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Addressing dairy production challenges through a shared value approach

- A case study of an Indonesian cooperative

Simon Svensson

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Addressing dairy production challenges through a shared value approach
- A case study of an Indonesian cooperative

Simon Svensson

Supervisor: Cecilia Mark-Herbert, Swedish University of Agricultural Sciences, Department of Economics

Examiner: Karin Hakelius, Swedish University of Agricultural Sciences, Department of Economics

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Summary

The global demand for agricultural outputs are increasing due to the earth's growing population and the numerous challenges related to it has been presented with many proposed solutions. In countries defined as developing markets and economies, challenges associated with the needs of the population are particularly difficult to meet. Emerging markets in this context, such as the dairy industry, struggle with productivity and output due to resource restrictions. Meanwhile, businesses accountability towards the society, addressing social issues and environmental objectives, have transformed into contemporary business practice.

Businesses embracing *corporate social responsibility* has become the modern way to conduct business activities, in both developing countries and developed countries. There has also been a wider recognition in the academic society and among corporations that the society can possess the key for a prosperous business. New concepts such as *shared value* has evolved to explain the interdependencies between business and society. Ultimately, pure philanthropic behaviour has been introduced to a competitor when it comes to solving the issues related to the context of a developing market. The resource scarcity among these local businesses entails challenges to achieve the most prosperous economy as possible. Resources, such as *knowledge*, therefore need to be sourced externally and *networks* are a good example for fostering *knowledge transfer*. The intrinsic capabilities for the network members to absorb knowledge have not widely been investigated among smaller firms in developing markets.

With the help of shared value, knowledge and network the aim of this study is to identify factors that have an impact milk production in the context of a dairy cooperative in a developing country. Further objective is to investigate how the cooperative interacts with its members to reach an increased milk production. This study contains a case study of the business activities performed by an Indonesian dairy cooperative, KAN Jabung, that has given attention to the importance of knowledge and networking to improve production and productivity. The research is based on literature review and several sources of empirical data such as semi-structured personal interviews, observations and secondary data. Furthermore, the study has a flexible design and took ethical considerations into account.

The results of this study suggest that a small-scale cooperative in a developing country can achieve social objectives and transformation, engage in collaborative exchanges of knowledge while simultaneously increase its production. The result also indicates that not all factors for enhancing production are within range of influence from a cooperative middleman in the supply chain and that individual or family aspects are important when addressing family businesses.

A general observation is that in order to conduct business (for example selling milk), a company in a developing country may be forced to create its own supplier. In this case it is represented by the activities the cooperative undertook to educate and collaborate with dairy farmers, aiming for a higher production and improved local society.

Sammanfattning

Den globala efterfrågan på jordbruksprodukter ökar i samband med jordens växande befolkning och de många utmaningar som är förknippade med detta har fått flertalet lösningar presenterade. I länder som definieras som utvecklingsmarknader och -ekonomier är utmaningar relaterade till befolkningens behov särskilt svåra att uppfylla. Tillväxtmarknader i denna kontext, såsom mejeriindustrin, kämpar med produktivitet och produktion på grund av begränsade resurser. Samtidigt har företagens ansvarsskyldighet gentemot samhället, att ta itu med sociala frågor och miljömål, förvandlats till den moderna metoden för affärsverksamhet.

För företag har anammandet av socialt ansvar blivit det moderna sättet att bedriva verksamhet på, både i utvecklingsländer och industriländer. Det existerar också ett större erkännande bland forskare och företag om att samhället kan inneha nyckeln till ett framgångsrikt företag. Nya begrepp såsom shared value växer fram för att förklara det ömsesidiga beroendet mellan företag och samhälle. I slutändan har rent filantropiskt handlande fått en konkurrent om att lösa de problem som uppkommer i ett utvecklingslands kontext. Resursbristen bland lokala företag innebär utmaningar för att uppnå ett så framgångsrikt företagande som möjligt. Resurser, såsom kunskap, måste därför anskaffas externt och nätverk är ett bra exempel för att främja kunskapsöverföring. Bland mindre företag i utvecklingsländer har den egentliga kapaciteten för nätverkets medlemmar att tillvarata kunskap inte vida undersökts.

Med hjälp av shared value, kunskap och nätverk så är syftet med den här studien att identifiera faktorer för att öka mjölkproduktionen hos ett mejerikooperativ, med ett utvecklingslands kontext. Ytterligare en avsikt är att undersöka hur kooperativet samverkar med sina medlemmar för att nå en ökad mjölkproduktion. Denna studie innehåller en fallstudie av verksamheten hos ett indonesiskt mejerikooperativ, KAN Jabung, som har uppmärksammat vikten av kunskap och nätverk för att förbättra produktionen och produktiviteten. Studien grundar sig i en litteraturgenomgång och flera källor av empiriska data såsom semi-strukturerade personliga intervjuer, observationer och sekundära uppgifter. Dessutom har studien en flexibel design och tog etisk hänsyn.

Resultaten från denna studie tyder på att ett småskaligt kooperativ i ett utvecklingsland kan uppnå sociala mål och förändring, delta i samverkans utbyten gällande kunskap och samtidigt öka sin produktion. Den visar också att inte alla faktorer för att öka produktionen är inom räckhåll för påverkan från en mellanhand i leveranskedjan och att individuella- eller familjeaspekter är viktiga när man vänder sig till familjeföretag.

En generell observation gäller att företag i ett utvecklingsland som vill bedriva sin verksamhet (till exempel sälja mjölk) kan förmås att skapa sin egen leverantör. I detta fall representeras det av verksamheten kooperativet genomför för att utbilda och samarbeta med mjölkbönder med avsiktet att nå en högre produktivitet, produktion och förbättrat lokal samhälle.

Abbreviations

BMS – Bucket Milking System

BSN - Business Social Networks

CSR – Corporate Social Responsibility

DDGS - Distillers Dried Grains with Solubles

KAN – Koperasi Agro Niaga (The Agricultural Trade Cooperative)

KM – Knowledge Management

KS – Knowledge Sharing

LDP - Leadership Development Program

MNC – Multinational Corporation

NGO- Non-Governmental Organisation

PSN - Personal Social Networks

R&D – Research and Development

SME – Small and Medium Enterprises

SV –Shared Value

TBL – Triple Bottom Line

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"Back in 2004 I used to work at several different jobs but I really wanted to become a real dairy farmer. So I joined KAN Jabung to be able to become a farmer and my own boss".

Mrs Khusnul, dairy farmer, Sidomulyo village

1 Introduction

This chapter presents the background for the studied subjects and their context. The introduction offers a presentation of revealed intangible problems, the aim of the study, definitions of central concepts as well as the outline of the thesis.

The food production over the past 50 years has increased tremendously as farmers have utilized high-yielding crop varieties, pesticides, irrigation and fertilizers (Matson *et al*., 1997). Nevertheless, global demand for agricultural outputs such as food, feed, biofuels, and fibre is increasing with the Earth's growing population. There is also an increased demand for fish, meat, dairy and processed food, which is derived from people's increased purchasing power and consumption (Godfray *et al*., 2010). The human population is growing rapidly and approaching nine billion people, which creates challenges for achieving efficient and productive land usage (Horlings and Marsden, 2011). As a result, it has been recognized that it will be necessary to produce up to 70-100% more food (Godfray *et al*., 2010). The need for increased food production will occur for several reasons, such as the increasing population, more consumer purchasing power (especially for meat) and modified diets as a result of urbanisation (Pretty *et al.,* 2003). According to Horlings and Marsden (2011) the small-scale farmers of developing countries are the backbone of global food security. Tscharntke *et al.* (2012) conclude that food security[1] and food sovereignty[2] need to increase in areas affected by food shortage and hunger. In conclusion, food security and food sovereignty constitute challenges in many developing economies.

A rapid growth in demand for dairy products has evolved in developing markets (van Hooijdonk and Hettinga, 2015). Dairy products are considered an important food group to ensure public health and in many countries the dairy products contribute considerably to nutrient intake. Milk production is seen as a key converter of human inedible resources to nutritious food (*Ibid.*). By 2050 the estimated consumption of dairy products (fresh milk equivalents) in developing countries is forecasted to grow from 52 kg/person/year (in 2005/2007) to 76 kg/person/year (Alexandratos and Bruinsma, 2012, 44). The volume growth will primarily be due to boosted consumption in developing countries where the dairy supply chain will have to successively go through structural changes to meet this increased demand (van Hooijdonk and Hettinga, 2015). Promote

The average yearly milk production per cow differs substantially between countries, from 2539 kg/cow in China to 9682kg/cow in the United States (van Hooijdonk and Hettinga, 2015, 49). The "yield-gap" helps to explain the difference between the actual productivity and the best possible productivity. The "yield-gap" indicates a productivity difference, which can partially be explained by the usage of different genetic materials, technologies and management. Furthermore, the yields each country can achieve depend on the capacity of farmers to access and use resources such as seeds, water, nutrients, knowledge, etc. Another reason for the existence of a "yield-gap" is derived from the high cost of production inputs or the low returns from increased production. This makes the investment to reach the optimal production economically suboptimal. Poor opportunity for optimal logistics and the markets infrastructure add costs to the inputs and further increases the costs to transport food into

[1] A measure of household and individual welfare together with access to food, clean water and good sanitation (Pinstrup-Andersen, 2009).
[2] A term for tackling the problems of hunger and malnutrition while encouraging rural development, environmental integrity and sustainable livelihoods (Windfuhr and Jonsén, 2005).

domestic or international markets. If the investment risks are high, the most rational decision can be to not invest and to have a risk aversive attitude, which becomes a part of the "poverty trap" (Godfray *et al*., 2010, 813).

1.1 Problem background

Innovative agricultural enterprises that are capable of producing higher output levels from existing land need to evolve (Jordan *et al.,* 2013). This needs to be addressed while meeting the new standards concerning high performance in economic, social and environmental dimensions. True sustainable entrepreneurship has emerged among private enterprises that previously focused on producing with environmentally friendly methods (Keijzers, 2002). It refers to restraining pollution and conserving natural capital while simultaneously allowing for sufficient social and economic development, resulting in sustainable enterprises. Agricultural development has been described as "multidimensional, multi-scale and highly dynamic interactions between (nested) social and biophysical systems" (van Paassen *et al.*, 2011, 311). The process for agricultural development is seemingly very complex and addresses issues regarding the social society, a prosperous economy and environmental concerns.

Isaksson and Garvare (2003) present their view on sustainable development as something that has drifted away from concerns about economic activity to also include economic prosperity, environmental protection and social equity. Elkington (1998) states that economic, social and environmental objectives need to be addressed by the modern business models and refer to it as the triple bottom line (**TBL**). This concept adds corporate accountability to the traditional economic aspect of a business unit. Businesses are expected to create economic value that also generates value for the society it operates in by managing its needs and challenges (Porter and Kramer, 2011). Thus a company's success is correlates with emerging social development.

The sustainability aspect of agriculture is often examined with focus on decreasing the environmental effects of its production systems. Darnhofer (2010) however claims that environmentally friendly production methods may not include the farm's long-lasting economic and social sustainability. Interactions between socio-economic and bio-physical factors have to be considered when studying agricultural sustainability. Thompson (2007) believes that sustainable development depends on the maintenance of these factors. "No particular production technology, form of land tenure or other human practice is either sustainable or unsustainable in isolation. One examines a practice within a system context and then asks whether the total system is sustainable, presuming that what happens outside system borders remains stable" (Thompson, 2007, 6). This view of sustainable development emphasizes the importance of context and that the whole process is more important than isolated practices.

Agricultural sustainability can have an influence on rural inhabitants' socioeconomic situation as well as contribute to expand food production (Pretty *et al.,* 2003). Pretty *et al.* (2003) have contributed with a study regarding small-scale farmers in Asia, Latin America and Africa. The study demonstrates that changes regarding farm management towards agricultural sustainability enabled local farmers to increase their food production by 93% on an average (Pretty *et al.,* 2003, 223). In addition, farmers who started with a low yield have a relatively higher yield increase, which implies greater benefits for these farmers when compared to farmers who started with a high yield. Their evidence suggests that productivity can increase

in the long-term if natural, social and human capital assets are accumulated. Thus, agriculture and its dynamic relation to the social society goes beyond issues concerning food security and environmental considerations.

One of the developing countries in transition is Indonesia (www, IMF, 2016, 1) where the growth in milk production and dairy cow population is visible (Morey, 2011). Moreover, the majority of Indonesia's individual dairy farmers are members of small local cooperatives that are very common in the Indonesian business milieu (Suradisastra, 2006). Indonesia has experienced an impressive economic growth since the 1990 financial crisis and has become the largest economy in Southeast Asia (www, World Bank, 1, 2016). The national income per capita has climbed from $560 in the year 2000 to $3,630 in 2014. It is the 10th largest economy in terms of purchasing power parity and the poverty rate has declined with half since the year 1999. With its 252 million people it is the fourth most populous nation in the world but still 28.6 million Indonesians live below the poverty line (www, World Bank, 1, 2016). Indonesia's GDP and government budget receives important funds from the utilization of the country's natural resources. Around 25 % of the country's GDP and about 30% of government budget revenue originates from the agriculture, forestry and mining activities (www, World Bank, 2, 2016). The Indonesian agriculture, and especially the dairy sector, is seen as an important industrial sector for development.

A cooperative business model can be found in many agricultural markets. The feature that characterise this business model is ownership; cooperative ownership refers to customers or suppliers' joint ownership of processing facilities. In this study, the suppliers (owners of farms where the milk is produced) own the cooperative. They are members of a cooperative society that operates the business activities. The cooperative helps farmers gain more favourable transaction costs since agricultural markets generally function imperfectly. It also enhances the income of members by offering services that support activities performed by the members (Bijman and Hendrikse, 2003).

1.2 Problem

The literature suggests that in the developing country context of Indonesia most farmers are poor (Horlings and Marsden, 2011), have low production, their access to knowledge is restricted and that there exist difficulties related to finance (Godfray *et al*., 2010; Pretty *et al.,* 2003). In this study, the Indonesian dairy farmers potential shortage of milk production skills and knowledge about husbandry will mainly be addressed by studying innovative business approaches with focus on learning and improving the social society. One such approach is shared value (**SV**) that was defined by Porter and Kramer (2006) to address the interdependence between business and society.

"Policies operating principles that enhance competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates. Shared value creation focuses on identifying and expanding the connections between societal and economic progress" (Porter and Kramer, 2011, 66).
Porter and Kramer (2011) present views of shared value neither as company's social responsibility, nor as philanthropy or sustainability. Shared value is just a new way to achieve prosperous businesses. They claim that ''successful corporations need a healthy society" and at the same time "a healthy society needs successful companies'' (Porter and Kramer, 2006, 83). When companies expand their business into developing countries the shared value principle have a greater impact (Jamali, 2010). The shared value is particularly visible then,

because many social contexts in emerging economies represent business opportunities in realities that are associated with social problems (Michelini and Fiorentino, 2012). In short, business management makes a societal difference.

The human capital generated from skills, training and experience represent the core of small businesses knowledge. This knowledge determines the level of external knowledge the firm is capable of absorbing (Muscio, 2007). Cohen and Levinthal (1990) believes that a firm's *absorptive capacity* is an ability to evaluate and utilize external knowledge. The early empirical work on absorptive capacity has focused on large firms and on high tech industries with incorporated research and development (**R&D**) (Muscio, 2007). Muscio (2007) states that alternative sources of learning, such as learning by doing and learning by using create the main factor in generating absorptive capacity for smaller businesses. Rosenkopf and Almeida (2003) conclude that larger firms and R&D intensive sectors have previously dominated the empirical evidence of absorptive capacity. Thus, this identified knowledge gap opens up for investigating a dairy cooperative and its members in a developing country context without an R&D department. Indonesian dairy cooperatives and its dairy members could contribute with a new approach towards absorptive capacity and how it can be applied in a developing country context and among smaller businesses. Moreover, the need for enhancing skills, knowledge and information in the developing country context and its relation to production and efficiency has been demonstrated (Muscio, 2007; Godfray *et al*., 2010; Pretty *et al.,* 2003).

Schindler *et al.* (2015) present sustainable agriculture as fundamental for enabling food security and reducing poverty, especially in developing countries. In this context the focus for development is often placed on enhancing agricultural production and productivity. With unlimited access to knowledge, skills and sufficient inputs, any farmer can produce a large amount of food. However, technical constraints are preventing local food producers from reaching higher productivity since the return of capital and labour often is too low for making investments (Godfray *et al*., 2010). In the context of a developing country, most farmers do not have the means to accomplish a higher production volume and the financial aspect inhibits this progress (Pretty *et al.,* 2003). According to Pretty *et al.,* (2003) a strategic option for increasing the food supply through agricultural development is to increase the total farm productivity in developing countries. In developing countries smallholder farmers supply local and national markets by providing 80 percent of the food (Dethier and Effenberger, 2012, 176-177).

Ultimately, absorptive capacity in a developing country context, without an R&D department has not fully been addressed. Neither has the approach towards SV from the perspective of a small cooperative. The need for an evolving agriculture with a sustainable approach is highly discussed in the literature and could be key factors for tackling the future problems with an expanding population growth and demand for food. The SV approach for improving social society as well as establishing a prosperous local economy is apparently a desirable approach in the business climate of today.

1.3 Aim

The aim of this study is to identify factors that have an impact on milk production[3] in the context of a dairy cooperative in a developing country. Further objective is to investigate how the cooperative interacts with its members to reach an increased milk production.

In response to the project aim, the following research questions have been formulated:

- What are the enabling factors for increasing milk production?
- How may Indonesian dairy cooperative members increase their production volume?

The study was performed as a Minor Field Study with commission from the Swedish aid organisation SIDA. It resulted in a case study of the local Indonesian dairy and sugarcane cooperative, Agricultural Trade Cooperative (Koperasi Agro Niaga, **KAN**) Jabung and some of its members. The cooperative works directly with community development through several of their production enhancing programs and CSR directed to the local society.

1.4 Outline

The outline in this study is illustrated in Figure 1; it is designed to present an overview of the whole study. Chapter one, *introduction*, has described the problem, introduced the aim and research questions for the study. The second chapter, *method*, presents chosen research design, the structure of the case study and how data was collected. Chapter three, referred to as *literature review and a theoretical framework*, provides relevant literature of previous research and finishes with a conceptual framework for this study. Chapter four consist of the *empirical study* and it presents the farmers, the cooperative and how they work together. It presents primary and secondary data collected from the case study. In chapter five, *analysis*, the collected empirics are discussed in relation to studied literature. The analysis is followed by a *discussion* in chapter six which includes answering the research questions. Ultimately, chapter seven, *conclusions*, emphasize on the conclusions this study has culminated into and investigates further research areas. Lastly, the bibliography and appendixes can be found last in the thesis.

