialogue, sharing capacity and capabilities across the public and private sector, more programmatic approaches to implementation and rapid learning and knowledge transfer through multi-level platforms (Nel, 2017). It enables more efficient and effective financing approaches through pooling finance across diverse domestic and international public and private finance; blending of financing instruments across sectors reduced fragmentation and duplication and providing more flexible funding obligations. It increases global encouragement and mobilization of civil society and enhancement of networking and communication diversity, considering views of diverse origins (ibid).

There are many vibrant proofs of the influence of the MSP approach on agriculture in developing countries. That evidence shows how stakeholders from those countries have been benefited by following MSP approach in their smallholding farming industry. For example, Sub Saharan Africa Challenge Programme (SSA CP) has used multi-stakeholder partnerships as an

institutional innovation for agricultural policy formulation and development in early 2000 (Kefasi et al., 2011). This project has several pieces of evidence of impacts of MSP on the smallholding business in Sub-Saharan Africa. The smallholder farmers in most Sub Saharan Africa faced with agricultural production challenges that include lack of adequate inputs and output markets and no access to credit, poor infrastructure such as roads, communication, and irrigation capacities (ibid). These factors caused not only to decreased crop yields but poor performances of national economies within SSA. Therefore, SSA CP started the project with diverse stakeholders where many actors from the public sector (e.g., line ministries, research institutes), private sector (e.g., agro-processors, marketers, and financial services), civil society players (e.g., NGOs, unions, and advocacy organizations) and the beneficiary communities come together to dialogue to establish an innovation platform. The variety of stakeholders guaranteed that smallholder farmers have not only access to competitive agro-inputs, credit facilities, and output markets but are also exposed to policy environments for increased technology progress, adaptation and subsequent adoption by smallholder farmers (ibid). Kefasi et al. (2011) also identified that the MSP approach increased net incomes by providing incentives for investment in their ecosystem and reduced overall degradation of the natural resource base. Besides providing farmers with direct access to timely supply of seed, agrochemicals, credit facilities, and output market, this MSP project also provided direct benefits to all stakeholders involved. Financial organizations got interested in the provision of credit to farmers. Farmers and agro-dealers had a guaranteed market for their products. Agro-processors purchased farmers' products at agreed upon prices. The system also ensured the implementation of new technologies through the activities of several extensively different actors and organizations (ibid).

From this practical evidence, Kefasi et al. (2011) concluded that MSP approach brings together complementary institutional aptitudes and human resources in the form of skills, experiences, and ideas to undertake common problems that are frequently beyond the capacity of a single organization or group to create innovations that can be scaled up. Equipped with such diverse capabilities' partnerships can engage in combined solving of problems, resource exchange, cooperation, coordination, and coalition building (ibid). MSP is an innovation platform, which is a mean of creating a multi-talented administration with critical capabilities to recognize problems, prioritize them, generate and implement technologies and develop policy and legislation instruments; research and learning; and documentation and dissemination (ibid). MSP can provide easy access to information regarding changing situations, and probable future state of policies, markets, and technology at least cost in advance. In short, Kefasi et al. (2011) addressed with evidence that the MSP approach has several substantial impacts on smallholding farming business of developing countries.

4.2 Creating Shared Value (CSV)

The perception of creating shared value (CSV) in response to the validity crisis of capitalism has gained prominence in business literature (Senevirathna, 2018). CSV is outlined as policies and practices that enable businesses to increase competitiveness while simultaneously addressing social problems (Porter and Kramer, 2011). It has been argued that current Corporate Social Responsibility (CSR) approaches implemented by the private sector lack the ability to generate both economic and social value in production at the same time. Therefore, the CSV approach has been recommended to overcome this limitation (Porter and Kramer, 2006, 2011).



Figure 8 Creating Shared Value by organizations (Porter & Kramer, 2011)

Many experts agreed that the CSV approach could play a vital role to build a formal value chain for the smallholding farmers (Senevirathna, 2018). Formal value chains represent a business structure in which manufacturers and buyers of agricultural goods form strategic associations with other supply chain players, such as aggregators, processors, suppliers, retailers, and consumers, to enhance financial revenues through product diversity that advances social or environmental values (Diamond et al., 2014). Partners in these business alliances distinguish that creating maximum value for their products depends on interdependence, partnership, and shared support (ibid).

To build an efficient food value chain, it is vital to building transparent and entrusting relationships among value chain actors which can produce positive, win-win outcomes for all parties (Diamond et al., 2014). In this approach, consumers, farmers, distributors, and others in the chain of food business activity, from planning and implanting to processing and selling, see results and get revenues (ibid). Moreover, the gains of smallholding farmers are not attained at the expense of distributors or retailers, or vice versa, because the model of food value chain transactions enables the sale of a broader range of well-differentiated products, priced to reflect the combination of both social and private benefits (Diamond et al., 2014). In creating value for participants and society at large, food value chains demonstrate what Harvard Business School Professor Michael Porter and advisor Mark Kramer refer to as ‘Creating Shared Value (CSV).’ Instead of industries seeing ‘Social Responsibility’ as something they usually do for public relations drives, they adapt their core operations to simultaneously produce business profits and social benefit (Diamond et al., 2014).

Previously with traditional corporate marketing approaches, business organizations usually created a value proposition to the products and services focusing customers. The primary purpose of business was only profit-making over the market competitors by advancing their product with features as quality, performance, design and style elements, durability, and reliability. Porter and Kramer (2011) pointed out this approach as the ‘cycle of imitation and zero-sum competition.’ However, the shared-value approach seeks to develop the traditional concept of the value proposition to incorporate what may be the essential component of customer demand: the desire for social improvements, which is most often ignored. The shared-value concept distinguishes that markets can generate positive externalities in addition to exclusive benefits, which allows for better flexibility in pricing decisions (Diamond et al., 2014). Furthermore, the concept asserts that social harms or weaknesses—such as devastating energy or raw materials—often create unreasonably burdensome internal economic costs for firms (ibid). Therefore, maximum private firms are shifting in emphasis toward incorporating social mission objectives as core business strategies to increase their productivity, identify new opportunities for innovation, and expand their markets (ibid).

Porter and Kramer (2011) observe that businesses that adopt a shared-value approach typically follow the following practices and structural changes:

- *Reconceiving products and markets* by categorizing new products and services that meet social requirements or serve ignored customer groups. It focuses on revenue growth, market share, and profitability that arise from the environmental, social, or economic development benefits delivered by a company's products and services (ibid).
- *Redefining productivity in the value chain*, which may involve new adoptions in areas such as production, selling, and distribution and produce demand for equipment and technologies that save resources, conserve resources, and support employees. It focuses on improvements in internal operations that improve cost, quality, input access, and productivity achieved through environmental improvements, better resource exploitation, investment in employees, supplier capability, and other areas (ibid).
- *Building supportive industry clusters* at the firm's positions to enable achievement of social goals through extension in local procurement and confidence on less geographically distributed supply chains. Creating shared value from letting local group growth derives from improving the external environment for the company through shared investments and strengthening local suppliers, local institutions, and local infrastructure in ways that also enhance business productivity (ibid).

