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Self-Help Groups in Rajasthan

Impact on microenterprises and
empowerment of women

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DECLARATION

I, Simen Bakke Andersen hereby declare that this thesis is a result of my own research. All sources of information in this thesis has acknowledged and referenced. This thesis has not been submitted to any other University than the Norwegian University of Life Science regarding any other type of academic degree.

Simen Bakke Andersen. June 1, 2019

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Abstract

There is still a great divide between men and women in the developing world, and the idea that a woman is lesser than a man is deep entrenched in the Indian culture and society even today. The traditional classification of a woman is her belonging to the house and in support of the family, while the husband usually generates the income for the household. Poor women have been but are still today stripped of their economic independence and this has been one of the motivations behind the emergence of microfinance and Self-Help Groups (SHGs) as they have worked towards generating economic empowerment of women. There is however still a difference between the genders measured in other dimensions than simply financial inclusion and poverty. Social- and psychological factors such as self-confidence, self-esteem and freedom of movement are often limited for females, and especially if they are married. The lack of political empowerment is also evident among poor women, where they usually do not take part in political activity or know their own rights in the society they live. Microfinance through SHGs has in general been credited for economic empowerment through access to credit, savings and insurance products and is responsible for creating income-generating activities for the members of the SHGs. These groups are usually targeting female entrepreneurs and creates an environment where women can meet and socialize. There exist a vast amount of literature on microenterprise performance, behavior of microentrepreneurs and the impact that SHGs have had on the different dimensions of empowerment. This research has been dedicated to further explore the theories about on the impact of SHGs, where the focus has been in testing the literature in Rajasthan, India. The quantitative research that was conducted in the area of Jaipur concludes that the length of SHG participation has had a positive impact on investments in the microenterprises, and there has been found evidence of the importance of SHGs when it comes to both economic and social- and psychological empowerment.

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Chapter one: Introduction

Poverty is often used to measure the success of the Millennium Development goals (MDGs) created in 1990. Extreme poverty has decreased from 35 per cent to 10,7 per cent in 2013, if we examine the headcount ratio. One of the targets of the MDG was to half the number of people living below the international poverty line – set at \$1,25 dollars at that time – and this target was met five years ahead of its time, in 2015 (World Bank Group, 2016). More than a billion people were lifted out of poverty, and there is a common belief that most of the explanation can be traced back to the economic growth that has occurred in the Asian region. India has been instrumental in this positive change, but the population of soon to reach 1,37 billion people are still having difficulties of extreme poverty. Extreme poverty is defined as living on less than \$1.90, measured in 2011 Purchasing power parity (PPP). The most recent data on extreme poverty in India, shows that 175,7 million people can be placed inside this category of unidimensional poverty. Within the national poverty line, 273,1 million people are defined as living in extreme poverty, but the latest data is from 2011, so there is reason to believe that some change has occurred (World Bank Group, 2018).

There is a great divide in the poverty when it comes to gender in the developing world and that is why females have been the target for poverty alleviating programs in the last decades. The idea that a woman is lesser than a man is deep entrenched in the Indian society, even in contemporary times. The traditional classification of a woman is her belonging to the household and the family, while the husband is associated with earning a wage. The political- and economic power that separate the genders are however moving towards a cultural past, even if there are still mountains to be climbed on issues such as power and inequality. Government policy and programs for poverty alleviation have traditionally targeted women on issues related to outcome, such as health, shelter and help with family-planning, while ignoring the underlying reasons for the deprivation. This has however changed in the last decades, where more focus has been centered toward economic empowerment. It has been perceived as the panacea for all of woman's deprivations. Women struggle with access to goods, services, assets for income-generation and a market where they can sell their labor. World Bank Group (1991) argue that every aspect of poverty can be traced back to their financial independence and social capital. Financial independence, often referred to as financial inclusion, has been a significant challenge for the developing world. Although the struggle affects both genders, females bear the heaviest burden. Financial inclusion is an important measurement in India, and is perhaps best defined

by the Deputy Governor Shri S.S. Mundra at the Reserve Bank of India (RBI), made at a speech in 2016:

“Financial Inclusion is the process of ensuring access to appropriate financial products and services needed by all sections of the society in general and vulnerable groups such as weaker sections and low-income groups in particular at an affordable cost in a fair and transparent manner by mainstream institutional players” (Mundra, 2016)

Access to finance can make sure that women can cope with long-term consumption, manage savings, take part in investment opportunities and entrepreneurial activities, as well as protection against short term economic shocks (Schmied & Marr, 2016). All though there is still some debate over the real effects of financial inclusion, the *Global Financial Development Report* from 2014 insist with considerable evidence that loans, saving and insurance services are crucial for the poor. The World Bank (2013) concludes that Financial inclusion provides the basic foundation for innovation and a stable growth in creating jobs. Loans specialized for creating job, and other banking services such as savings and insurance are often referred to as microfinance, which will be presented in the next chapter. Financial inclusion has according to the CRISIL Inclusix Index, that measure the level of financial inclusion in India, set a new record at 58 percent in 2016. It was measured to around 50 percent in India the previous year, indicating a positive trend (CRISIL, 2018). Although the outreach of financial services has improved in India there is still distance between the genders when it comes to access, and it halts the economic empowerment of women.

There are however other dimensions than economic empowerment were women are deprived, although they are closely interlinked. Poverty measurement tools such as the multidimensional poverty index has gained a reputation for revealing the true depth and nature of poverty and has been successful in explaining poverty as more than just monetary (Alkire et al., 2010). Although this index addresses multiple deprivation and to what extent they are deprived, it often focused on the household, instead of the individual, just as unidimensional poverty. The index focusses on some social capital features such as health and education, but also access to vital resources and material possessions (World Bank Group, 1991). It is however important give attention to circumstances that are more difficult to measure, such as social and psychological deprivations. These deprivations can include factors such as well-being, decision-power and freedom of movement. They are instrumental for creating a more complete picture about the extent of deprivation. Another dimensions that is often forgotten in research on deprivations and

discrimination is the political dimension. The dimension is often linked to the socio-economic status of the household and the level of empowerment the other dimensions.

The research conducted for this thesis has taken place in the state of Rajasthan. The land-locked northern state is considered the largest in India when it comes to geographical area, and the 7th largest when it comes to population. Although the state has been progressive in poverty reduction since 2005, 10 million are still being considered poor. This is mainly because the economic growth has increase inequality, and thus Rajasthan remain a low-income state (World Bank Group, 2016). In 2005, Rajasthan was far behind other southern states in the outreach of microfinance and is still considered below average on the CRISIL Inclusix Index compared to other Indian states. The score for financial inclusion was only 25 on this index, in 2016 (Centre for Microfinance, 2015). Even if Rajasthan scores unfavorably on the CRISIL Inclusix Index, there has been notable improvement in both financial inclusion and microcredit in general. A total of 32 590 Self-Help Groups took a loan from formal bank institutions in 2015 and most of the credit was given exclusively to SHGs of only women. The microcredit that has been filtered through the SHGs has enabled females in the state to start their own income-generating activities, and it has increased the financial- independence and inclusion.

It is believed that the economic empowerment that females in Rajasthan has experienced has had a trickling down effect on the other dimensions of empowerment and this is why the dimensions of empowerment are closely linked. This is the main theory behind this thesis and the argument is that economic empowerment tools such as microfinance is crucial for empowering women in all dimensions. This thesis is however more concerned about the effect of microfinance through Self-Help Groups, than the different microfinance products themselves, and empirical literature presented in later chapter will argue for this theory.

1.1 Research statement

This research project is centered around the impact of Self-help Groups on the performance of microenterprises and female empowerment. I will investigate if the Self-help Groups are important for the profit accumulation of microenterprises, and if these groups nurture entrepreneurs that are more likely to invest in the income-generating businesses. The concept of sustainable income-generation is important for empowering females in Rajasthan and it could be interesting to find out if the entrepreneurs invest in their microenterprise to seek increased profit in the future. I will also investigate if the SHGs with access to microfinance improve women's empowerment through the three dimensions: Economic empowerment, Social- and Psychological empowerment and Political empowerment. I believe that access to microfinance through SHGs can be strongly influential in the creation of a sustainable income for deprived females, but also empower the entrepreneurs in multiple dimensions. The sample collected and analyzed in this research are females in Rajasthan with zero to long experience in a SHG.

1.2 Research Question

RQ: How important are Self-help Groups for successful microenterprises and does it increase the ambitions of the entrepreneur and empower women in Rajasthan?

Sub RQ:

- A) Does the length of SHG membership increase the profit accumulated from the microenterprise, and are the entrepreneurs more likely to invest the profit and acquired credit in the enterprise?

- B) Does SHG membership influence empowerment in economic-, social and psychological- and political dimensions?

Chapter Two: Theoretical Background

A report from UNDP (2013) states that there exists no such thing as total gender equality in the world. Women have for centuries been discriminated in the developing world and it is a phenomenon that is deep rooted in the Indian society. Despite the tremendous economic growth of the Indian society since the economic liberalization in 1990s, women are not achieving the same socioeconomic development as men and are not participating in the economy. The percentage of females that participates in the labor force has declined together with the wage gap in the last decade (Sharma, 2016). The patriarchally society in India has been perpetuated by the cultural inheritance of the population (World Bank Group, 1991), much like the rest of the world has acknowledged in the latest centuries, but institutional forces in India has been less engaged in changing this behavior. There are fewer incentives to give birth to girls for parents, and the inferior status of females caused the sex ratio in India to be measured at 919 girls per 1000 boys at the same age in 2011 (Sharma, 2016). Females are less likely to generate an income for themselves and their family and this create a distance between the genders in independence and multiple levels of empowerment. There is various reasons for the different level of female empowerment in India, and these variabls can include geographical location, educational status, social status and age. It even varies between states and all three levels of panchayats (local government) (Upadhyay, 2010).

There have however been progress in empowering females in the developing world (KILDE), and the concept that has been credited much for this development will be examined and tested throughout this thesis. This chapter will explain the different dimensions of empowerment and the principles of Microfinance and entrepreneurship through Self-Help Groups. The terms and topics discussed in this chapter are closely connected and form the general assumptions for the literature review.

2.1 Women's empowerment

The term empowerment has various definitions and is a contested concept in academic literature, although the majority of scholars agree that the basic meaning is to achieve a more desirable life. A desirable life is however not easily achieved, and that is perhaps why the word power is so essential in the definition of empowerment, as it is defined as the capacity to achieve economic, social and political status. In its core essence, power have to be earned,

sustained and preserved, but that is in reality false if we look at the status of women in the developing world. This is perhaps why the word empowerment was defined as “The redistribution of social power and control in favor of women” on a conference in 1985, as empower is defined as the means to make or cause power (Varghese, 2012). To define empowerment can be difficult, and that is perhaps why Kabeer (1999) explain what it means to not be empowered. Disempowerment is to be denied strategic choices in life, and that is why the process should be to strive for this achievement, and it must be led by the females themselves. As empowerment is seen as a multidimensional concept, it would be natural to explore the different dimensions and their relevance for this research.

The first of the three dimensions is called *economic empowerment* and is closely related to financial inclusion and income generation. The female labor force is seen as a critical element of economic development in the developing world but are still marginalized in multiple spheres of this dimension. Women are in general less likely to be financially independent from their husband or families and this is often measured by their lack of contribution to income in the household (Varghese, 2012). Females does often not own or operate their own bank account where they can save money, but it is even less likely that they have any type of insurance. Without reasonable economic independence, women cannot expect to utilize their rights and choices in life. This is exactly why this economic empowerment often is the main target of Microfinance Institutions (MFIs)

The second dimension I would like to highlight is the social- and psychological empowerment. This is perhaps the most important dimension, although it is not often the direct target of poverty alleviation programs. Social empowerment and psychological empowerment are two terms that usually are associated with many similarities, but they should not be used interchangeably. The two terms are complementary, and that is why I have used them as one dimension to explain the greater phenomenon. Social empowerment is strongly linked to decision-making within the household, freedom of domestic violence, but also freedom of both speech and movement. Psychological empowerment concerns self-confidence, self-esteem and individual identity (Varghese, 2012) (Brody et al., 2013). Some scholars argue that monetary tools such as microcredit and finance in general have little to no effect on social- and psychological empowerment, unless the provider of the economic tools are offering specific training for the clients. There are however more discussions on the importance of social interactions between females and the importance of exposure in the local

society. This can be a result of participating in Self-Help Groups (Varghese, 2012), but this will be introduced later in this chapter.

The third and final dimension is the political empowerment. Female representation in the political system, or in all levels of the Raj Panchayat Institutions remain low in India. Even though marginalized females are members of the gram panchayat (Lowest level of local government), they are often less likely to be interested in elections and utilize their right to vote. These females are often not interested in the local politics that concern them and can perhaps feel that their voice does not matter in the process of decision making. To be engaged in politics is however an opportunity for women to develop social- and psychological empowerment by breaking their isolation, developing knowledge, self-confidence and self-esteem (Varghese, 2012). Political empowerment can be defined as the ability to participate in decisions regarding the villages or communities access to resources, rights or entitlements, and it can be measured with indicators such as interest, participation, but also awareness and confidence about their existence in the system (Brody et al., 2013).

2.2 Microfinance

There have been multiple initiatives in the developing world for empowering women, but the most successful method has undoubtedly been microfinance through group-lending. These groups are classified as an association of people that are from the same socio-economic background with the same intention of find their way out of poverty (Kropp & Suran, 2002). Microfinance can be described as an umbrella term for banking services usually not available for the poor or low-income families, considered financially excluded. Saving and insurance falls under the umbrella term of microfinance, but the perhaps most influential feature is access to credit with low interest rates, commonly known as microcredit. For small businesses and entrepreneurial projects, access to this type of finance could perhaps make the difference between failure and success.

Although the term “Microfinance” emerged in the later stages of the 20th century, the concept was not. The Bangladeshi economist and entrepreneur Muhammed Yunus is often credited by scholars for the invention of microfinance, but German credit cooperatives were engaged in similar schemes a century earlier and literature dating back to the 19th century suggest that finance was used as a tool for combating poverty (Fouillet et al., 2013). Similarities can also be drawn back to the 15th century, where merchant- or craftsmen guilds were often open to

lending out money to apprentices or workers, so they eventually could establish themselves on their own in the local economy. This was a cheaper alternative than local moneylenders or the church, and the consequences were presumably less severe if the borrower would default on the loan. Franciscan monks did also lend out money to the poor in the local communities that did not have access to formal credit lenders (Molenaar & Lehmann, 2016)

The microfinance model developed by Muhammed Yunus was first established after the independence of Bangladesh, whose population at the time was suffering from severe poverty. Muhammed Yunus, who was a professor at the University of Chittagong at the time, saw an inefficient central government ravaged by corruption and lack of resources. Yunus understood that the mostly rural population was financially excluded. This sparked the idea of lending money to poor villagers, with the underlying assumption that it would be enough to run small income-generating activities. The idea evolved into an experimental research project which laid the foundation for the Grameen Bank. The pioneering microfinance institution is undoubtedly the most known, and with a Nobel prize to its name, the original scheme has been replicated all over the world in different forms (Kiiru, 2007). The idea that poor households were reliable and credit trustworthy was challenged in the early 1970s as the MFIs relied on heavy subsidies. Most of the Microfinance schemes derived from institutions run by governments, and although the interest rates were set lower than the market rates, not everyone had the opportunity to apply for the credit. Microfinance was a victim of political influence and it favored credit towards the agricultural sector (Cull et al., 2009). This was evident in India where the government at the time pushed for a green revolution to feed its rapidly growing population. This would however change in the next decade, as business opportunities rose in other sectors.

Although farmers did still receive microcredit, other income-generating activities outside the sectors received more attention as they were not affected by external factors such as climate and seasons. As MFIs at the time relied on both private and government subsidies, it was often criticized for being “financially unsustainable”, and rightfully so. It was in fact the idea that microfinance can be profitable that increased the flow of credit to these new entrepreneurs. MFIs began operating on the idea that any interest rate that was lower than the local moneylender, was beneficial to both actors. Poor households were often willing to pay higher interest rates, and this was also necessary as the transaction- and administration costs for banks were high. Another argument for profit-seeking microfinance schemes is that subsidies can weaken the incentives for MFIs to cut costs. Subsidies are also not available for

every actor operating in this market (Cull et al., 2009). The commercialization of microfinance was a necessity for the change of pace in the 1980s and was a natural step forward under the liberalization in the 1990s.