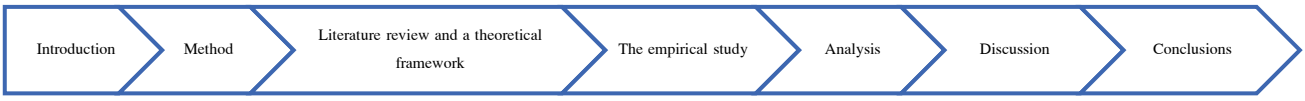

Figure 1. Illustration of the thesis outline

[3] With the assumption that potential increased milk production is derived.

2 Method

This chapter contributes with a foundation to understand the conditions, approach and methodological choices that shaped the process. Firstly the research design is presented and then future decisions of the process are motivated. The case study and how the case itself was chosen are described and followed up with how the data collection was performed. The interviews are the main body of data and together with direct observations it builds up the empirics. This method chapter is finalised by ethical considerations, how the data was analysed and some method discussion.

2.1 Research Design

Robson (2011) describes the classical quantitative and qualitative research designs as either fixed or flexible. The flexible design is considered to be evolving, consists of multiple realities and with a focus on participants views. *The aim of this study is to identify factors that have an impact on milk production in the context of a dairy cooperative in a developing country*. This approach is the start for choosing what methods that should be a part of the project process. The design of this research is flexible and it emerged as the research was carried out. A flexible (qualitative) research is suitable when the research process can be described as socially constructed and it can transform depending on the conditions (Golafshani, 2003). This kind of studies rarely ends up as planned at the start, so the researcher needs to be flexible (Robson, 2011). The objective for this project is to study the relation between one specific cooperative and its members regarding production. Since the final results were not certain from the beginning the flexible design is a suitable approach. The flexible approach is also preferred for this study since the research project is carried out in the unknown context of a developing country. This context adds additional unpredictability to the conditions for this project and further justifies the flexible research design.

The researcher in qualitative research preferable do an attempt to present the perspectives of those involved in the researched situation (Robson, 2011). The purpose helps in deciding the method for the collection of empirical material (Bryman and Bell, 2013). This thesis is constructed as a case study in field with the purpose to increase the understanding of local production and absorptive capacity between a local cooperative and its members. The study addressed the interviewees' reality, reasoning, experiences, ways of thinking and perception. Consequently, semi-structured qualitative interviews offered the possibility for the interviewees to answer openly and insightful.

The chosen theory has been generated from a narrative literature review and selected both at the start of the study and during its creation. This narrative way of accumulating preferred literature does not follow any obvious patterns or is characterised by being systematic (Bryman and Bell, 2013). The narrative literature review suites this study well since the study does not aim for generalising the problem. Instead the intention is to strive for enhanced knowledge within the area of production increasing activities among the selected cooperative members. This literature review will be stretched out so further knowledge gaps are recognised and a greater understanding of current information is achieved.

2.2 Case study

This study has been carried out as a case study of the cooperative KAN Jabung and its relation to their members, with focus on production and knowledge. Yin (2008, s 18) states that: "A case study is an empirical inquiry that investigates a contemporary phenomenon (the case) in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident". This approach to a case study may be relevant for investigating the relationship between the cooperative and its members.

The case study is well suited for an exploratory research approach, such as this one, and it is defined by the data collection methods for examining a certain phenomenon within a limited field (Robson, 2011). The focus of this research method is the understanding of social reality on the basis of how the participants in a certain milieu interpret this milieu (Bryman and Bell, 2013). A case study is suitable for grasping each individual farmer's perception of their production opportunities as well as the context they operates in. Eisenhardt (1989) pictures the case study as a research strategy with a focus on understanding the dynamics present within distinct contexts. In this study this is represented by the local cooperative and its relation to local dairy members and their collaboration to increase production. The case study can provide a deeper understanding of the cooperative and the context they share with their members.

2.3 Choice of case

The process of sampling in research with a flexible design is mainly determined by the key objective of the study (Robson, 2011). The reasons for investigating the relation between the cooperative and its members regarding production and knowledge are several. Among other things, the literature suggests a need for developing sustainable agriculture (Schindler *et al*., 2015) and for tackling rural people's poverty (Pretty *et al.,* 2003; Schindler *et al.*, 2015). The rural people of developing countries are exposed to poverty and hunger (Horlings and Marsden, 2011) while at the same time lacking knowledge, skills and sufficient inputs for improvement (Pretty *et al.,* 2003).

The selection to study the dairy industry was done since the sector has experienced a rapid growth of demand and is considered an important provider of nutrients (van Hooijdonk and Hettinga, 2015). It is also a sector that is characterised by the usage of technology and needs knowledge of husbandry to function more optimal. The sector has also established cooperatives on national level in Indonesia, suitable for study (Morey, 2011). The reasonable motive for choosing a case study can be its exclusivity (Yin, 2008). Within the field of **SV** and agricultural sustainability this case study will be an addition to existing research. "Cases are selected where either the theory would suggest that the same result is obtained or that predictably different results will be obtained" (Robson, 2011, 140). With this in mind the cases are chosen to illustrate differences. More precisely; half of the cases are farmers with a relatively high number of cows (5-10) and the second half are farmers with relatively few cows (2-4).

2.4 Collection of data

Firstly the planning and design of the research project is done, this is followed by the collection of data. In this section the data collection methods applied for this study are introduced and procedures for guaranteeing high quality and ethical aspects are explained. The data originates from observations, interviews and archival records. This project is based on the empirical data gathered through semi-structured personal face-to-face interviews, site observations and diverse secondary sources, such as production and population data, webpages and printed information pamphlets.

2.4.1 Interviews

Yin (2008) believes that during case studies the interviews are an important and necessary source of information. The interviews help explaining the problem while providing rich details of the context. The semi-structured interviews provide flexibility and let the researcher adapt to the interviewees responses (Robson, 2011). One representative, Mrs Yulistiana, from KAN Jabung was the first to be interviewed. The interview contributed with overall information about the cooperative activities and small-scale farming. The manager of KAN Jabung, Mrs Eva Marliyanti, was the second to be interviewed. That interview was formal and piloted the scheduling of further research together with other representatives from the cooperative. It included her view on the cooperative, its activities and how small-scale farming was performed in Indonesia. The intention of the first meeting with Mr Sulistyo (who accompanied me in field) from KAN Jabung was not established so there had been no preparation for a field visit. This resulted in a highly improvised first interview with a farmer and some site observations. This was subsequently a good introduction to the farmers' reality and for further improving the existing interview questions. The qualitative interview is an important instrument to portray the interviewee's reality, reasoning, experiences and their way of thought (Bryman and Bell, 2013). The improvised first interview facilitated further interviews and enabled to greater grasp the farmer's reality.

Interviewed KAN Jabung members spoke Indonesian (Bahasa) while the farmers spoke a combination of Indonesian and Javanese language. Mr Sulistyo who is the head of the animal health division at KAN Jabung conducted the selection of participants. This arrangement was done due to the unfamiliar context of the research and that he has vast knowledge about the local dairy farmers. Nevertheless, he was instructed to choose five farmers with relatively high population of dairy cows and five farmers with few cows. Other interviews that took place at KAN Jabung were with Mr Sulistyo, Mr Nunuk Hari Widodo (head of the 'Increasing production and rescue population unit'), Mrs Yulistiana (representative), Mrs Mannaria Harahap (extra translator), Mr Saiful Muslim (CSR manger) and Mr Achmad Ali Suhadi (community development manager). Further interviews were conducted with business representatives from the dairy sector such as Mr Brendan Collins (independent DeLaval sales dealer), Mr Moko Pariatmoko (Agricultural service specialist from Nestlé – a milk processing company) and Mr Syahdi (manger at a large-scale dairy business called Greenfield) (see table 1).

Both external and internal perspectives on dairy farming in Indonesia were collected. The perspectives of farmers, cooperative staff and local dairy business representatives were collected to ensure several sources of information. All employees and external actors was asked in advance to participate, allowing for a meeting to take place. The villagers were asked to participate by Mr Sulistyo and the interviews were planned thru him. All respondents were presented with information about the research project and its objective before participation.

Interviews can be performed in many different ways and it is essential to match the method with the complete design of the project (Robson, 2011). Since this project follows the semi-structured interview template it indicates that certain topics are to be examined but follow-up questions can be added along the interview (Robson, 2011). Example of interview guides can be found in appendix 1 and appendix 2.

Table 1. Interviews for the case study

Organisation	Respondent	Role	Interview date	Validation
KAN Jabung	Yulistiana	Representative	14-03-2016	Direct Oral
KAN Jabung	Eva Marliyanti	General manager	31-03-2016	Direct Oral
KAN Jabung	Nunuk Hari Widodo	Manager: Production	08-04-2016	Direct Oral
KAN Jabung	Nurhadi Sulistyo	Manager: Animal health	12-04-2016	Direct Oral
KAN Jabung	Saiful Muslim	CSR manager	24-05-2016	Transcript
KAN Jabung	Achmad Ali Suhadi	Community development manager	24-05-2016	Transcript
DeLaval	Brendan Collins	Independent sales agent, DeLaval	22-03-2016	Transcript
Nestlé	Moko Pariatmoko	Agricultural service specialist.	11-04-2016	Direct Oral
Greenfield	Syahdi	Production manager	14-04-2016	Direct Oral
Organisation	Respondent	Gender	Interview date	Validation
Farmer 1	Supardi	Male	23-03-2016	Direct Oral
Farmer 2	Pak Juma'at	Male	12-04-2016	Direct Oral
Farmer 3	Nur Hidayah	Female	21-04-2016	Direct Oral
Farmer 4	Randika	Male	21-04-2016	Direct Oral
Farmer 5	Nasirin	Male	21-04-2016	Direct Oral
Farmer 6	Sugianto	Male	17-05-2016	Direct Oral
Farmer 7	Khusnul	Female	17-05-2016	Direct Oral
Farmer 8	Istinah & Muhammad Soleh	Female/male	18-05-2016	Direct Oral
Farmer 9	Junani & Siswanto	Female/male	18-05-2016	Direct Oral
Farmer 10	Lasri & Sukardi	Female/male	18-05-2016	Direct Oral

A researcher should be flexible and open-minded to unexpected events that can improve research outcomes (Robson, 2011). During the face-to-face interview with Brendan Collins he invited me to take part in observation and conducting a possible interview at the Greenfield dairy complex located outside Malang, Mount Kawi. I followed to the Greenfield complex to observe large-scale dairy production in the Indonesian setting and how it was managed. I was also able to conduct a small improvised interview about dairy production in Indonesia and how they managed problems and opportunities. At two occasions I was also unexpectedly asked to participate with Mr Sulistyo and Mr Widodo in workshops they were leading. These were performed at a farmer's house with the two representatives holding a PowerPoint presentation describing e.g. mastitis. These unexpected events contributed with information about the farmer's reality, production conditions in Indonesia and how the cooperative collaborate with its members.

This project is based on several methods for collecting the data: semi-structured face-to-face interviews, observations and secondary data. Secondary data is used for supporting the primary data from interviews and provides the background information. The secondary data comprises of population data received from Mr Widodo, brochures printed by KAN Jabung and information from their website. The interviews with representatives from Nestlé, Greenfield and DeLaval may also be viewed as secondary data since they are used mainly for background information as well as confirming views from KAN Jabung representatives or farmers.

2.4.2 Direct observations

Observations are a common part of the case study and are conducted in the natural context of the case (Yin, 2008). Observations during this study are considered to result in important contributions since the context in which KAN Jabung operates influences their abilities and how they work. The case study in Indonesia included visits to rural villages for personal

meetings with farmers as well as workshop and counselling meetings. The external meetings with dairy businesses provided with an overall picture of how dairy farming in Indonesia is performed as well as investigating how other parties collaborate with farmers. The daily work of the farmers and the representatives of KAN Jabung are valuable for understanding why and how they do certain actions. Observations was only conducted for deepen the understanding of the context and the studied problem as well as collecting tangible facts.

2.4.3 Ethical considerations

Performing a case study and utilizing interviews as a research method requires the researcher to consider both ethical and everyday issues. Ethical aspects occur during the process of a research project and the topic itself together with the problem needs to be scrutinized with an ethical approach. It includes how all the participants are treated and presented with information as well as considering privacy, confidentiality and anonymity. Robson (2011) recommends that interviews and the following observations always to be performed with the approval of the persons involved. Accordingly, all farmers was asked to participate and informed of the mission with the research. Furthermore, the direct observation that was performed on site entails that the researcher needs to address ethical considerations (Robson, 2011). Since the study incorporates pieces of the interviewed farmers personal life the presented information only contains vital information connected to the study. The intention of the project was firstly presented to a local researcher, Mr Ali Bambang, who introduced it to the general manager of KAN Jabung. This was later transmitted to the employees and unit managers that had knowledge of which farmers to address. One of the first meetings was conducted with the general manager of KAN Jabung to present intentions as well as revealing eventual wishes regarding the thesis.

2.5 Quality assurance

The amount of data from interviews, observations and archival records suggests that this is a distinctive flexible case study. Bias is considered to be present in every study with a flexible research approach and trustworthiness and rigor is believed to be important for quality assurance (Robson, 2011). The trustworthiness of a flexible research approach is questioned since there exists no homogenous means for guaranteeing reliability and validity (Robson, 2011). Instead Robson (2011) proposes that the researcher needs to be thorough, careful, honest and completely register all activities during the research process.

Trustworthiness for a study can be generated by clarifying the subject of investigation in an unbiased and open manner while using good researcher practices (Robson, 2011). The interviews in this project were conducted as semi-structured face-to-face interviews at each farmer's house. All information about the topic as well as questions is prepared beforehand and a presentation of the research is held during each interview. Mr Ibnu Sanggar Watasa was appointed as a translator and orally translated all conducted interviews and presented the study. When there exists a close relationship between the researcher and the context or subjects it opens up for the creation of bias and rigorous behaviour (Robson, 2011). This study entailed a close relationship between the field visitors, the researcher, the translator and Mr Sulistyo. Robson (2011) believes that a relationship including trust can evolve when researcher and respondents are together in a long period of time, thus creating a situation with less biased information. However, during a long period of time bias can also occur since the researcher might find it difficult to stay with the researcher role (Robson, 2011; Yin, 2009). In this study the researcher only had close contact with one representative, Mr Sulistyo, so the objectiveness for the other interviews with farmers, cooperative representatives and business contacts could be considered to have a high level of objectivity. Furthermore, three major

sources of data were obtained and data collection about the same topic allows for triangulation of vital information (Yin, 2008; Eisenhardt, 1989). The multiple sources of data and different collection methods can guarantee that findings are more consequent.

The collected data has been validated in different procedures. All interviews were conducted face-to-face with direct oral validation. Written validation through email was performed with business representatives from DeLaval, the community development manager and CSR manager. The complexity with language barriers among the farmers and the majority of the KAN Jabung employees resulted in oral validation. During all interviews with farmers and KAN Jabung employees there was a translator (Mr Ibnu Sanggar Watasa) present since there was low understanding of English or non-existent among the interviewees. This may have affected the amount of details in the responses or misunderstanding of certain questions, statements or answers. Nevertheless, validation is done during the entire interviews and followed up with further questions on subject and on specific statements. This process was performed to assure mutual understanding concerning the questions and answers.

Case study as a research approach entails that the researcher is observant and can recognise that research questions and possible constructions are tentative and open for modification (Eisenhardt, 1989). Additionally, the data collection and analysis are regularly occurring at the same time during a case study. In case research the sovereignty to make corrections during the data gathering process is seen as a key feature (Eisenhardt, 1989). Since this study will include ‘at home’ interviews with rural farmers and there will exist a language barrier it is important to be observant and responsive for change in the process. The practical conditions of the context and applying common sense are important for finalising a study (Robson, 2011).

When interpreting data from these interviews the position of the interviewer should be considered (Eisenhardt, 1989). In this case study the researcher is a foreigner and the sites are small villages with non-existent or at least a minor relation to foreign people. The arrival to the villages included a high interest from locals. This enthusiasm together with the translator and Mr Nurhadi Sulistyo being present might have encouraged the farmers to highlight the positive rather than the negative opinions, but at the same time the interviews was performed in their homes providing them with a comfortable environment. An additional concern for this study is the information sources and its potential shortcomings. Information may have been lost due to the language barrier and the difficulties to control that farmers, cooperative representatives and the translator have interpret and understood the questions and research fully. This potential risk with interviews were tackled by all interviews was conducted face to face and the translator were given the research questions in beforehand. This may be regarded as factors that reduce these risks. It is important to be aware of the influence that a researcher performing the analysis can have on the finished analysis (Robson, 2011).

2.6 Delimitations and focus for the study

The delimitations are presented in this section and they describe the boundaries of this study. The reasoning behind the empirical, theoretical and methodical choices are motivated. One of the motivations to write this thesis was to address the accountability of businesses and how their activities could benefit both society and business. The activities performed by the cooperative and its progress towards increased productivity is the main focus for the study.

2.6.1 Empirical delimitations

The empirical study has been performed as a Minor Field Study, which permitted to collect the empirical material in Indonesia. However, due to constraints regarding physical distances, funding's and time, the study has been limited to a case study of one specific cooperative, KAN Jabung, and one industry, the dairy farming. Furthermore, the business model of KAN Jabung is a producer cooperative and it is from a cooperative or small to medium enterprise (**SME**) business perspective this study will be performed. In this study the business model of a cooperative is defined as an SME since the literature mainly addresses issues regarding SMEs. Consequently, this study will focus on a dairy cooperative in Indonesia and how they utilize knowledge, collaborate with their members and if they actively work with enhancing productivity, all being done with the concept of SV in mind. Moreover, it describes important elements for creating a sustainable agriculture. This case study builds on voluntarily business activities by the cooperative that is not forced upon them from society or governmental rules of conduct. The business activities are recognised as a part of the current business model and is strategic decisions by management. I do include both private companies such as Nestlé, DeLaval and Greenfield to gain access to additional sources of data while performing the main research on a cooperative owned by its suppliers. The conditions for performing this study might be relatively good due to the presence of a progressive cooperative (pers.com., Bambang, 2016) that operates together with multinational businesses such as Nestlé (pers.com., Marliyanti, 2016) which has worked extensively with shared value for business development (pers.com., Pariatmoko, 2016; Porter and Kramer, 2006, Nestlé 2015). The chosen cooperative is described as progressive when it comes to business transformation, being fair to the farmers and supportive (pers.com., Bambang, 2016). Such cooperative would suit this case study due to the fact that networking, knowledge and accountability will be the thesis focus.

2.6.2 Theoretical delimitations

The theoretical limitations are broad since the reviewed literature span across several sectors of business activities. Accountability, knowledge management and networks are the base from where the rest of the theoretical literature emerges. The study attempt to grasp the reality of the cooperative members and therefore the literature review was broaden to be as inclusive as possible. Furthermore, even though accountability is included in the framework, no focus on environmental aspects will occur but only on social and business improvements. Firstly, the role of shared value is to present why businesses activities sometimes are more focused on society improvements. Secondly, knowledge is presented as a fundamental mean for small businesses to achieve competitive advantages or transform into a more prosperous business. Finally the network theory will support the learning process and how learning is performed in this specific case study.