4.2.1 Importance of Creating Shared Value

Creating shared value can change the agricultural industry in profound ways (Hunter, 2018). As there are numbers of interconnected challenges, the large scale of small investments needed to make a difference. To avoid the risk of investments of individual companies, collective actions and sharing knowledge and values are good options for the firms. Addressing the challenges in agribusiness, particularly at scale, firms require dedication, collaboration, and iteration. For mutual profit and benefits, a multi-stakeholder partnership approach is an excellent opportunity (ibid). Because the experts think that the alliance works as catalysis for value chain and market development at its core. It aligns stakeholders' operations, shares risk, and draws on resources, expertise, and market presence to help build local structures, gain government supports, and address farmers' needs. For participating farmers, it means the acquisition of access to predictable commodity markets for their products as well as fair financing for inputs and working capital.

Moreover, the CSV approach benefits the farmers with veterinary and technological services, a wide range of stakeholders network, post-harvest processing and storage solutions, and quality inputs that are appropriate for small scale farmings (ibid). This alliance considered as creating shared values to help farmers instead of charity. Thus the private firms and enterprises create value by sharing knowledge and resources for mutual benefits of farmers and other stakeholders. So, its clear from the literature that CSV can play a quite influencing role in smallholding agribusiness. CSV approach is quite developed and efficient instead of traditional CSR activities.

4.2.2 Evaluation of Creating Shared Value Approach

The expert's opinions and evidence discussed above prove that the CSV approach is quite essential to build a formal value chain for in agricultural sector of a developing country,

especially for the smallholding dairy farmers. Measuring shared value aims to pursue the progress and results of tailored shared value strategies (Porter et al., 2011). For several shared value opportunity, companies categorize and trace both social and business outcomes; their parallel goals are to solve a social problem and improve business performance (ibid) (Figure 9).

LEVELS OF SHARED VALUE	BUSINESS RESULTS	SOCIAL RESULTS
Reconceiving product and markets: How targeting unmet needs drives incremental revenue and profits	<ul style="list-style-type: none"> • Increased revenue • Increased market share • Increased market growth • Improved profitability 	<ul style="list-style-type: none"> • Improved patient care • Reduced carbon footprint • Improved nutrition • Improved education
Redefining productivity in the value chain: How better management of internal operations increases productivity and reduces risks	<ul style="list-style-type: none"> • Improved productivity • Reduced logistical and operating costs • Secured supply • Improved quality • Improved profitability 	<ul style="list-style-type: none"> • Reduced energy use • Reduced water use • Reduced raw materials • Improved job skills • Improved employee incomes
Enabling cluster development: How changing societal conditions outside the company unleashes new growth and productivity gains	<ul style="list-style-type: none"> • Reduced costs • Secured supply • Improved distribution infrastructure • Improved workforce access • Improved profitability 	<ul style="list-style-type: none"> • Improved education • Increased job creation • Improved health • Improved incomes

Figure 9 Illustrative Business and Social Results by Level of Shared Value (Porter et al., 2011)

Shared value assessment entails an iterative process that is combined with business strategy and business performance (Porter et al., 2011). A combined shared value strategy and measurement process include four steps. Strategic priorities advise the focus and limit of shared value measurement; the data and perceptions from shared value capacity inform modification of the shared value strategy (ibid). This continuous feedback circle is one of shared value measurement's central benefits—providing an outline for recognizing and unlocking further shared value creation. The preliminary point for shared value is categorizing and ranking specific social issues that represent opportunities to raise revenue or reduce costs. After identifying potential social impression at one or more of the three stages, the next step is to advance a solid business case based on research and analysis of how social development will directly improve business performance (ibid). The third step is tracking development. The final step focuses on validating the forecasted link between social and business outcomes and resolving whether the number of corporate resources and efforts produced a good joint return (ibid). This chapter has discussed the concepts that have been used throughout analyzing data to answer the research question of this study.

5. Empirical Background and Data

This chapter presents the empirical background and findings use in the analysis in chapter 6. The section unfolds with a presentation of the Pran Dairy Hub Project chosen as case studies for analysis. In this chapter, a rich presentation of the case study has been described. This project is the symbol of a multi-stakeholder partnership approach, which is the unit of analysis. This case shows how MSP used for value creation in the dairy market of Bangladesh to improve the smallholding farmers social and economic issues.

5.1. Overview of Pran Dairy Hub (PDH) Project

Livestock nurturing is an integrated part of the land use systems in practically all parts of South Asia (Tengnäs & Roy, 2018). The livestock component is vital for nutrient recycling and sustained farm production, while poor livestock management may also contribute thoughtfully to degradation and decline of yields (ibid). In Bangladesh, around two-thirds of the labor force depends on agriculture. Agricultural production is mostly carried out by small-scale farmers. This also holds for the dairy sector, in which more than 70 percent of farmers are smallholders, producing 70 to 80 percent of the milk produced in the country (ibid). Previous researches proved that dairy production in Bangladesh remains far below its potential, with generally low milk yields and insufficient service provided along the dairy value chain (ibid). Improvement of livestock rearing has to address all restraints along the value chain. A continuous and profitable market is a prerequisite for livestock keepers' interest and willingness to provide the necessary investment for better feed supplies, connecting of seasonal variations in milk production, hygiene, and animal wellbeing. From that perspective, the “*Dairy Hub & Dairy Academy Development in Bangladesh Project*” is well placed to address some of the challenges facing rural dairy farmers in the 17 subdistricts in four districts where it is operating. This project is also called ‘PRAN Dairy Hub Project (PDH)’ (ibid).

The project operated in areas where there was already a diverse milk market with other processors present as well as significant local small-scale processing to make milk products like yogurt, sweets, or raw material for sweets (Tengnäs & Roy, 2018). PRAN had started some collection through agents initially, which has been changed the system as developed as the hub model. When PRAN adopted the new dairy collection and processing model, most of the farmers opted to deliver their produced milk to PRAN (ibid). The main reasons for these changes were:

- PRAN started to collect milk at times when other companies could not buy all quantities available;
- PRAN offered a better market price for milk with high-fat content;
- PRAN paid punctually every week for the milk;
- PRAN was realized as a supplementary welcome outlet, advantageous at the local level;
- Farmers who were living near the milk collection centers could save time, mainly about sales at the community market, which was time-consuming and associated with a risk of not even selling the milk at all (ibid).

The Department of Livestock Services (DLS) estimates that at the general level in Bangladesh, only around five to eight percent of the total quantity of milk produced is sold to and processed by the larger firms (Tengnäs & Roy, 2018). According to DLS, approximately 80 percent is sold in local markets or to minor local processors who make sweets or yogurt. Twelve to fifteen percent is predicted to be used for domestic consumption (ibid). From that viewpoint, there is significant potential for development in the dairy sector to meet the milk demands most of the

urban population. The local market condition remains diverse. Local processors usually buy milk at a higher value and with less demand for milk quality. However, milk rejected by PRAN can still be sold to regional processors (ibid). Other processing firms appear still to operate as before. Collectors, ‘middlemen,’ are still playing their role. Around 20 percent of milk assembled by PRAN is delivered through their services. Generally, they collect milk from further than a convenient walking distance radius of around two kilometers, thus expanding the collection area up to about five kilometers (ibid).