2.3 Microsaving and insurance

One of the characteristics of poor household, and low economic empowerment is the absent of savings accumulation. This means that poor households and especially women are more fragile to unexpected events that could have significant economic impact. The ability to save money safely in a bank account, or within an institution is one of the basic principles of financial inclusion. The most common method of microsaving occur when a MFI connects to individuals or groups with the same socio-economic background. The normal practice among MFIs are door to door collection or collection during group meeting that usually occur minimum once a month. These methods force the individuals to deposit savings, because it would be an embarrassment not to. Some MFIs and groups are also penalizing the individuals for not depositing savings each month (Sánchez & Aragón, 2015). The literature on the effectiveness of this practice is divided among scholars.

Another banking service that is usually not available to poor households is insurance. The common characteristics of risk associated with poor household are death, injury or serious illness, but also theft, robbery and internal and external accident related to property and microenterprises. External risk can come from events such as natural disasters, and are perhaps given more attention today, as the climate is changing. Households would usually be affected with a monetary loss, and the uncertainty could potentially affect the entrepreneur's willingness to take risk. Microinsurance can provide poor households with some protection against internal and external incidents, but also improve risk management and optimism of micro-entrepreneurs (Miller & Northrip, 2000).

The most common types of microinsurance is property-, health and disability and life insurance. Property insurance does usually cover damage or loss of any type of asset that belongs do the individual. Property such as the home, vehicles in possession of the individual, but also assets and buildings in relation to the income-generating activity are usually covered by this type of insurance. Health insurance can cover cost related to doctor appointments and surgical expenses, but also medicine or other fees related to health of the individual. Health insurance do usually consist of high administration and transaction costs for the MFI and it is

acknowledged that individuals with higher risk often seek this insurance product. The MFI do also have to take false claims in to considerations, leading to higher premiums for the individuals. Disability insurance are often closely related to health insurance because it usually covers reduction or potentially loss of total income due to health. This type of insurance can however be a separate product as poor households do less often have a fixed amount of monthly income and are associated with more risk (Miller & Northrip, 2000).

Life insurance is often less complex and riskier than health insurance. The usual products that the members of the household can claim are a pre-determined amount agreed upon, but it can also be a “Credit life insurance” that pays off the loan balance in the events of the borrower’s death. These types of insurance are referred to as “term life insurance” and are the most common products offered by MFI. It is the least expensive alternative for the poor households, but also the most limited options

2.4 Type of lending practices

Microcredit is the banking service that has become the most popular in the recent decades. Its purpose is as mentioned earlier to provide credit with a more reasonable interest rate to low-income households. In 1981, the National Bank of Agriculture and Rural Development (NABARD) was created with the intention of replacing other government run programs targeting financial inclusion of the poor. The Bank introduced the Self-Help Group Bank linkage program in 1992, similar to the model developed by Grameen Bank, but now under the direct command by the Indian Government. There are roughly three different approaches to micro-lending that has emerged after the liberalization of the Indian economy (Sankaran, 2005).

The first model focus on groups or villages formed and nurtured by banks, before getting access to the credit. The second model includes NGO, cooperatives and government agencies, instead of banks directly. NGOs and agencies are responsible for the nurturing and the formation of the group, while the bank provides the credit. This is the most common model in India, as it relieves the bank from time-consuming administration and social work for the groups, as the NGOs and agencies are responsible throughout the repayment. In the third model, the NGOs and other agencies are responsible for everything. This include training, and they apply for the loan on behalf of the groups (Sankaran, 2005). The purpose of these groups, often referred to as Self-Help Groups, is that they have a common interest to pay back

the loan through income generating activities, such as small local businesses. The groups or villages provide trust in the form of social capital, as group members are sometimes selecting their own members (Sankaran, 2005). This removes one of the significant problems for the poor and this is the lack of collateral. If a member were to default on their share of the loan, other members will automatically bear the responsibility, but also likely find a replacement. This could of course also be organized by Banks, NGOs or other agencies. Microcredit to individuals do also occur but is often not that common.

2.5 Characteristics of Self-Help Groups

Self-Help Groups are the most common recipients of microfinance in India, and in the developing world today. The groups, that in most cases consist of females only, are a collection of potential entrepreneurs with different professions and skills that is often rooted in traditional handcraft. The groups do usually consist of 10-20 members and are in most cases only for females that lack access to basic financial services and are without a fixed income. The group are often responsible of electing their own leaders (Sankaran, 2005), and will also set their own rules, within the regulations and guidance of the provider of the microfinance products. It is not unusual that SHG have scheduled meetings weekly, but the most common meeting frequency is perhaps once a month. At these meetings, savings are usually collected by the source of microcredit or the group board itself, and it is often a requirement by the MFI that every member accumulate savings in the account. This function as an extra insurance for the provider of the microcredit if members were to default.

The monthly amount per member is usually around 50Rs and is collected and “locked” in the internal account of the groups. Group members are usually not allowed or have the opportunity to withdraw the monthly savings from the internal account. They do however receive the total amount that is saved in the account of the group on an agreed date. This is usually after 12 months but could also be more. Members that want do withdraw their deposit before the due date face the consequence of being replaced in the SHG (Sinha, 2005).

All SHGs have a book keeper that keep control over the financial records, often with help from the provider of the microfinance products, and function together with the elected leader as the direct link to the provider. These roles in the SHG are important for the stability of the

group and especially for the MFI who's largest risk – whether it is a profit-seeking entity or not - is the possibility of defaulting clients. The unsecured loans offered by MFIs to group members rely on the strength and social mechanism formed and nurtured in the group. The social collateral formed in the group can therefore be considered important for both the success of the microentrepreneurs and the MFI issuing the credit. Banerjee and Duflo (2015) finds that the repayment rate of clients in Hyderabad is poor, but there have been numerous studies conducted on the same subject which contradict this claim. The repayment rate is in fact positive in most studies conducted on SHG-members in developing countries, if we exclude previous aggressive loan practices seen earlier in the decade. In a study conducted in Himachal Pradesh, Northern India, by Singh and Raghuvanshi (Singh & Raghuvanshi, 2012) found that the loan repayment rate was 95 per cent among the clients. The MFI behind that issued the credit in Himachal Pradesh did not differentiate high-risk applicants from low-risk applicants and did not compensate for this by raising the interest rate (Robinson, 2001).

Research conducted in Malawi, Bangladesh and Malaysia support this statement, but also add that women are also more likely to repay on time (Hulme, 1991) (Gibbons & Kasim, 1991) (Hossain, 1988). This is perhaps maybe why the majority of the 200 million people engaged in SHG in the developing world today are women.

2.6 The female entrepreneur

To better understand how access to microfinance through SHGs affect entrepreneurial activity, it is essential to clarify what exactly entrepreneurship is, what it consists of, and how the theory is applicable to this research. Joseph Schumpeter, perhaps the most famous author on entrepreneurship theory, defined entrepreneurs as “*Individuals who exploit market opportunity through technical and/or organized innovation*” (Schumpeter, 1965, as cited in Tülücea & Yurtkurb, 2015)). The management guru Peter Drucker (1909-2005) support Schumpeter's definition as he states that “*the entrepreneur always searches for change, responds to it, and exploits it as an opportunity*» (Drucker, 1985 as cited in Tülücea & Yurtkurb, 2015), but he also adds that taking risk is in the nature of entrepreneurship itself. Apart from undertaking risk, exploring market opportunities and innovation, the entrepreneur must be the heart and soul of the enterprise through firm management and leadership (Tülücea & Yurtkurb, 2015). There are however some questions to be asked whether these definitions are representative for female entrepreneurs in the developing world. For instance, women are

often faced with more difficulty accessing credit for their enterprises, and this will limit the ability to invest a sufficient amount in the early life of the enterprise, nor will help to further expand the entity. This is not helped by the cultural and social pressure that the society around them have created, nor does the skill gap caused by the lack of formal education. Female entrepreneurs of microenterprises are also faced with competition in the market from more technological and efficient actors, which forced them to specialize in traditional professions. This can question the actual entrepreneurship that is taking place when establishing income-generating activities in the SHGs.

The Government of India defines female enterprises as something that is fully owned and controlled by a woman. This means that the female must own 51 per cent of the total capital/equity in the enterprise (Jerinabi, 2008). Microenterprises, such as the concept defined by the Government of India, has been growing in large numbers since the concept of microfinance linked with SHGs emerged in the later stages of the 20th century. The income-generating activities developed by the female entrepreneurs are expected to generate a living and increase financial inclusion, and some can even expand their activities. It is however a common observation that most of these enterprises will remain small (Jerinabi, 2008)

2.7 Status of female entrepreneurs and empowerment in Rajasthan.

The densely populated state of Rajasthan has a contrasting picture of poverty compared to its surrounding union states. It has an urban poverty that is higher than the national average, while the rural population is actually above the national average (Rao, 2006)

The latest data available on unemployment in India from April 2019 reveal that the unemployment rate is 12 per cent, and it has drastically increased in the last decade (Centre for Monitoring Indian Economy, 2019). The ratio of self-employment fell from 57 to 47 per cent between 2006 and 2015 and this cause concern (Times of India, 2018). Out of the total work force in Rajasthan, only one-third are females. 90 per cent of these workers are engaged in agriculture activities. The percentage of female workers in the urban areas remain small, but they are often in occupations where wages are much higher than in rural areas (Singariya, 2014). Most of the female work force in Rajasthan are however not running their own enterprise.

The over 250 000 SHGs in Rajasthan cover just around 3 per cent of the total share of SHGs in India. This is a small percentage if we consider the large population and their economic performance in the last decades. The SHGs in Rajasthan receive only 1 per cent of the total loans disbursed, and the total savings account only for 1,3 per cent in India. The largest contributor to formations of SHGs are Co-operative banks, which cover almost 22 per cent of the total credit that is disbursed. While Co-operative banks stand for over 50 per cent of the group formations, Commercial- and Small Finance Banks contribute with around 35 per cent. In contrary, the credit disbursed from these banks make up 69 per cent of the total share in Rajasthan. Regional Rural Banks, a branch of Government Development Banks, account for 11 per cent of group formation and almost 10 per cent of credit disbursement (Mathur & Agarwal, 2016).

Research conducted by Asha and Khan (Asha & Khan, 2018) profiles the characteristics of female entrepreneurs in Jaipur District of Rajasthan, where most of the sample for this research were collected. The random sample consisted of 120 respondents from rural communities and found that 77 per cent of the female were between 21 and 40 years old. The majority of the sample belonged to general caste, and the most frequent income-generating activities were livestock breeding and service work. The sample found that the majority of the females had at least primary school education and this was also a requirement by the MFI's supporting the groups. The material possession of the female respondents was medium to low, while their contribution to the annual household income and socio-economic status remained the same.

Chapter three: Methodology

Methodology can be described as the philosophical stance, assumptions and position that define how we choose our scientific investigation. Methodology is a word that is often mistaken for being a more sophisticated term for "methods", but it is in fact the position of the researcher that define the methods used in investigation. Methods can therefore be thought of as the tools deployed by the researcher based on how he/she views the world, the researcher general assumptions and his position on the subject (Slevitch, 2011)

3.1 Positionality and philosophical stance

Positionality is a term that is used to describe the researchers view and position in relation to the subject that is being investigated. According to Sikes (2004), it is the most important aspect to consider when choosing methodology and conducting research. The position of the researcher will always be somewhat influenced by the world and experience of the researcher. The positionality of the researcher is first of all grounded in the philosophical stance, as it is “*Basic belief system or world view that guides the investigation*” (Guba & Lincoln, 1982).

Guba and Lincoln (1982) further argues that there is no way to actually established the perfect truth, as we are still debating over basic matters in the world. Ontology questions what the form and nature of reality really is, but also our basic assumptions about the world. What can we as researchers really grasp and know about it? This can open up multiple realities for the researcher. Ontology are divided into two stances. Objectivism portrays social phenomena as external facts beyond our reach and independent of social actors (Bryman, 2012).

Constructionism or constructivism, on the other hand, portrays social phenomena and categories are under constant revision and created through social interaction. This can also be created by the researcher, in this case, own interpretation and experience of the world, and this can create a subjective understanding. In contrast to Ontology, the epistemological consideration focusses on what the researcher should accept as general knowledge (Bryman, 2012). Epistemology seek to answer what knowledge really is, what it involves, why it is as it is and how we can apply it. We question behavior out of the ordinary and are always trying to solve and explain the puzzles in front of us (Rescher, 2003).

Bryman (2012) asks the reader if we should investigate the social world with the same rules as the natural science, because the epistemological position that is *positivism*, do just that. Positivism do also take in to consideration that that phenomena and knowledge must be confirmed by the senses to be regarded as knowledge. This knowledge is collected through gathering of facts, and positivist approach to generating a theory would be to generate a theory that can actually be tested. The concept of positivism is to conduct objective investigation and it is the only method that can produce scientific statements (Bryman, 2012). The research conducted in this thesis is highly dependent on previous research conducted by other scholars, as it has both inspired and lectured on the subject. This is not something

unique, as empirical literature often function as the foundation for a theory in quantitative methods. One critical element of this research is in fact the idea to produce objective results.

Another important position concerning this research is realism. The position shares multiple attributes with positivism such as the thought that social sciences can be investigated with the same tools as for the natural sciences and secondly, the external reality are still where scientist direct attention. Empirical realism is often described as a form of naivety as it asserts a close to perfect correlation between reality and the researchers understanding. It is a stance questioned because it does not recognize the underlying mechanisms and structures that can affect the phenomena, and this is also an important thought for my actual finding in this research. It should be mentioned however that critical realist however accepts that the knowledge on reality is limited, in contrast to the positivist view where the researcher view of reality reflects the truth (Bryman, 2012). I would carefully assert myself between positivism and critical realism as a philosophical stance in this research. I believe in objectivity and that social sciences such as microfinance, entrepreneurship and empowerment can be investigated with the same tools as for the natural sciences. I will however be more careful when linking reality to the researcher knowledge.

The basic belief system and world view I carry as a researcher will undoubtedly influence the objectivity of this research regardless of my neutrality on the subject. My subjective understanding of everything is influence by multiple factors such as geographical location, gender, sexuality, age, race, culture, ethnicity, social class, political stance, but also traditional values to name a few. It can be argued that some positions are fixed, for instance race, meaning that it cannot be altered, but that does not account for most positions. Perhaps the strongest position of them all is the personal experience (Manohar et al., 2017). Research is a subjective process, even for quantitative investigation where objectivity is in focus. Subjectivity will always haunt the researcher in the process of conducting research, starting with the philosophical stance down to what statistical measures actually apply.

For me, as the researcher of this project, I must acknowledge my background and experiences when conducting field work in Rajasthan. I am a 25 years old ethnic Norwegian student with few shared commonalties with the participants of this research. That can off course be positive for objectivity, but likewise negative as my knowledge and prejudged believes settles in. I am as a researcher formed by the hours of studying previous conducted research on the subject, and it will undoubtedly influence my research design, data collection and behavior towards the participants in this research.

3.2 Development of theory

A theory is used to explain regularities that are difficult to grasp or understand. A theory is produced to answer questions about why regularities occur in specific environments and situations (Gilbert, 2007). It is the exploration of linkages that produce answers, and they do not necessarily need to be correct. Theories that are more commonly accepted are, however, often mistaken for facts. There are many definitions about what theory is, and the American sociologist Robert K. Merton (1949) shared his thought on the matter in the paper *On Sociological Theories of the Middle Range*:

“Like so many words that are bandied about, the word theory threatens to become meaningless. Because its referents are so diverse - including everything from minor working hypotheses, through comprehensive but vague and unordered speculations, to axiomatic systems of thought - use of the word often obscures rather than creates understanding”
(Merton, 1949:1)

With Merton’s warning in the back of our head, let’s understand how we use the term theory in contemporary research. According to Bryman (2012) there is two main methods of using theory when conducting social research. The most common method is deductive theory and it lets the researcher deduce a theory from general knowledge and theoretical considerations in relation to the research subject. It can be a difficult process nevertheless, because it relies on the researcher’s ability to create a hypothesis that can be used to collect qualitative- or quantitative data. This view of theory can draw similarities to Merton’s work on the Middle-range theory, where he argued that theory should guide empirical inquiry.

The other form of approach is the inductive and is preferred among some researchers in fields where theory is limited. In the inductive approach, theory is the end-product of the research, and can be described as a generalization of observed regularities (Bryman, 2012). The contrast between deductive and inductive approaches is therefore about theories that drive the research, and theories as the end-product of the research.