2.6.3 Methodical delimitations

Methodical delimitations are recognised as mainly concerning issues associated to the implementation of the study since it is carried out as a case study. The chosen cooperative may not be representative for the area, country or industry and do only represent this cooperative. This thesis receives the perspective of a business or cooperative since the base of the case study is the cooperative. Since previous research in the field of absorptive capacity and SV does not focus on smaller cooperatives and their business activities in a developing country context, it is seemingly a good motive for a case study. Both Eisenhardt (1989) and Yin (2009) argue for further studies in fields of research where the existing empirical observations and theories are rare.

3 Literature review and a theoretical framework

In the beginning of chapter 3 a review of relevant literature to the subject is presented, lastly it is completed with a conceptual framework. To be able to understand the aim of this study, several concepts of theory are important. Firstly, the overall concept of corporate social responsibility leads the way for the understanding of shared value and businesses activities with the goal of improving social society. Further, knowledge management is presented as a tool to explain the importance of knowledge, how it is absorbed and can be utilized in companies. Lastly, networks are presented as a source for generating innovations, spread knowledge and create an opening for how shared value can be applied through them.

3.1 Businesses Accountability

Businesses responsibility has evolved and stretched-out and now the public expect corporates to take liability for issues that previously wasn't on their table (Porter and Kramer, 2006). Accountability for environment and the social society businesses operates in has become an essential part of the modern business management practice. Businesses accountability has partially been addressed through the concept of corporate social responsibility (**CSR)** and its inclusion of societal values. There exists no single established definition for CSR and it has been described as vague and ambiguous (Schwartz and Saiia, 2012). This makes it problematic to address issues regarding CSR, for what exactly is CSR?

3.1.1 Corporate social responsibility

One view regard CSR as corporation's efforts for diminishing the externalities of their business activities, or a real conversion of activities in the value chain with the goal to positively affect the community (Porter and Kramer, 2006). CSR describes a company's business role in society and how corporation's responsibilities are expanding in the modern world of today. CSR behaviour benefits the businesses by pleasing different stakeholders and can be considered as a risk-aversive behaviour. It helps the business to avoid financial risks that are related to business activities that by stakeholders are seen as undesirable. According to Schwartz and Saiia (2012) all efforts to define CSR includes at least the idea that businesses have commitments towards society that goes beyond their economic responsibilities to shareholders. The broader version of CSR develop this description and includes a view that businesses should do more than maximise profit, companies have additional ethical and/or philanthropically obligations (Schwartz and Saiia, 2012).

Strategic CSR focuses on economic aspects and how CSR function as a strategic tool for reaching the companies economic objectives (Garrigá and Melé, 2004). The strategic direction of CSR is characterized by business opportunities and not only the classical CSR obligations (Husted and Allen, 2006). A wider definition embraces strategic CSR as embedded into a company's core business objectives and human capital with the purpose to create business value and positive social change (McElhaney, 2009). With strategic CSR opportunities can emerge to positively affect a business branding and reputation (McElhaney, 2009, Porter and Kramer, 2006). The effect of implementing a strategic CSR may lead to the development of valuable organizational capabilities (Husted and Allen, 2006). CSR has been ascribed as a source of innovation and competitive advantage (Porter and Kramer, 2006). With this in mind, strategic CSR may be a tool for solving issues with innovation and to become more competitive while discovering the linkages between the business and society.

The concept of CSR has expanded to also include new theories and approaches linked to "society and business, social issues management, public policy and business, stakeholder management, corporate accountability" (Garriga and Melè, 2004, 51). Traditionally CSR addresses businesses commitment to behave in an ethical way while contributing to economic development. This approach to CSR has according to Porter and Kramer (2006) failed to recognise the interdependence between business and society, instead focus have been on conflicts between them. This led them to explore further and developing the concept of SV. The context of developed countries and developing countries provides different challenges and opportunities, but SV is applicable to both.

3.1.2 Creating shared value

The concept of SV creates a challenge for businesses because the expectation is that they should generate social benefits and at the same time economical profits. The objective of a business model with a SV approach is to combine the progress of the society and the operating businesses within them (Porter and Kramer, 2006). "Shared value creation focuses on identifying and expanding the connections between societal and economic progress" (Porter and Kramer, 2011 p. 66). This is not a fixed state but transform constantly when technology and economies develop and community's social priorities changes. The SV approach for companies helps them to focus on the social problems that may provide the greatest competitive advantage. Furthermore, Porter and Kramer (2011) explain that underserved markets in developing countries may fulfil this criterion while Michelini and Fiorentino (2012) emphasizes on social problems that affects many developing countries and that the business strategy needs to include these. It may be that the western style business strategies, systems and structures may not be suitable in the developing country context.

The idea of value can be divided into two approaches. The business approach which includes the financial interest of the business, its competitive strategy and its competitive advantage. The social approach focuses on philanthropic behaviour, the reduction of social problems and how it can contribute to governance (Aakhus and Bzdak, 2012). Porter and Kramer (2011) argue that the profit generated from social value creation can address human needs that aren't satisfied by governments and philanthropic organisations. According to Porter and Kramer (2011) it is vital that the business discovers and understands which connections between needs in the social society and business improvement that creates value. Achieving social responsibility may be done within this modern approach by addressing the vision, strategy, delivery and performance (Porter and Kramer, 2011, 2006). The involvement in society by the business will eventually change towards a strategic CSR and they will be able to have "greater impact on social good than any other institution or philanthropic organization" (Porter and Kramer, 2006, 92). The social importance of the businesses applying a SV approach is consequently increased in the local societies they operate.

Ultimately, companies' commitment to SV may create competitive advantages and innovation. According to Porter and Kramer (2006, p80) the inclusion of SV generates a "source of opportunity, innovation, and competitive advantage". The concept of SV may therefore be very useful to facilitate a SMEs innovation capability and for seizing business opportunities. The SV concept stresses the importance of a socioeconomic transformation where the needs of the society drive business. This modern shape of CSR is economically based and lets Porter and Kramer (2011) create a SV that enables a linkage between social issues and business. This can be done through local investments or product innovation that is valuable for the specific communities where they operate.

3.1.3 Shared value business model

A business is supposed to seize value from provided new products and services and at the same time address customer's requests. The business model is a tool for providing data and other evidence to support how the business creates and delivers this value to customers (Teece, 2010). SV allow the for-profit and non-profit organization to approach each other and new kinds of hybrid businesses can emerge (Porter and Kramer, 2011). Businesses embracing SV to its business model can create a business model that includes the society as a mean for creating and delivering value to customers. "A good business model yields value propositions that are compelling to customers, achieves advantageous cost and risk structures, and enables significant value capture by the business that generates and delivers products and services" (Teece, 2010, 174). This study focus on a cooperative, accordingly the value generated from implementing a SV business model is mainly allocated to the cooperative members, but also to customers.

Social enterprises and social business models refer to businesses with a goal to solve social problems (Yunus, 2008). The mean for solving social problems is the business practices, how to produce and sale products and services. These practices should be performed to achieve self-sustainability and eventual economic surplus should be used to improve social objectives in the society (Yunus, 2008). Yunus (2008) present two different examples of social business models. Model number one do not allow dividends to shareholders but entitle the owners to get their money back. Eventual surpluses will not be shared among investors but reinvested to improve quality in the product or service and for establishing new social businesses (Yunus, 2008). The second model is described as a profitmaking business with owners that can be defined as low-income people. This model is also a social business model even though it is profitmaking since the surplus generated will improve the social conditions of the low-income owners (Yunus, 2008). To understand how to deliver value to customers and how to obtain value during this process are the main concerns when designing a business model (Teece, 2010). Teece (2010) declare that a new business model and its structure can be described as a form of innovation. A well-developed business model will assist innovators to deliver or to seize the value from their innovative work (Teece, 2010).

3.2 Organizational knowledge

Considering the purpose of this study, knowledge can be defined as "information combined with experience, context, interpretation, and reflection" (Davenport *et al*., 1998, 43) while tacit knowledge is "in essence, experience gained through action" (Evers *et al*., 2010, 680). Knowledge has evolved into a significant strategic factor in business activities and the development of competitive advantage (Argote and Ingram, 2000). This forces companies to effectively manage knowledge, which is challenging and the challenge enlarges for smaller firms (Durst and Edvardsson, 2012). Businesses from developing countries are affected by low skills, technological and other resource restraints, which make internal knowledge creation challenging if not impossible (Narteh, 2008). It makes it more important to understand how to gain access to knowledge, how to utilize this knowledge and when to use it. The decision makers of a business need to understand the processes around knowledge, whether it is a MNC, SME or a small-scale farmer. The concept of knowledge management will be presented as a foundation for understanding how businesses can utilize potential knowledge stocks.

3.2.1 Knowledge management

Knowledge management (**KM**) can be described "as a planned, structured approach to manage the creation, sharing, harvesting and leveraging of knowledge as an organizational asset, to enhance a company's ability, speed and effectiveness in delivering products or services for the benefit of clients, in line with its business strategy " (Du Plessis, 2007, 22). This puts focus on knowledge as an organizational asset that is connected with business strategy and how it could affect a company's clients. KM can further be describes as a formal way to access experience, knowledge and expertise (Gloet and Terziovski, 2004). With these key resources the business can create new capabilities, reach better performance, promote innovation and improve the value delivered to customers (Du Plessis, 2007). Du Plessis (2007) view KM as three levels structure; individual level, team level and organizational level. KM is constructed by several processes which help businesses to utilize knowledge and this study will focus on three of them. *Knowledge creation* is a process that focuses on constructing new knowledge that is internally produced or externally acquired. *Knowledge transfer* covers actions that are related to knowledge transfer and sharing knowledge where absorptive capacity affect the outcome of knowledge transfer. *Knowledge utilization* is the last step and creates the value within the business (Durst and Edvardsson, 2012)

Edvardsson (2006) performed a research on SMEs in Iceland and investigated their relation to KM strategy and its effects. One conclusion from the research was that these SMEs most common way to share tacit knowledge was to "encourage face-to-face communication, arrange knowledge conferences and share learning histories" (Edvardsson, 2006, 281). These informal ways of learning could be an important factor for learning in a developing country context where information technology may be scarce. One of the strategies for managing knowledge is titled *personalisation*. It refers to individual development of knowledge, which is shared through direct contact, one person to another. "Dialogues, learning histories and communities of practice are among the techniques that have to be used in order to facilitate tacit knowledge sharing" (Edvardsson, 2006, 278). This is apparently a social technique for learning and knowledge sharing and is used to solve distinctive problems where tacit personal knowledge is needed. Internally, businesses transfer information and knowledge primarily through verbal communication (Edvardsson, 2006).

KM has a role in businesses innovation, to create and maintain the business competitive advantage through the utilization of knowledge. Furthermore, knowledge is a resource that can be used to reduce complexity in an innovation process. The innovation process also benefit from having the knowledge integrated both internal and external in the business since it becomes more accessible (Du Plessis, 2007). KM systems can, through innovation, contribute to develop a company's sustainable competitive advantage. Within KM, management issues arise concerning the method used to convert individual knowledge into organizational knowledge. Organizational knowledge is substantially created from individual's specific knowledge stock and therefore inherently dwells within individuals. Further issues arise when to combine and control the organizational knowledge so it results in a successful organizational performance (Cyril Eze *et al.,* 2013). This study will further focus on the processes of knowledge transfer and how the recipient subject absorbs knowledge.

3.2.2 Knowledge transfer

Edvardsson (2006) has described some of the characteristics of SMEs related to KM and knowledge transfer. The author considers SMEs to have a flat structure, to be informal and non-bureaucratic, while formalised strategies and policies often are absent. Furthermore, SMEs rely on disorganized channels for sharing and utilising knowledge, they typically give

attention to short-term benefits and depend on fairly unsophisticated information and communication technology. Durst and Edvardsson (2012) believes that SME compared to larger firms are less advanced when it comes to knowledge construction and to be weaker regarding formal and systematic discussions for sharing tacit knowledge. It is common among SMEs to not have policy about strategic KM and instead they deal with the concept on an operational level, encountering the systems and instruments more hands on. Communication in SMEs also differs and the communication channels are more likely to focus on external partners than internal (Durst and Edvardsson, 2012).

"Knowledge transfer in organizations is the process through which one unit (e.g., group, department, or division) is affected by the experience of another" (Argote and Ingram, 2000, 151). This definition puts focus on experiences and subjects capacity to affect another subject through accumulated experience. Cyril Eze *et al.,* (2013) describe the phenomenon as knowledge sharing which is characterised by the process when members of a team share ideas regarding task-related information, improvements and suggestions with each other. Argote and Ingram (2000) consider knowledge transfer in organizations to firstly transfer at an individual level, between co-workers. The phenomenon of knowledge transfer exceeds the individual level and is prevalent on higher level of analysis such as informal groups, line of business, department or division. For example, one animal health unit may learn from a dairy production unit how to improve the feed quality. Knowledge transfer in organisations becomes visual through changes in knowledge or performance among the recipient subjects (Argote and Ingram, 2000). This entails that the completed knowledge transfer can be measured by determining the transformation of knowledge or performance.

Information technology in SMEs can improve employee's access to knowledge and facilitate collaborative work (Cyril Eze *et al.,* 2013). This could help SMEs to enhance productivity together with encouraging knowledge sharing among employees. Furthermore, if SMEs collaborate with stakeholders and other SMEs it would generate improved knowledge sharing capabilities (Cyril Eze *et al.,* 2013). The teaching capacity of the individual transferring knowledge (transferor) could be affected by the age and complexity of the knowledge as well as his or hers experience in transferring knowledge. Multifaceted knowledge may be challenging to understand and communicate but the complexity is likely to decrease with the age, making teaching and transfer smoother (Narteh, 2008). The efficiency of the knowledge transfer process is affected by the intrinsic character of the knowledge together with the transferor that carries out the transfer (Narteh, 2008). When the transferor and the recipient of knowledge possess similar knowledge bases it can reduce some of the transfer difficulties (Narteh, 2008). Cohen and Levinthal (1990) claim that prior knowledge allows the utilisation of new knowledge and will further be examined in the next section about absorptive capacity.

3.2.3 Absorptive capacity

"Absorptive capacity plays a key role in determining firms' capability to access and make use of external knowledge" (Muscio, 2007, 1). It refers to how a business makes use of external knowledge and their intrinsic capability to absorb it. This may be useful for SMEs since there exists complications for them to generate their own knowledge (Iturrioz et al., 2015; Ayele et al., 2012). External knowledge needs to be addressed to investigate the process of achieving knowledge and how it is implemented. Muscio (2007) draws the conclusion that firm's collaboration with external institutions enables for development of their own expertise. The human capital generated from skills, training and experience represent the core of small businesses knowledge. This knowledge determines the level of external knowledge the firm is capable of absorbing (Muscio, 2007). A firm's absorptive capacity is often considered to be

its knowledge base. To be able to acquire new knowledge the companies need to know how and where to find the knowledge and most important how to assimilate it (Muscio, 2007).

Muscio (2007) believes that investing in own research processes, in competent human capital and improving the skills of existing co-workers can reveal knowledge embodied in external partners. Cohen and Levinthal (1990) concluded that when firms send staff for training, they also invest in absorptive capacity. The quality and range of a firm's absorptive capacity affects the capability to access externally available knowledge (Muscio, 2007). With the help of the firm's previously related knowledge, which works as a catalyst to recognize new knowledge; the firm absorbs external knowledge and applies it to commercial ends. The prior knowledge can include a range of basic skills such as speaking the same language to advance high technology in a given field. The process for acquiring external knowledge and to form appropriate channels for its incorporation is a very complicated process (Muscio, 2007). The firm may not recognize new knowledge as valuable if they do not have any or too little knowledge in the given field from the beginning. Prior knowledge in a given field generates the conceptual framework needed to understand new knowledge (Cohen and Levinthal, 1990). Production conditions for farmers in developing countries such as low education, absent credit markets and externalities could be major barriers to technology adoption (Dethier and Effenberger, 2012).

3.2.4 Transformation for poverty alleviation

Du Plessis (2007) described innovation as the creation of knowledge and ideas with the goal to improve internal business processes and structures. This will create new business results and create products and services more adapted to the existing market. The concept of innovation according to Du Plessis (2007) entails that the innovation of practice performed by farmers can evolve into competitive advantages (Porter and Kramer, 2006; Du Plessis, 2007). The Indonesian developing country context suggests that most farmers are poor (Horlings and Marsden, 2011) and the standard way of addressing poverty alleviation is mainly done thorough subsidies and different contributions (Qiu *et al.,* 2016). The result is that the government payments functions as pure life support and is therefore no practical method for poverty reduction. Qiu *et al.* (2016) have recognised a need for innovating the "poverty reduction methods and convert the traditional narrow thinking of "single poverty alleviation way" to a "multidimensional thinking mode" by converting "monetary compensation" to "development-oriented poverty alleviation" (Qiu *et al*., p 90, 2016). This suggests a shift from the previously monotonous way of poverty alleviation towards a more innovative one that considers more aspects than just pure investments. Further, the focus is put upon rural farmers and that they must endeavour and improve their overall capabilities. This can be done through talent training in combination with methods for reducing poverty (Qiu *et al*., 2016).

Farmers have in the past acquired wealth by being hard working, diligent and economical orientated (Qiu *et al*., 2016). They was characterised by low level of technology and knowledge, attending labour-intensive work. This has changed, and Qiu *et al.* (2016) describes a modern agricultural situation where farmers obtain their wealth through four aspects: learning, innovation, open-mindedness and leadership/drive (Figure 2).

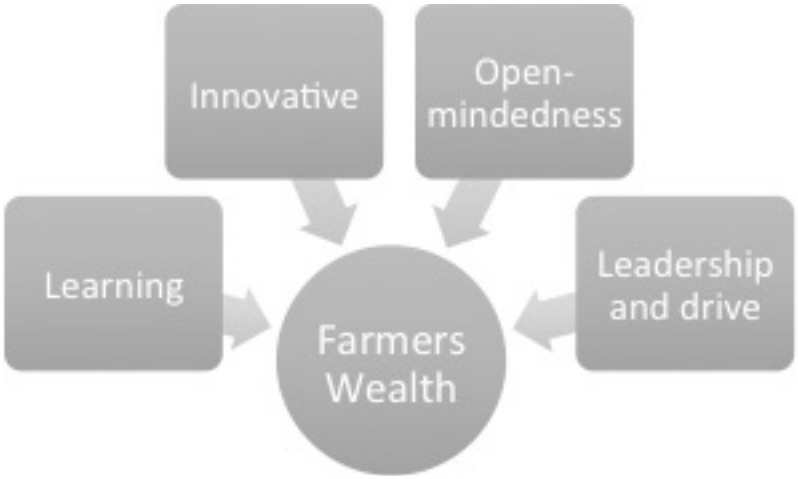

Figure 2. The relation between a farmer-entrepreneurs wealth and its four aspects (based on Qiu et al. (2016) - own creation).