5.1.1 Project Stakeholders

In the latest publication of this project has outlined of PRAN Dairy Hub Project. The main stakeholders in the project are PRAN, Tetra Laval AB, UNIDO, the farmers, and Ministry of Fisheries and Livestock’s Department of Livestock Services (DLS) (Tengnäs & Roy, 2018). UNIDO is SIDA’s contracting partner, while DLS participation has been limited. Smallholder dairy farmers supplying milk to PRAN through the dairy hubs are the primary beneficiaries, getting training, various kinds of services, and further access to the market (ibid). They are offered to take part in training activities and to receive other services through PRAN but are allowed to discontinue the arrangement at any time should they choose another business, employment or to supply the milk to another firm. They are also permitted to deliver only a portion of the milk to PRAN while selling another share through other means. The farmers are small-scale farmers with an average of two to seven cows. To deliver milk to PRAN through the dairy hub, they require to register and receive their identification code (ibid). Farmers mostly own their cows and farms. Organization in associations or other forms of producer groups has not been promoted. The dairy hub structure and services make available the advantages that a large farm or a cooperative would in terms of *economies of scale*. As per the project viewpoint, it is beneficial if a farmer only desires to invest in his/her farm and does not need to take the risk of investing in substructures such as collection centers, transportation or processing facilities. Farmers who supply milk through the dairy hubs can be separated into three groups (ibid). They are the traditional farmers practice procedures which have been used for generations but result in meager yields (2–3 liters per cow per day), the progressive farmers who have started to make variations and are committed to advance practices according to modern dairy farming methods, and modern farmers who follow suggestions and have fully applied modern methods (ibid).

The PDH version amended after the project commencement period includes a review of actors along the milk value chain from farmers to consumer and the various ways that exist for the transactions (Tengnäs & Roy, 2018).

5.1.2 Project components

The project design included four essential components, closely linked to each other (Tengnäs & Roy, 2018). The first component is an investment in and operation of new dairy hubs and optimization of the performance of the prior dairy hubs, which are already in operation. The second vital task of this project is the expansion of the operation and training provided by the dairy academy. Thirdly this project offers training to farmers and future dairy experts in the dairy academy, at the facilities of the dairy hubs and in villages and at the various small dairy farms comprised by the dairy hubs and assessment of farmers’ who need for and access to financial services. Lastly, this project provides improved access to finance for project beneficiaries for farm investments (cows, cow sheds, milking equipment, biogas plants, etc.)

(ibid). PRAN has played a lead role by endorsing registered farmers to credit institutions regarding the income obtained from milk sales.

PRAN Dairy Hub (PDH) project has its modified business structure, which has been designed and modified by the dairy farming specialist from Tetra Pak Group. This is a vibrant example of knowledge sharing by the stakeholders. This modified structure is one of the main features of this project. Dairy experts from Tetra Pak group have planned and developed this milk collection structure along with the local dairy firm (PRAN Dairy) so that the business structure can result in the best outcomes. In this structure (figure 10), PRAN defines a border of around 40 square kilometers (this area may vary according to milk supply capacity) and place the hub at the center. In the disclosed periphery, they work in different villages and create around 20 milk collection centers with chilling amenities. Each milk collection center is called a VMCC (Village Milk Collection Centre). Each center generally handles 100-150 farmers (this number may also increase according to the supply capacity) and records their details as member farmers.

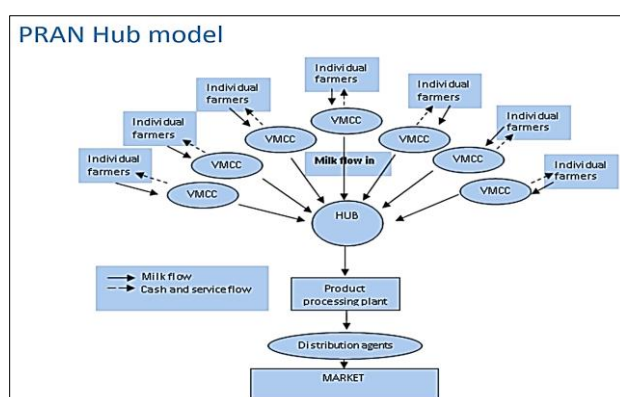


Figure 10 PRAN Dairy Hub Project Model

The whole project is designed addressing the common challenges faced by dairy farmers in villages who have limited resources, training, and access to the market (Tengnäs & Roy, 2018). The project has been started in some nominated area of Bangladesh since the funding, and human resource is limited. However, this model focused on providing optimum support to the smallholding farmers (figure 11). Each center employs two to three skilled staffs and installs milk experimenting facilities where each farmer receives their milk price based on milk quality (mainly fat content) (ibid). The centers also act as information and knowledge transmission and sharing a place. Each hub employs veterinary experts and AI (Artificial Insemination) experts in moving around the centers to diagnose farmers' difficulties in dairy management. Payment to the farmers is ended every week by bank account transfer (ibid).

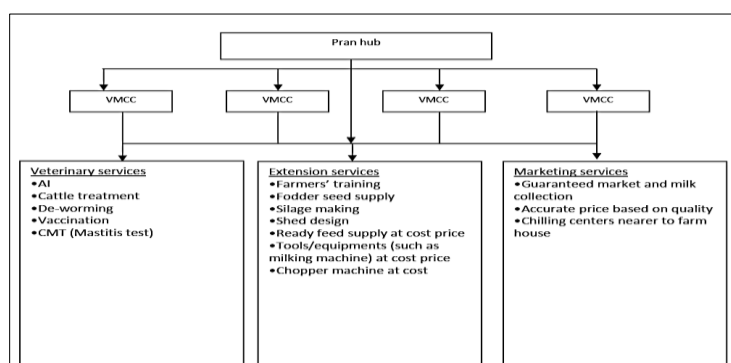


Figure 11 Functions of PRAN Dairy Hub Project

5.1.3 Governance

UNIDO, PRAN, Tetra Laval AB, and the Ministry of Fisheries and Livestock (MoFL) formed a Project Steering Committee (PSC) which was led by PRAN. The main functions and responsibilities of the PSC was to (i) guide the project on strategic directions/decisions and reinforce the project activities; (ii) confirm the active cooperation between all key stakeholders; and (iii) recommend on the effectiveness of the ongoing activities, including any adjustments that need to be made to annual work plans.

5.2 Interview with Stakeholders

The experimental result has been presented in this chapter. Since the researcher has chosen three different categorized interviewee group who signify three separate stakeholder representatives, so the researcher has interviewed them with three different semi-structured question set. All the interviews were individual interviews. The interview guide is involved as an appendix (appendix 1). The interviewee list has already been presented in the methodology part. In this chapter, the researcher has exhibited the transcribed data which has used later to answer the research question of this study.

5.2.1 Pran Dairy Food

The first chosen stakeholder was the project leader PRAN Dairy Foods LTD in Bangladesh who are leading this project. PRAN is one of the largest food processing company in Bangladesh, and one of the leading national dairy players. It produces UHT milk (60% of total daily activity), pasteurized milk (20%), milk powder, and other dairy products (cheese, butter, etc.). The researcher has interviewed the current project coordinator of PDH, Dr. Md. Rakibur Rahman regarding the function, current strategy, and aim of the project to frame the research questions. His designation in the project is Chief Dairy Coordinator. Since he is directly in touch with daily activities, so he has the maximum knowledge about the project, its strategies, and outcomes. The researcher has presented his response as a summery after transcription and transcribing the data.