This thesis follows a deductive approach, as there is literature available behind all research questions produced. That does not exclude the fact that there is need for more research in Rajasthan on the impact of SHGs on microenterprises and empowerment. There is divided

research on the subject in all of India, and this makes further research on the subject interesting. Hypothesis will be drafted from existing empirical literature and will be tested with primary data collected in the field. The hypothesis will therefore be tested to a point where I, the researcher, can draw conclusions through analysis of the data.

Chapter Four: Research design

3.1 Research method

There are in general two methods of conducting research, if we exclude mixed method that focus on a combination of the respective approaches. Creswell (2014) distinguish qualitative method and quantitative method with the former to be engaged in words while the latter focuses on numbers. The research methods are different from the philosophical stance and assumptions by the researcher and deploy different research strategies to reach the objective of the investigation. Quantitative approach comes from a positivist worldview, but it does also have a realist orientation. From an ontological position, the objective exists independently of the researcher, and there is by this stance only one certain truth. From a positivist stance, quantitative method investigates an objective reality that is not influenced by the researcher's presence, nor is the researcher influenced during the investigation (Slevitch, 2011). This is however often not the reality.

This research has taken the quantitative approach, which means that theories will be tested through statistical analysis. This analysis can measure descriptive valuables, but also a variety of relationships and probabilities in the statistical models. I will explore and examine every observation in the sample collected from the fields. The analysis should strive for objectivity and produce generalizable results that can be replicated by other scholars invested in the subject. My own biases and values addressed in the positionality must therefore be reduced to a minimum so that the research is of actual value. If this is not the case, it would seriously undermine the thoughts behind my philosophical stance that seeks objectivity (Bryman, 2012). It would however be wrong to presume that this research does not have any levels of subjectivity. Positionality is already explained in chapter three, but there could also be other reasons for a subjectivity to occur. There could for instance be a biased selection of secondary sources collected for the theoretical background and literature review. This would influence

the questions asked in the schedule, but also how the analysis is conducted. Objectivity, biases and true values are carefully examined before and during data gathering. In this way, objective reality can be investigated with the purpose of generalization (Guba, 1994).

3.2 Schedule design

Data for this research was initially meant to be collected through questionnaires but was formed in to schedules, as structured interviews during the first days in Jaipur. The questionnaire was transformed because there was limited time to translate the forms to Hindi or Urdu, and it would also become clear that a large proportion of the sample were illiterate or did not understand the terms used. This did however allow some questions to be open ended, as I was filling the schedules with information. Some of the questions was also altered and improved during the pilot and first days of the sampling because the participants had valuable information that could improve the research. This meant that the original plan for coding the data was constantly changed to fit the updated schedule. The advantage observed with conducting these structured interviews were a perfect response rate on all questions, which was not expected before entering the field.

3.3 Sampling method and unit of analysis

The data collection for this research took place inside the city of Jaipur, but also in the two districts outside the city. It is difficult to get an exact number of the total population for the sample collected in the field, but we know from the previous chapter that there are over 250 000 SHG in Rajasthan. The SHGs contains everything between 2 -22 members, but the usual count is between 10-11 members, giving us a rough estimate of the total population. The targeted group for this research was women running income-generating activities with or without engagement in Self-Help Groups. The population represented in this research have participation experience in SHG ranging from 0-17 years. A total of 12 female entrepreneurs did not have any experience or where currently not engaged in a SHG.

Samples were taken from both urban and rural areas, with a maximum distance from the city centrum of 100km. 36 out of 60 respondents where from areas classified as urban, making 40 per cent of the respondents' rural entrepreneurs. Together with translators from the Institute of

Development Studies in Jaipur (IDSJ), the data collection was finished within 10 full days. We used approximately 1 hour per respondent, and this was mainly because of the length of the schedule and the different language and dialects that needed translation. A large number of the sample in this research were both illiterate and had low understanding of economic terms. This meant that I had to do on site calculation during the interviews and explain economic terms through the translators. This was a time-consuming process, but it was also a necessity. Together with the Institute for development studies, I initially reached out to a Cooperative-bank located outside the city of Jaipur. After interviewing five entrepreneurs attached to this microfinance scheme, we quickly got in touch with other microfinance institutions all around Jaipur and this created a network that we used for the rest of the sampling process.

Non-probability sampling, such as convenience sampling is often not recommended for quantitative research because it would harm the representation of the sample for the population (Bryman, 2012:246). I am aware of this recommendation, but convenience sampling was the only alternative for this research as I had to contact networks that were simply available to me, and it was used considerable time and effort on this. This is why snowball sampling, a type of convenience sampling, became natural as my network grew every day as I interacted with female entrepreneurs and providers of microfinance (Bryman, 2012)

3.4 Problems faced and limitation of study

There are several limitations of this study that need to be addressed, and the first problem can be derived from my positionality and philosophical stance previously explained in the methodology. Although I have studied the topic of SHGs impact on microenterprises and empowerment for 6 months before my arrival in Jaipur, it became clear that I was no expert on the subject during conversations and presentations for the staff and employees at IDSJ.

This was also why the schedule developed as I conducted interviews together with the translator. The other problem I encountered in the field was the language barrier between myself and the respondent. None of the respondents in the sample understood or spoke English, and that made me solely dependent on the translators as the source of information. The translator had to deal with both Urdu and Hindi as languages, and the different dialects

can make translation difficult. Although most of the communication with the translators were fine, some language barrier aroused during our field work. This forces me to be slightly critical of the data collected, even though I believe that we got the correct information from the respondent and that my translators and I sorted out most miscommunications between us. Because of the amount of English terms used in both Urdu and Hindi, and the fact that I learned simple terms and numbers in the local language, I was able to keep track of some of the conversations. This was also helpful when writing down the answers that the respondents gave, because it decreased the time used on each interview.

Another problem that I encountered as a student was that the original planned budget did not last for long. The hotel that I booked for my stay in Jaipur could suddenly not have foreign guests without special permission, and that forced me to find another hotel nearby that had an available room. This hick-up became costly as the price for accommodation rose.

Bureaucratic errands and changes to the originally planned questionnaire did affect the hours used in the field and the total sample collected for this research. This could of course be eliminated with more carefully planning, but it forced me to use money on a hired car that we could use to visit the different entrepreneurs in the area of Jaipur. It was also common that the different providers of microfinance charged me for access to their network of clients. It must however be said that they were very helpful and necessary in the process of locating participants for this research. It was overall a very expensive trip for a student without a grant and it did certainly affect the number of respondents in the research. The number of respondents participating in this research is also problematic for the relevance and accountability as 60 respondents cannot be considered a large sample. The schedule could have been drastically reduced when it comes to questions, and this could have been achieved through more structured planning before entering the field.

3.5 Ethics and considerations

This project has been registered and approved by the Norwegian Centre for Research Data, where I created a consent form that were handed out to the respondents. This form explained the research that the participants were involved in, how their data is stored and how they could contact the parties involved in this research project. This means that the respondent could withdraw from the research at any time, even if their identities are kept anonymous.

Since few of the respondents spoke or understood English, the form was translated to the participants before the structured interviews began. This was a time-consuming process but gave us the needed signature even if the respondent only could sign with thumb or sign.

I encountered different third parties and family members of the respondents during my time in the field and they were not directly involved in my research. This research has strived for protecting the privacy of other actors but has also focused responsible behavior and the importance of leaving a good impression (Quinn, 2015). My presence when conducting field work in the small communities and villages will undoubtedly leave some impressions and influence how the involved actors perceive Norwegian students. It is even more important that I represent my discipline in the best possible matter, so that other researcher involved in similar research could replicate or use the same actors as I have in this research.

Chapter four: Literature review

The most recent and comprehensive research done on Self-help Group with access to microfinance in India, is perhaps the household survey conducted by Abhijit Banerjee and Esther Duflo in Hyderabad. The research was conducted using Randomized controlled trial (RTC), often considered as the best design for conducting research in the development segment. The research measured household located in slums in Hyderabad between 2005 and 2010. Both baseline survey, and two endline surveys were conducted in the period. The profit-seeking MFI Spandana gave a treatment group access to credit and compared the results from the surveys with the control group, excluded from microcredit in the first years of the research. The research that was conducted over a three-year period only saw 33 percent of the ideal household choosing to receive microcredit from Spandana. MFI Spandana did share feature with other MFIs as they were not involved in the formation of groups but did not require the microcredit to be invested on an income generating activity (Banerjee et al., 2015). The research conducted by Banerjee and Duflo has been important for the investigation of this thesis on the subject of SHGs impact on microenterprise performance and female empowerment. Their findings have been important for the creation of my hypotheses, even if I have contradicted some of their evidence with other empirical research on the subject.

4.1 Growth and expansion of microenterprises

The largest collection of data that exist on microfinance can be found on the Mix Market online database, but the data is usually centered on the performance of the stakeholders, and not the individual microenterprises. This is why I have chosen to use the results from Banerjee and Duflo as my main source of literature, as it is one of the largest samples and longest survey conducted on microfinance and SHGs in India.

In their research, Banerjee and Duflo found out that both SHGs and individuals struggled with the repayment of the loan because the accumulation of profit of the microenterprises was not large enough. In most cases, the microenterprises have few employees per business, they are often too tiny, and the lack of skillsets and life situation of the entrepreneur halt the prosperity. Microcredit do however affect the household consumption as the families now can invest in more durable goods and reduce the amount spent on temptation goods. This does not seem to be linked to the ideology and policy of different MFIs. Household with access to microcredit are reported to work harder and invest in their businesses to a certain degree, but the problem still remains the same for the entrepreneurs. Their businesses do not seem to expand or grow significantly due to microcredit, regardless of the urban environment that most households were located (Banerjee et al., 2015).

Growth of microenterprises can be measured in either sale, profit or increase in number of workers (McPherson, 1996). Although most microentrepreneurs do not keep a record of exact sales and expenditure, they are often familiar with their average profit on a seasonal or monthly basis. This is why this research has chosen average monthly profit as a measurement for enterprise growth. Apart from the perhaps negative results on the relationship between microcredit and accumulation of profit found in Hyderabad, it has in general been produced positive empirical results in the developing world. In a quantitative study by Colombage (2004) in two districts in Sri Lanka, the professor found that 40 percent of the group members with access to microcredit increased their profit during the 6-month period under investigation. Dunn and Arbuckle (2001) support this finding in their own research conducted in Peru, where results show that clients perform better than non-clients at monthly accumulation of profit. Both Sutoro (1990) and Sebstad and Walsh (1991) do also find a positive relationship between group lending and enterprise growth and reports that many clients increased their profits by over 90 percent.

Entrepreneurial theory can be used for understanding the reasons for growth in microenterprise and perhaps why the result from Banerjee and Duflo's research indicates low profit and investments in the business by the entrepreneurs in Hyderabad. One of the most critical factors for the success of an entrepreneur are the availability of financial capital in the early stages of an enterprise. If the amount of credit available to entrepreneurs are too low, it will not protect the enterprises against a slow start-up, difficulties in the market or early mistakes conducted by the management. There is conducted several empirical studies on that human capital such as education, experience and training related to the profession might influence the success of the enterprise (Cooper et al., 1994). Human capital skills that can influence the success of the enterprise is usually referred to as business acumen. Business acumen can be defined as informal knowledge and expertise on matters related to the enterprise, but also external matters that influence the business (Perth Leadership Institute, 2008). Business acumen skills such as farsightedness and the ability to take calculated risk, management capabilities, creativity and innovation, advantage of market opportunities and adaptive capacities (Fardous et al., 2016), but also financial awareness and understanding various issues related to the business can make the difference between failure or success. It is the motivation and willingness to expand and grow that defines an entrepreneur, and this is why not all business owners can be defined as entrepreneurs (Carland et al., 2002) (Sexton & Robinson, 1989).

Others factors than can influence the profitability of the enterprise are the age of the enterprise, the role of the entrepreneur (Fardous et al., 2016), but also age of the entrepreneur. It might be considered a negative relationship between the growth in enterprises and the age of the entrepreneur, as younger business owners tend to take less risk and are not sure about their abilities (Jovanovic, 1982) (Cortes et al., 1987). It can be argued that microcredit borrowers are more entrepreneurial than non-clients, but the main reason for borrowing from MFIs is that they cannot access this credit elsewhere. There have on the other hand been conducted a study on asset accumulation in India with data collected for the NABARD program. The research found that microcredit borrowers were more likely to accumulate and create assets, and this can perhaps be explained by the rules and mechanism within the SHGs that require savings (Swain & Varghese, 2008). The accumulation and creation of assets does however not mean that the microenterprises have high profitability.

Apart from the lack of social capital, there can also be other reasons for why microenterprises tend to have low profitability. Most SHG-members and non-clients chose their business based on family tradition, even after access to microcredit. The loans that Group members usually receives are often too small for technological improvements of the enterprise, which is seen as important for increasing profitability and productivity (Colombage, 2004). More capital and technological demanding professions are usually therefore not an option for SHG members, and their skillset are often not good enough to abandon the family tradition. Hulme and Mosley (1996) show with empirical evidence from studies conducted in 7 countries that only a quarter of the sample invest in new technology to improve their enterprise. The typical enterprises that invested in technology were usually those engaged in manufacturing textile. This shows that tools, machines and accessories can in fact increase profitability for traditional professions, such as textile manufacturing. Most microentrepreneurs are as stated earlier engaged in these activities. Because of MFI-clients tendency to invest in traditional income-generating activities, it can be questioned how high their entrepreneurial skills actually are. For instance, if access to credit becomes available in an area, some clients can find themselves competing with other clients in the same market (Viswanath, 2017). This is problematic for clients that initially sought profitability and it can also affect the repayment rate of MFIs engaged in these areas.

Other reasons for low profitability of MFI-clients can be their geographical location, sociocultural barriers, but also their financial status before entering the microcredit schemes. This can hinder poor clients from selecting income-generating activities with higher potential (Viswanath, 2017). It should also be mentioned that poorer clients often use acquired credit for consumption, rather than investment in the enterprise (Hulme & Mosley, 1996).

Gadenne and Vasudevan (2007) find that the majority of loans issued for SHGs in Karnataka and Tamil Nadu in India were used on income generating activities. The study does also conclude that some members used the loans to start an enterprise. Because the loans issued are small, and because clients usually have to build up trust before accessing the larger loan packages, some female entrepreneurs need more than one loan to start their own enterprise. An empirical study conducted in Sri Lanka, 2007 support these findings and states that the microcredit in fact was used on buying inventory and raw materials for the enterprise. 59 per cent of the clients had done this, and the amount of the loan used on this expansion was about 38 per cent (Mel et al., 2011). In the research conducted by Colombage (2004) in Sri Lanka, he found that about 22 per cent of the clients did expand their business, even though the

resource base for most entrepreneurs stayed the same. Only 4 per cent of non-clients expanded their business during the time period, and 5 percent added new products, in contrast to 13 per cent of the entrepreneurs with access to microcredit. Quaye (2011) does also find clients with microcredit in Ghana to more often expand their enterprises than non-clients, and this is also supported by Dunn and Arbuckle (2001), who found that the clients in Peru gained more employees. It is also reported that clients of microcredit increased their ownership of production machines by 26 per cent.

Investment by the entrepreneur can be considered an important strategy to expand the microenterprise and could potentially increase growth measurement such as profit. In the schedule produced for this research, the respondent was asked if they have invested in the microenterprise with the purpose of increasing the number of employees, product line, stock or improve products. Other alternatives were investments in technology or equipment, advertisement, or other investments that they needed to explain. This question was created to reveal if the respondent used any of the revenue from the enterprise on expansion, while there is a separate section that focus on where the microcredit from the loan ended up.

Out of the literature studied on the linkage between Self-Help groups and enterprise growth and likelihood of investment, I have created three hypothesis that will be tested in the analysis. I believe that the length of participation in the SHGs are fundamental for the success of microenterprises and the entrepreneurial skills. One loan is usually not enough for investing in an income-generating activity, but as the client build up trust within the SHG without defaulting on the loan, the amount of credit available will increase over time.

<i>H1: Length of SHG participation leads to increased enterprise growth</i>
<i>H2: Length of SHG Participation increase likelihood of profit invested in enterprise</i>
<i>H3: Length of SHG participation increase the likelihood of credit invested in enterprise</i>

4.2 Self-help Groups and Female empowerment

While financial services are important for increasing financial inclusion and income-generation, it does not automatically empower women in all dimensions. The original purpose of the SHG program was to channel credit to poor individuals, but the socialization and group dynamics observed among the women has inspired scholars to investigate how and why the level of empowerment often increase in all dimensions. The level of empowerment among females in SHGs are often higher than on the individual level, and research conducted on the role of SHGs in women empowerment in Maharashtra shows that participations in SHG lead to more visible empowerment (Goswami et al., 2018).