The learning aspect presents the importance that farmers have an evident level of education, knowledge, expertise, learning ability and a strong initiative. The farmers should also understand the value of knowledge related to being a farmer and entrepreneur. Regarding innovation Qiu et al. explains, "new agricultural entrepreneurs dare to apply new technologies, new products, new designs and new methods on the basis of current knowledge combined with hands-on learning" (Qiu et al., p 91, 2016). The importance of exploration and risk challenge are underpinned and together with the learning outcomes it builds up the foundation for innovative change. The farmer-entrepreneur needs to actively contribute and have rational expectations to become innovative. Since the new farmer-entrepreneur has wider networks they can understand their role in larger systems, thus achieving a greater urge for entrepreneurial success. The open-mindedness facilitates and eases the innovation and learning outcomes. Farmer-entrepreneurs of today have an intrinsic desire for "success, enlightened local consciousness, open-mindedness, a sense of commitment and a willingness to engage in the challenging work" (Qiu et al., p 91, 2016). Qiu et al. (2016) is seemingly discussing business progress among farmers from a management perspective where a farmer of today needs to evolve into a farm manager. The farmer-entrepreneur participation is highlighted as a catalyst for the innovative change towards multidimensional poverty alleviation. Leadership and drive let the farmer to focus on long-term integration and standardization. To become role models for other farmers and together achieving personal goals for individual prosperity and collective wealth (Qiu et al., 2016).

3.3 Networking

Networks are commonly presented as a channel for diffusion of information and other resources (Schilling and Fang, 2014). Companies with limited or without R&D activity, the most essential of absorptive capacity, need to overcome their limited internal resources of knowledge and do networking with external organisations. The factors behind networking can explain how absorptive capacity can have a key role in creating collaborations and consequently access external knowledge available (Muscio, 2007). Problems for SMEs to generate their own knowledge have been demonstrated (Ayele *et al*., 2012; Iturrioz *et al.*, 2015; Muscio, 2007). As a result, networks will be presented as a mean for SMEs to generate knowledge and how it correlates with innovation (Iturrioz *et al.*, 2015; Ayele *et al*., 2012).

Kadushin (2012) describes network as a set of relationships created from a bundle of objects and the connections between them. To participate in a network is beneficial for businesses since they provide opportunities, credibility, support, information, resources, competitiveness and innovation. This allow for further synergies to occur in the future and for sharing knowledge among the members (De Carolis *et al.,* 2009). Additionally, there exists a strong connection between network participation and a firm's growth, it also prevents business failure and provides legitimacy (De Carolis *et al*., 2009). The participation in a network is a form of social capital, which in turn can affect individuals thinking, reasoning and decision making, based on knowledge and experience (De Carolis *et al*., 2009).

3.3.1 Social Network theory

"Social network theory is about describing, accounting for, or even predicting interactions between social units that could be people, groups, organizations, countries, ideas, social roles, or just about any social entity that can be named" (Kadushin, 2012, 202). Consequently, social network theory may be a good start for explaining the interactions between dairy farmers themselves and their relation to the cooperative. Kadushin (2012) attributes motivations, expectations and cognitive limitations as driving forces behind social networking. Multiplexity is one feature of the social network since the social units that it consists of have more than just one connection amongst them (Kadushin, 2012). In our contemporary life it is not exceptional for people to be neighbours, friends and co-workers at the same time. The society's social norms and its institutions, which are exposed to constant changes, affect the social networking.

The social context of individuals and businesses are affected by our social connections and relationships. Examples of connections exist within family, friends, acquaintances, and business (Welter, 2011). Networks in its social context can operate as a valuable resource by providing information, knowledge, customers, *etcetera* while facilitate solutions for problems and how to implement ideas. Hoang and Antoncic (2003) have contributed with a definition of social networks and describe it as a set of individuals or organisations and the connections between them. The social network provides important means for acquisition of information and resources (Rampersad *et al*., 2012).

Fernández-Pérez *et al.* (2014) classify the concept of a "business social network" into two categories *industrial,* which concern a business customers, suppliers and competitors, or *financial* which includes its informal investors. This study will only focus on the industrial social network, hereafter called business social networks (**BSN**), together with the "personal social networks" (**PSN**). The PSN relate to the relationships towards those in the direct surrounding, for example family, friends and colleagues (Fernández-Pérez *et al.*, 2014). The common view is that these relations are informal and intimate, centred on trust, shared emotions and shared values. However, the BSN is expressed as relationships that emerge from connections created throughout academic and research activities with industry contacts. It includes industrial relationships, such as the ones towards stakeholders from the economic segment, possible customers, suppliers and competitors and informal investors. Relationships in BSN are usually more formal and less effective compared with PSN (Fernández-Pérez *et al.*, 2014).

3.3.2 Innovative networks

Johnson (2001) explains innovation for businesses as changes and how they affect the product or service that an organisation provides to the market. Innovativeness can exist when changes occur for the market, development, delivery and application for a product or service, away

from its original purpose. Another distinct category of business innovation considers an organisations development of its core business model and transforming it away from its current position (Johnson, 2001). Teece (2010) and Johnson (2001) states that new business models can be innovations and Porter and Kramer (2006) believes that SV can generate innovation to increase businesses competitive advantage.

Large firms have traditionally been dependent on their conventional processes, internal capacity and skills for developing strategic assets such as innovations (Iturrioz *et al.,* 2015). SMEs do not develop innovations in the same way since their limited resources restrict innovation, their innovation capacity is hindered by the absence of specialised human and financial resources. Since SME lack critical innovation resources (research, information, etc.) they need to collaborate to complement internal resources. This compels them to direct their attention on small-scale innovation initiatives connected to specific products or services (Iturrioz *et al.,* 2015). These difficulties encourage them to be involved in collaboration with other actors. Networks enable small businesses to effectively enter broader markets and obtain complementary resources to improve their competiveness in relation to larger competitors (Iturrioz *et al.,* 2015). The innovation network incorporates cooperation, sustainability and the strategic approach of innovation and causing SMEs to collaborate with their stakeholders to develop sustainable competitive advantages (Iturrioz *et al.,* 2015).

According to Iturrioz *et al.* (2015) beneficial impacts on social capital and shared innovation will become prevalent after three steps. Firstly, the relational dimension needs to be boosted to increase trust and reduce the risk-aversion behaviour among the network members. Secondly, establishing a set of mutual values and sharing the network vision with every involved party, to facilitate potential tangible collective innovations. Ultimately, connections and relations among network member's needs to be established for enabling communication, decreasing the cost of cooperation and transferring knowledge. A successful establishment of these three dimensions result in strengthening the social capital and promotes shared innovation. If this occurs the risk-aversion behaviour of SME can be reduced and the potential innovation among members can be unlocked, which will further foster shared innovation in the network. For innovative capability to be present, a combination of resources and the ability to use and apply them needs to be in place.

In SMEs, the network context serves as an intermediary in the centre of the users and producers of knowledge and helps transferring knowledge. Iturrioz *et al.* (2015, 106) concludes that the context is necessary throughout the process "to facilitate participation, to support the cost of managing the cooperation, to preserve long-term over short-term objectives, and to ensure that what is learnt from the cooperation initiatives is being capitalized by the network". These intermediaries have an important function for increasing the participation of network members and their utilization of knowledge. Another way to facilitate shared knowledge through intermediaries is the creation of so called knowledge hubs.

3.3.3 Knowledge hubs

Knowledge hubs exist in both formal and informal networks and can be described as individuals who are much more connected than the average individual in interpersonal networks (Schilling and Fang, 2014). An interpersonal network can be described as a set of persons and the relations between them (Schilling and Fang, 2014). Furthermore, knowledge hubs are described as "local innovation systems, nodes in networks of knowledge production

and knowledge sharing" (Evers *et al*., 2010, 683). Knowledge hubs could therefore be viewed as influential on a local or personal level, considering knowledge sharing and transfer.
A simplified version of the concept is provided by Evers *et al*. (2010) who portray it as individuals that produce and share knowledge with their community. Hubs are considered to possess high level of connectedness intertwined with internal and external networking, resulting in knowledge sharing capabilities (Evers *et al*., 2010). Connectivity and face-to-face collaborations enable the transfer of tacit knowledge and creates a crucial asset in the formation of knowledge hubs (Evers *et al*., 2010).

To become a hub in an interpersonal network an individual usually contribute with exceptional performance and strife for social exchange. Individuals embedded in the same network learn from sharing ideas with each other and the interactions, practice, exchange and recombination of information results in the creation of ideas and knowledge possessed by all individuals in the network (Schilling and Fang, 2014). Knowledge hubs engage to generate knowledge, transferring knowledge to anywhere it is needed and transferring knowledge to individuals through training and education. Ultimately, the strength of a knowledge hub is associated with its connectivity, constructed on strong internal and external ties (Evers *et al*., 2010). Both hubs and random connections in interpersonal networks can serve as shortcuts between individuals, but hubs do have a greater effect on the diffusion of knowledge. This follows their ability to accumulate information from several individuals, which turns them into influential agents that converge knowledge (Schilling and Fang, 2014). This converged knowledge is subsequent available to the participants of the informal or formal network the knowledge hub operates in.

3.4 A conceptual model

In chapter 3 a set of theories was presented together with supporting concepts for deepening the understanding of the theories. In figure 3 the relation between the different theories are presented to visualise the decision of theory more understandable. The CSR theory and SV concept is presented as the underlying reason for implementing new business approaches. The role of KM is to present one possible way for how businesses could transform or retain their SV approach. Ultimately, networks may function as the operational toolbox for implementing the business approach SV entails.

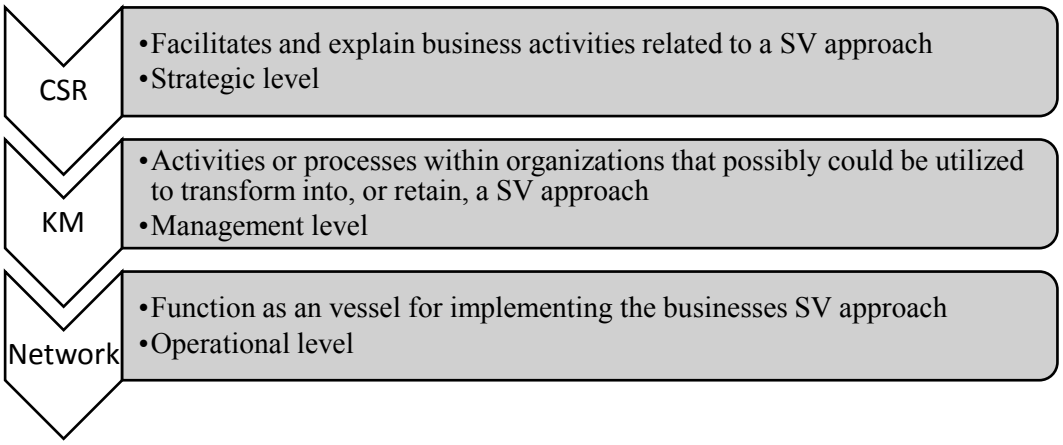

Figure 3. The relation between CSR, KM and Network in this study.

This section also offers a summary of the key theories, concepts and references (see table 2). In this study, the theory building process starts with an overall presentation of the *Corporate*

Social Responsibility concept and how business accountability have been further developed. The assessment deepens into the concept of *Shared Value* (Porter and Kramer, 2006, 2011) and evolves into *business models* focusing on improving society, for reaching a prosperous business climate. SV is utilized as a base for analysing the empirical results and emphasizing on business decisions. The concept of SV (Porter and Kramer, 2011) confronts the common procedures for business management and opens a door for satisfying human needs that aren't satisfied by governments or philanthropic organisations. *Organizational knowledge* is presented to highlight the importance of business development and its importance for securing competitive advantages. The bridging connection between SV and knowledge is when the SV approach is applied, it facilitate SMEs innovative capabilities (Porter and Kramer, 2006), which also is suitable for this thesis empirical context. Furthermore, the concept of *Knowledge Transfer* and *Absorptive Capacity* serves as an intermediary to explain how SMEs utilize external knowledge and the pre-conditions many SME faces regarding knowledge. This connect knowledge with *Networks* because they function as both knowledge generators and transferors and is useful for increasing innovativeness (Iturrioz *et al.*, 2015; Ayele *et al*., 2012). Used theories and concepts of particular interest for the study

Table 2. Used theories and concepts of particular interest for the study

THEORIES	CONCEPT	KEY REFERENCES
Corporate Social Responsibility		Porter and Kramer (2006) (2011)
	Shared Value	Schwartz and Saiia (2012)
	Social Business Model	Yunus (2008)
Knowledge Management		Argote and Ingram (2000)
		Du Plessis (2007)
	Knowledge Transfer	Durst and Edvardsson (2012)
	Absorptive Capacity	Cohen and Levinthal (1990)
	Innovation	Muscio (2007)
		Qiu *et al.* (2016)
Network		Fernández-Pérez *et al.* (2014)
		Kadushin (2012)
	Social Network Theory	Ayele *et al*. (2012)
	Innovative Networks	Iturrioz *et al.* (2015)
	Knowledge Hubs	Schilling and Fang (2014).
		Evers *et al*. (2010)

4. The empirical study

This section provides the empirical background from the case study of a dairy cooperative in Indonesia. Firstly the context in which the cooperative operates in together with a background is presented. This will be followed up by the empirical results regarding business activities, farmers' daily work, community development, observations and interviews. Photos from the field study can be found in appendix 4. The field study and the interviews were conducted in the rural areas around the community of Jabung, close to the city Malang, East Java, Indonesia. This is a strategic choice for the project since the province of East Java has the biggest growth of milk production and dairy cows as well as several local dairy cooperatives in Indonesia (Morey, 2011).

4.1 Context and conditions

Typical feed crops for dairy cows such as alfa-alfa, clover and regular grass have bad growing conditions in Indonesia since the plant is growing too quickly (pers.com., Collins, 2016). The quick growth reduces the nutrients such as protein, fibre or carbohydrates that the cow needs. The problem with nutrient fodder in Indonesia makes it more difficult to reach optimal levels of feed. Extra protein feed such as local copra meal as well as imported soybean meal or **DDGS** (Distillers Dried Grains with Solubles) is therefore used in daily production (pers.com., Collins, 2016). Indonesian dairy farmers have low productivity, and in the Jabung district the productivity of dairy cows is only around 9-10 litres of milk/cow/day (KAN Jabung, 2016). The productivity is low when compared with the global productivity of dairy cows, which can reach the average of 20-25 litres of milk/cow/day.

The land for retrieving feed to cattle are less than 100 square meters per farmer and few farmers grow their own feed (pers.com, Marliyanti). Many collect farm residues such as sugarcane tops, field weeds and roadside grass to increase the amount of feed. "We always try to give education about the feed. What the feed contains, the nutrients and how it affect the cows. This is educated among the farmers one by one" (pers.com., Sulistyo, 2016). Furthermore, the farmers use a lot of feed concentrate, which costs extra money, together with human food waste such as expired bread and vegetables (pers.com., Sulistyo, 2016). During the wet season many farmers try to collect extra feed for fermentation that could be used during the dry season (pers.com, Marliyanti, 2016). The farmers are encouraged to do fermented feed through information and support through credit loans. The cooperative produces silage, but this is very expensive for small farmers, so they are instead encouraged with credit loans to do their own fermented feed (pers.com, Marliyanti, 2016).

Traditionally, Indonesia is not a dairy consuming or producing country, it has only produced dairy commodities for around 35 years (pers.com., Pariatmoko, 2016). Pariatmoko (pers.com., 2016) states that if a farmer have at least ten cows and is the only worker on a farm, without employees or extra family members, a milking machine would be profitable to buy. The Indonesian dairy farmers usually have farming as their main income and no additional job (pers.com., Pariatmoko, 2016). The farmers have the cows close to the house, combining living house and farm house, due to land restraints and being anxious about having the animal stolen. To buy more cows, and machine or expanding the barn is often restricted by the farmers financial means (pers.com., Pariatmoko, 2016).

The bucket milking system (BMS) is the most popular among the traditional farmers (pers.com., Collins, 2016). These have either two or four buckets depending on the numbers of cows that is being milked. There is a breakeven point around 8 cows for the BMS, which allows the farmer to earn the money back from the investment (pers.com., Collins, 2016). In Indonesia the spare parts for small farmers is usually ordered when the part is broken and the machine is unusable. This differ from Europe or Australia where the farmers generally try to change the spare parts before the equipment is broken so the company will not suffer from a stop in the production (pers.com., Collins, 2016).

Many dairy cattle's in Indonesia are today slaughtered because of the high price on beef (pers.com., Collins, 2016; pers.com., Sulistyo, 2016; pers.com., Marliyanti, 2016). Low performing cows and cows in need of veterinarian help are earlier sent to slaughter which have substantially reduced the total population of the Indonesian dairy herd (pers.com., Collins, 2016; pers.com., Sulistyo, 2016). The import of foreign high produced dairy cows are today mainly done by big corporations that want to have a high producing breed with good genetics. The imported cows together with nationally raised cows are today fewer in numbers than the amount of cows that are being slaughtered (pers.com., Collins, 2016). Together with low productivity this leads to product shortage (milk) among the processors and the need for a higher national productivity is substantial (pers.com., Collins, 2016).

4.1.1 The dairy producers

The Indonesian dairy producers are characterised by its two segments (1) the family or traditional farmer and (2) the corporate farmer (pers.com., Collins, 2016). On average the small-scale family or traditional business have around 6 cows and the commercial corporate business farmer have anything between 800-7500 cows. The market segments between these two extremes are according to Collins (pers.com., 2016) and Marliyanti (pers.com., 2016) more or less non-existent in Indonesia. Marliyanti (pers.com., 2016) states that in Indonesia it is very difficult to be a small-scale farmer with around 8-10 cows (see the absent in table 3), this since the increase from five cows will demand extra labour. With the extra labour, extra costs occur that makes the total production non profitable. The farmer needs to develop the farm from five cows straight to fifteen, this to over-bridge the extra labour cost and gain extra profitability. Very few farmers have the initial investment funds available for such a big step. Many have also previously failed with going up to ten cows making them more risk aversive. According to Marliyanti (pers.com., 2016), this is one of the reasons why the middle section of farmers in Indonesia is underdeveloped and few in numbers.