In response of the first thematic query of this research, the business strategy of this project, Dr. Rakib has mentioned that this project is running by several stakeholders and PRAN dairy Group is the leader of this project, who are primary executive of plan implementation. He mentioned from the project document; the project aims to *lift beneficiaries from poverty by increasing their income through improved know-how on efficient dairy production according to international best practices*. He also mentioned the overall goal of the project is *‘to improve the livelihood of small-holder dairy farmers in Bangladesh through increased quality and yield of milk, allowing the replacement of imported powdered milk and meeting growing consumer demand.’* The overarching development objective is *‘to offer an opportunity for smallholder farmers and their families to stay in rural areas with improved incomes and living conditions.’* According to the Project Log frame, the Project Purpose is *to establish a Formal Dairy Value Chain by building Dairy Academy (DA) and five dairy hubs in selected districts of Bangladesh.*

Dr. Rakib informed that the multi-stakeholder partnership with the potential stakeholders played quite a useful role to form a formal dairy market for the smallholding dairy farmers in Bangladesh. PRAN leads dairy hubs operations and had been maintained by Tetra Pak sponsored full-time dairy expert. Each dairy hub comprises a 15-25km radius and collects milk from 2,000-5,000 farmers. It counts one main collection center, serving as ‘headquarters’ and

equipped with several larger cooling tanks. Creating shared value (CSV) is another useful business tool for this project. Value proposition by PDH model guarantee farmers to collect 100% of their milk production at the market price at their nearest approach and pay them weekly. The market price is mostly set by PRAN, depending on market trends. The PDH staffs provide free training along with farming specialists sponsored by Tetra Pak to farmers on a bi-monthly basis, in order to help them raise their yield, milk quality, and income. These trainings are organized directly in the farms, at the PDH 'control center', or in a Dairy Academy. Topics mostly include feeding, breeding, disease management, calf rearing, etc. related to modern dairy farming. The PDH staff also sells a range of on-site services, e.g., vaccination, worms' treatment, or artificial insemination. Each of the project offices also considers 2-3 shops, where farmers can purchase concentrated feed, fodder, or non-dairy agricultural products such as seeds and fertilizers. Services and products are traded at costs to confirm affordability for farmers and provide another unique benefit to encourage them to join the PDH. Lastly, PDHs encourage farmers to make asset investments such as milking machines, for which PRAN negotiated a price with suppliers, or bio-digesters that farmers would purchase locally. In short, PRAN is creating values for the smallholding dairy farmers instead of corporate social responsibility (CSR) activities. This project is the first step from the private sector of Bangladesh, who is initiating the multi-stakeholder partnership and CSV concepts for improving smallholding dairy farmers' income and reducing poverty in the long run.

However, he also mentioned there are still many macro factors and micro factors in the project, which should be more analyzed and developed to a better outcome of this project in futures. Political instability, gender discrimination, social taboo, and many other factors have not considered during the initial implementation of the project. These factors are being assessed and developed for the better outcoming and development of smallholding farmers.

5.2.2 Tetra Pak Laval AB

The key data source for this research was the representative of Tetra Pak Laval Group of Sweden. Katarina Eriksson, Project and Partnership Development Director of Tetra Pak AB, shared much valuable information regarding the project background, motivation, aims, and goals from a civil society stakeholder perspective. The researcher has found maximum secondary data and reports related to this project from her. She has been interrogated several times. Her views have been presented as summary here.

Tetra Laval Group companies combined Tetra Pak and DeLaval to address the entire value chain for milk with its goods, services, and skill, from cow to customer. DeLaval progresses, manufactures and markets tools and complete systems for milk production and animal husbandry globally. Tetra Pak is a Sweden-based food processing and packing solutions company. Its products grasp consumers in more than 160 countries worldwide. As a part of CSR activities, Tetra Pak Group started the PDH project partnering with Local PRAN Dairy Food in Bangladesh. Katarina thinks, there are several roles for the private sector and civil society in development collaboration, together with supplying goods and services, sharing its proficiency and experience, not the least by good CSR habits, and contributing funds or staff to external aid projects. Tetra Laval unites resources and networks with its dairy processing customers, forming partnerships to develop sustainable dairy value chains. Partners in public-private development partnerships include governments, UN and other development agencies, and civil society organizations.

She mentioned that dairy expansion alliances are in the form of Dairy Hub projects. The key objective is to upturn the collection of locally yielded milk from smallholder agrarians for industrial processing and packing, while at the same time enhancing skills, competence, and incomes for large groups of farmers. The involvement from Tetra Laval is mostly technical assistance provided by Food for Development specialists in smallholder milk production.

She also mentioned that for a successful and sustainable multi-stakeholder partnership, all partners must benefit. There must be developed skills and economic profits simultaneously. In many unindustrialized countries, smallholder farmers do not have a reliable market for their produced milk and other products. This uncertain milk market structure conducts to food losses and an unwillingness from farmers to invest in their further production. Initiatives to assist farmers' products more and better milk can only be sustainable if farmers get a specific market for their milk. A vital involvement from Tetra Laval and its dairy processing customers in value chain partnerships is market linkage. Smallholder farmers can wholesale all the milk they produce, all the time they require to sell all year round. For the dairy processor, long-term improvements include a steady and rising supply of locally produced, good-quality milk, which is required to provide the demand for processed and packaged milk products. By involving in value chain development projects, Tetra Laval is supporting its clients to grow and develop sustainable local economies.

PDH project creates opportunities for Tetra Laval to continue to build sustainable future markets within the food and dairy industry. Tetra Pak group facilitates its stakeholders with financial resources, agricultural know-how, skills, and credibility with its resources and experience. Tetra Pak also encouraged local financing partners to help by funding project staff and other project costs. Implementing partner (PRAN Dairy Foods) manages the PDH project on behalf of funders and other project partners. Tetra Pak also initiates the platforms for networking and advocacy among the stakeholders. In this project, Tetra Pak took initiatives with PRAN Dairy to involve SIDA and the Bangladesh government for starting this multi-stakeholder partnered project. In short, instead of traditional CSR activities, Tetra Pak has chosen to create a shared value approach to develop the social and economic condition of smallholding farmers in Bangladesh.

5.2.3 Smallholding Dairy Farmers

The researcher has interviewed the farmers who are the ultimate focus and beneficiary of this project. The researcher interviewed them to know about how this project impacted from an economic and social perspective. The researcher investigated the importance and effectiveness of MSP and CSV approach for wellbeing of smallholding dairy farmers through questioning them. There is a total of ten farmers questioned from different gender and age group. The total interview has been presented in summarized form after transcribing them.

First, they were asked what the existing challenges which they face most and how those challenges were hampering the growth of their business. All the farmers responded almost same. Besides lack of high yielding cows, inferior farming technology, diseases, lack of fodder and healthy foods, farmers do not have easy access to financial services and commodity market and distribution channels. Therefore, they found this project quite fruitful to solve their problems.