Paramanandam and Packirisamy (2014) conducted a study in the Indian district Kanchipuram in July 2013, where 600 female members of SHG were surveyed about their level of empowerment. The SHGs that were selected had been involved in the scheme for 3-5 years. The investigation of the group members showed improvement in economic empowerment such as improved savings, economic status through income generating activities, easier access to additional credit and awareness about welfare schemes and processing. The evidence provided in this research is supported by Krupa Krupa (2017) and Chatterjee (2016) who finds in their own research that economic conditions and livelihood improve over time, but Lokhande (2012) notes that SHGs must be better at training the clients so that the microfinance schemes can be fully effective. The longitudinal National Family Health Survey conducted between 2005-2016 found that 27 per cent the married women in Rajasthan were paid in cash for their work in the last 12 months, but only 19 percent of the females had a bank account that they used themselves. Only 27 per cent of the married women in the state got to participate in decisions in the household (Bansal, 2017). Krupa Krupa (2017) and Chatterjee (2016) finds positive results when it comes to social- and psychological empowerment, as the clients reported of increased social interaction, sense of achievement and confidence, family and community acceptance and the possibility to take more decisions, but also improved business acumen.

Both the research conducted by Raya and Rajendra (2011) and Krupa Krupa (2017) draw similar conclusions and states that the females improved their empowerment at the social and individual level. Political empowerment was achieved through participation in political bodies such as Grama Sabha and other levels of the Panchayat Raj Institutions. This is supported by Gangadhar et al. (2017) and Raya and Rajendra (2011) who finds that participation in village councils increase and that political and legal awareness improve after participation in a Self-

Help Group. The study by Paramanandam and Packirisamy (2014) also find that the Self-Help Groups themselves can function as a vehicle for emancipation and empowerment because of the group dynamics, socialization and set of rules.

From the theoretical background and previous empirical literature published on empowerment of females through SHG participation, I have decided to create three hypothesis that will be tested in the analysis. I believe that the impact of SHG participation is fundamental for improving the level of empowerment in all dimensions, and I believe that it will increase over time as experience is gained within the SHG. This is closely linked to credit accumulation, entrepreneurship and socialization that develop through experience within the group.

<i>H4: Length of SHG participation increase the level of economic empowerment</i>

<i>H5: Length of SHG participation increase the level of social and psychological empowerment</i>

<i>H6: Length of SHG participation increase the level of political empower</i>

Chapter Five: Data analysis

Before we can choose the statistical models and measured to be used on the hypotheses that derived from the literature review, it would be useful to get an overview of the respondents and the characteristics of the Self-Help Groups in this sample. It would also be useful for the analysis to look at the different enterprises and their management and start-up capital, while also investigate the credit management of the entrepreneurs.

5.1.1 Characteristics of the respondents

As I have already identified in the unit of analysis, there is a total of 60 females interviewed in this quantitative data collection. 60 per cent of the total sample are urban entrepreneurs, while the remaining population are classified as rural. The youngest respondent in the sample was at the age of 21, while the three oldest were all 60 years old. 45 per cent of the sample was between 31-40 years old. None of the respondent answered that they were single, and this is perhaps not that strange because it usually common to be married at a young age in India.

Approximately 93 per cent of the sample is categorized as married, while some of the elder respondents occupy the remaining percentages as widowed. With the usage of the median, we find that the average number of children per individual is 3. It is however somehow misleading number because of the high standard deviation measuring 1.3814. If we look closer at the frequencies, it will be revealed that 0, 1, 4 and 6 children are less common in the sample. Most respondent answer that they either have 2, 3 or 5 children. When it comes to female representation in the household we find that 24 per cent of the females answer that they are the head of the Household. The majority of the respondent reveal that the husband is the head of household and this account for 60 per cent of the sample. The remaining 13 per cent have answer that another family member occupies this position.

The data collection was as gathered from both Muslim and Hindu areas in and around Jaipur, with latter accounting for almost 87 per cent of the sample. The majority of the sample was within the general caste. 61 per cent of the sample categorized themselves as literate. The frequency table reveal that higher primary school and secondary school account for roughly 40 per cent of the total sample, while only under 7 per cent have achieved higher education. 40 per cent of the sample have no education at all, but the large majority of this group are able to write their own signature. Some of the respondents are only able to write a sign or have a print of the thumb as signature, but this is important, as it is required for the access to financial products¹

5.1.2 The Self-Help Groups

The sample for this research has been taken from 37 different SHGs in 3 districts in Rajasthan. Four administration areas (tehsils) in Jaipur, and two from administration areas outside Jaipur. The average number of members in the SHGs were around 10 members. SHGs with as few as 2 members, and as large as 20 did occur, but around 50 per cent of the respondent answered that their group had either 10 or 11 members. The oldest SHG in the sample was formed in the year 2000, while the newest was formed in 2018. The sample revealed four different sources of finance for the SHGs and the largest contributors was Co-

¹ A more detailed look at the respondents in the sample can be found in table 1 in the appendix.

operative- and commercial banks, at respectively 47,5 and 31,3 per cent of the total share. The two other sources of finance were Small Finance banks and Government Development banks.

Meeting frequencies within the groups varied from once a month, 2 times a month and every week. The most common practice in this sample was that the group members met once a month and this was valid for 48 per cent of the sample. This meeting is also the date were savings were deposited. About 60 per cent of the respondents answered that they would get penalized from the SHGs if they did not deposit their savings, while 73 per cent of the respondent answered that they would get penalized if their repayment on the loans was not deposited on time. It is however unclear if the SHGs actually practiced the penalty system, as some of the respondents pointed out that it was less common to do that.

54 per cent of the SHG members reported that it was possible to get a small loan from the internal account of the SHG, and it was usually in the region of Rs 2000. 22 per cent of all SHG members in this sample had taken an internal loan from the SHG account. 25 per cent of the SHG members reported that they had helped other members in repayment, while 31 per cent answered that themselves had been helped. 23 per cent revealed that they had helped other members in getting credit, while the same numbers of respondent answered that they had been helped in getting credit. Only 6 members reported that they had been penalized for late repayment, while 4 members were penalized for not depositing savings. 7 members had helped other depositing savings, while 4 have been helped to deposit savings themselves. 46 out of the 48 members reported that they were aware of the procedures of borrowing².

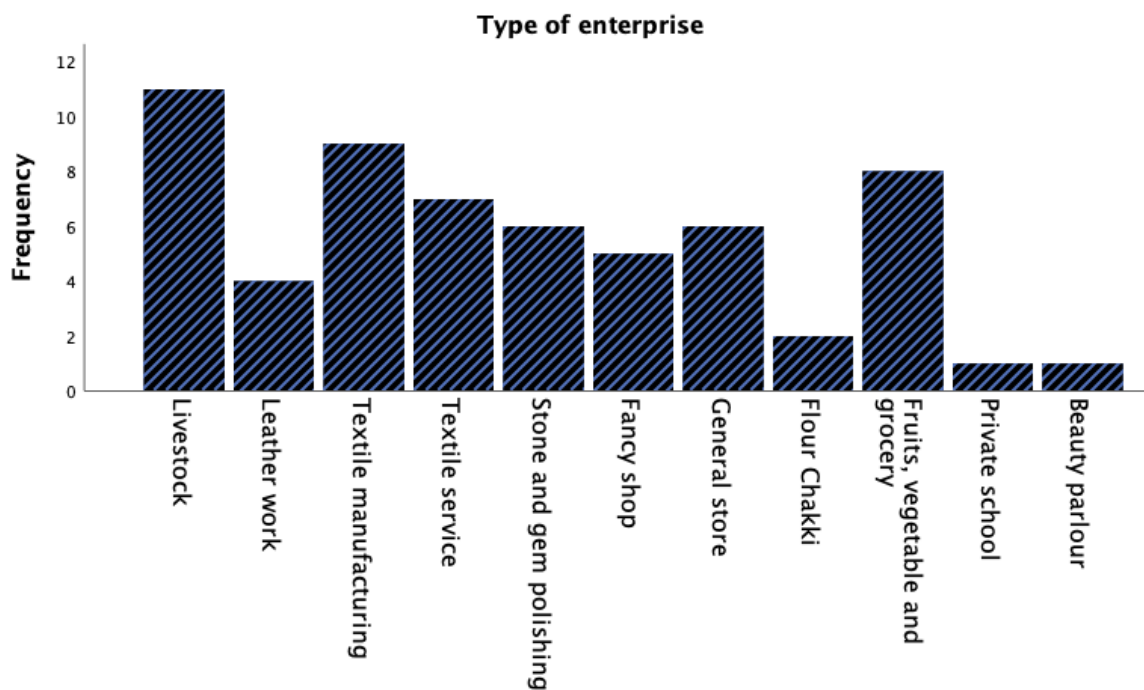
5.1.3 The microenterprises

The requirement for participating in this research was to operate an income-generating activity and the total sample revealed a large variety of occupations. A total of 11 income-generating activities are present in the sample, with livestock breeding, textile manufacturing, and fruits, vegetable and grocery shops represented in the table below as the most common.

58 of the respondents answer that their enterprises operate the whole year, leaving just 2 enterprises seasonal. The most common number of employees from the household is 1, if we

² Table 2 in the appendix represent more detailed information about the SHG

use mode as a measurement. 41,7 per cent of the sample does not get any paid help from the family or the household but help from outside the household are even less common. Only 1 entrepreneur out of the total sample have employees from outside the family or household. This entrepreneur has employed 6 persons from the village. 56 of the 60 respondents answer that they are the boss of the enterprise, but 10 of the respondents are revealing that the husband is the decisionmaker.



All enterprises in this research has been operational for more than 1 year, and this gives us the opportunity to look at performance and growth. 32 respondents answered that the enterprise is their primary source of income, while the rest of the sample has listed their husband. This means that 36 respondents have the enterprise as a secondary source of income. 23 out of the 32 that has the enterprise as their primary source of income, lists their husband as the secondary source. 5 persons do also have get some income through the Mahatma Gandhi National Rural Employment Guarantee Act, while the same number of respondents have a second enterprise. Only 8 out of the 60 respondents have suffered a shutdown of their income-

generating activity and the causes behind this temporary downtime are low profit, demand and health issues³

5.1.4 Start-up capital for the entrepreneurs.

The start-up capital for the respondents in the sample comes from multiple sources and it is evident that microcredit has been important for the entrepreneurs and their income-generating activities. 27 out of the 48 SHG members got their start-up capital from the source of microfinance in the group. None of the respondents answered that they got the initial capital from Commercial or Government Development Banks, but 4 respondents answered that Small Finance Banks had borrowed them money. 16 respondents answered that they have invested their personal savings in to the enterprise, while 28 of the entrepreneurs received capital from their family or within the household. 4 respondents got capital from a moneylender, the same numbers that received capital from close friends. 3 Respondents did not need any start-up capital because of inheritance, but it was not unusual for respondents in this sample to have multiple sources of capital. For instance, 11 respondents got start-up capital from 2 sources, while 7 respondents had 3 sources⁴.

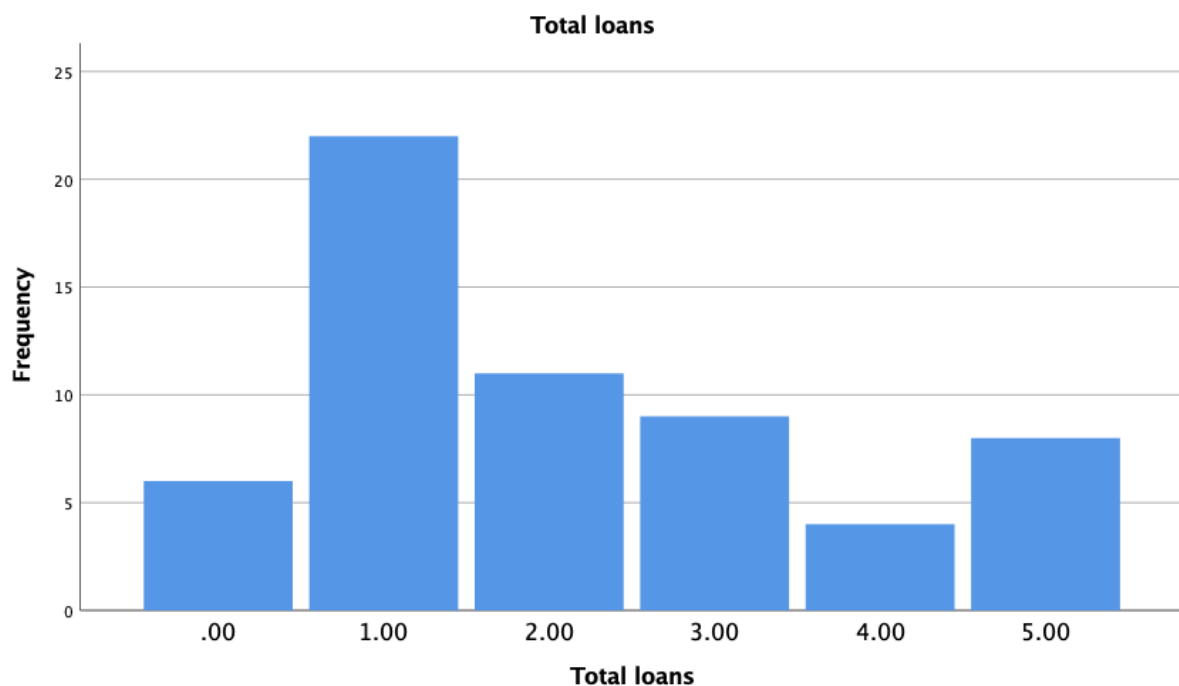
5.1.5 Credit management

54 out of the 60 entrepreneurs in this sample reported that they had at least taken up 1 microcredit loan, while only 5 respondents stated that they had taken 5 or more. The average amount of loan for the respondents was 2. If we look at the statistics for the last loan of all 54 borrowers, it is revealed large differences in interest rate and the subjective difficulty of accessing the credit. For instance, the average interest rate of the loans issued through a Co-operative bank or NGO was 19,64 per cent, out of 42 observations. The average difficulty in getting access to the loan is 3,64 out of scale to 10. This remain the lowest of all sources of credit. The average interest rate provided by Small Finance Banks is 33,2 per cent, with a reported difficulty of 7,2 out of 10. The Interest rate issued by Government Development Banks are 19,16 per cent, and the respondents have answered that the difficulty of getting the loans are 5 out of 10. The highest interest rates come from commercial banks at 55 per cent

³ See table 3 in the appendix for a more detailed look at the enterprises in the sample

⁴ Details about the start-up capital can be found in table 4 in the appendix

but does only have a reported difficulty of 5 out of 10. There is a total of 42 observation on loans from Co-operative Banks and NGOs, while only 5, 6 and 1 respondents got credit through a Small Finance Bank, Government Development bank and Commercial Bank. This makes the observations on loan characteristics uneven, but the observation is nevertheless in line with expectations and empirical literature⁵



The respondents did pay the installments with their own income, but the monthly interest payment is added to the calculation of the enterprise revenue. This makes it possible to accurately see whether the investment is profitable during and after the repayment time.

5.2 Regression analysis

Regression is a mathematical tool developed for analyzing relationships between dependent and independent variables. The dependent variable is often referred to as the outcome variable because it represents the value we want to predict. Independent variables, or predictors as they are inserted in the regression model for the purpose of predicting the value of the dependent

⁵ See table 4 in the appendix for more information

variable. The regression model function as a tool for understanding the relationship between variables and their explanatory strength for the outcome of the regression model (Rawlings et al., 1998). Two types of regression models will be used for analyzing the sample collected in Rajasthan. The first model is called multiple regression, and this model is an extension of the simpler linear model. Both of the models share the assumption that they are both linear, but the multiple regression model have more than one predictor involved in the calculation (Simon, 2003). The outcome variable used in this model is continuous. A multiple linear regression model can be illustrated below with the use of simple algebra, where Y=Outcome and X=Predictor variables:

$$\hat{y} = b_0 + b_1x_1 + b_2x_2 + \dots + b_kx_k$$

In the model illustrated above we can see that the models have two predictors represented as “ b_1x_1 ” and “ b_2x_2 ”. The “ b_1 ” illustrated in the model represent the change in “Y” with one unit change in “ x_1 ”, with the assumption that all other predictors are held constant. This is called the regression coefficient, and it can be both a positive and negative value, indicating an increase or decrease. The multiple regression model will be used for analyzing the level of empowerment of the sample.