Table 3. KAN Jabung dairy cow composition among farmers and deposition among villages (in grey)

OWNERSHIP AND COW COMPOSITION																		
Nr. of cows	∑ Angg	Gondang	Kresik	L.Abang	Kemiri	G.Kunci	Simpar	Busu	Bendrong	Pusat	Sdmlyo	Skpuro	G.Kembar	Boro	Tengo	Bunut	Blandit	%
1-2	546	31	55	16	40	45	22	65	50	23	15	38	54	57	17	3	15	25,6%
3-4	600	36	50	24	77	41	31	55	53	19	39	48	45	39	23	3	17	28,2%
5-6	391	20	26	9	54	24	14	51	48	12	23	34	29	23	11	3	10	18,4%
6-7	292	16	29	7	52	10	8	37	30	9	11	30	28	14	5	1	5	13,3%
7-8	180	10	17	4	31	4	5	18	13	1	8	18	23	9	13	3	3	8,5%
8 >	121	3	13	5	39	2	7	11	3	1	5	10	6	5	3	5	3	6%
Total	2130	116	190	65	293	126	87	237	197	65	101	178	185	147	72	18	53	100%

Of the total milk produced by KAN Jabung 70 % is sold to Nestle, 24 % is sold to Indolakto, 5 % is sold to Ultrajaya and 1% is processed by KAN Jabung into several different products (pers.com., Suhadi, 2016).

4.2 KAN Jabung background

The KAN Jabung cooperative is owned by approximately 1850 members and was established in May 1979. Originally the cooperative was named Village Cooperative (KUD) Jabung but this constellation was mismanaged and eventually not able to pay its obligations to members and banks. In 1985 a new management team was established and the cooperative started to tackle their setbacks and restructure the organisation (www, KAN Jabung, 1, 2016). Initially they needed to rebuild trust among members and rebuild the relation with the bank sector. Strong commitment and improved management let the cooperative to succeed and get back on track. At this moment KAN Jabung was a local sugarcane cooperative, but in 1989 they started expanding their business to also include dairy farmers, followed by savings and loans and a local shop. Eventually this led to an award for best national cooperative in 1987.

Since 2001 the on-going focus has been to establish organisational values and principles to build an organizational identity. “To be a competitive agribusiness cooperative and developing members, employees and communities quality of life based on cooperative values” (www, KAN Jabung, 2, 2016). The cooperative identity at KAN Jabung is very important and together with organizational culture it is described by the following keywords: Knowledge, achievement, networking, spiritual, productivity, integrity, respect and responsibility, improvement and development and trust. These words define the KAN spirit (www, KAN Jabung, 3, 2016). General manager Marliyanti (pers.com., 2016) believes that the main goals of KAN Jabung is to establish the best price for farmers when it comes to milk and sugarcanes together with having the farmers organized. She also puts focus on the importance of the different business divisions of KAN Jabung, such as supply, transportation, trading, workshop, and member collaboration to support their vision and mission.

The cooperative continuous to grow and develop so focus on human capital and its development is central (KAN Jabung, 2016). The cooperative is aware about the pressure from the global market and the need for improving the quality of human resources as a way for keeping their competencies up to date. Employees at KAN Jabung can consequently receive scholarships for undertaking a master or bachelor studies (pers.com., Marliyanti, 2016). Mentoring programs for productivity development is offered to co-workers together with a future leaders program. To develop great future leaders the cooperative have established a leadership development program (**LDP**) (KAN Jabung, 2016). LDP was established with a strategic goal: to train leaders with orientation towards problem solving and strategic decisions. The LDP have specific requirements for individuals to be accepted, such as performance, character, skill and education level.

4.2.1 Production services

The majority of the members at KAN Jabung are working as dairy farmers and dairy cow breeders. The core business is divided into different sectors working directly or indirectly with the daily work of a dairy farmer. The *quality control unit* receives and measure the quality of fresh milk. Standard operating procedures have been implemented for ensuring high milk quality and the desired quantity. *Increasing production and rescue population unit* has the purpose to improve the farmer’s knowledge and competence regarding husbandry and farm management. The goal is to increase the capacity and productivity of existing dairy cows, together with increasing knowledge and quality among the farmers. They also encourage farmers to not sell or slaughter their cows and to breed cows more often. *Animal health unit* aims to provide services for establishing good health among the dairy cows and reaching optimal production conditions regarding health. Specific activities include veterinary

treatment, artificial insemination, pregnancy examinations, mastitis testing, worm treatment and consultation regarding high animal health. The *milk-processing unit* produces their own brand of fresh milk and yoghurt, JAB milk. Flavours for the pasteurised milk are strawberry and chocolate and for the yoghurt, it is plain, lychee, orange and grapes. The *waste treatment unit* was established when KAN Jabung developed into a dairy cooperative. The unit manages the farmers manure waste and environmental issues connected to dairy farming. The goal is to protect the local environment and transforming the waste into a product with value for the farmers, fertilizers. They produce both a solid fertilizer and a liquid fertilizer from the residues of biogas production (www, KAN Jabung, 4, 2016). The cooperative encourage biogas programs through technology, knowledge and services in biogas construction together with a low cost credit for building the biogas facilities. In 2009, KAN started to implement the "Biogas House Program" in cooperation with Hivos, a Dutch NGO, and the "Energy House Foundation" (KAN Jabung, 2016). These programs affect the life of the farmers in several ways such as increasing the awareness of good sanitation, reducing the time for finding fuels in the local forests, reduces deforestation, reducing cooking time and it increases crop production when manure residues are utilized as fertilizers (KAN Jabung, 2016).

4.2.2 Extra member services

KAN Jabung provides services to their members, and in some cases to additional villagers, for example the KAN trading retail store. The services are either direct connected to the farmers agricultural work or indirect by offering services that ease the rural communities everyday life.

The *feed concentrate* unit produces the dry feed concentrate that the farmers need to achieve a higher production volume and increased quality. This unit also provides the farmers with farm-parts, dairy calves, milk buckets and cow rugs e.g. The *transportation* unit focuses on collecting milk from farmers as well as actively supplying them with concentrates and other articles needed by the farmers. The milk collected at KAN Jabung is sent to Nestlé's processing facility in the coastal city of Pasuruan (pers.com, Sulistyo, 2016). The *mechanic shop* is a garage business that serves members by repairing motorcycles and other vehicles. *KAN trading* is a small department store and is divided into three activities; (1) self-service, (2) hardware store, (3) China and baby shop. The self-service provides daily necessities, household appliances, electronic equipment and furniture. The hardware store provides building materials for home remodelling and biogas facilities. The China and baby shop mainly supply baby articles (www, KAN Jabung, 5, 2016). The *Finance* (Baitul maal wat tamwil Al Hijrah) unit provides the members with financial support through a savings and loans unit (www, KAN Jabung, 6, 2016). Farmers can have some of their cost reduced with funding from the cooperative, *e.g.* for medicine. When the farmers sell milk to the cooperative, the cooperative subtracts 40 Indonesian rupiah (IDR) from each litre to be able to finance medicine when needed (pers.com., Sulistyo, 2016).

Marliyanti (pers.com., 2016) considers the most important services provided by KAN Jabung to be the *animal health unit* and the *feed and supply unit* since they increase each farmer's production volume. She states that productivity is generally low among the farmers, which in the end leads to low volume at KAN Jabung. The source for the low productivity is partly caused by investment constraints since the farmers in general are very poor. In Indonesia, milk is also an extreme product, the climate is not suitable for dairy production and it has not been a part of the national culture with the growing interest for dairy products to be relative new (pers.com., Marliyanti, 2016).

4.2.3 Members

The cooperative have minimal requirements for members, they need to have at least two cows, always sell their milk to the cooperative and attend the workshops (pers.com., Yulistiana, 2016). The minimal requirements exist to encourage willing, progressive and productive members of the cooperative. To guarantee a steady supply of milk to the collection centres the members are obliged to always sell their milk to the cooperative (pers.com., Yulistiana, 2016). The members are encouraged to participate in management procedures for expressing their rights as members and for improving the cooperative. The members possess three tools for an active change:

- Voice – The freedom to criticize, suggest changes, give feedback *etcetera*.
- Vote – They have the rights to select the management of KAN Jabung.
- Exist or Out – Being an active member and partake in exercises and meeting or leave the cooperative.

The cooperative arranges annual meetings for two days where all members can use these tools for participation (per.com., Marliyanti, 2016; KAN Jabung, 2016).

Member obligations beyond participating in exercises and workshops are connected to certain installed facilities or procedures at the farms. These are mandatory in order to maintain good health of the member's cow population and for improving both farmers and cow's productivity.

- Water ad-libitum: This is an automatic drinking facility for cows, it improves the cow's productivity when they have constant access to water.
- *Dry feed concentrate.* Farmers need to use dry feed concentrate, improving their cow's productivity through nutritious feed.
- *Teat dipping.* To avoid the mastitis disease (inflammation of udder tissue). If the cow gets mastitis the cooperative needs to send a veterinary to farmers for treatment with antibiotics, which costs money for the cooperative, and as long as the cow gets antibiotics the milk cannot be collected, which makes a loss for both cooperative and farmer (pers.com., Sulistyo, 2016; KAN Jabung, 2016).

4.3 Communication and Relations

Good communication between farmers and the cooperative is essential for maintaining the trust, increase learning and achieving a high participation (per.com., Marliyanti, 2016). Mr Pariatmoko at Nestlé confirms this by stating: "The most effective way of learning, is by going door to door to every farmer. You need to touch every farmer's heart because each one of them has different problems. The workshops are not enough for learning; you need to see their problem one by one. The problem is not always pure business, it is also emotional" (pers.com., Pariatmoko, 2016).

The head of the different production units at KAN Jabung regularly visit the cooperative members. Mr Widodo (Increasing production and rescue population unit) and Mr Sulistyo (Animal health unit) were interviewed to give their opinion and reality about how the cooperative work in collaboration with the farmers.

Mr. Widodo's expressed his relation to farmers as consultation about husbandry and best cow practice (pers.com., 2016). To be able to provide a service that is adjusted after each single farmer's individual conditions and needs, Mr. Widodo makes home visits to each single farmer. During the antenatal period he visit the farms once every tenth day and after delivering the calves he visits once per month. Mr. Widodo reconnects with farmers for

evaluating the new-born calves and how the farmers are meeting their needs. On a daily basis he works with husbandry management with farmers and their animals. He teaches how to take care of the calves, handle their birth, improving milk production and how lactation cycles works. The home visits are made for securing a higher production volume (pers.com., Widodo, 2016).

Mr Sulistyo gives consultation about cow breeding and increasing the population with artificial insemination, the main objective is to have high health and productivity among the cows (pers.com., Sulistyo, 2016). Mr Sulistyo (pers.com., 2016) do home visits every day and respond to farmers emergency calls for aid regarding animal health. The three main activities in his job are to execute artificial insemination, pregnancy check-up and medical check-up.

KAN Jabung has several standard operations that they try to learn farmers for improving their productivity. Mr Sulistyo (pers.com., 2016) explains that this can be expressed through education directed towards farmer practices: "We try to explain that cassava is not a good food for cows since it contains cyanide, which is poisonous. We also explain how to milk the cows correctly and perform the teat dipping" (pers.com., Sulistyo, 2016). There exist a lot of communication problems with farmers and the farmers do not fully understand the suggested practices: "Farmers are having difficulties to learn about something new. For example the feed chopper machine, many farmers believe it to be too expensive and pointless equipment. The farmer thinks it is more effective to cut grass and give directly to the cows. Ultimately, they fail to see the feed waste that occur because the cows doesn't want to eat the big, tough parts of the feed" (pers.com., Sulistyo, 2016).

4.3.1 Education and networking

"The education systems for members are based on practice and experience in field, not mainly agricultural theory. One time a member had cows that needed to deliver calves, so we taught farmers how to help deliver the calves by pulling out the calves at his farm" (pers.com., Sulistyo, 2016). Learning, education and knowledge is an important tool for battling the low productivity of the farmers (pers.com., Sulistyo, 2016). Mr Sulistyo (pers.com., 2016) actively works with activities for increasing the farmers knowledge through consulting groups and workshops each month. In total they hold 18 counselling sessions with farmers each month and training opportunities 3-5 times a year for each farmer group (village areas). Focus for the training sessions are the group leader who subsequent should spread the knowledge to the group members. A farmer can become a group leader by being chosen by KAN Jabung staff and the members of each group. Each group needs to consist of at least 15-20 farmers that actively participates (pers.com., Sulistyo, 2016).

The practice for spreading information and knowledge is mainly done through training, workshops and brochures (pers.com., Widodo, 2016). The farmers are divided into farmer groups for consultation, e.g. A and B, and these groups learn different practices. They are then told to implement the practice and to spread the practice across other groups. For example A) teaches B about feed during lactation and B) teaches A about delivering calves. So different areas of farmer work as example areas so other farmers can go for study visit and consultation. There exist monthly routines for consultation between A and B groups. Mr. Widodo (pers.com., 2016) believes that roughly 60 percent of all the farmer groups are enthusiastic about the cooperative programs and apply the advices and consultation. He also states that approximately 40 percent of the farmers are attending the consultation moments even though the courses are mandatory (pers.com., Widodo, 2016).

For evaluating the knowledge and practices the farmers are segmented into groups based upon production outcome. This is done so the farmer's productivity could be compared among a homogenous production group (pers.com., Widodo, 2016; pers.com., Sulistyo, 2016). Production improvements are evaluated for each distinctive production group regarding production management, volume and quality. The learning processes are evaluated through productivity measurements and the overall observed condition of the farm. This is a mean for guaranteeing that the farmers understand the knowledge that has been demonstrated (pers.com., Widodo, 2016; pers.com., Sulistyo, 2016). They collect data for measuring the productivity at each farm to be able to follow up and do comparison of prior changes on each farm. They also compare borrowed credits with productivity to estimate if the credits help to reach a higher production, and in general the farmers tend to increase their production outcome (pers.com., Widodo, 2016; pers.com., Sulistyo, 2016).

Through the cooperative the farmers can participate in workshops, training and gain practical experience (pers.com., Widodo, 2016). "We choose different segments of problems regarding economy, husbandry, and transportation in a geographical area. Each problem within a segment is then analysed in a workshop with bigger and more successful farmers" (pers.com., Widodo, 2016). These farmers generally have had many problems regarding their production and by consultation from KAN Jabung these problems have been solved. "Senior farmers with severe problems regarding husbandry have been receiving help from my division at KAN Jabung. We then exhibit them as an example for smaller farmers to help them with troubleshooting in the field of husbandry, such as production management, disease problems, quality of feeds, etc." (pers.com., Widodo, 2016).

"Through education, home visits, support when in trouble and productivity consultation we build up the farmers trust, making it easier for them to follow our advices" (pers.com., Sulistyo, 2016). Mr Sulistyo (pers.com, 2016) explains that he always makes sure that what he teaches the farmers has been proven in theory and in practice. The provided information for farmers is heavily evaluated beforehand to minimize failures among the farmers, this is an important step to maintain trust (pers.com., Sulistyo, 2016). Mr Sulistyo (pers.com., 2016) updates his knowledgebase from different sources, such as Nestlé, the government, the Indonesian milk board, universities and the web. He then builds up a syllabus for farmers and include practice trials on progressive small farmers. If the trial is successful they try to promote this new practice among other farmers. The practice is implemented among interested farmers who will become example farmers for the new practice. To make sure farmers have fully understood given advices Mr Sulistyo (pers.com., 2016) have counselling meetings as group activity in the villages. It contains open discussion about the given advices, its functionality, how it should be implemented and any arising problems. Afterwards they always have monitoring one by one on each member's farm regarding the counselling meetings.

4.3.2 Attitude and resistance towards transformation

"There is a lot of work with dairy business and not all farmers are willingly to make that investment even if it could improve their living standards. Many want instant success which we cannot give them" (pers.com., Sulistyo, 2016). This statement from Mr Sulistyo is seemingly touching one of the biggest problems with transformation (new machines, new crops, new practice, farm management, *etcetera*.) among the dairy farmers in Indonesia.

Mr Sulistyo (pers.com., 2016) would like the farmers to be more business orientated and focused on the dairy since it is more prosperous than many other farm activities. "You need to

ensure that the productivity increases, KAN Jabung has the responsibility for increasing the production among farmers. You need a good mind-set of the farmers and them to be more agripreneurs“ (pers.com., Sulistyo, 2016). The mind-set of the farmer is the most important for becoming a successful farmer (pers.com., Widodo, 2016). Representatives from the cooperative try to have a close relation with farmers that show interest for transforming and encourage productivity changes so their production will increase. Farmers being progressive and adopting changes is characterised by being very social with other farmers (pers.com., Sulistyo, 2016). These farmers never reject new technology but are curious on how it can improve their farm and socio-economic life. “You cannot address the farmers the same way as you address collaborate partners or employees. The farmers need more education or visual models so farmers can follow example farmers. The farmers needs more proof of success instead of just trusting the person who teaches” (pers.com., Pariatmoko, 2016). It is difficult to present new products or ideas and having them adapted to the local Indonesian context during situations when only foreign successful examples exist. New agricultural products are often neglected as something that “only works in Europe or North America” (pers.com., Collins, 2016).

When asked about trust and if the farmers are willing to follow Mr. Widodo’s advices the following answer was given: “To change the mind-set of the farmers are very difficult, they are stubborn. Before the farmers changes their practice they want tangible proof of that the change actually works” (pers.com., Widodo, 2016). This is the main challenge of transformation but investments and other constraints for farmers preclude some transformation activity that progressive farmers are willing to do. However, opportunities can be grasped with the use of credits. The cooperative provide farmers with monetary subsidies for the product or practice that is recommended by the cooperative. This exists because the farmers rarely are interested in making an investment on their own without the financial security from the cooperative (pers.com., Widodo, 2016).

Yearly evaluation about members concerns those that haven’t progressed, namely having the same amount of cows year after year (pers.com., Sulistyo, 2016). “It is not always knowledge or information, it is very often restrictions from the land or time. The farmer may know what is right, but it is not possible since he is restricted. If the farmer have grass laying around on the farm but there is no feed at the feeding station, it is not because he doesn’t want to feed his cows or is stupid, he just doesn’t have more grass to feed or no more time to collect any feed” (pers.com., Pariatmoko, 2016). In most cases the farm also is the farmers household at the same time and it affect the productivity and progress of each farmer. When farm activities are idle the family situation often have inhibited progress at the farm (pers.com., Sulistyo, 2016).

How to manage each farmer’s specific preconditions and to understand what knowledge to provide for them is very difficult. Challenges appear when farmers are not willing to change or being very risk aversive. Pariatmoko (pers.com., 2016) phrased it as follows: “This is small businesses and people have their own mind-set and own way of thinking. We need to adopt to this in every day work. There are so many farmers so you cannot spend so much time with farmers who are not following your advice. I will not force myself to hunt the farmers that are not progressive. The already progressive farmer will learn them after hand anyway” (pers.com., Pariatmoko, 2016).

4.3.3 CSR

"The overall goal with the CSR is to help the poorest farmers and also indirect the local communities. The mission of the CSR is to minimize the risks for farmers " (pers.com., Muslim, 2016). The CSR division does not actively identify and address social problems that intersect with the cooperative core business (pers.com., Muslim, 2016). Instead, farmer members and KAN Jabung representatives hold dialogues about member's needs and how the cooperative can assist them in fulfilling the needs. The cooperatives representatives working with animal health, workshops, designing bio digesters, installing and repairing facilities provide the background information for the CSR programme The CSR division collect information from their field representatives in the beginning of each year to produce the new CSR programme, see appendix 3 for the full CSR work plan for 2016. Muslim (pers.com., 2016) believes that the CSR program helps differentiating KAN Jabung from other dairy cooperatives, the regional area only has smaller cooperatives that do not provide CSR activities or free expenditures for improving the farmer's socioeconomic situation.