All of them agreed that the project facilities are beneficial, which is forming a formal market and letting the farmers getting all the modern dairy farming facilities. There is an average increase in farmers' monthly revenue from the dairy of 100-150% from \$100 to 230 per month. The smallholder farmers get economic support from this project to purchase of new cattle and replacement of low-productive local cattle (2-4L per day) with crossbreed cattle (6-12L per day). PDH also helped the farmers to improve breeding, feeding, veterinary, and cattle management practices that enable to increase yield for a given cattle by 50-100%, and milk fat content by 10-15%. Moreover, farmers have been mostly facilitated with increased in the sales price, from \$0.40 per L with intermediaries to \$0.50 with PDHs. PDH also guaranteed the farmers to sell 100% of the production whatever volume they produce vs. uncertainty of the traditional middlemen channels. Also, very smallholder farmers used to sell their milk production at local markets opened only five days per week, But PDH collects their produced milk every day twice. Farmers can pertain best practices to their existing cattle. They are getting sufficient income with free training, financial support, veterinary service, farm extension service, and market access support.

The answers from the farmers reflected here how MSP and CSV improved the smallholding dairy farming quality in Bangladesh.

6. Analysis & Discussion

This chapter purposes of addressing the results from the previous empirical chapter by analyzing the results using the conceptual framework from chapter three. The first part of this chapter will be describing how the researchers analyzed the empirical data with thematic data analysis approach. The rest of this chapter has described how the empirical data has generated the answer to the research questions using the conceptual framework used in chapter three.

6.1. Data Analysis using Thematic Analysis

In this part, the collected empirical data has been coded and arranged as per thematic categorization to develop and discuss the themes. During the first phase, the researcher has started to be familiarized with data. Since the writer had audio recordings, she followed transcription and transcribing the data. In this phase, the researcher has gone through all the data from the entire interview and had taken notes, and this is when she started marking preliminary ideas for codes that can describe the content. This stage is all about acquiring to know the data.

In phase 2, the writer assigned codes to the data. A code is a brief explanation of what is being said in the interview; so, each time the writer noted something interesting in the data, she wrote down a code. A code means description, not interpretation. It is a way to start organizing the data into meaningful groups.

In phase 3, the writer has started to sort the codes into themes. Whereas codes identify exciting information in the data, themes are broader and involve active interpretation of the codes and the data. The researcher has started by looking at the list of codes and their associated extracts and then tried to collate the codes into broader themes that say something interesting about the data. Drawing a map of the codes and themes or having codes on sticky notes that the writer can move around can help to visualize the relationship between different codes and themes as well as the level of the themes. In this phase, the writer has compared the most relevant themes with the empirical data. During phase 4, the researcher has reviewed and refined the themes that she identified during phase 3. She read through all the citations related to the codes in order to explore if they support the theme, if there are illogicalities and to see if themes overlap. In the words of Braun and Clarke (2013), “*Data within themes should cohere collectively meaningfully, while there should be clear and distinguishable distinctions between themes.*” Many themes came out from the empirical data. So, the writer has chosen the most relevant two themes that have been analyzed and discussed in this paper.

During phase 5, the writer has named and described each of the themes she identified in the previous steps. Here she discussed in detail why this is relevant. Moreover, after that, she completed her analysis with discussion in phase 6. The whole data analysis part has been discussed in the below table (Table 7):

Participants		Data from the Interview	Coding	Thematic Categorizing	Theme
PRAN Dairy Food, Local Dairy Enterprise Representative	Dr. Rakibur Rahman	<ul style="list-style-type: none"> Identifying social problems in smallholding dairy farming Creating Values for the Farmers instead of corporate social responsibility Associating with multiple stakeholders Providing small farmers support farming, financing, and marketing. 	<ul style="list-style-type: none"> Soc.Prb (Social Problem) CRV (Creating Values) Prt (Partnership) CSV (Creating Shared Value) So forth 	<ul style="list-style-type: none"> Creating values from different stakeholders 	<ul style="list-style-type: none"> Multi-stakeholder partnership Creating shared value Impacts of MSP and CSV on smallholding farmers
Tetra Pak Laval Group, Supplier and NGO in Dairy Industry	Katarina Eriksson	<ul style="list-style-type: none"> Identifying social problems in smallholding dairy farming Creating Values for the Farmers instead of donating money Associating with multiple stakeholders to share values with small-scale farmers 	<ul style="list-style-type: none"> Soc.Prb (Social Problem) CRV (Creating Values) Prt (Partnership) CSV (Creating Shared Value) So Forth 	<ul style="list-style-type: none"> Creating shared values with a multi-stakeholder partnership approach. 	<ul style="list-style-type: none"> Multi-stakeholder partnership Creating shared value Impacts of MSP and CSV on smallholding farmers
Participant Farmers Group	Adnan Ferdous	<ul style="list-style-type: none"> Realized the importance of a formal market. Impressed with the MSP dairy project Farming technology, input resources, and veterinary services improved Income increased 	<ul style="list-style-type: none"> VC (value chain) Mkt (market) Form. Mkt (Formal Market) So Forth 	<ul style="list-style-type: none"> Importance of stakeholders Importance of multi-stakeholder partnership approach Creating shared value 	<ul style="list-style-type: none"> Importance of MSP and CSV approach in forming formal dairy value chain market and smallholding farmers' income.
	Abdul Hannan				
	Raju Ahammed				
	Mamunur Rashid				
	Sufia Khatun				
	Shariful Islam				
	Saiful Islam				
	Sumon Mia				
	Habibur Rahman				
	Sultana Razia				

Table 7 Thematic Analysis of Empirical Data

There are two research questions which have been outlined from the problem background of the research. For empirical data collection, the researcher has developed questions from the research question, which helped to frame the answers to the research questions. As mentioned earlier, this study has investigated how the multi-stakeholder partnership creates value for forming a dairy value chain for the wellbeing of smallholding dairy farmers. Since this study involves multiple stakeholders, so the researcher has collected data from the relevant stakeholders related to the case study. She transcribed the data and coded thematically to find out the themes. Here she found two underlying themes related to the research questions: multi-stakeholder partnership and creating shared values. Data from the farmers, who are the beneficiaries of this project, reflected their view regarding MSP and CSV concepts.

6.2. Discussion

In this chapter, the conceptual frameworks have been matched with the empirical data to answer the research question of this study. The study aimed to investigate how MSP and CSV approach form the dairy value chain and why they are essential for the smallholding farmers. All the previous literature and empirical data have been coded and analyzed in the previous section of this chapter.

6.2.1. Multi-stakeholder Partnership & Its Importance

The problem background and literature chapter presented the importance of formal dairy value chain in Bangladesh. The literature showed that around 80% of produced milk by smallholding farmers are handled informally in the open or local market in Bangladesh. The interview with farmers also proved this info. There is barely a structured procedure of small-scale dairy production, so farmers face numerous problems. Most mentionable problems are lack of improved breeds, high priced fodder and forage, lack of quality fodder and forage, knowledge and skill set of the rural farmers, disease outbreak, shortage of vaccine, high price of medicines, lack of skilled workforce, access to bank loans, problem with marketing of the produced milk, justified price of milk, absence of cow insurance, lack of facilities for preservation of milk and milk products and quality control, absence of regulatory organisation like national milk development board, lack of grazing land for the cattle and many more. These problems cause a loss in profit, unhealthy dairy supply, and consumption and poverty. Therefore, there is evidence that showed that formal value chains could address these issues in a structured and improved way. In a formal dairy value chain, farmers get healthy inputs (feeds, fodders, semen, etc.), the latest knowledge of technology, production facilities, and distribution facilities by different stakeholders. Hence, according to experts, MSP can be an excellent strategy to form a formal dairy value chain in Bangladesh.