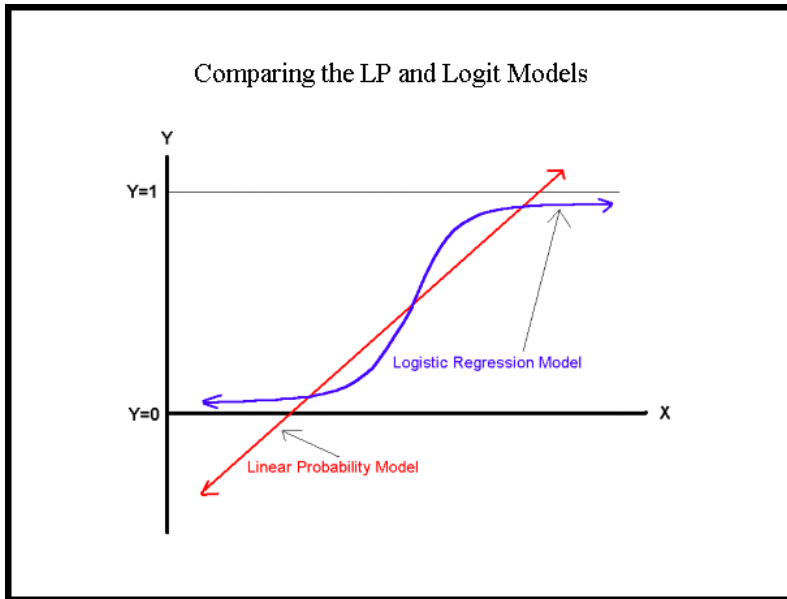
The second model that will be used in this analysis is Logistic regression. The model is a statistical tool than can be used in the same way as linear regression, but it is specifically designed to fit models where the dependent variable is dichotomous. This means that the model predicts if something is true or false, and not continuous as in linear regression. The regression coefficients in the model is used for estimation of odds ratios, instead of probability as in other regression models, and is applied to the independent variables or predictors in the analysis. The basic assumptions of logistic regression are that it does not rely on that the sample distribution is located near the mean, as in linear regression, and is best used if the dependent variable have two possible solutions. While it does not assume a linear relationship, it should be exactly this between the log odds and the independent variable (Hosmer & Lemeshow, 2000). Other assumptions for the model are that there should be few to none outliers, and this is why continuous variables functioning as predictors should be standardized. Multicollinearity must also be kept low, meaning that the correlation between the predictors should not be too high. The output that comes out of a logistic regression model is often considered more difficult to interpret. It could be therefore be meaningful to talk through some of the differences between the multiple and logistic regression models and their specifications before we analyze the results.

5.2.1 Odds Ratios

The odds ratio is a unique feature of the logistical regression model and measures the relationship between the predictor and outcome variables. This does perhaps sound much like coefficients used in linear regression, but it is in fact not the same. Odds as a statistical term is defined as the probability that something will occur to the probability that it will not occur. This means that it is a different way of presenting probability in the regression model. Odds ratios are calculated by dividing the odds of the first group by the odds in the second group (Hosmer & Lemeshow, 2000). If we use the logistic function, the odds ratio can be calculated mathematically in its simplest form as:

$$\text{Odds ratio} = \frac{a*d}{b*c} \text{ or } \left(\frac{a}{b}\right) / \left(\frac{c}{d}\right)$$

If the calculated odds ratio is measured as more than 1, it will mean that the likelihood for the event to occur increase as the predictor increase. If the odds ratio comes out as a negative value, less than 0, the likelihood for the event will decrease as the predictor increases. A value of 0 means that it's a zero-relationship. If the predictors are categorical instead of continuous, the odds ratio will have a different meaning in the output. If for instance say that the predictor has 2 categories. We identify them as “does not take decisions in the enterprise” and “takes decisions in the enterprise”, coded as 0 and 1. If the odds ratio comes out as a negative, the event is more likely at “does not take decision in the enterprise, while a positive number would indicate that the event is more likely at “takes decisions in the enterprise” (McHugh, 2009). Another feature of odds ratio is that a negative odds ratio can only decrease by 100%, while a positive value is continuous (Rita & Komonen, 2008). When conducting logistic regression in Stata and computing odds ratio for the logistical regression model, the beta coefficient will be reversed. This means that the logit function in the program will compute the wrong odds ratio, which is why we invert the output to get the correct result. This can be done by calculating the exponent of the coefficient and change the sign (+/-) (Rita & Komonen, 2008) (Hosmer & Lemeshow, 2000).



Source: <https://towardsdatascience.com/logistic-regression-b0af09cdb8ad>

The model pictured above illustrates the difference between linear and logistic regression when it comes the distribution for the predictors and the slope of the curve. Instead of fitting the line to the data, logistic regression estimate an s-slope that is between 0 and 1 (Chauhan, 2018), which are the only valuables in the outcome.

5.2.3 Estimated coefficients and significance testing

One of the first thing that a researcher will observe in regression model is whether the estimated coefficients have positive or negative weight. If the coefficient for the predictor however is estimated to 0, it can be removed from the model because it does not add any explanation for the outcome variable in the model. If the estimated coefficient does have any “weight”, it could be interesting to test whether the independent variable has a real effect in the model. The T value tells us the difference within and among the groups, while the p-value test if there is in fact a relationship with the outcome variable, but not the strength of the association. The larger the p-value of a coefficient is, the larger the probability that the relationship is reported by chance alone. This is why we usually prefer low p-values for our coefficients, because it would then mean less risk about the association (Stehr-Green, 2004).

The p-value is important for testing the hypotheses created for this analysis. There are two types of hypotheses used in statistics. The null hypothesis (H_0) argue against the effect that the researcher tries to prove, while the alternative hypothesis (H_a) argue for the effect. To test

the hypotheses, we need to compare the p-value for the predictor with the significance level. If the p-value is less than the significance level, we will reject H_0 and accept H_a . If the p-value however is larger than the significance level, then we cannot reject H_0 . There are typically three significance levels in statistics 90%, 95% and 99%, but are represented as 0.10, 0.05 and 0.01 when compared to p-values. The standard confidence interval for logistic regression is 95% and this translates to a 5% risk of concluding wrong when it comes to difference (Prel et al., 2009).

5.2.4 The coefficient of determination

The coefficient of determination, denoted as R squared, is a measurement for statistical models that explain the how much of the variance in the dependent variable, that can be explained by predictors, or input in the model. This means that in contrast to correlation, the measurement deals with the relationship between the variance of the dependent and independent variables and how they explain each other's variance. This means that R squared explains the overall fit of the model, and it does this with reporting a number between 0 and 1. A number closer to 0 means that the predictors have less value, while a number closer to 1 means that the predictors fit the model. It could also be valuable to pay attention to the adjusted R squared in the multiple regression model, as it adjusts the explanatory power of the predictors as more or less variables are added to the model.

In logistic regression models, there can however be problematic to use this measurement as the R square tend to produce a result that is outside the interval of 0 and 1. There is however created alternative goodness-of-fit tests for non-linear statistics, and these are often referred to as pseudo R squared (Cameron & Windmeijer, 1997). The entropy-based measurement are specially design for regression models with binary or multinomial dependent variables and they can be defined as the proportion of variance of inferred variables explained by the covariate (Hu et al., 2006).

5.3 Independent variables in the analysis

I have chosen to use seven independent variables for the regression analysis that has been coded from the schedule. I have chosen to standardize these independent variables when conducting both multiple- and logistic regression. This will help to reduce multicollinearity,

because continuous variables with large range tend to have more weight in the output of the regression. The standardization process rescales the data to have a mean of zero, but it does also change the standard deviation to one. The standardization in Stata created new variables to be used in the regression models, while keeping the normal values so that they could be used for other descriptive measurements.

5.3.1 Length of SHG-membership

The length of experience in the SHGs will be the main independent variable in this analysis. The average length of SHG-membership for the full sample of 60 respondents is 4,8333 years, with 48 observations of 1 or more year of membership. This independent variable is chosen because it can explain the potential effect of participation in an SHG, and if the experience in the group would increase enterprise profit and use this surplus to invest in the enterprise. This continuous variable is the main predictor for the whole analysis.

5.3.2 Decisions in enterprise

The choice of selecting this question as a control variable, instead of the respondent role in the enterprise comes from several reasons. The respondents that have answered that they have total control over their enterprise are 56 of the total sample. This makes an uneven variable, but this is perhaps not the most important reason for not selecting it as a control variable. It is more valuable for the research to actually test the power of decision-making for the female entrepreneurs and see whether it can explain some of the performance of the enterprises present in the sample. This variable is weakened by the small sample of the analysis, but in 10 of the enterprises, the female entrepreneurs does not take decisions.

5.3.3 Business acumen

Because of previous conducted studies on social capital and enterprise performance, I have chosen to use business acumen as a control variable for all three hypotheses in this section. If the empirical evidence is true then this control variable will potentially explain some of the enterprise performance of the entrepreneurs in the sample (Cooper et al., 1994). Business acumen is extremely difficult to measure in the setting where this research is taking place, and

that will influence the results drawn from the sample. I created a Likert scale with 6 different questions about the respondent's business skills. The different skills were drawn from existing literature already examined in the literature review. The respondent was asked to rate their own skill on each of the subjects on a scale from 1 to 10, illustrated in the table below.

1	How good is your financial awareness and the understanding on the various issues related to your business?
2	How well are your management capabilities?
3	How well is your farsightedness and the ability to take calculated risk for your enterprise?
4	How good is your ability to be creative and innovative?
5	How well are your adaptive capacities if the business environment would change?
6	How well is your ability to take advantage of market opportunities?

There is much debate on how many choice-points should be used on a scale that is used for measuring "subjective quality of life", but existing literature can support the expansion of choice-points beyond 7 points. It is found that it would not damage the scale reliability although it increases the sensitivity of the scale. Using a 10-point scale without naming the alternatives can however be favorable because it can cause uneven intervals in the scale (Cummins & Gullone, 2000).

The means computed for each of the questions are all leaning towards 4 and 5, and it is revealed that the highest frequency of answers is in the region of 3-6 on the scale. This means that the respondents have answered slightly modest regarding their own business acumen. Since these are subjective questions that rely on the respondent's evaluation of themselves, the accuracy of the Likert scale in this case can be questioned. Cummins & Gullone, 2000) argue that respondents can avoid extreme and rather lean towards the middle of the scale. There could also be cases where some of the responders are influenced by their previous answers. This is highly relevant for this control variable, as there is a tendency to avoid extremes, but the trend can of course also occur because of general knowledge about the

skills and what they in reality mean. It must be remembered that there is a large part of the sample with little to no education.

5.3.4 Village characteristics

40 per cent of the respondents in the sample are categorized as rural entrepreneurs, while 60 per cent of the sample have microenterprise that operates in an urban environment. It was revealed in chapter two that there is higher poverty in the urban sectors of Rajasthan, than in the rural areas, and it could be interesting to see whether this relationship is also present in the dimensions of poverty.

5.3.5 Total income of household

This variable is used to see whether the different enterprises share of the total income in the household can explain some of the models computed for the three levels of empowerment. This could be an interesting control variable because it can reveal the relationship between households that dependent on the enterprises and if it actually contributes to empowerment for female in control.

5.3.6 Years of age

The continuous variable “Age” is used as a control in measuring microenterprise performance because of the negative relationship between firm growth and age of the entrepreneurs, observed by Jovanovic (Jovanovic, 1982 and Cortez (Cortes et al., 1987), mentioned in the literature review. I have also decided to use age as a control variable for the empowerment hypothesis as I believe that it could have a relationship with the different dimensions and perhaps improve the model fit.

5.3.7 Years of education

As for age, the usage of education as a control variable can be meaningful in this research both for microenterprise performance and entrepreneurship, but also as a control variable for the three dimensions of poverty.

Chapter 6: Results

6.1 Performance of microenterprises and entrepreneurial behavior

I have chosen to measure the performance of microenterprises and the behavior of the entrepreneur with a dichotomous variable with the values yes or no incorporated. The main analysis for this section is to whether length of SHG participation influence the performance or decisions of the entrepreneurs. The other independent variables used in all three logistic regression models are decisions in enterprise, business acumen, level of education and age of the respondent. The correlation between the variables in the first two hypothesis is illustrated in the table below.

	Growth ^{~t}	Invest ^{~e}	Length ^{~n}	Decisive ^{~e}	Busine ^{~n}	Educat ^{~n}	Age
Growth _{pro^{~t}}	1.0000						
Invest _{in^{~e}}	-0.0492	1.0000					
Length _{SHG^{~n}}	0.2061	0.3035	1.0000				
Decisions _{^{~e}}	0.1301	0.2835	0.2594	1.0000			
Business _{a^{~n}}	0.1520	0.3104	0.0878	-0.1331	1.0000		
Education	0.1009	0.0959	-0.1386	0.0231	0.3496	1.0000	
Age	-0.3213	0.1557	0.1565	0.0158	-0.0682	-0.4720	1.0000

6.1.1 Hypothesis 1

H0: Length of SHG participation does not increase the odds for profit accumulation in the enterprise

H1: Length of SHG participation will increase the odds for profit accumulation in the enterprise

The alternative hypothesis argues that there exists a positive relationship between the length of SHG participation and enterprise growth related to profits. The correlation between variables are positive in the correlation table, but it could be interesting to test the relationship

in a regression model. The regression analysis reports that an increase in profit is associated with a decrease in odds ratio of 0,5399 for length of SHG participation on a 95% confidence interval. Most of the independent variables are associated with a decrease in the odds ratio, but the odds ratio for profit increase with respectively 1,23 and 2,46 for education and age. The p value reported for the coefficient of the SHG experience is 0.201, which indicates that it is not significant at the risk of 0.05. This means that we can accept the null hypothesis. The pseudo R2 that is presented in the model are 0.1917, which indicates the explanatory power of the independent variables attached to the model.

```

Logistic regression                Number of obs   =      60
                                   LR chi2(5)      =     10.96
                                   Prob > chi2       =     0.0521
Log likelihood = -23.103873        Pseudo R2      =     0.1917

```

Growth_profit	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
zlength_SHG_participa~n	.6162233	.4814087	1.28	0.201	-.3273203	1.559767
zDecisions_enterprise	.3176209	.4198014	0.76	0.449	-.5051747	1.140416
zBusiness_acumen	.6891917	.4937474	1.40	0.163	-.2785354	1.656919
zEducation	-.2059993	.4884814	-0.42	0.673	-1.163405	.7514067
zAge	-.9006766	.3951952	-2.28	0.023	-1.675245	-.1261083
_cons	1.890582	.4465144	4.23	0.000	1.01543	2.765735

Growth profit	Calculation:	Odds ratio
Length of SHH participation	Exp(-0.6162233)	0.5399
Decisions in enterprise	Exp(-0.03176209)	0.9687
Business acumen	Exp(-0.6891917)	0.5019
Years of education	Exp(-(-0.2059993))	1.2287
Age of respondent	Exp(-(-0.9006766))	2.4612

6.1.2 Hypothesis 2

H0: Length of SHG participation does not increase the odds for investing the profit in the enterprise

H1: Length of SHG participation will increase the odds for investing the profit in the enterprise

The correlation between the variable for investing in the enterprise and the length of SHG participation is estimated to be 0.30, indicating a positive relationship between the variables. The other independent variables used in the model are also positive, with education having the lowest value of 0.09. The pseudo r squared for the model is 0.2120 and this indicates that the independent variables have some explanatory value for the model. The odds ratio for length of SHG participation is calculated to be 1,8916, indicating that there is a positive relationship between the variables. The p-value in this model is low and this means that there is a low risk that the relationship has happened by chance. The p-value is however not significant at the risk level of 0.05 and this means that we cannot reject the null hypothesis.