All the CSR programs are according to Muslim (pers.com., 2016) followed up in the end of each year. Every month a report about progress is written about each single CSR program and the chief of committee for the CSR program review the report, which is validated by the general manager. Up to this date there have been no measurement of member satisfaction. In the CSR division there is no platform (questionnaire, surveys or other) for giving or receiving feedback, the division only observe the impact of the different CSR activities. Instead of feedback the cooperative relies on reputation, trust and loyalty created by the CSR programs to gain, attract and retain members. The CSR programs impact is not formally evaluated by the cooperative but Muslim (pers.com., 2016) believes that they have received good reputation among farmers. The free milk program in kindergarten and building masjids are two programs generating good reputation. The long-term goal of these programs is to build trust and loyalty among local communities as well as introducing the communities to drinking milk. There exists no communication of the CSR programs to public channels such as Facebook, newspaper, radio or other media. Communication about the CSR activities is done internally and projected to the subjects of each single activity e.g. farmer, kindergarten. Depending on the CSR program, different KAN Jabung employees are informed about its procedure and participation is mandatory.

4.3.4 Community development

"The most important factor for community development is member participation, the members are given a voice and KAN Jabung gets feedback from members for improving their business" (pers.com., Suhadi, 2016). The community development division has the focus to develop the three mandatory programs. The automatic drinking facility (water ad-libitum), dry feed concentrate and the teat dipping practice. The automatic drinking facility is an important investment for farmers to increase their production and efficiency (pers.com., Suhadi, 2016). KAN Jabung encourages farmers to build these facilities and offers credits so the investment cost will not be a restriction. The dry feed concentrate is also for improving the cow's productivity since local feed is not always sufficient. The teat dipping is an easy, non-expensive and non-time consuming action that prevents diseases (mainly mastitis) and therefore increases the cow's productivity as well (pers.com., Suhadi, 2016).

Additional program regarding community development is primarily a leadership program for the local group leaders. "The purpose of the leadership program is to create leaders that are suitable for learning and spreading knowledge to their fellow farmer members in their local area. The goal is to create a higher capacity, efficiency and productivity among the farmers in

the selected areas. The end goal is to increase the quality of life by improving their socioeconomic standards" (pers.com., Suhadi, 2016). The leadership program has training and workshops for increasing the farm leaders business and husbandry skills and knowledge. For a farmer to become a farm leader he or she needs to fulfil the KAN Jabung criteria's for such a position as well as be willing to improve the business skills among other farmers.

There exits some general problems with community development in the context KAN Jabung operates in (pers.com., Suhadi, 2016). The problems are often connected to the low educational level of the members, their perception and mind-set. "The low education makes it difficult to inform and explain about best practice in animal husbandry and business. The knowledge gap is very big and many farmers do not understand procedures that enhance productivity, efficiency or capacity. Therefore they do not want to make the necessary investments or put in the extra effort to reach higher performance" (pers.com., Suhadi, 2016). It is difficult for the farmers to leave their comfort zone because they do not fully understand the procedures. The perception and mind-set is important for being able to transform the business and progress towards being more productive. Negative thinking from members has resulted in different outcomes, spreading rumours is one. Suhadi (pers.com., 2016) mention that certain farmers previously believed that the low milk price they was paid originated from KAN Jabung building a new factory. The correlation is non-existing but previously the milk price may have been lowered at the same time as a factory was built. This and similar disinformation contributes to lowered trust in the cooperative and complicates their work.

4.4 Farmers

All farmers are the first generation dairy farmers (pers.com., Sulistyo, 2016) and are situated in a few villages nearby Jabung district. The villages that were visited during this study are Sukopuro, Pandansari Lor, Gading Kembar, Sidomulyo and Gunung Kunci. The farmers are small-scale traditional family farmers with two to ten dairy cows. The information gained from the first farmer, Mr Supardi, was mainly used for improving the research questions, so that information will not be included in this compilation.

4.4.1 Portrayal of the farmers

Mr Pak Juma'at joined KAN Jabung in 2008 because he wanted to increase his socio-economic situation and receive better prices for fertilizers and protein feed. He was not a farmer until he joined the cooperative, before he was a construction worker doing regular labour in the local village. "When I became a farmer I received feed concentrate for free from KAN Jabung during the start-up phase. They also helped me out during dry season with discounts on feed concentrate". Mr Pak Juma'at is experiencing difficulties with purchasing extra land, more cows or machinery since family expenditures (his daughter's wedding, his daughter now goes to university and buying motorcycles) reduces his capital. Even though his financial situation is constrained today he have previously built two houses, bought three cows, the whole barn with its feeding facility and water management system. Everything has been built with credits from KAN Jabung. Mr Pak Juma'at participates in all the workshops held by KAN Jabung and he wishes to follow given advices, although this is not always possible since his economy is restrained.

Mrs Nur Hidayah joined the cooperative to receive the services and consultation for improving the farm production and states that she is satisfied with the result. Her farm have changed the feed as a result from the consultation and start using protein feed together with investing into a feed shredder. Mrs Nur Hidayah participates in all the workshops and has

learnt about higher milk quality, animal health, farm management, lactation processes, feed concentrate and feeding procedure. “I have received consultancy on how to produce commodities such as cookies and snacks from my produced milk and how to start a business”. Mrs Nur Hidayah visits example farms to learn about new practices she has never seen before and to secure her existing practices as the best practice. The underlying reason for investment decisions is made with inspiration from the cooperative: “I get inspired and receives information from the workshops I participate in so I know which investments to do”. The cooperative also provides the farm with technical help for building the barn and installing its facilities.

Mr Randika joined the cooperative to increase the economic situation after he just got married and before joining the cooperative he was a beef farmer. After joining the cooperative he has started using protein feed concentrate bought from the cooperative and has planted kings grass (better feed), unfortunately he has not yet expanded to buy any extra land. Mr Randika perceives that his farm is not always prepared and ready for new improvements presented at the workshops. The workshops provides good knowledge but it is very difficult to transform when the farm is not as developed and the family have high debts, which affects his ability to follow advanced advices. “I have visited several different farmers in the local region to learn about farming, animal husbandry and best farm practice. I get more knowledge from workshop and training than any visit at an example farm. I have learnt how to properly feed my cows and to prevent diseases and increase production”. Mr Randika has had consultancy regarding finance and household economy, crop production (planting king’s grass) and how to utilize government free-of-charge arable land.

Mr Nasirin joined KAN Jabung in 1995 to receive the service and facilities provided by KAN Jabung (veterinary, animal health consultation, feed prices, etc.). Before Joining KAN Jabung he was a beef cattle farmer and worked as labour at other people’s farms. “When I joined KAN Jabung I directly sold the beef cows and bought dairy cows instead. The reason behind it was because we gained a steady stream of money instead of money once every time I slaughtered a cow. It is also more profitable and easier to make economic plans”. Mr Nasirin have made changes in the crop production, changing from rice paddies to king grass fields and have start buying feed concentrates (protein feed). Investments have been done to increasing the amount of land for feed production, from around 1800 m^2 to one hectare (10 000 m^2). He started out with one dairy cow and has now 8 cows in total. When asked about his relation to KAN Jabung Mr Nasirin replied: “We have a mutual understanding regarding each other. When I need help regarding credits or animal husbandry they always know how to help me with my issues”. According to Mr Nasirin it is usually very easy to follow the advices given by KAN Jabung, if the advice demands an investment he gets credits from them to be able to finance it. Since he joined the cooperative he has been able to build a bigger house for his family, expanding the farming land, send his daughter to university, buy several more cows and also giving some of them away to his daughter as a wedding gift. The investments are all made with finance credits from KAN Jabung (pers.com., Nasirin, 2016).

Mr Sugianto joined the cooperative in 1996 because he wanted to be a farmer of his own and searched for help from the cooperation to be able to start up. KAN Jabung is the only cooperative in the surrounding area, so they were the only one that had the opportunity to help him. Mr Sugianto participates in all the workshops held by KAN Jabung and has recognized the importance of good farm management, especially since the farm developed. Before joining the cooperative his existing barn was an inferior barn (semi-permanent wooden shed) and he was not able to finance an upgrade by himself. He was given the advice to do the

upgrades of the barn by the cooperative: “The upgrade decision is very difficult to take when you do not know if the information is functional. The reason why I decided to finally do the upgrade, even if I was in a bad financial situation, was since I saw another farmer being successful with the upgrade”.

“I am able to practice what I learn from the workshops and the consultation. I also try to spread this information to other members of my farmer-group”. Mr Sugianto is the head of the local farmer group and when KAN Jabung wants to consulate with the farmers in his local area he is the first one that receives information about new practices. “I have visited several other farmers in both Malang and other cities. In Blitar (another city) I saw that they fed the cows with a lot of grass so I tried to give much more grass to my cows. I was also inspired to construct a good sleeping area for the cows after another study visit”. Mr Sugianto also states that he has been inspired by other farmers to invest in good cow genetics from the beginning because these cows generate higher milk yields.

Mrs Khusnul joined KAN Jabung in 2008: “We joined the cooperative to be able to become better farmers and be our own managers. Back in 2004 I used to work at several different jobs but I really wanted to become a real dairy farmer. So I joined KAN Jabung to be able to become a farmer and my own boss”. Before joining the cooperative she was a cattle breeder with a total different business and in need for reconstruction and change. “With the help of KAN Jabung we have been able to become dairy farmers, we have been able to improve our lives when it comes to the economy. We have bought a house”. The workshops have been very useful for Mrs Khusnul, together with farm visits she learns about better farm practices. “I have visited farmers in my village to understand how they do farming and we learn from each other. I want to see their practices and differences from my own to be able to decide which one is the best practice”. Mrs Khusnul is a neighbour of Mr Sugianto and concludes that he function as a local hub in the area and have helped developing his neighbour’s dairy farms. Mrs Khusnul is asked about why the investments are done and she pinpoints the importance of Mr Sugianto and his influence. Mr Sugianto is seen as a successful farmer, both by KAN Jabung (pers.com., Sulistyo, 2016) and the local dairy farmers (pers.com., Mrs Khusnul, 2016) so the other farmers tend to follow what he do. Mrs Khusnul’s farm and household economy are combined and all investments are financed by credit from KAN Jabung.

Mrs Istinah and Mr Soleh joined Kan Jabung in 1993 after Mrs Istinah heard a lot of positive response from other members. “I heard that there existing many benefits from joining KAN Jabung. There were a lot of competitors from independent milk agents (collecting milk) working for Nestlé. But these doesn’t offer the benefits associated with the cooperative KAN Jabung”. Before joining the cooperative Mr Soleh owned no land by himself but now own his own land and rent extra for planting feed. “Since I joined the cooperative I have gotten more cows, but recently I sold 8 cows to be able to produce more feed for the cows. I needed to expand the land to be able to produce more milk in the future.” Mrs Istinah and Mr Soleh took the decision to sell the cows. But they have also informed KAN Jabung about the sale since they are interested in why the population declined so much. The inspiration for investments are KAN Jabung and their workshops. Especially when the workshops are focusing on expanding the farm business and it is possible to follow these advices more precisely: “Credits from the cooperative is used for all the investments. Cows, biogas, barn and house” (pers.com., Istinah, 2016).

Mrs Junani and Mr Siswanto joined KAN Jabung in 2004 since Mr Siswanto heard from other farmers that dairy farming together with KAN Jabung was good business. Before joining, he was a sugarcane, corn and rice farmer together with producing beef cattle. Mr Siswanto decided to change his beef production to dairy and this was made easier since there was an established milk collection point in the village. "I believe my situation as a farmer has become better since I started with dairy farming. My family economy has become much better". Mr Siswanto participates in every workshop held once per month and the workshops helps him understand the condition of the village farms, why they are successful or dysfunctional and comparing them between different farms. "I have visited my neighbour farms and sharing understanding about certain farm cases. We learn from each other's mistakes" (pers.com., Siswanto, 2016). Mrs Junani and Mr Siswanto have done several investments since they joined KAN Jabung. They has improved the house, bought a feed shredder, extra farming land and additional cows. "I want to buy a milking machine but I am waiting for more cows before buying the machinery. I enjoy what I am doing so I don't have big difficulties on my dairy farm" (pers.com., Siswanto, 2016). The decision to make investments is done in collaboration between the family and KAN Jabung. "Firstly I talk to family members and then decides what to do next. I receives expertise from KAN Jabung to confirm if it is a good investment or not" (pers.com., Siswanto , 2016). During previously dry seasons he have received feed subsidies and when he bought 100 kg of concentrates they received 20 kg extra. They also receives free medicine and veterinary assistance when the cows are sick.

Mrs Lasri and Mr Sukardi joined the cooperative in 2004 because they wanted to expand the family business and improving their family's economic situation. Both husband and wife was working at other farms doing the hard field labour (pers.com., Sukardi, 2016). KAN Jabung attracted their interest because of their established service for farmers. They became dairy farmers by buying a dairy cow with credit from the cooperative.

4.4.2 Collective farmer experiences

The interviews from the different villages across the Jabung district resulted in data which captured individual experiences and collective experiences among all or some of the farmers. This section will present several of the collective experiences among some of the farmers.

- Several of the farmers had family members who helped them with farming activities and in some cases they had employees that harvested feed for them,
- The feed for the cows changed for all dairy farmers when they joined the cooperative. Many of them started to grow feed, such as elephant or king's grass, and all farmers used the dry feed concentrates,
- Offered services (milk collection, veterinarian help, farm management, *etcetera*.) are often the main reason why farmers originally joined the cooperative,
- Many farmers reason for becoming a dairy farmer is to become their own boss,
- All interviewed farmers state that they participate in all the workshops and training,
- All farmers have had consultation about animal husbandry, finance and crop production from KAN Jabung,
- All farmers receive subsidised feed (dry feed concentrate) from the cooperative during dry seasons or Eid al fitr (Muslim feast) if needed that season,
- All has access to the subsidised cost for veterinary medicine,
- Dairy farming are these farmers main income (this does not account for all KAN Jabung members),

- All farmers used credits from the cooperative to finance farm and household related activities,
- All farmers used credits for investing in production-increasing facilities such as automatic drinking facilities, barn, feed shredder *etcetera*.
- Many farmers visits example farms

4.4.3 Farm observations

The infrastructure in the villages and its accessibility is not optimal, small tiny roads damaged by heavy trucks with big risks for flooding during rain season is common. The village houses were mainly established around one major dirt or asphalt road that slithered through the whole community. The villages were very small and the dairy farmers had short distances to the next dairy farmer, often they were neighbours.

Table 4 presents the observed facilities that are connected to improve the productivity among dairy farmers. All facilities were investigated on site and the farmers or Mr Sulistyo demonstrated how they were functioning. All facilities have been established with credits from the cooperative.

Table 4. Facilities that have been built with credits from KAN Jabung

Facility	**Yes**	**No**
Automatic Drinking Facility	6	3
Barn/Shadow	9	0
Biogas facility	7	2
Manure fertilizer	4	5
Milking machine	2	7
Shredding machine	5	4
Total farmers: 9		

Two times during interviews Mr Sulistyo allowed for participation in village counselling meetings. These took place at a farmer's house and the location rotated among the farmers in each farmer group. These two counselling meetings discussed farm management and animal health. During one of the meetings the farmers was asked about how many of them performed the teat dipping practice for preventing mastitis. From the following buzz, the reply from one unidentified farmer was the most prominent: "I have no time or money for that". The statement followed a workshop in animal health Mr Sulistyo held. He needed to inform farmers about cow's health and how to treat them since many farmers in that village had cows with fly maggots in the anus and vulva areas due to bad sanitation and washing the cows. Sulistyo (pers.com., 2016) explained that the farmers have both time (ten minutes/day) and money (0,65 USD) for procedures covering both the maggot infestation and the teat dipping but they do not prioritise and doesn't see the relation between a healthy well fed cow and higher production.

5. Analysis

This chapter aims at analysing the empirical results by connecting them to the theories and the conceptual framework presented in Chapter 2. The chapter opens with the analysis of how the theory of CSR, the SV concept and the following social business model to explain the range of the cooperatives business activities. Afterwards, the analysis shift focus towards KM, knowledge transfer along with absorptive capacity and how these concepts affect the business activities. Ultimately, the third section focuses on learning and collaboration through networks.

5.1 Businesses accountability

The cooperative actively works with CSR through education, health, infrastructure improvements, environment and religion (www, KAN Jabung, 8, 2016). These activities agree with Schwartz and Saiia, (2012) and their definition of CSR, that businesses have commitments towards society that goes beyond their economic responsibilities to shareholders (in this case their members). On a macro level, the cooperative could be considered to execute strategic CSR and create business opportunities with the goal to reach their own economic objectives (Garrigá and Melé, 2004; Husted and Allen, 2006). The extensive work with a wide array of business activities together with their CSR program makes the CSR embedded in the cooperative core business and its human capital with the purpose to create business value and positive social change (McElhaney, 2009).

The extra services (mechanic shop, KAN trading) offered to cooperative members can be considered to be business activities that exceed the cooperative obligations. Bijman and Hendrikse (2003) stated that a cooperative helps farmers to gain more favourable costs and offer services that support activities that are performed by their members. The mechanic shop and KAN trading may be perceived as business activities that exceed the responsibility towards their members. This statement is made since the services are not directly supporting the businesses of the farmers, but indirectly by easing their personal life. Porter and Kramer (2006) conclude that businesses need to take liability for issues that previously wasn't on their table. The absence of certain services and products for farmers with low funding force the cooperative to operate with a wide array of services to secure a steady production. Without their extensive work and offered services, the milk production would most surely be lowered since time, effort and investments by the farmers on productive procedures would decline. This since the farmers' resources would have been needed to secure their personal needs, such as go downtown to buy groceries or building materials instead at the closer KAN Jabung store, or receive a higher price for the same commodities. The activities main purpose is to enable the farmers to produce more milk (pers.com., Marliyanti, 2016). If compared to European dairy cooperatives, some of the production services and the other extra services may also be considered as business activities outside the range of obligations. This study does not aim for a comparison between cooperatives so this assessment will not be further examined.

Michelini and Fiorentino (2012) believes that the social problems of developing countries to be included in the business strategy. This cooperative has incorporated services and business activities that address social problems of both their members and the societies they live within. The KAN Jabung milk program for kindergarten, ambulance service, building mosques and scholarships do not only affect members but also the whole community. These

activities build trust and loyalty among the locals (per.com., Muslim, 2016) which can lead to converting some of them to become dairy farmers (per.com., Sulistyo, 2016) or start drinking milk (per.com., Muslim, 2016). Furthermore, the cooperatives approach towards knowledge may be considered to be a business strategy with focus on social problems. Some of the social problems related to poverty could originate from low educational level, especially with the words of Qiu *et al*. (2016) in mind. They presented learning and innovation, both with strong connection to knowledge, as tools for poverty alleviation and for farmers to become more successful. The cooperative production services, with learning as a tool and a base of knowledge in husbandry and crop production, could provide a strong foundation for poor farmers to alleviate poverty. This is partially confirmed by several farmers affirming that their participation in the cooperative has improved their socioeconomic situation. It is however impossible in this study to derive this recognition of an improved situation to the work of KAN Jabung since it do not possess any cyclic data to show exact improvements and its causality.