As mentioned earlier, Multi-stakeholder Partnerships means cross-sector sustainable development partnerships, seen as a method to increase innovation, capacity, and resources to deliver on sustainable development goals (Nel, 2017). In this study, the main feature observed is a multi-stakeholder strategy followed by the stakeholders. In this case, all the stakeholders (UNIDO, PRAN, Tetra Laval AB, the farmers, and Ministry of Fisheries and Livestock's Department of Livestock Services (DLS)) are also representative of different sectors for sustainable development purpose in the dairy business in Bangladesh. Another vital opinion about multi-stakeholder partnership describes that MSP contains organizations from different societal sectors working together, sharing risks and joining their unique resources and capabilities in ways that can generate and maximize value towards shared partnership and

individual partner objectives, often through more innovative, more sustainable, more efficient and more systemic approaches (Stibbe & Prescott, 2016). The researcher has observed in this case that the shareholders of this project also work together to join their unique resources and capabilities. The interview data from PRAN Dairy and Tetra Pak representatives also proved the MSP approach. The activities and contribution from different stakeholders have different impacts in this case study. For example, PRAN Dairy, who is the leader of this project, has provided the collaboration facility among the farmers, NGOs, and the Bangladesh Government. PRAN Dairy implemented the projected Dairy Hubs and invited another stakeholder (SIDA, Tetra Pak Group) to share their resources and knowledge. The farmers also joined in this project voluntarily to get the proper market value. Smallholder dairy farmers supplying milk to PRAN through the dairy hubs are the primary beneficiaries, receiving training, various kinds of services, and additional access to the market. They are offered to participate in training activities and to receive other services through PRAN. So the farmers followed all the conditions and requirements of the stakeholders accordingly. In short, the researcher has found the presence of practical MSP approach in this project, which shows the participation of different stakeholders to form a formal dairy value chain in Bangladesh and to address the challenges.

Previous researchers stated that the principal purpose of MSP is that it brings together multiple stakeholders to address wicked problems (Nel, 2017). In this study, the challenges of smallholding dairy farmers have been addressed in the problem background and literature review part. The interview with farmers also revealed the existence of the addressed problems. These problems are like wicked problems which are nearly public policy issues, and tough to describe, contextualize, and define or to solve. Nel (2017) also stated that the MSP approach is quite useful to address a wicked problem, which is mostly tough to solve alone due to value-chain relationships among different stakeholders of the chain. In this project, the stakeholders like dairy processors (PRAN Dairy), packaging supplier (Tetra Pak), donor NGO (SIDA) came together voluntarily to address the social and economic problems of smallholding dairy farmers in Bangladesh. It would be harsh or inefficient if only PRAN or Tetra Pak or Bangladesh government come alone to solve these complicated issues. The multiple stakeholders confirmed that smallholder farmers would have access to competitive agro-inputs, credit facilities, and output markets.

6.2.2. Creating Shared Value through MSP Approach

Another essential business strategy addressed in this study is creating shared value (CSV) approach. The previous literature defined CSV as policies and practices that enable businesses to increase competitiveness while simultaneously addressing social problems (Porter and Kramer, 2011). Since tradition corporate social responsibilities (CSR) approach is no longer practical to address social and economic problems in developing countries (ibid), therefore business experts like Porter & Kramer (2011) introduced CSV approach to solving problems of different stakeholders in a business. CSV is a central feature of a multi-stakeholder partnership strategy in smallholding agribusiness. Experts have proved with several studies that the CSV approach can be used as a dynamic tool to build a formal value chain for the smallholding farmers (Senevirathna, 2018). Formal value chains represent a business structure in which producers and buyers of agricultural products form strategic associations with other supply chain actors, such as aggregators, processors, suppliers, retailers, and consumers, to enhance financial revenues through product diversity that advances social or environmental values

(Diamond et al., 2014). Partners in these business alliances distinguish that creating maximum value for their products depends on interdependence, partnership, and shared support (ibid).

The participated stakeholders of PRAN Dairy Hub (PDH) project were asked by the researcher that what strategy is mainly followed to run the activities of this project. All the representatives replied that value creation through MSP approach is the vital tool of this project. In this project, multiple supply chain actors like dairy farmers, dairy food processors (PRAN dairy), packaging suppliers (Tetra Pak) have constructed a strategic alliance form to enhance financial revenues through product diversity that advances social or environmental values. The civil society organization (SIDA) also allied with this project for creating shared value instead of just donating money.

According to the experts, CSV has three unique features which play critical roles in forming a formal value chain market. These three features are *reconceiving products and markets*, *redefining productivity in the value chain*, and *building supportive industry clusters* (Porter & Kramer, 2011), which have been explained in the conceptual framework chapter. After transcribing the empirical data and previous literature, the researcher has found the PDH projects, one of the key features is the CSV approach. The secondary stakeholders (PRAN Dairy, Tetra Pak, SIDA, Government, etc.) created value for the smallholding farmers who are the primary stakeholders (beneficiaries). The secondary stakeholders mostly followed the second and third features of CSV. They are redefining productivity in the value chain emphasizes on improvements in internal processes that progress cost, input access, quality, and efficiency achieved through environmental developments, better resource utilization, investment in employees, supplier competence, and other areas. PRAN Dairy provided the smallholding dairy farmers the primary farming resources like high yielding cows or semen, feeds, fodder, and other input resources.

PRAN also provides the farmer's veterinary services, certification for financial loans and supports, and secured commodity market with fair milk price for the farmers. Tetra Pak provides the technical training of modern scientific dairy farming to the farmers. SIDA provided the funding of the initial starting of this project and also provided third-party auditing for project evaluation and assuring transparency. Thus, all the stakeholders of the dairy business in Bangladesh creates value by redefining the productivity of the dairy industry. On the other hand, PRAN Dairy, Bangladesh Government, and Tetra Pak together made the milk market easy accessible for the smallholding farmers. PRAN dairy ensures the farmers to sell all of their milk production with decent quality and distribution. The dairy hub confirms for perfect milk preservation and processing quality. The extensive marketing network of PRAN Dairy also confirms for milk distribution all over Bangladesh. Here the researcher observed that these activities indicate CSV approach's third feature *building supportive industry clusters* which focuses community investments and strengthening local suppliers, local institutions, and local infrastructure in ways that also enhance business productivity.

In short, the researcher observed that the stakeholders of this project mostly solved the addressed interconnected challenges in smallholding dairy business in Bangladesh by following MSP and CSV approach.