Logistic regression	Number of obs	=	60
	LR chi2(5)	=	13.82
	Prob > chi2	=	0.0168
Log likelihood = -25.686302	Pseudo R2	=	0.2120

Invest_in_enterprise	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
zlength_SHG_participa~n	.637473	.4089263	1.56	0.119	-.1640077 1.438954
zDecisions_enterprise	.4272963	.355587	1.20	0.229	-.2696413 1.124234
zBusiness_acumen	.8407976	.4667989	1.80	0.072	-.0741115 1.755707
zEducation	.5874358	.5154591	1.14	0.254	-.4228455 1.597717
zAge	.3915793	.4261149	0.92	0.358	-.4435905 1.226749
_cons	1.596551	.4214714	3.79	0.000	.7704821 2.42262

Profit invested in enterprise	Calculation:	Odds ratio
Length of SHH participation	Exp(-0.637473)	1.8916
Decisions in enterprise	Exp(-0.4272963)	0.6522

Business acumen	Exp(-0.8407976)	0.4313
Years of education	Exp(-0.5874358)	0,5557
Age of respondent	Exp(-0.3915793)	0.6759

6.1.3 Hypothesis 3

H0: Length of SHG participation does not increase the odds for investing the loan in the enterprise

H1: Length of SHG participation will increase the odds for investing the loan in the enterprise

This hypothesis investigates whether the SHG participation influence the loan management of the entrepreneurs. The sample for this hypothesis has been reduced to 54 respondents because some of the respondents in the sample did not chose to seek credit for their enterprise. The dependent variable for this model asked whether the respondent used a proportion of their last loan on the enterprise. The pseudo R that is computed for the model reveals that the independent variables have an explanation power of 0.12. The odds ratio for length of SHG participation is 0.5005 and is identified as a decrease. The odds ratios for decisions in the enterprise favors female leadership by 1.47 and shows the importance of business acumen with the odds ratio of 1,9251. The null hypothesis can however not be rejected as the p-value for length of SHG participation is not significant

```

Logistic regression          Number of obs   =      54
                             LR chi2(5)         =      8.79
                             Prob > chi2        =     0.1178
Log likelihood = -31.200209  Pseudo R2       =     0.1234

```

invest_credit	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
zlength_SHG_particip~01	.69211	.3913114	1.77	0.077	-.0748462	1.459066
zDecisions_enterpris~01	-.3857628	.3444121	-1.12	0.263	-1.060798	.2892725
zBusiness_acumen_01	-.6550204	.369988	-1.77	0.077	-1.380183	.0701427
zAge	.4165137	.3722024	1.12	0.263	-.3129896	1.146017
zEducation	.1750587	.4247023	0.41	0.680	-.6573425	1.00746
_cons	.6339262	.3183845	1.99	0.046	.009904	1.257948

Loan invested in enterprise	Calculation:	Odds ratio
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Length of SHH participation	Exp(-0.69211)	0.5005
Decisions in enterprise	Exp(-(-0.3857628))	1.4700
Business acumen	Exp(-(-0.6550204))	1.9251
Years of education	Exp(-0.4165137)	0.6593
Age of respondent	Exp(-0.6339262)	0.5305

6.2 Female empowerment

I have chosen to measure the level of empowerment in all dimension with the use of a count variable, as the outcome. Alkire and Foster (2011) argue for this approach when measuring multidimensional poverty because it can measure the real depth and severity of poverty. The count variable will however be used different in this analysis. The dependent variable represents each individual change in empowerment for each dimension. The main analysis for this section is to see whether the change can be explained by the length of SHG participation. I have decided to use contribution of enterprise for income of the household, location of the respondent, education and age as the other independent variables in the model. The correlation between the variables is illustrated below, and it shows that there exists a strong relationship between economic empowerment and social-and psychological empowerment. There is also some correlation between Economic empowerment and political empowerment, but political empowerment has in general low correlation with all variables in the correlation table.

	Econom~t	Social~t	Politi~t	Length~n	Percen~c	Location	Age	Educac~n
Economic_e~t	1.0000							
Social_Psy~t	0.8089	1.0000						
Political_~t	0.2257	0.1617	1.0000					
Length_SHG~n	0.5813	0.5915	-0.0168	1.0000				
Percentage~c	0.0780	0.0596	0.2468	-0.0494	1.0000			
Location	-0.0987	-0.1286	0.0708	-0.2286	0.2432	1.0000		
Age	0.0208	-0.0656	0.0109	0.1062	0.2930	0.1466	1.0000	
Education	-0.0790	0.0474	0.1014	-0.2250	-0.0540	0.0364	-0.4104	1.0000

6.2.1 Hypothesis 4

H0: Length of SHG participation does not increase the change in economic empowerment.

H1: Length of SHG participation will increase the level of economic empowerment.

The correlation table illustrated in the table above reveals a positive relationship of almost 0.81 between economic empowerment and length of SHG participation. The multiple regression in the below does also show a positive relationship between the variables as one unit change increase the variable with 1.248829. The table does also reveal that the adjusted R squared for the model is 0.3025, and this means that the independent variables used in the model has a moderate explanatory value for change in economic empowerment. We can also see that enterprises that contribute more to the household increase the change in economic empowerment, but it is however not significant. Length of SHG participation is however significant at the 0.01 level, and this means that we can reject the null hypothesis in favor of the alternative hypothesis.

Source	SS	df	MS	Number of obs	=	60
Model	86.6334474	5	17.3266895	F(5, 54)	=	6.12
Residual	152.966553	54	2.83271394	Prob > F	=	0.0001
Total	239.6	59	4.06101695	R-squared	=	0.3616
				Adj R-squared	=	0.3025
				Root MSE	=	1.6831

Economic_empowerment	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
zLength_SHG_Participa~n	1.248829	.2344294	5.33	0.000	.7788266	1.718832
zPercentage_HHinc	.2580197	.2349371	1.10	0.277	-.2130008	.7290401
zLocation	.0426576	.233716	0.18	0.856	-.4259147	.5112299
zAge	-.1596433	.2540568	-0.63	0.532	-.6689966	.3497101
zEducation	.1252028	.2479151	0.51	0.616	-.3718371	.6222426
_cons	2.8	.217283	12.89	0.000	2.364374	3.235626

6.2.2 Hypothesis 5

H0: Length of SHG participation does not increase the change in social- and psychological empowerment

H1: Length of SHG participation will increase the level of change in social- and psychological empowerment.

Change in social- and psychological empowerment have a high correlation with length of SHG participation but does have low correlation with the other independent variables used in the model. The regression model reveals that the coefficient for length of SHG participation is 2.038549. The coefficient of enterprise contribution to the household and the level of education are higher than in economic empowerment. Age have also been computed to a negative coefficient in this model, as in economic empowerment. The adjusted R squared is higher in this model than in economic empowerment with the measurement of 0.3864. Length of SHG participation is significant at the 0.01 level and this means that we can reject the null hypothesis in favor of the alternative hypothesis.

Source	SS	df	MS	Number of obs	=	60
Model	230.966626	5	46.1933253	F(5, 54)	=	8.43
Residual	295.883374	54	5.47932174	Prob > F	=	0.0000
				R-squared	=	0.4384
				Adj R-squared	=	0.3864
Total	526.85	59	8.92966102	Root MSE	=	2.3408

Social_Psychological_e~t	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
zLength_SHG_Participa~n	2.038549	.3260424	6.25	0.000	1.384874	2.692225
zPercentage_HHinc	.4057443	.3267485	1.24	0.220	-.249347	1.060836
zLocation	.0161863	.3250502	0.05	0.960	-.6355001	.6678727
zAge	-.3650711	.3533401	-1.03	0.306	-1.073475	.3433332
zEducation	.5640681	.3447982	1.64	0.108	-.1272107	1.255347
_cons	3.45	.3021953	11.42	0.000	2.844135	4.055865

6.2.3 Hypothesis 6

Change in political empowerment correlates negative with length of SHG participation, but the correlation that is reported is low. It does have low correlation with all the other independent variables used in the model, with the exception of the enterprise contribution to household income. The regression model reveals that the coefficient for length of SHG participation is 0.028444. The coefficient for the other independent variables in the model is not significantly different from the other models produced for empowerment, but the adjusted R squared has been computed as a negative. If we also consider the R squared in the model, we will see that this is 0.0754. This reveal that the independent variables is explain the

outcome of the model poorly. Length of SHG participation is not significant at any level of risk, and this means that we cannot reject the null hypothesis.

Source	SS	df	MS	Number of obs	=	60
Model	3.38290177	5	.676580353	F(5, 54)	=	0.88
Residual	41.4670982	54	.767909227	Prob > F	=	0.5001
				R-squared	=	0.0754
				Adj R-squared	=	-0.0102
Total	44.85	59	.760169492	Root MSE	=	.8763

Political_empowerment	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
zLength_SHG_Participa~n	.028444	.1220578	0.23	0.817	-.2162672	.2731552
zPercentage_MHinc	.2249759	.1223221	1.84	0.071	-.0202653	.470217
zLocation	.0131141	.1216864	0.11	0.915	-.2308524	.2570806
zAge	-.0216248	.132277	-0.16	0.871	-.2868243	.2435747
zEducation	.0988757	.1290793	0.77	0.447	-.1599127	.3576641
_cons	.45	.1131304	3.98	0.000	.2231872	.6768128

Chapter seven: Conclusion and summary of findings

This thesis has been dedicated to research on the impact of SHG participation on microenterprises and empowerment for women in Rajasthan. The land-locked Indian state serves as a good example of the overarching problem in the developing world, where the status of women are inferior to men. Government policy towards reducing poverty and empowering women had for long been centered towards outcomes variables, such as health and family support, but the effect of the program was limited. Microfinance emerged in the 1970s as a solution for the problem, where the focus was shifted towards the underlying causes for poverty and poor financial inclusion. The developing world shifted the attention to economic empowerment as more than 600 million people was lifted out of poverty in the span of 15 years after the implementation of the Millennium Development Goals. Economic empowerment has been the central focus of most microfinance institutions in 21st century, even though there have been critical voices questioning the real effect of financial inclusion. Most scholars do however agree that microfinance products such as credit, the possibility to save money and hold insurance are crucial for the poor, but also fundamental in job creation

in the developing world. Social- and psychological empowerment, but also political empowerment are the most recent dimensions discussed in empirical literature when it comes to empowerment of women. Although basic financial services are crucial for economic empowerment, it tends to be forgotten that women in the developing world are deprived of more than just financial independence. Microfinance through Self-Help Groups have proved more than just a channel to acquire typical banking services for poor females as the dynamics and socialization within the groups has created something beyond the economic empowerment. Women that participates in SHGs report back that they have increased their level of self-confidence, self-esteem, but do also have more decision power and freedom of movement in the villages their villages operate or where they live. The income-generating activities that the females operate are usually small and of the traditional kind. The main purpose of the credit acquired from the MFIs is that it should be used on the enterprise, so that the entrepreneurs can generate a stable income and be financially independent. The loans received are however often too small to be useful for the SHG members, and it must also be said that many of the females use the credit on other things than the enterprise. Most research discussed in this thesis do however indicate that female SHG members often expand their activities and experience increased profit through the microfinance schemes.

In order to answer my research question “How important are Self-help Groups for successful microenterprises and does it increase the ambitions of the entrepreneur and empower women in Rajasthan?”, I decided to divide the questions in to two supporting sub-questions. The questions are of course closely interlinked, because the section dedicated to the investigation of microenterprises are important for the three dimensions of poverty. The sample for this research was collected in the urban and rural areas in Jaipur, and two other districts in the outskirts of the city. The respondents were interviewed using a schedule, who was later coded down to data used in the analysis in this research. I decided to use a logistic regression analysis to find out if the length of SHG participation influenced profit accumulation in a positive direction and if the membership increased the likelihood for investing the profit on the microenterprises. The third hypothesis in this section asked whether the entrepreneurs used the acquired credit on the enterprise. The findings from the regression analysis are mixed, but the relationship between length of SHG membership and profit accumulation remain weak. The null hypothesis was rejected for this hypothesis, but some of the other control variables explained some of the variance in the outcome, as the age of the respondent and their level of education. The second hypothesis asked whether SHG participation over

time influenced the behavior of investing in the enterprise. The output produced by the regression model reveals that there in fact is a relationship, although there is a risk it could have been produced by chance because of the p-value not being significant. The length of SHG participation was however the only variable with a positive odds ratio in the model. The third hypothesis asked if the respondent used the acquired loans on the microenterprises. The result from the analysis indicates a negative odds ratio, and this means that the odds for a positive relationship decrease for every unit increase. The results produced by testing hypothesis one and three goes against most of the literature covered in chapter four, although the findings of Banerjee and Duflo (2015) in Hyderabad is reflected in my models. The second hypothesis did however show some evidence of a positive relationship, even if I could not reject the null hypothesis. There is of course difficult to draw any conclusions from the hypotheses with a sample of 60 respondents, but if the years of experience in an SHG produce entrepreneurial behavior and the willingness to expand the microenterprise, it would be a good argument for the continuation of the SHG schemes.

The second part of the research question ask whether SHG membership influence all three dimensions of empowerment for females in Rajasthan. The analysis on the empowerment dimension are perhaps an even better argument for the continuation of the SHG schemes. Both economic empowerment and social- and psychological empowerment are positively influenced by length of SHG participation and are also statistically significant at the risk level of 0.01. It is also evident that enterprises that contribute more to the total income of the household have a positive impact on all the empowerment dimensions, even if the variable is not significant at any level. Political empowerment does however show less correlation with length of SHG participation and is not statistically significant at any level. This is not in line with the empirical research that created the hypothesis. I believe that I have found evidence in this research project for the importance of Self-Help Groups for microenterprises, but mostly for the empowerment of women in Rajasthan. I believe that the SHGs operating in Rajasthan have a high potential for empowering women in all dimension, but I do also believe that the microenterprises need specific training through the SHGs to be even more successful in the future.

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Self-help groups in Rajasthan

Impact on microenterprises and empowerment for women

State: _____

District: _____

Village: _____

Name of Respondent: _____

Contact number: _____

Date: _____

Interview number: _____

This research project is part of my master's degree at the Norwegian University of Life Science and will provide the primary data for my master thesis. This research will be focused on microcredit and its impact on entrepreneurship in Rajasthan. This is why your participation is important. The data collected with this questionnaire need representation from members of different Gram Panchayats in the state. Your experience is therefore crucial for answering my research questions.

Interviewer 1: _____

Interviewer 2: _____

Coding sheet for schedule			Shaded area only for SHG
Cell	SN.	Question	Assigned code

Section 0: General information about respondent and SHG		
B4	<u>0a)</u> Where is the schedule taking place? <i>(Answered by interviewer)</i>	Rural=0 Urban=1
C4	<u>0b)</u> Are you part of a SHG?	No=0 Yes=1
D4	<u>0c)</u> How many members is there in the SHG?	Numeric
E4	<u>0d)</u> When was the SHG formed?	Numeric
F4	<u>0e)</u> What year did you join the SHG?	Numeric
G4	<u>0f)</u> How frequent does your SHG meet?	Numeric
H4	<u>0g)</u> What is your groups source of microfinance	NGO=1 Small finance Bank=2 Government=3 Commercial Bank=4 Other= Assign value
I4	<u>0h)</u> Is there any penalty for repaying the loan instalments too late?	No=0 Yes=1
J4	<u>0i)</u> Is there any penalty for not depositing savings in the SHG bank account	No=0 Yes=1

Section 1: Personal information about the respondent		
M4	<u>1a)</u> are you male or female?	Female=0 Male=1
N4	<u>1b)</u> What is your age?	Numeric
O4	<u>1c)</u> What is your marital status?	Single=1 Married=2 Widow=3 Other=Assign values
P4	<u>1d)</u> What is your level of education? (Years)	Numeric
Q4	<u>1f)</u> How many children do you have?	Numeric
R4	<u>1g)</u> What is your literacy level?	Literate=1 Only signature=2 Only Sign=3 Only Thumb=4

S4	<u>1h)</u> Who is the head of the household?	The respondent=1 Husband=2 Other=3
T4	<u>1i)</u> What is your religion?	Not religious=0 Hindu=1 Muslim=2
U4	<u>1j)</u> What is your caste?	Assign value to other caste than general

<u>1k)</u> Where do you get everyday information from...?			
W4	1	Newspaper	No=0 Yes=1
X4	2	Internet or Social Media	No=0 Yes=1
Y4	3	Friends	No=0 Yes=1
Z4	4	Relatives	No=0 Yes=1
AA4	5	Family	No=0 Yes=1
AB4	6	School teacher	No=0 Yes=1
AC4	7	TV	No=0 Yes=1
AD4	8	Mobile	No=0 Yes=1
AE4	9	SHG	No=0 Yes=1

Section 2: Information about income and the respondent's enterprise		
AG4	<u>2b)</u> Total Income of the household?	Numeric
AH4	<u>2a)</u> What is your primary source of income?	Enterprise=1 Husband=2 MNRGA=3 Other=Assign values

<u>2c)</u> If you get income from other sources, where does this come from?			
AJ4	1	Enterprise	No=0 Yes=1
AK4	2	Husband	No=0 Yes=1
AL4	3	MNRGA	No=0 Yes=1
AM4	4	Other family members	No=0 Yes=1