Societal benefits together with economic progress is what defines the SV creation (Porter and Kramer, 2011) and the *business* and *social* approaches of value presented by Aakhus and Bzdak (2012) support the concept of SV. The value generation can subsequently comprise of competitive strategy and advantage conjoined with reducing social problems and contributing to governance. The competitive strategy may be viewed as the KM, a strategy to strengthen their position with more reliable sources of supply and increasing the supply. The competitive advantage is the services the cooperative and is presented by Mr Muslim (pers.com., 2016) who believed that the CSR program helps differentiating KAN Jabung from other dairy cooperatives, since they do not provide CSR activities or services related to production. His belief is confirmed by Mrs Istinah (pers.com., 2016) who states that other milk collectors doesn't offer the benefits associated with KAN Jabung.

One feature of the SV concept is that it allows for-profit and non-profit organizations to approach each other and create hybrids (Porter and Kramer, 2011). A cooperative business that applies SV could be considered such a hybrid organisation. The cooperative structure with its main stakeholders as their supplier and owner could suggest that it is a combined profit/non-profit organisation by itself. It is a social enterprise with the goal to solve social problems (Yunus, 2008) among their members by offering both direct and indirect services to alleviate their poverty situation. The cooperative has according to several of the interviewed farmers facilitated services to improve their productivity, which probably have improved their socioeconomic situation. This suits the idea of the social business model since the means to solve social problems are the business activities and practices (Yunus, 2008). A good business model should according to Teece (2010) yield value to customers and capture value for the business. The value to customers can either be the suppliers or the buyers of milk, which in this case both benefit from the activities. Milk processors will be able to receive more milk and can reach higher profits due to higher sales while the members experience an increased socio-economic situation. Yunus (2008) provided us with two different social business models, where one offer no dividends to shareholders and reinvesting profits in quality. The other one characterised with owners that are considered low-income people while the business is profitmaking. The cooperative KAN Jabung can be viewed as a fusion of these two business models. The profit gained is reinvested in quality and expansions while low-income people own it and are benefitted from the investments made with the profit.

5.2 Organizational Knowledge

Knowledge has grown in importance and emerged as a strategic aspect of business activities (Argote and Ingram, 2000) and KM is more challenging with smaller businesses (Durst and Edvardsson, 2012), which is visible in the case of KAN Jabung. Mr Sulistyo and Mr Widodo's work with increasing and enhancing the farmers knowledge stock could be described as a strategic tool for increased production and productivity, but challenging since they lack the support of a business with unrestricted resources e.g. a MNC. Narteh (2008) concluded that developing countries are affected by low skills, technological and other resource constraints. Since KM is a formal way of accessing experience, knowledge and expertise (Gloet and Terziovski, 2004) it suits the objective of the daily work performed by Mr Sulistyo and Mr Widodo since they perform consultation about best cow practice related to knowledge, skills and technology of dairy production (pers.com., Sulistyo, 2016; pers.com., Widodo, 2016). Narteh (2008) and Ayele et al. (2012) further states that internal knowledge creation is challenging and the activities performed by KAN Jabung suggests that it is not the aim for the cooperative. They utilize external knowledge gathered by employees from universities, competitive companies and the web (pers.com., Sulistyo, 2016; pers.com., Widodo, 2016). The overall process of the activities performed by the cooperative can be considered a form of KM, with the goal to improve productivity and production. The cooperative has established a formal way to access experience, knowledge and expertise through their educational LDP, supporting co-workers university studies and collaboration with competitive partners. Since organizational knowledge is significantly created from individuals specific knowledge stock (Cyril Eze *et al.,* 2013) this method of accessing knowledge among co-workers will also increase the overall organizational knowledge at the cooperative.

The individual development of knowledge that Edvardsson (2006) titled *personalisation* is shared face-to-face. Since it's built up from dialogues, learning histories and communities of practice it suits to describe how Mr Sulistyo and Mr Widodo work on a daily basis. They solve distinctive problems using their tacit knowledge of animal husbandry and best cow practice to increase the production of the farmers. They continually have a dialogue and follow up the work of the farmers while instructing them on how to treat the cows, feed them, and what facilities they need (pers.com., Sulistyo, 2016; pers.com., Widodo, 2016). They utilize example farmers with the purpose of tangible proofs for prosperity and gather the farmers in groups to learn in workshops and counselling meetings (pers.com., Sulistyo, 2016; pers.com., Widodo, 2016). Further they help to establish local farm leaders that can spread their knowledge broader.

Du Plessis (2007) divided KM into the individual level, team level and organizational level. Mr Sulistyo's and Mr Widodo's work can symbolize the individual level on how knowledge is transferred to farmers, while the different production service units may symbolize the team level. The KM on an organizational level is symbolized by the embedded knowledge that seeps from the educational programs, the community development program and the implementation of the workshops, consultation and counselling meetings. The concept of knowledge transfer is the process where the experience of one unit affects another (Argote and Ingram, 2000) and occur on an individual level between co-workers, in informal groups and divisions. In this study, the knowledge transfer that occur on an formal level exist in the relationship between farmers and the different production units. The informal groups may be neighbours or friends of the local village that share knowledge between each other, while the divisions may be the animal health unit transferring knowledge to the production unit.

According to Narteh (2008) the more similar knowledge the recipient and transferor of knowledge possess, the easier the transfer progress. In this study this is confirmed by the interviews with Mr Sulistyo and Mr Suhadi. Mr Suhadi states that it is difficult to inform and explain about best practice in animal husbandry and business and derives this to the farmer's low educational level (pers.com., 2016). The low educational level in husbandry practice and business becomes visible when farmers demand instant success from Mr Sulistyo (pers.com., 2016) without the long-term perspective some of the improvements requires. It is apparently slightly difficult for knowledge transfer to occur when the educational level is lower among the farmers relative to the cooperative representatives. Nartehs (2008) claim about similarities in knowledge are further supported by Cohen and Levinthal (1990) who claim that preceding knowledge facilitate the possibility to exploit further knowledge.

External knowledge and businesses capability to absorb it defines absorptive capacity (Muscio, 2007) and previously related knowledge is accordingly facilitating the process for absorbing new knowledge. This is apparently difficult if the recipient has low educational level and knowledge in a given field. The low educational level in developing countries exemplifies this and it is a major barrier to technology adoption (Dethier and Effenberger, 2012). The opposition to new practices, methods and knowledge from the farmers are expressed by many of the business representatives. Mr Pariatmoko (pers.com., 2016) explained that the farmers generally need tangible proof of success and Mr Collins (pers.com., 2016) has noticed that farmers neglect improvements as only successful abroad. In the educational work performed by Mr Sulistyo and Mr Widodo they express this problem by addressing it to the farmer's mind-set and that many of them are not progressive and willing to transform their farm after their consultation (pers.com., 2016). This can moderately be explained by Cohen and Levinthal (1990) who conclude that a business needs prior knowledge to be able to assimilate new knowledge in the same field. The interviews with the cooperative representatives have brought attention to that farmers may not always recognise new knowledge as valuable. This might be derived from their low educational level and low previous knowledge about animal husbandry and business, which is needed to understand new knowledge (Cohen and Levinthal, 1990).

The leadership program of farm group leaders and that the cooperative encourage and actively send their own staff for studies are also investments in absorptive capacity (Cohen and Levinthal, 1990). This is a strategic choice for increasing the competence locally in the small villages as well as internally at the cooperative office. KM on a strategic level is here recognised and knowledge transfer can accordingly more easily occur since the knowledge stock is increased.

The work conducted by KAN Jabung for improving the farmer's productivity has been exemplified. Qiu *et al*. (2016) support the learning activities performed by KAN Jabung by claiming that talent training can reduce poverty. They describe a traditional farmer as hard working, diligent and economical orientated but claim that these farmers need to transform. They advocate for a change among modern farmers that suits the aim with the activities performed by the cooperative of this case study. In their description of this modern farmer the similarities with how KAN Jabung operates are strikingly. Both suggest that farmers need to apply new technologies, products, designs and methods, while emphasizing on the need for transformation and change. Role models such as farm leaders and example farms are implemented by KAN Jabung and they strife for a improved collective wealth of the local communities, which is promoted by Qiu *et al*. (2016) for poverty alleviation.

5.3 Networking

Problems for small businesses to generate their own knowledge was demonstrated by Ayele *et al*. (2012) and when companies have limited internal knowledge they may perform networking with external partners to gain further knowledge (Muscio, 2007). De Carolis *et al*. (2009) states that participation in a network increases the social capital of the individual while Schilling and Fangs (2014) describe network as a channel for diffusion of information and other resources. These statements refer to what is happening in many structural levels at KAN Jabung. How farmers capture knowledge from the cooperative in workshops and counselling meeting. How farmers are divided into groups for learning different practices and later learn each other. How the whole cooperative functioning as a catalyst for external knowledge diffusion to internal recipients, effectively through the production units and collaborative work with each single farmers.

The farmer's participation in collaborations performed by the cooperative open doors to new sources of knowledge and other resources. Kadushin (2012) view networks as beneficial relationships that provide opportunities, credibility, support, information, resources, competiveness and innovation. Many of these contributions from networks would most likely not have been available for these small farmers without their participation since they are affected by resource restrictions. The relation between farmers in their remote rural villages can be described as social networks since it consists of individuals with connections (Hoang and Antoncic, 2003). Social connections and relationships such as family, friends, acquaintances and business affect our social context (Welter, 2011). The connections described by Welter (2011) is very similar to the one described as PSN by Fernández-Pérez *et al.* (2014). The PSN relations are informal, intimate, centred on trust, shared emotions and shared values. Networks in its social context can provide resources, solve problems and suggest how to implement ideas. The representatives at KAN Jabung have utilized this. They have set up small farmer groups in the local areas and have had the farmers cross-educate each other on different subjects. The workshops and counselling meetings are farmer groups that socialize and learn from each other and the cooperative representatives. The presence of the workshop as a formal social network have resulted in implemented ideas and solved problems as proposed by Welter (2011). The interview with the farmers shows that there also exist informal social networks (farmers visit each other, family and social events) that can provide important means for the acquisition of information and other resources as suggested by Rampersad *et al*. (2012).

The PSN are considered a more effective network than those emerging in business relations (Fernández-Pérez *et al.,* 2014). Taking this into account together with the recently presented learning experience from the farmer's social networks we can shed some light on the farmer's unwillingness to change. Mr Sulistyo, Mr Widodo and Mr Pariatmoko claims about farmer's mind-set and their reluctant to change (pers.com., Sulistyo, 2016; pers.com., Widodo, 2016; pers.com., Pariatmoko, 2016) could partially be explained by the form of the network. Fernández-Pérez *et al.* (2014) describe the BSN as a relationship that emerge from academic and research activities with industry contacts and business relationships with economic stakeholders, customers, suppliers and competitors. The BSN are more formal and less effective compared with PSN. The networks the representatives from KAN Jabung and Nestlé are able to establish with the local farmers may only be BSN. This could then partially explain the resistance towards transformation within those networks, while local PSN networks consisting neighbours have experienced progressive change through the exhibit of example farms (see interview with Mrs Khusnul).

Iturrioz *et al.,* (2015) stated that small businesses are restricted in developing knowledge, and in turn innovation, due to their limited resources. The importance of being innovate was described by Qiu *et al*. (2016) who proclaimed poverty alleviation as one of its ultimate objectives. The collaborations between farmers and KAN Jabung represent an increased innovative capability among farmers. This is of high importance since networks will enable small farmers to obtain resources and therefore need the innovative network to evolve their businesses. The innovative network increases the farmer's collaboration with the cooperative, giving them the opportunity to develop otherwise unattainable competitive advantages (Iturrioz *et al.,* 2015).

The farm leaders of the different learning groups are functioning as knowledge hubs. These hubs exist in both formal and informal networks (Schilling and Fang, 2014) and it is individuals that produce and share knowledge with their community (Evers *et al*., 2010). The interview with Mrs Khusnul gave input to this concept and exemplified the importance of knowledge hubs and the social context of the farmers. This farmer has an influential neighbour, Mr Sugianto, that is recognised as important for the development of the neighbouring farmers (pers.com., Mrs Khusnul, 2016). The social context of Mrs Khusnul with Mr Sugianto in her vicinity has influenced her to do investments and created a relation where Mrs Khusnul adopt the practices performed by Mr Sugianto. The formal network with Mr Sugianto as a knowledge hub for his farmer group has resulted in his knowledge to be shared. In knowledge hubs, connectivity and face-to-face collaborations enable the transfer of tacit knowledge (Evers *et al*., 2010), which is exemplified in the above example of knowledge transfer through face-to-face interactions between the two farmers. The formal knowledge hubs, farm leaders, receive extra training in practices and knowledge (pers.com., Sulistyo, 2016) and are expected to transfer this knowledge to their farm groups.

5.4 Analysis summary

With the analysis on the chosen theory and collected empiric in mind, a summarised simplification is presented in figure 4. Red colour represent production challenges. Green colour represent activities or procedures by the cooperative that directly or indirectly are applied to cope with the negative impact. Purple represent possible outcomes of the activities while the light blue represent the possible overall effect of implementing the activities.

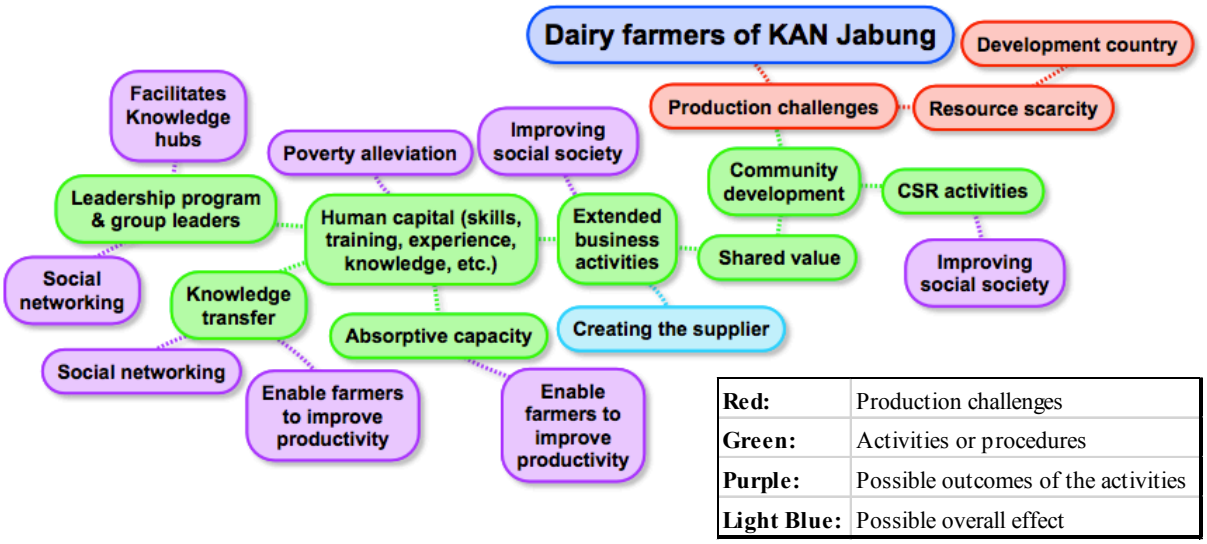

Figure 4. The relation between the farmers, theory and empiric outcome.

In figure 4 the analysis is presented with the relations between theory and empiric visible. The dairy farmers have the context of a developing country, entailing resource scarcity. The production challenges are partially derived from the resource scarcity such as funding, knowledge, technology etc. The cooperative address these production challenges through community development in the shape of SV and CSR activities. The SV includes extended business activities that mainly is focused on actions that incorporates human capital. The human capital is connected to the learning, innovative and knowledge based undertakings that the extended business activities represent. The human capital can boost poverty alleviation while facilitating the leadership program/farm leaders, knowledge transfer and absorptive capacity. The result is the creation of knowledge hubs for further knowledge transfer, social networking as a mean for knowledge transfer while knowledge transfer and increased absorptive capacity facilitate the means for an increased productivity.

It is worth noting, that several of these nodes in the mind map also have relations that is not visible due to restrictions in the program. However, their relation has previously been demonstrated in the analysis and empirics.

6. Discussion

In chapter 6 the focus is on the research questions from chapter 1 and discussing them in relation to previous studies in the same field. The objective is to embed the study in a scientific context and to isolate the key elements for enhanced productivity and production within the specific context the case study was performed. The research questions will aid to the structure of this chapter and different approaches to the utilized theory will be presented as well.

6.1 What are the enabling factors for increasing milk production?

The bottom-up approach executed by KAN Jabung facilitates important participation in networking for the local farmers and invites them to contribute in activities. The meetings, workshops and counselling meeting is a good foundation, and the partaking in management procedures through the action of voice and vote can further promote participation. Participation has been recognised as the most important factor for community development (pers.com., Suhadi, 2016) and good communication to further facilitate involvement (per.com., Marliyanti, 2016). Participating in networks is considered to be beneficial and there exists a strong connection to a firm's growth and for preventing business failure (De Carolis *et al.,* 2009), which further demonstrate the importance of a high involvement by the farmers. Qiu *et al*. (2016) takes it a step further and claim that participation promotes multidimensional poverty alleviation, suggesting networking and SV both can have social and economic objectives fused together. Additionally, the network context as Iturrioz *et al.* (2015) propose, facilitates participation and function as an intermediary for further participation in networks.

The foundation for this study was created in the field of CSR and the awareness that not only MNC incorporates accountability into their main activities, smaller businesses and cooperatives do so as well. Business opportunities and social change can exist side by side and the concept of shared value (Porter and Kramer, 2006) exemplified this. To add support for the SV approach and its usefulness Porter and Kramer (2011) portray several global companies that have adopted this new way of thinking including Wal-Mart, GE, Intel, Wells Fargo and Nestlé. This study demonstrate that a cooperative business model in a developing country can achieve social objectives and transformation, engage in collaborative exchanges of knowledge while simultaneously increase the production. This study shows that a cooperative business model in a developing country with the aim of productivity and production growth can require a fusion of social objectives, human capital, a platform for knowledge transfer and collaborative networking to reach the goal. The results resemble the outcome of shared value presented in the 2015 report by Nestlé. The report identifies that companies with the goal to prosper over long-term and create value for shareholders must create value for the society at the same time (www, Nestlé, 2015).