6.2.3. The Impacts of MSP & CSV Approach on Smallholding Farmers

Since the above chapters made this clear that the PDH project's main feature is MSP and CSV strategies which address the current social and economic challenges of smallholding dairy

business, so the consequences of these strategies will be discussed in this part. Lack of formal dairy market causes many problems and losses for the farmers. Because the open dairy market causes challenges in input selection & purchase, financing, cultivation, processing, and market channeling, as per the literature. Therefore, PRAN dairy combined with Tetra Pak, SIDA, and Bangladesh government came voluntarily to identify these problems and solving them, which defines the MSP approach. To solve these issues, this project used the newest business tool 'creating shared value (CSV)' approach as well, instead of following traditional CSR activities. All the literature and interview data showed the features and functions of MSP and CSV approach in the PDH project of this study. Since all the stakeholders ensure the transparency and reliability among stakeholders, so the yearly evaluation of this project has drawn the consequences of these latest business tools in smallholding farming.

As mentioned before, farmers are the primary beneficiary of this project. The MSP and CSV strategies of PDH project improved the income and living standard of smallholding farmers. Many new entrepreneurs are coming into the dairy farming business. The monthly income of the farmers increased by 100-150% since the other stakeholders ensure the easy dairy market access of the farmers. The intermediaries are no longer able to grab the whole profit from the poor farmers. They can buy new cattle and replacement of low-productive local cattle. Upgraded breeding, feeding, veterinary, and cattle management practices that enable to upsurge yield for a given cattle by 50% to 100%, which also increase the profit margin and quality of milk. Apart from the increased milk profit, the yearly import of powdered milk in Bangladesh decreased, which broadened the market for smallholding dairy farmers.

Most importantly, after the evaluation of these projects, it has been proved the MSP, and CSV approaches of this project improved efficiency in the value chain. Farmers and other interviewees ensured that after this project started, very less milk has been lost. The overall production, processing, and distribution have formal structures now, which ensure better quality production, processing, and profitable distribution.

However, there are several points in this project, which should be critically assessed. The smallholding farmers are quite pleased with the changed and improved farming situation. However, many of them are not aware of the interest rate of loans and policies. So financial fraud risk may be a significant threat of this MSP-based project. The intermediaries were a vital part of smallholding dairy farming in a traditional market system. However, these intermediaries' future role is not clarified in this project, which is quite a critical drawback of this project. The expectation of farmers and the available resources are not adequate to address all the challenges of small farmers. In short, the researcher has observed that the PDH project initiated the MSP and CSV concepts as crucial business tools. These tools have active influences and impacts in the dairy market in Bangladesh.

7. Conclusion

This chapter aims to clarify what the findings in the study conclude from the previous chapters, and answer the research question stated in chapter one: a) How does a multi-stakeholder partnership approach play a decisive role in forming a formal dairy value chain in Bangladesh? b) Why are a multi-stakeholder partnership and creating shared value approaches important for smallholding farmers in Bangladesh?

7.1. Findings and Contributions

In this final chapter, the answer to the researcher question has been presented along with the aim of this research. This study aimed to investigate how multi-stakeholder partnership (MSP) approach can create values to form a formal value chain to meet the challenges of smallholding dairy business in Bangladesh and to evaluate the impacts of these business tools on smallholding farmers' income. According to the stated aim, the first research question is:

a) How does a multi-stakeholder partnership approach play a decisive role in forming a formal dairy value chain in Bangladesh?

The theories of multi-stakeholder partnership and creating shared value approach, presented in the conceptual framework chapter, have been used to answer this question. The PRAN Dairy Hub project is the example of a multi-stakeholder partnership project which follows all the characteristics of the MSP approach. Creating shared value is another important concept which urges the MSP approach for the dairy value chain development. Literature and empirics showed that MSP and CSV are the complementary tools of each other in running agribusiness in developing countries like Bangladesh. The MSP approach becomes more productive in forming the value chain in an agribusiness by creating shared value in the chain. All dairy value chain actors are interconnected, and thus, the problems are also interconnected. No single value chain actor can solve these problems related to dairy production, processing, and distribution. Mainly, the MSP approach is the best fit for smallholding dairy farmers. So, to solve the smallholding farming challenges, a formal value chain implementation is mandatory. Moreover, the empirical data showed that to form an efficient smallholding dairy value chain, the PDH project adopted the MSP approach and used creating shared value method.

The following research question is:

b) Why are a multi-stakeholder partnership and creating shared value approaches important for smallholding farmers in Bangladesh?

The MSP and CSV concepts have been used to answer this research question as well. The characteristics of the MSP and CSV approach has been presented in the conceptual framework chapter. The empirical data has been evaluated with the characteristics of MSP and CSV approach to identify the impacts of these two business tools on smallholding farming. After reviewing the features of MSP and CSV, the researcher has identified that MSP and CSV approaches have a quite useful influence on smallholding dairy farming business in Bangladesh. The farmers were underprivileged, and the government alone was not providing adequate support for the smallholding dairy farming business. Therefore, the private sector and civil society have started contribution along with the government for the dairy value chain development by adopting the MSP approach and creating shared values in the chain. Experimental data showed that variety of stakeholders guaranteed that smallholder farmers

have not only access to competitive agro-inputs, credit facilities, and output markets but are also exposed to policy environments for increased technology progress, adaptation and subsequent adoption by smallholder farmers. The MSP approach, along with the CSV method, has increased net incomes by providing incentives for investment, training, veterinary services, and other opportunities.

In summary, the study identifies that multi-stakeholder partnership and creating shared value approaches are quite crucial in the development of agribusiness and dairy farming business in developing country like Bangladesh. These latest business approaches have numerous influences on smallholding dairy farming business both positively and negatively. However, this study has mainly focused on the positive impacts of MSP and CSV approach on small scale dairy business in Bangladesh.

7.2. Future Research

This case study has shown how the MSP and CSV approach works in smallholding dairy business in Bangladesh. This study mainly focused on positive impacts of the newly adopted business strategies-MSP and CSV approach, particularly on smallholding farmers. Due to lack of resources, this study has not researched the impacts on other value chain actors like firms, consumers, or on the government. Further study in this sector can address the overall influence of MSP and CSV approach on the other actors as well. This study is based on a developing country, where many types of challenges exist like gender issues, macro-economic issues (political, government policy, and so forth.). These issues have not considered while assessing the empirical evidence. Therefore, further studies can be conducted based on other common significant issues in a developing country. In short, further research can be more useful to adopt and implement the MSP and CSV approach for smallholding agribusiness more perfectly.