AO4	<u>2d)</u> What type of enterprise is this?	Livestock=1 Crops=2 Leather work=3 Clothing manufacturing=4 Clothing service=5 Stone and gem polishing=6 Fancy shop=7 General store=8 Floor chakki=9 Fruits, vegetable and grocery=10 Privat school=11
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		Beauty parlour=12 Other: Assign value
AP4	<u>2e)</u> What is your role in the enterprise?	Worker=1 Boss=2
AQ4	<u>2f)</u> Who make decisions in the enterprise?	Respondent=1 Husband/Wife=2 Shared=3
AR4	<u>2g)</u> How many employees comes from the household?	Numeric
AS4	<u>2h)</u> How many employees comes from outside the household?	Numeric
AT4	<u>2i)</u> How does the enterprise operate?	Seasonal=1 Full year=2
AU4	<u>2j)</u> When was the enterprise founded?	Numeric
AV4	<u>2k)</u> Have you received any formal training to run the enterprise?	No=0 Yes=1 Yes, from SHG=2

<u>2l)</u> Where did you get the start-up capital from...?			
AX4	1	Personal savings	No=0 Yes=1
AY4	2	Friends	No=0 Yes=1
AZ4	3	Household	No=0 Yes=1

BA4	4	Resourceful villagers/Moneylenders	No=0 Yes=1
BB4	5	SHG	No=0 Yes=1
BC4	6	Other MFI	No=0 Yes=1
BD4	7	Commercial Bank	No=0 Yes=1

BF4	<u>2m)</u> What was the initial start-up capital?		Numeric
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<u>2n)</u> If the enterprise has ever shut down, why did it do so?			
BH4	1	Low profit	No=0 Yes=1
BI4	2	No time to run the enterprise	No=0 Yes=1
BJ4	3	Supply of raw materials or such	No=0 Yes=1
BK4	4	Because of demand	No=0 Yes=1
BL4	5	Decision from Head of Household or Husband/Wife	No=0 Yes=1
BM4	6	Other	No=0 Yes=1

<u>2o)</u> Where does the surplus of the enterprise go, if any?			
BO4	1	Enterprise	No=0 Yes=1
BP4	2	To the household	No=0 Yes=1
BQ4	3	Children education	No=0 Yes=1
BR4	4	To your own pocket	No=0 Yes=1
BS4	5	Repayment of loan	No=0 Yes=1
BT4	6	Other	No=0 Yes=1

<u>2p)</u> If you invest in the enterprise, what do you invest in?			
BV4	1	Increase number of employers	No=0 Yes=1
BW4	2	Increase advertisement	No=0 Yes=1
BX4	3	Increase product line	No=0 Yes=1
BY4	4	Increase stock	No=0 Yes=1
BZ4	5	Improve products	No=0 Yes=1
CA4	6	Technology or equipment	No=0 Yes=1

CB4	7	Other investments	No=0 Yes=1
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<u>2q) Enterprise performance indicators</u>			
CD4	1	Monthly sales	Numeric
CE4	2	Monthly expenditures	Numeric
CF4	3	Profit 18/19	Numeric
CG4	4	Growth profit 18/19	Percentage
		Profit 17/18	numeric
		Growth profit 17/18	Percentage
		Profit 16/18	numeric
		Growth profit 16/17	Percentage
		Profit 15/16	numeric
		Growth profit 15/16	Percentage
		Profit 14/15	numeric
		Growth profit 14/15	Percentage
		Average yearly profit growth	Percentage
		Growth profit 14/15 – 18/19	Percentage

<u>2r) Capital Stock</u>			
BI4	1	Owned land and building	Numeric

CJ4	2	Owned tools and machinery	Numeric
CK4	3	Owned furniture and other fixed assets	Numeric
CL4	4	Owned transport	Numeric
BN4	5	Rented land and building	Numeric
CO4	6	Rented tools and machinery	Numeric
CP4	7	Rented Furniture and other fixed assets	Numeric
CQ4	8	Rented transport	Numeric
CS4	9	Total Owned capital	Numeric
CT4	10	Total Rented capital	Numeric
CU4	11	Total capital stock	Numeric

<u>2s) Rate your own business acumen from 1-10</u>			
CW4	1	How good is your financial awareness and the understanding on the various issues related to your business?	Numeric
CX4	2	How well are your management capabilities?	Numeric
CY4	3	How well is your farsightedness and the ability to take calculated risk for your enterprise?	Numeric

CZ4	4	How good is your ability to be creative and innovative?	Numeric
DA4	5	How well are your adaptive capacities if the business environment would change?	Numeric
DB4	6	How well is your ability to take advantage of market opportunities	Numeric

Section 3: Financial inclusion

DD4		<u>3a)</u> Total number of commercial bank accounts?	Numeric
DF4		<u>3c)</u> What is the total monthly savings in the commercial bank accounts?	Numeric
DH4		<u>3d)</u> Total number of SHG bank accounts?	Numeric
DJ4		<u>3f)</u> What is the total monthly savings in the SHG bank account/s?	Numeric
Dk4		<u>3g)</u> Have you received any penalty from not depositing monthly savings in the SHG account?	Numeric
DI4		<u>3h)</u> Have you helped others in depositing monthly savings in the SHG account?	Numeric

		<u>3k)</u> Do you have insurance?	No=0 Yes=1
<u>3i)</u> Do you have any of the following insurances?			
DN4	1	Insurance for enterprise?	No=0 Yes=1
DO4	2	Insurance for own health?	No=0 Yes=1

DP4	3	Insurance for health of children, if any?	No=0 Yes=1
DQ4	4	Insurance for property	No=0 Yes=1

Section 4:

4a) Have you ever borrowed money with interest?

DS4	1	From SHG	No=0 Yes=1
DT4	2	From commercial bank	No=0 Yes=1
DU4	3	From resourceful villager/moneylender	No=0 Yes=1
DV4	4	Other MFI	No=0 Yes=1

4b) Have you ever had difficulties in repayment of the loan?

DX4	1	From SHG	No=0 Yes=1
DY4	2	From commercial bank	No=0 Yes=1
DZ4	3	From resourceful villager/moneylender	No=0 Yes=1
EA4	4	Other MFI	No=0 Yes=1

4c) What can microcredit do for your enterprise?

EC4	1	Could it ease capital requirements for the enterprise?	No=0 Yes=1
ED4	2	Could it help to maintain the production cycle round the year?	No=0 Yes=1
EE4	3	Could it help the business to get access to better raw materials?	No=0 Yes=1
EF4	4	Could it help the business to expand its product lines?	No=0 Yes=1
EG4	5	Could it help the business to get access to the latest technical know-how and state of the art technology?	No=0 Yes=1
EH4	6	Could it help to engage more workers in the production process?	No=0 Yes=1
EI4	7	Could it help to advertise the business in a better way?	No=0 Yes=1
EJ4	8	Could it increase earnings/Profits?	No=0 Yes=1

4d) General questions about loaning procedure and behaviour within SHG		
B75	<u>4e)</u> Are you aware of the borrowing and lending procedures at financial institutions?	No=0 Yes=1
C75	<u>4f)</u> Have you ever borrowed from the internal SHG savings account?	No=0 Yes=1
D75	<u>4g)</u> Have you ever helped other SHG members in repayment of loan?	No=0 Yes=1

E78	<u>4h)</u> Have you ever helped other members in getting credit?	No=0 Yes=1
F75	<u>4i)</u> Have you been helped by other members in repayment of loan?	No=0 Yes=1
G75	<u>4j)</u> Have you ever been helped by other SHG members in getting credit?	No=0 Yes=1
H75	<u>4k)</u> Have you ever been penalized by the SHG for not repaying the loan instalments	No=0 Yes=1

4e) Number of loan and characteristics for the last 5 years			
Last loan:			
FG4	1	Time?	Numeric
FH4	2	Provider?	SHG=1 Small finance bank=2 Government=3 Comercial=4 Money lender=5
FI4	3	Total amount?	Numeric
FJ4	4	Term amount?	Numeric
FK4	5	Instalments?	Numeric
FL4	6	Interest rate?	Numeric
FM4	7	Utilization?	Enterprise=1 Construction of house=2 Marriage children=3 Marriage other=4 Husband enterprise=5 Children education=6

			Repayment=7 Own health=8 Health of family member=9 Own Education=10
FN4	8	Difficulty in getting the loan?	Numeric (1-10)
2 nd last loan:			
FP4	1	Time?	Numeric
FQ4	2	Provider?	SHG=1 Small finance bank=2 Government=3 Comercial=4 Money lender=5
FR4	3	Total amount?	Numeric
FS4	4	Term amount?	Numeric
FT4	5	Instalments?	Numeric
FU4	6	Interest rate?	Numeric
FV4	7	Utilization?	Enterprise=1 Construction of house=2 Marriage children=3 Marriage other=4 Husband enterprise=5 Children education=6 Repayment=7 Own health=8 Health of family member=9 Own Education=10
FW4	8	Difficulty in getting the loan?	Numeric (1-10)
3 rd last loan:			

FY4	1	Time?	Numeric
FZ4	2	Provider?	SHG=1 Small finance bank=2 Government=3 Comercial=4 Money lender=5
GA4	3	Total amount?	Numeric
GB4	4	Term amount?	Numeric
GC4	5	Instalments?	Numeric
GD4	6	Interest rate?	Numeric
GE4	7	Utilization?	Enterprise=1 Construction of house=2 Marriage children=3 Marriage other=4 Husband enterprise=5 Children education=6 Repayment=7 Own health=8 Health of family member=9 Own Education=10
GF4	8	Difficulty in getting the loan?	Numeric (1-10)
4 th last loan:			
GH4	1	Time?	Numeric
GI4	2	Provider?	SHG=1 Small finance bank=2 Government=3 Comercial=4 Money lender=5
GJ4	3	Total amount?	Numeric

GK4	4	Term amount?	Numeric
GL4	5	Instalments?	Numeric
GM4	6	Interest rate?	Numeric
GN4	7	Utilization?	Enterprise=1 Construction of house=2 Marriage children=3 Marriage other=4 Husband enterprise=5 Children education=6 Repayment=7 Own health=8 Health of family member=9 Own Education=10
GO4	8	Difficulty in getting the loan?	Numeric (1-10)
5 th last loan:			
GQ4	1	Time?	Numeric
GR4	2	Provider?	SHG=1 Small finance bank=2 Government=3 Comercial=4 Money lender=5
GS4	3	Total amount?	Numeric
GT4	4	Term amount?	Numeric
GU4	5	Instalments?	Numeric
GV4	6	Interest rate?	Numeric
GW4	7	Utilization?	Enterprise=1 Construction of house=2 Marriage children=3 Marriage other=4

			Husband enterprise=5 Children education=6 Repayment=7 Own health=8 Health of family member=9 Own Education=10
GX4	8	Difficulty in getting the loan?	Numeric (1-10)

GZ4	4f)	Remaining debt from loans?	Numeric
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Section 5: Woman empowerment

5a) Economic empowerment

HB4	1	Do you feel economically independent, i.e. You are able to keep and spend some money out of earnings?	No=0 Yes=1 Yes, after SHG=2
HC4	2	Are you able to save money through access to a bank account?	No=0 Yes=1 Yes, after SHG=2
	3	Are you able to operate the bank account alone	No=0 Yes=1 Yes, after SHG=2
HD4	3	Are you able to operate an income-generating activity?	No=0 Yes=1 Yes, after SHG=2
HE4	4	Do you have some kind of insurance for enterprise, children, private property or own health?	No=0 Yes=1 Yes, after SHG=2

HF4	5	Can you buy persona items, such as clothes, without consulting your husband?	No=0 Yes=1 Yes, after SHG=2
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5b) Social and psychological empowerment

HH4	1	Are you consulted on what the household should purchase?	No=0 Yes=1 Yes, after SHG=2
HI4	2	Are you consulted on major issues, such as marriage, education of children and on buying or selling property?	No=0 Yes=1 Yes, after SHG=2
HJ4	3	Are you considered vital in taking final decisions in the households on purchases?	No=0 Yes=1 Yes, after SHG=2
HK4	4	Are you considered vital in taking final decisions in the household on major issues such as marriage, education of children and on buying and selling property?	No=0 Yes=1 Yes, after SHG=2
HL4	5	Can you move around outside the household alone?	No=0 Yes=1 Yes, after SHG=2
HM4	6	Do you feel respected in the household?	No=0 Yes=1 Yes, after SHG=2
HN4	7	Do you feel respected in the village/neighbourhood?	No=0 Yes=1 Yes, after SHG=2
HO4	8	Do you feel self-confident?	No=0 Yes=1 Yes, after SHG=2

5c) Political empowerment			
HP4	1	Do you have any interest in politics?	No=0 Yes=1 Yes, after SHG=2
HQ4	2	Are you engaged or involved in a political party?	No=0 Yes=1 Yes, after SHG=2
HR4	3	Do you attend Grama Sabha meetings (Village) or similar meetings?	No=0 Yes=1 Yes, after SHG=2
HS4	4	Do you feel that you can influence political decisions in your village or neighbourhood?	No=0 Yes=1 Yes, after SHG=2

Individual descriptive statistics:

Table 1

		SHG member	Village characteristic	Age group	Marital Status	Number of children	Head of HH	Religion
N	Valid	60	60	60	60	60	60	60
	Missing	1	1	1	1	1	1	1
Mean		.800	1.600	2.0833	2.067	2.917	1.883	1.133
Median		1.000	2.000	2.0000	2.000	3.000	2.000	1.000
Std. Deviation		.4034	.4940	.86928	.2515	1.3814	.6132	.3428
Variance		.163	.244	.756	.063	1.908	.376	.118
Minimum		.0	1.0	1.00	2.0	.0	1.0	1.0
Maximum		1.0	2.0	4.00	3.0	6.0	3.0	2.0

		Literate	Education group
N	Valid	60	60
	Missing	1	1
Mean		1.467	2.7000
Median		1.000	3.0000

Std. Deviation	.7003	1.73009
Variance	.490	2.993
Minimum	1.0	1.00
Maximum	4.0	7.00

Frequency table for Individual variables

Table 1.2

		SHG member			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	12	19.7	20.0	20.0
	Yes	48	78.7	80.0	100.0
	Total	60	98.4	100.0	
Missing	System	1	1.6		
Total		61	100.0		

Village characteristic

Table 1.3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rural	24	39.3	40.0	40.0
	Urban	36	59.0	60.0	100.0
	Total	60	98.4	100.0	
Missing	System	1	1.6		
Total		61	100.0		

Age group

Table 1.4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-30	16	26.2	26.7	26.7
	31-40	27	44.3	45.0	71.7
	41-50	13	21.3	21.7	93.3
	51-60	4	6.6	6.7	100.0
	Total	60	98.4	100.0	
Missing	System	1	1.6		
Total		61	100.0		

Marital Status

Table 1.5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	56	91.8	93.3	93.3
	Widowed	4	6.6	6.7	100.0
	Total	60	98.4	100.0	
Missing	System	1	1.6		
Total		61	100.0		

Number of children

Table 1.6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	3	4.9	5.0	5.0
	1.0	2	3.3	3.3	8.3
	2.0	20	32.8	33.3	41.7
	3.0	21	34.4	35.0	76.7
	4.0	1	1.6	1.7	78.3
	5.0	12	19.7	20.0	98.3
	6.0	1	1.6	1.7	100.0
	Total	60	98.4	100.0	
Missing	System	1	1.6		
Total		61	100.0		

Head of Household

Table 1.7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.0	15	24.6	25.0	25.0
	2.0	37	60.7	61.7	86.7
	3.0	8	13.1	13.3	100.0
	Total	60	98.4	100.0	
Missing	System	1	1.6		
Total		61	100.0		

Religion

Table 1.8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Hindu	52	85.2	86.7	86.7
	Muslim	8	13.1	13.3	100.0
	Total	60	98.4	100.0	
Missing	System	1	1.6		
Total		61	100.0		

Literacy

Table 1.9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Literate	37	60.7	61.7	61.7
	Signature only	20	32.8	33.3	95.0
	Sign only	1	1.6	1.7	96.7
	Thumb only	2	3.3	3.3	100.0
	Total	60	98.4	100.0	
Missing	System	1	1.6		
	Total	61	100.0		

Education group

Table 1.10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	v	25	41.0	41.7	41.7
	Primary school	3	4.9	5.0	46.7
	Higher primary school	11	18.0	18.3	65.0
	Secondary school	13	21.3	21.7	86.7
	Upper secondary school	4	6.6	6.7	93.3
	Undergraduate degree	2	3.3	3.3	96.7
	Graduate degree or higher	2	3.3	3.3	100.0
	Total	60	98.4	100.0	