The contributions of this study are related to the business approach when committing business in a developing country context, where social needs are not sufficiently satisfied and the accountability of business needs to expand and include social objectives. Additionally, the analysis brought insight to further discussion points. This case study of production challenges in Jabung indicates that social objectives and social contextual factors both positively can affect the production process. This finding correspond well with the approach Porter and

Kramer (2006) (2011), Yunus (2008) and Nestlé (2015) have when it comes to social objectives and a company's extended accountability as well as Welter (2011) and Michelini and Fiorentinos (2012) view on individual's social context. Business management performed with focus on social objectives can support business opportunities and secure competitive advantage while the social context contributes with resources and solutions to problems.

The extraordinary circumstances within a developing country entail that social objectives are included in activities that usually would be accountabilities of the local government. As identified by Michelini and Fiorentino (2012) business strategies in this context need to include accountability for social society. The ordinary approach to CSR failed with recognising the interdependency between a functional social society and a prosperous business (Porter and Kramer, 2006) resulting in the creation of the SV concept. In the case of KAN Jabung, possible conflicts between a prosperous economy and social improvements have converted into business opportunities. The SV puts pressure on a socioeconomic transformation where the needs of society drive business. The farmer's need of improved conditions like improved houses, children's access to university studies, farm improvements and more access to land are to some extent satisfied by their collaboration with the cooperative.

Key factors for increasing the milk production (cooperative level):

- The creation of a supportive business climate that enable the tools for farmers to increase their production,
- Provide services to farmers that reduces the resource consumption of daily activities, thus release more resources for production (time, funding, etc.),
- Creating human capital useful to improve productivity, for example education in husbandry, business, crop production,
- Building trust among farmers through CSR and community development which enables further learning, higher participation, transformation into higher productivity etc.

6.2 How may Indonesian dairy cooperative members increase their production volume?

SV is socioeconomic transformation where the needs of the society drive business (Porter and Kramer, 2011) and the case study of KAN Jabung demonstrate this. An approach towards business that didn't include the member's social progress, would probably have a total different outcome than today. If the financial institution of KAN Jabung, the productivity enhancing activities and the guidance towards becoming a better farmer were absent, the farmers would most likely produce less milk or not producing milk at all. KAN Jabung responds to the restrictions of becoming a more productive farmer by offering services covering finance, knowledge and practice.

As Porter and Kramer (2011) discussed, it is possible for the profit from social value creation to fulfil human needs that aren't satisfied by governments or philanthropic organizations. This follows what Qiu et al. (2016) argues for regarding poverty alleviation among farmers. They believe that subsidies and contributions only to be life support and a narrow thinking of poverty alleviation. The multidimensional activities KAN Jabung uses to address the farmers needs suit the approach towards poverty alleviation Qiu et al. (2016) discusses. The focus needs to be moved away from a monetary compensation model (Qiu et al., 2016) or

philanthropic (Porter and Kramer, 2006) to reach a greater impact on social good. Qiu *et al*. (2016) argues that farmers can obtain their wealth through learning, innovation, open-mindedness and leadership/drive.

Production conditions for farmers in developing countries such as low education, absent credit markets and externalities could be major barriers to technology adoption (Dethier and Effenberger, 2012). A technology is profitable after a shorter period of time for individuals with higher levels of education (Dethier and Effenberger, 2012). The absence of well-functioning credit markets in this context creates a barrier for technology adoption. If a new technology would be highly profitable, the possibility to acquire the technology could be dependent on initial funds. Farmers who lack the funds or cannot obtain loans might not be able to adopt the technology (Dethier and Effenberger, 2012). Even though the technology exists and is available, the adoption of new technology or practices is absent since the resources are missing.

Participating in a network increases your social capital and it can transform the thinking, reasoning and decision-making, based on knowledge and experience (De Carolis *et al*., 2009). This indicates that farmers that participate in these collaborations and networks will base more decisions regarding animal husbandry and business on knowledge and experience, which in turn will be a foundation to be a more successful farmer. Furthermore, to increase the social capital by themselves would cost these farmers resources and most likely they would not succeed due to the resource scarcity.

Key factors for increasing the milk production (member level):

- Have access to funding,
- Increase their knowledge stock, adopt new practices and learn new skills,
- Have a progressive mind-set and being open-minded,
- Being innovative,
- Have a high level of participation in networks and other activities that aims to increase their knowledge stock relevant to their field of business,

6.3 Theoretical discussion

Some of the theoretical concepts in this thesis have been developed and explored in different contexts and with other preconditions than what defines this case study. The literature frequently addresses MNC and larger companies that operates during conditions not represented in this study. This allows for a theoretical discussion where consideration of these differences is taken into account.

When investigating the concept of absorptive capacity and knowledge transfer they are followed by some concerns that are context specific for this study. After studying the work of Muscio (2007), evidence is presented about the influence R&D has on firms' capability to utilise external sources to access new knowledge. Problems may arise when analysed firms don't possess R&D related indicators (Muscio, 2007) since the concept of absorptive capacity is based upon data from firms with R&D departments (Cohen and Levinthal, 1990). This study involves a small cooperative without substantial internal knowledge generating capabilities. Muscio (2007) view this problem by stating that an alternative source of learning, such as learning by doing and learning by using then generates a part of a business absorptive capacity. The absorptive capacity discussed in chapter 3 and chapter 5 is therefore of a more

modest nature, addressing everyday learning and investments in education as proposed by (Cohen and Levinthal, 1990).

Cohen and Levinthal (1990) state that a firm's absorptive capacity is an ability to evaluate and utilize external knowledge. Ayele *et al*. (p 334, 2012) follows by stating that: "The linear research–development–extension approach has been much criticized for being hierarchical, top-down and supply-driven, and for its limited impacts on the generation and diffusion of relevant knowledge and technologies". This implies that the regular R&D performed by corporations may not be the best way of generating knowledge since it is costly and may be difficult to transfer to its subject. Instead, knowledge creation can be done through innovation systems such as a network of private and public sector organizations "whose interactions produce, diffuse and utilize economically useful knowledge" (Ayele *et al*., p 334, 2012). This system for generating knowledge may be more useful for SMEs that do not possess R&D departments but have access to collaborative business partners.

7. Conclusions

The objective with this study is to contribute to previous literature on CSR and KM and explore how local dairy cooperatives collaborate with their members to increase milk production. The study was executed as a case study considering the challenges of dairy production in a developing country.

7.1 Productivity and production

Some of the many challenges for businesses in developing countries are related to resource scarcity (Narteh, 2008) which is followed by low production (Horlings and Marsden, 2011), low knowledge stocks and funding (Godfray *et al*., 2010; Pretty *et al.,* 2003). This is also the situation for the Indonesian dairy farmers (pers.com., Marliyanti, 2016; KAN Jabung, 2016; pers.com., Nurhadi, 2016), the demand for dairy products forces the dairy cooperative to establish production services, facilitating their members potential increase in productivity. Consequently, the aim of this study is to identify factors that have an impact on milk production in the context of a dairy cooperative, in this case KAN Jabung, in a developing country. Further objective is to investigate how the cooperative interacts with its members to reach an increased milk production.

The interviews with the villagers and the representatives of KAN Jabung provided good insights in the production challenges. Farmers are not always interested to participate in workshops and their ability to transform their farm are restricted by resources but also by mind-set and foremost existing knowledge. To change the risk aversive behaviour towards change, it is important to engage farmers in the knowledge process and encourage collaborative business activities. The need for "hands on proof for success" before any farmers transformed was a recurrent theme among the farmers and cooperative representatives, suggesting tangible evidences to be more fruitful as well as trust to be an issue.

Accountability for environmental and social issues merged with business activities constitutes the concept of CSR. It is a concept not only applied by businesses in developed markets, but also by small cooperatives in developing countries. The complex context of this study involves production challenges, low educational level, resource scarcity and resistance towards change. The resource scarcity among farmers and the cooperative give rise to knowledge and human capital and entails their function as a mean for transformation. Transforming small-scale farmers into progressive more productive farmers with a possibility to change their socioeconomic situation.

In order to meet the demand from members and local communities and simultaneously grasp business opportunities, the activities of the cooperative need to be widespread and inclusive. This study shows that a cooperative business model in a developing country can achieve social objectives and transformation, engage in collaborative exchanges of knowledge while simultaneously increase their production. This study suggests that small-scale cooperatives, like KAN Jabung, in developing countries are aware of their specific context and how to utilise these factors to their advantage and allow for a more profitable business. It may shed some light and open up for questioning philanthropic business behavior and governmental aid programs that aim for poverty alleviation together with pinpointing the importance of accessible knowledge for development.

An overall observation is that in order to conduct business (for example selling milk), a company in a developing country may be forced to create its own supplier. In this case it is represented by the activities the cooperative undertook to educate and collaborate with dairy farmers, aiming for a higher productivity, production and establishing local suppliers.

7.2 Limits of conclusions

The empirical results of this study originates from the operative locations of the KAN Jabung cooperative and some of its members. This entails a set of exclusive interviews with different local stakeholders as well as hands-on observations and access to production records, which allowed for triangulation. This implies that the data possibly will be credible and true. Nevertheless, there exists a risk that the researcher having a subjective positive or negative approach towards the activities, the cooperative and the interviewees reality. Furthermore, any generalizing of the findings of this study would be limited to dairy cooperatives (SME) in Indonesia with business activities regarding production improvements. The belief is however that some of the findings would be useful to agricultural cooperatives in other Indonesian regions as well as countries with a similar context.

7.3 Suggestions for future research

Additional studies may be addressing the business activities performed by cooperatives in developing countries and comparing them to activities performed by cooperatives in developed countries. This study showed the width of the activities one cooperative performed, but the differences may educate us further on prerequisites in conducting businesses in developing countries. How far does the obligation go to provide support activities and what is to be considered business activities outside the obligations? The extensive work the cooperative perform concerning knowledge enhancement and networking together with members could be compared with business activities performed in western communities. The Swedish organisation LRF Konsult performs similar economical consultation while Hushållningssällskapet perform the crop and husbandry consultation performed by KAN Jabung. These services adds extra costs for the Swedish farmers, but in the case of KAN Jabung they are included in the cooperative obligations towards its members.

Another research field could be gender aspects to enlighten our understanding of the production challenges. As an example, females seemed to have three different roles among the visited farmers; an eminent role, being equal in business activities and absent from business activities. The differences in the female role may affect the production, learning, and business outcome, especially if we regard the PSN within family suggested by Fernández-Pérez *et al.* (2014) and that individuals learn from their social context. This was not further investigated since the agreement with the farmers did not include these kind of investigations.

Furthermore, to more thoroughly investigate how these collaborations perform, cyclic data for network activities and its relation to production outcomes could be collected. The longitudinal survey may broaden our understanding on how knowledge and innovation affect the overall production. The cyclic data could help us determine the impact the networks and production services have or do not have on the farmer's total production outcome.

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Personal messages – Cooperative and business representatives

Achmad Ali Suhadi
Community development, KAN Jabung
Personal meeting 24-05-2016

Ali Nugroho Bambang
Lecturer; Animal husbandry, University of Brawijaya
Personal meeting 11-03-2016

Brendan Collins
Independent DeLaval sales agent
Personal meeting 22-03-2016

Eva Marliyanti
General Manger, Kan Jabung
Personal meeting 31-03-2016

Mannaria Harahap
Translator/KAN Jabung representative, Kan Jabung
Personal meeting 24-05-2016

Moko Pariatmoko
Agricultural service specialist, Nestlé
Personal meeting 11-04-2016

Nunuk Hari Widodo
Head of Increasing production and rescue population unit, *KAN Jabung*
Personal meting 08-04-2016

Nurhadi Sulistyo
Head of Animal health unit, Kan Jabung
Personal meeting 12-04-2016

Saiful Muslim
Corporate Social Responsibility, KAN Jabung
Personal meeting 24-05-2016

Yulistiana
Cooperative representative, KAN Jabung
Personal meeting 14-03-2016

Personal messages - Farmers

Istiniah and Soleh
Cooperative dairy farmer, Jabung district
Personal meeting 18-05-2016

Junani and Siswanto
Cooperative dairy farmer, Jabung district
Personal meeting 18-05-2016

Khusnul
Cooperative dairy farmer, Jabung district
Personal meeting 17-05-2016

Lasri and Sukardi
Cooperative dairy farmer, Jabung district
Personal meeting 18-05-2016

Nasirin
Cooperative dairy farmer, Jabung district
Personal meeting 21-04-2016

Nur Hidayah
Cooperative dairy farmer, Jabung district
Personal meeting 21-04-2016

Pak Juma'at
Cooperative dairy farmer, Jabung district
Personal meeting 12-04-2016

Randika
Cooperative dairy farmer, Jabung district
Personal meeting 21-04-2016

Sugianto
Cooperative dairy farmer, Jabung district
Personal meeting 17-05-2016

Supardi
Cooperative dairy farmer, Jabung district
Personal meeting 23-03-2016

Appendix 1: Interview guide for farmers

Who is interviewed:
Location:
What date:
People in field: Simon Svensson, Ibnu Sanggar Watasa
Interview language: Bahasa and Javanese, translation to English

At farm observations
Automatic drinking facilities:
Feed access:
Shadow:
Manure collection:
Milking machine:
Integrated with family house:
Feed shredder:
Village location:
Teat dipping:

Farm questions:

- How many animals do you have?
- How many of the animals are productive?
- How many litres is your total daily production?
- What kind of breeds do you use?
- Where do you get the genetics for this breed?
- Who are the people working directly with the cows?
- Do you have any employees working at the farm?
- Have you changed the feed since you joined the cooperative?
- Have you expanded your land usage since joining the cooperative? (for more feed production?)
- Do you use protein feed? (soya, copra, DDGS)
- Is dairy farming your main source of income?

Questions regarding KAN Jabung:

- When did you join the KAN Jabung?
- Do you remember why or how you joined the KAN Jabung?
- How did your farm look like before you joined the cooperative?
- Can you tell us little about how you work together with KAN Jabung?
- Do you have more or less cows since you joined the cooperative?

Training/Learning/Workshop:

- Do you participate in all the workshops held by the KAN Jabung?
- What is your personal feeling about the workshops? Are they suitable for you?
- Have you visited any other farms for learning about better farm practices?
- Do you feel that the given advices are suitable for your farm?

Services:

-What kind of investments have you done since you joined the cooperative?
Household?
Machines?
Farming land?
Cows?
University for kids?
Healthcare for family?

- Why did you do these investments? Did you hear from neighbours? Cooperative? Farming news? Own initiative or recommendation from someone else?
- These investments, are they done with help of credits from the cooperative?
- Have you received technical help from the cooperative? Repair, instalment of technology etc.
- Have you used the service of household economy offered by cooperative?
- Have you used subsidies for veterinary medicine or feed from the cooperative?
- Have you received any consultancy regarding business/crop production or husbandry?
- Did you follow the consultancy? Why or why not?
- Do you feel that you have the means (money, land, amount of cows) to follow the given advices?

Appendix 2: Interview guide for KAN Jabung representatives

Location:
What date:
Who is interviewed:
People in field: Simon Svensson, Ibnu Sanggar Watasa
Interview language: Bahasa & Javanese, translation to English

Personal questions:

- What kind of education do you have?
- What is your position at KAN Jabung?
- What earlier positions have you had, in KAN Jabung and/or at other places?
- Describe your daily work at KAN Jabung?
- What are the future objectives for your business unit in ten years?

Farmer relations:

- Do you do home visits?
- Why do you do home visits? And how often do you do them?
- Do you reconnect (further home visits) with farmers so you can evaluate what they have learnt?
- How do you make farmers trust you so they will follow your advices?
- Do you feel that farmers follow your advices?
- Do you actively try to make the farmers follow your advices?
- How do you communicate with the farmers? Through home visit? Telephone? Email?
- Do you promote interaction between farmers? Encouraging them to seek out other farmers with the same problems or preconditions for extra learning.
- What are the challenges and opportunities in your work? Regarding technology? Regarding the people you meet?

Learning:

- How do you spread information/knowledge to the farmers?
- What do you think characterizes a progressive farmer?
- Do you measure change in agricultural practice?
- Is there a process to make sure that the farmers fully understand the workshops, meeting and home visits?
- How do you evaluate the farmers learning processes?
- Do you have further ideas for developing the workshops/training of farmers?

Technology/Knowledge:

- What is your view upon farming technology? Expensive? Cheap? Productivity? Efficiency? Available?
- For which farmers does extra technology make a good investment?
- Do you believe technology (dairy) to be a good investment for small-scale farmers?
- Do you promote technology (dairy) to farmers? Encouraging them to buy more technology?
- Do you measure change in agricultural practice?
- Can you please describe how the workshop function? What are the different learning strategies?

Management

- How does KAN Jabung work with building trust among the cooperative members? So they will join the cooperative.
- According to you, what are the most important services that KAN Jabung provides?
- Do you recognize social benefits for farmers being a part of KAN Jabung?
- Do you recognize economic benefits for farmers being a part of KAN Jabung?
- What are the most important factors for success for KAN Jabung?
- Do you believe KAN Jabung is a place for learning? Why? How?
- Do you go abroad for learning about new agricultural practices? Yes/No? With whom?
- According to you what does KAN Jabung contribute with the most to their members?

Appendix 3: CSR WORK PLAN 2016 KAN JABUNG

A. HEALTH
   1. To provide medical assistance to members who are in need
   2. Provide free milk to students, kindergarten and early childhood
   3. Become blood donors
   4. Handling of dairy cattle waste (biogas, slurry, organic fertilizer)
   5. Ambulance service

B. RELIGIOUS
   1. Help building mosques, especially in Jabung district
   2. Gratitude (Anniversary of KAN Jabung)
   3. Provide "Eid" (feast in the end of Ramadan) parcels for the community around the office and cooling unit
   4. Slaughtering qurban (religious offered animal) and distribute to local communities
   5. Provide internal religious activities

C. GENERAL FACILITIES AND INFRASTRUCTURE DEVELOPMENT
   1. Internal sports activities
   2. Provide clean water facilities in cooperation with government
   4. Provide Trash Can in the area around KAN Jabung office

D. ECONOMIC DEVELOPMENT
   1. Conducting training and mentoring for members to produce dairy products
   2. Provide cowshed for the 30 poorest farmers

E. EDUCATION
   1. Providing scholarships for poor or orphan students, additional for 5 students
   2. Regular meetings of orphan students and provide school kits

F. SOCIAL
   1. Provide assistance to orphanages
   2. Implement iftar (evening meal around Ramadan) with orphans
   3. Death compensation
   4. Birth aid
   5. Visiting the sick members/employees
   6. Help victims of natural disasters
   7. Help other social activities
   9. Big cleaning day (picking trash)

   (pers.com., Harahap, 2016).

Appendix 4: Pictures

Picture 1: Feed shredder

Picture 2: Automatic drinking facility and feed tray

Picture 5: Dairy farmers delivering milk at KAN Jabung

Picture 3: Friisian Holstein mixbreed eating

Picture 4: The BMS (milking machine)

Picture 6: Dairy farmers participating in a counselling meeting