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Appendix

Questionnaire 1:

এই প্রশ্নপত্রটি সুইডেনের সুইডিশ ইউনিভার্সিটি অফ এগ্রিচালচারাল সায়েন্স এর একটি মাস্টার্স প্রোগ্রামের কাজে ব্যবহৃত হবে। এই প্রশ্নগুলো প্রাণ ডেইরী হাব প্রকল্পের সাথে যুক্ত ১০জন গরুখামারির ইন্টারভিউয়ের জন্য তৈরি হয়েছে। এই প্রশ্নের মাধ্যমে খামারিরা এই প্রকল্পের সাথে কেন যুক্ত হল, যুক্ত হওয়ার পর তাদের আর্থিক, সামাজিক অবস্থার কি কি পরিবর্তন হয়েছে তা গবেষণা করা হবে। এই প্রশ্নগুলো এবং খামারিদের উত্তর, তাদের পরিচয় সম্পূর্ণ গোপন রাখা হবে। এমনকি খামারিদের উত্তর এই প্রজেক্টের কোনও কাজে প্রভাব ফেলবে না। এই প্রশ্নগুলো শুধুমাত্র থিসিসের একটা অংশে ব্যবহার করা হবে। কাজেই কোনও খামারি নেগেটিভ/পজেটিভ যেই উত্তরই দিক না কেন, তাতে প্রাণ ডেইরী প্রজেক্ট/ভাবমূর্তির উপর কোনও প্রভাব পড়বে না। এই প্রশ্নগুলোর উত্তর ফোন রেকর্ডারে রেকর্ড করতে হবে, যেন থিসিসের লেখক তা নিজে একবার শুনতে পারে এবং থিসিসের লেখার কাজে ব্যবহার করতে পারে। প্রশ্ন-উত্তরগুলো রেকর্ড করা হলে সেগুলো খামারিদের নাম অনুসারে সেভ করতে হবে। প্রত্যেক খামারির নাম আর বয়স অবশ্যই লিখতে হবে, যেন লেখক তাদেরকে আলাদাভাবে identify করতে পারে।

Name (নাম):

Age বয়স:

Project District (জেলা):

Profession (পেশা): গরু-খামারি

Other profession (অন্য পেশা যদি থাকে):

1. What is your current profession? (আপনার বর্তমান পেশা কি? গরু পালন/খামার ছাড়া অন্য কোনও পেশা আছে কি?)
2. How long are you involved in this project? (কতদিন ধরে প্রাণ ডেইরী প্রজেক্টের সাথে যুক্ত? কেন এই প্রজেক্টের সাথে যুক্ত হলেন?)
3. What was your problem of producing and selling milk in the market before joining this project? (এই প্রজেক্টে যুক্ত হওয়ার আগে গরু পালন ও দুধ বিক্রির কি অবস্থা ছিল? আপনার পারিবারিক, আর্থিক বা সামাজিক অবস্থা কেমন ছিল?)

4. Is there any change after joining this dairy project? If yes, what kind of change? (এই প্রজেক্টে যুক্ত হওয়ার পর গরু পালন/দুধ বিক্রি/পশু-পালন ও পরিচর্যা এসব বিষয়ে কোনও পরিবর্তন হয়েছে কি? আপনার মতামত দিন।)
5. What are the good side of attending this project? (আপনার মতে, এই প্রজেক্টের ভালো দিক কোনগুলো?)
6. What are the bad sides of attending this project? (আপনার মতে এই প্রজেক্টের সাথে যুক্ত হয়ে কোনও ধরনের অসুবিধা পেতে হয়েছে?)
7. Do you think there could be something different to get better result from this project? (আপনি কি মনে করেন খামারিদের উন্নয়নের জন্য এই ধরনের প্রজেক্ট আরও করা উচিত? বা এই প্রজেক্টটার মধ্যে আর কি কি থাকলে ভালো হত?)
8. What's your overall thought about the current situation of dairy farmers? How the situation could be better? (দেশের গরু খামারিদের বর্তমান অবস্থা কেমন বলে মনে করেন? এই অবস্থার কারণ কি? আপনার মতে কি করলে এই অবস্থার উন্নতি করা যেতে পারে?)

Questionnaire 2:

এই প্রশ্নপত্রটি সুইডেনের সুইডিশ ইউনিভার্সিটি অফ এগ্রিচালচারাল সায়েন্স এর একটি মাস্টার্স প্রোগ্রামের কাজে ব্যবহৃত হবে। এই প্রশ্নগুলো প্রাণ ডেইরী হাব প্রকল্পের সাথে যুক্ত project coordinator's ইন্টারভিউয়ের জন্য তৈরি হয়েছে। এই প্রশ্নের মাধ্যমে প্রাণ ডেইরী হাব কেন তাদের এই প্রজেক্ট শুরু করলো, খামারিরা এই প্রকল্পের সাথে কিভাবে যুক্ত হল, যুক্ত হওয়ার পর তাদের আর্থিক, সামাজিক অবস্থার কি কি পরিবর্তন হয়েছে, প্রজেক্টটি চালাতে কি কি অসুবিধা হয়েছে, কিভাবে হলে ভালো হত এবং ভবিষ্যতের জন্য কি পরিকল্পনা তা গবেষণা করা হবে। এই প্রশ্ন-উত্তর, উত্তরদাতার পরিচয় সম্পূর্ণ গোপন রাখা হবে। এই ইন্টারভিউয়ের উত্তর এই প্রজেক্টের কোনও কাজে প্রভাব ফেলবে না। এই প্রশ্নগুলো শুধুমাত্র থিসিসের একটা অংশে ব্যবহার করা হবে। কাজেই নেগেটিভ/পজেটিভ যেই উত্তরই হোক না কেন, তাতে প্রাণ ডেইরী প্রজেক্ট/ভাবমূর্তির উপর কোনও প্রভাব পড়বে না। এই প্রশ্নগুলোর উত্তর ফোন রেকর্ডারে রেকর্ড করতে হবে, যেন থিসিসের লেখক তা নিজে একবার শুনতে পারে এবং থিসিসের লেখার কাজে ব্যবহার করতে পারে।

Name:

Designation:

Organization:

Email:

Phone number:

1. When did you join this project? Why Pran Dairy started this project?
2. Please tell the story behind starting this project?
3. How do you define the partnership with Tetrapak and Pran Dairy to start this project? Was it a collaboration/multi-stakeholder Partnership/ partnership/co-operative?
4. What another business strategy has PDH followed to implement its plan?
5. Why has Pran Dairy chosen Tetra-Pak level as the partner in this project?
6. What problems did PRAN face during the implementation of this project?
7. As a project coordinator, do you think there was some lacking from Pran-dairy group? For example, was there anything shortcoming of resource/funding/ human resource/technology?
8. Was there any problem from dairy farmers perspective?

9. Have you followed any other project structure? Like Milkvita, Grameen-Danone etc.?
10. How did the Pran improve the project design? How is the project running now?
11. Do you think any more improvisation can be done in this project?
12. How do you evaluate MSP and CSV concepts from this project perspective? Are these tools useful for the smallholding farmers and the rest of the stakeholders?
13. Please share your opinion for the future of dairy farming business in Bangladesh. Do you think the private sector can come in this line more often to improve the overall situation?

Questionnaire 3:

This is the questionnaire for empirical data collection of the case study for the master's Thesis Project at the Swedish University of Agricultural Sciences. The data will be only used for the thesis writing a purpose, and the data will be preserved as standard ethical consideration.

Questionnaire number 3 is for the partner organization (Tetra Laval Group) representative to know about the details of the project.

Name:

Designation:

Organization:

Email:

Phone number:

1. Why has Tetra Pak chosen Bangladesh and Pran group for their project?
2. What was the primary purpose of this project?
3. How you have planned to contribute your role for this project?
4. What type of contributions Tetra Pak provided during the project and why?
5. During starting the project, did the Tetra Pak group faced any obstacles from government/society/anyone else?
6. What obstacles were there during the implementation of the project, e.g., while providing training/ providing other facilities?
7. Did you find any gender issues for this project?
8. As a stakeholder, do you think there were any lacking from stakeholder perspective?
9. How do you evaluate this project strategy