Missing	System	1	1.6		
	Total	61	100.0		

SHG Descriptive statistics

Table 2.1

		Length of SHG membership (For members)	Total SHG members	Foundation of SHG	Source of Microfinance	Meeting frequency each month	Internal loan
N	Valid	48	48	48	48	48	48
	Missing	25	25	25	25	25	25
Mean		6.5417	10.3333	2012.4792	2.2917	2.0208	.5417
Median		5.0000	10.0000	2014.0000	2.0000	2.0000	1.0000
Std. Deviation		3.78664	4.11708	3.82038	1.35204	1.22890	.50353
Variance		14.339	16.950	14.595	1.828	1.510	.254
Minimum		1.00	2.00	2000.00	1.00	1.00	.00
Maximum		19.00	20.00	2019.00	4.00	4.00	1.00

		Penalty on loan	Penalty on saving
N	Valid	48	48
	Missing	25	25
Mean		.7292	.6042
Median		1.0000	1.0000

Std. Deviation	.44909	.49420
Variance	.202	.244
Minimum	.00	.00
Maximum	1.00	1.00

Frequency table for SHG variables

Length of SHG membership (For members)

Table 2.2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	2	2.7	4.2	4.2
	2.00	4	5.5	8.3	12.5
	3.00	4	5.5	8.3	20.8
	4.00	10	13.7	20.8	41.7
	5.00	6	8.2	12.5	54.2
	6.00	1	1.4	2.1	56.3
	8.00	1	1.4	2.1	58.3
	9.00	10	13.7	20.8	79.2
	10.00	2	2.7	4.2	83.3
	11.00	5	6.8	10.4	93.8
	12.00	2	2.7	4.2	97.9
	19.00	1	1.4	2.1	100.0
		Total	48	65.8	100.0
Missing	System	25	34.2		

Total	73	100.0		
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Total SHG members

Table 2.2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	2	2.7	4.2	4.2
	5.00	7	9.6	14.6	18.8
	8.00	2	2.7	4.2	22.9
	10.00	16	21.9	33.3	56.3
	11.00	13	17.8	27.1	83.3
	12.00	1	1.4	2.1	85.4
	15.00	1	1.4	2.1	87.5
	16.00	1	1.4	2.1	89.6
	17.00	1	1.4	2.1	91.7
	18.00	1	1.4	2.1	93.8
	20.00	3	4.1	6.3	100.0
	Total	48	65.8	100.0	
Missing	System	25	34.2		
	Total	73	100.0		

Foundation of SHG

Table 2.3

		Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	2000.00	1	1.4	2.1	2.1	
	2007.00	2	2.7	4.2	6.3	
	2008.00	5	6.8	10.4	16.7	
	2009.00	2	2.7	4.2	20.8	
	2010.00	10	13.7	20.8	41.7	
	2011.00	1	1.4	2.1	43.8	
	2013.00	1	1.4	2.1	45.8	
	2014.00	6	8.2	12.5	58.3	
	2015.00	10	13.7	20.8	79.2	
	2016.00	4	5.5	8.3	87.5	
	2017.00	4	5.5	8.3	95.8	
	2018.00	1	1.4	2.1	97.9	
	2019.00	1	1.4	2.1	100.0	
	Total		48	65.8	100.0	
	Missing	System	25	34.2		
Total		73	100.0			

Source of Microfinance

Table 2.4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NGO	23	31.5	47.9	47.9
	Small finance Bank	3	4.1	6.3	54.2
	Government Development Bank	7	9.6	14.6	68.8

	Commercial bank	15	20.5	31.3	100.0
	Total	48	65.8	100.0	
Missing	System	25	34.2		
Total		73	100.0		

Meeting frequency each month

Table 2.5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	23	31.5	47.9	47.9
	2.00	13	17.8	27.1	75.0
	4.00	12	16.4	25.0	100.0
	Total	48	65.8	100.0	
Missing	System	25	34.2		
Total		73	100.0		

Internal loan

Table 2.6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	22	30.1	45.8	45.8
	Yes	26	35.6	54.2	100.0
	Total	48	65.8	100.0	
Missing	System	25	34.2		

Total	73	100.0		
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Penalty on loan

Table 2.7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	13	17.8	27.1	27.1
	Yes	35	47.9	72.9	100.0
	Total	48	65.8	100.0	
Missing	System	25	34.2		
Total		73	100.0		

Penalty on saving

Table 2.8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	19	26.0	39.6	39.6
	Yes	29	39.7	60.4	100.0
	Total	48	65.8	100.0	
Missing	System	25	34.2		
Total		73	100.0		

Enterprise and income descriptive statistics

Table 3.1

		Type of enterprise	Seasonal or full year	Employees from household	Other employees	Decisions in enterprise	Years of operation
N	Valid	60	60	60	60	60	60
	Missing	13	13	13	13	13	13
Mean		5.5667	.9667	.7500	.1000	1.1667	8.0667
Median		5.0000	1.0000	1.0000	.0000	1.0000	7.0000
Mode		1.00	1.00	1.00	.00	1.00	2.00
Std. Deviation		3.13194	.18102	.81563	.77460	.37582	6.25955
Variance		9.809	.033	.665	.600	.141	39.182
Minimum		1.00	.00	.00	.00	1.00	1.00
Maximum		12.00	1.00	4.00	6.00	2.00	26.00

		Primary source of income	Other source of Income: Enterprise	Other source of income: Husband	Other source of income: MNRGA	Other source of income: Other enterprise
N	Valid	60	60	60	60	60
	Missing	13	13	13	13	13
Mean		.4667	.4000	.4000	.0833	.0833
Median		.0000	.0000	.0000	.0000	.0000
Mode		.00	.00	.00	.00	.00
Std. Deviation		.50310	.49403	.52722	.27872	.27872

Variance	.253	.244	.278	.078	.078
Minimum	.00	.00	.00	.00	.00
Maximum	1.00	1.00	2.00	1.00	1.00

Frequency table for enterprise variables

Table 3.2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Livestock	11	15.1	18.3	18.3
	Leather work	4	5.5	6.7	25.0
	Textile manufacturing	9	12.3	15.0	40.0
	Textile service	7	9.6	11.7	51.7
	Stone and gem polishing	6	8.2	10.0	61.7
	Fancy shop	5	6.8	8.3	70.0
	General store	6	8.2	10.0	80.0
	Flour Chakki	2	2.7	3.3	83.3
	Fruits, vegetable and grocery	8	11.0	13.3	96.7
	Private school	1	1.4	1.7	98.3
	Beauty parlour	1	1.4	1.7	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Seasonal or full year

Table 3.3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seasonal	2	2.7	3.3	3.3
	Full year	58	79.5	96.7	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Employees from household

Table 3.4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	25	34.2	41.7	41.7
	1.00	28	38.4	46.7	88.3
	2.00	5	6.8	8.3	96.7
	3.00	1	1.4	1.7	98.3
	4.00	1	1.4	1.7	100.0
	Total		60	82.2	100.0
Missing	System	13	17.8		
Total		73	100.0		

Other employees

Table 3.5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	59	80.8	98.3	98.3
	6.00	1	1.4	1.7	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Role in enterprise

Table 3.6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Worker	4	5.5	6.7	6.7
	Boss	56	76.7	93.3	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Decisions in enterprise

Table 3.7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Respondent	50	68.5	83.3	83.3
	Husband	10	13.7	16.7	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		

Total	73	100.0		
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Years of operation

Table 3.8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	2	2.7	3.3	3.3
	2.00	13	17.8	21.7	25.0
	3.00	5	6.8	8.3	33.3
	4.00	3	4.1	5.0	38.3
	5.00	4	5.5	6.7	45.0
	6.00	3	4.1	5.0	50.0
	8.00	3	4.1	5.0	55.0
	9.00	8	11.0	13.3	68.3
	11.00	6	8.2	10.0	78.3
	12.00	2	2.7	3.3	81.7
	13.00	1	1.4	1.7	83.3
	14.00	1	1.4	1.7	85.0
	16.00	4	5.5	6.7	91.7
	21.00	2	2.7	3.3	95.0
	22.00	1	1.4	1.7	96.7
	24.00	1	1.4	1.7	98.3
	26.00	1	1.4	1.7	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Shutdown

Table 3.9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	52	71.2	86.7	86.7
	Yes	8	11.0	13.3	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Primary source of income

Table 3.10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Enterprise	32	43.8	53.3	53.3

	Husband	28	38.4	46.7	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Other source of Income: Enterprise

Table 3.11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	36	49.3	60.0	60.0
	Yes	24	32.9	40.0	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Other source of income: Husband

Table 3.12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	37	50.7	61.7	61.7
	Yes	22	30.1	36.7	98.3
	2.00	1	1.4	1.7	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		

Total	73	100.0		
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Other source of income: Income guarantee act

Table 3.13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	55	75.3	91.7	91.7
	Yes	5	6.8	8.3	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Other source of income: Other enterprise

Table 3.14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	55	75.3	91.7	91.7
	Yes	5	6.8	8.3	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Start-up capital descriptive statistics

Table 4.1

		Start-up capital from personal savings	Start-up capital from friends	Start-up capital from HH/family	Start up capital from moneylender	Start-up capital from SHG	Start-up capital from Small finance bank
N	Valid	60	60	60	60	60	60
	Missing	13	13	13	13	13	13
Mean		.2667	.0833	.4667	.0667	.4500	.0333
Median		.0000	.0000	.0000	.0000	.0000	.0000
Mode		.00	.00	.00	.00	.00	.00
Std. Deviation		.44595	.27872	.50310	.25155	.50169	.18102
Variance		.199	.078	.253	.063	.252	.033
Minimum		.00	.00	.00	.00	.00	.00
Maximum		1.00	1.00	1.00	1.00	1.00	1.00

Start-up capital from Commercial bank

N	Valid	60
	Missing	13
Mean		.0000
Median		.0000
Mode		.00
Std. Deviation		.00000
Variance		.000

Minimum	.00
Maximum	.00

Frequency table for start-up capital

Start-up capital from personal savings

Table 4.2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	44	60.3	73.3	73.3
	Yes	16	21.9	26.7	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Start-up capital from friends

Table 4.3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	55	75.3	91.7	91.7
	Yes	5	6.8	8.3	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Start-up capital from HH/family

Table 4.4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	32	43.8	53.3	53.3
	Yes	28	38.4	46.7	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Start-up capital from moneylender

Table 4.5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	56	76.7	93.3	93.3
	Yes	4	5.5	6.7	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Start-up capital from SHG

Table 4.6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	33	45.2	55.0	55.0
	Yes	27	37.0	45.0	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Start-up capital from Small finance bank

Table 4.7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	58	79.5	96.7	96.7
	Yes	2	2.7	3.3	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Start-up capital from Commercial bank

Table 4.8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	60	82.2	100.0	100.0
Missing	System	13	17.8		
Total		73	100.0		

Total capital sources

Table 4.9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	3	4.1	5.0	5.0
	1.00	39	53.4	65.0	70.0
	2.00	11	15.1	18.3	88.3
	3.00	7	9.6	11.7	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Loan characteristics descriptive statistics

Table 5.1

Total loans

N	Valid	60
	Missing	0
Mean		2.1167
Median		2.0000
Mode		1.00

Std. Deviation	1.55238
Variance	2.410
Minimum	.00
Maximum	5.00

Frequency table for loan characteristics

Table 5.2

Total loans

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	6	10.0	10.0	10.0
	1.00	22	36.7	36.7	46.7
	2.00	11	18.3	18.3	65.0
	3.00	9	15.0	15.0	80.0
	4.00	4	6.7	6.7	86.7
	5.00	8	13.3	13.3	100.0
	Total	60	100.0	100.0	

Loan characteristics

Table 5.3

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Interest rate NGO	42	13.00	24.00	19.6429	3.28946	10.821
Difficulty NGO	42	1.00	8.00	3.6429	1.75056	3.064

Interest rate Small Finance Bank	5	24.00	36.00	33.2000	5.21536	27.200
Difficulty Small Finance Bank	5	6.00	8.00	7.2000	.83666	.700
Interest rate Government Development Bank	6	13.00	24.00	19.1667	3.76386	14.167
Difficulty Government Development Bank	6	5.00	5.00	5.0000	.00000	.000
Interest rate Commercial Bank	1	55.00	55.00	55.0000	.	.
Difficulty Commercial Bank	1	5.00	5.00	5.0000	.	.
Valid N (listwise)	1					

Business acumen descriptive statistics

Table 6.1

	Financial Awareness	Management skills	Calculated risk	Creative and innovative	Adaptive capacities	Market advantages
N Valid	60	60	60	60	60	60
Missing	13	13	13	13	13	13
Mean	5.067	5.067	4.450	4.667	4.250	3.983
Median	5.000	5.000	4.000	5.000	4.000	4.000
Mode	4.0	3.0	4.0	4.0 ^a	4.0	3.0
Std. Deviation	1.5055	1.6760	1.6201	1.7531	1.6837	1.5997
Variance	2.267	2.809	2.625	3.073	2.835	2.559

Minimum	3.0	3.0	2.0	.0	1.0	.0
Maximum	9.0	9.0	9.0	8.0	8.0	8.0

Total business acumen

N	Valid	60
	Missing	13
Mean		4.580555555555557
Median		4.250000000000000
Mode		4.000000000000000 ^a
Std. Deviation		1.425650037308011
Variance		2.032
Minimum		2.000000000000000
Maximum		8.166666666666670

a. Multiple modes exist. The smallest value is shown

Frequency Table for business acumen

Financial Awareness

Table 6.2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.0	5	6.8	8.3	8.3
	4.0	24	32.9	40.0	48.3

	5.0	10	13.7	16.7	65.0
	6.0	11	15.1	18.3	83.3
	7.0	5	6.8	8.3	91.7
	8.0	3	4.1	5.0	96.7
	9.0	2	2.7	3.3	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Management skills

Table 6.3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.0	16	21.9	26.7	26.7
	4.0	8	11.0	13.3	40.0
	5.0	11	15.1	18.3	58.3
	6.0	11	15.1	18.3	76.7
	7.0	10	13.7	16.7	93.3
	8.0	3	4.1	5.0	98.3
	9.0	1	1.4	1.7	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Calculated risk

Table 6.4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.0	5	6.8	8.3	8.3
	3.0	14	19.2	23.3	31.7
	4.0	16	21.9	26.7	58.3
	5.0	10	13.7	16.7	75.0
	6.0	7	9.6	11.7	86.7
	7.0	6	8.2	10.0	96.7
	8.0	1	1.4	1.7	98.3
	9.0	1	1.4	1.7	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Creative and innovative

Table 6.5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	1	1.4	1.7	1.7
	1.0	1	1.4	1.7	3.3
	2.0	4	5.5	6.7	10.0
	3.0	8	11.0	13.3	23.3
	4.0	14	19.2	23.3	46.7
	5.0	14	19.2	23.3	70.0
	6.0	9	12.3	15.0	85.0
	7.0	5	6.8	8.3	93.3
	8.0	4	5.5	6.7	100.0

	Total	60	82.2	100.0	
Missing	System	13	17.8		
	Total	73	100.0		

Adaptive capacities

Table 6.6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.0	1	1.4	1.7	1.7
	2.0	9	12.3	15.0	16.7
	3.0	10	13.7	16.7	33.3
	4.0	18	24.7	30.0	63.3
	5.0	7	9.6	11.7	75.0
	6.0	8	11.0	13.3	88.3
	7.0	5	6.8	8.3	96.7
	8.0	2	2.7	3.3	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
	Total	73	100.0		

Market advantages

Table 6.7

		Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	.0	1	1.4	1.7	1.7
	2.0	7	9.6	11.7	13.3
	3.0	18	24.7	30.0	43.3
	4.0	17	23.3	28.3	71.7
	5.0	6	8.2	10.0	81.7
	6.0	6	8.2	10.0	91.7
	7.0	3	4.1	5.0	96.7
	8.0	2	2.7	3.3	100.0
	Total	60	82.2	100.0	
Missing	System	13	17.8		
Total		73	100.0		

Total business acumen

Table 6.8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.0000000000000000	1	1.4	1.7	1.7
	2.5000000000000000	1	1.4	1.7	3.3
	2.6666666666666670	2	2.7	3.3	6.7
	2.8333333333333330	3	4.1	5.0	11.7
	3.0000000000000000	2	2.7	3.3	15.0
	3.1666666666666670	1	1.4	1.7	16.7
	3.3333333333333330	3	4.1	5.0	21.7
	3.5000000000000000	1	1.4	1.7	23.3
	3.6666666666666670	4	5.5	6.7	30.0
	3.8333333333333330	2	2.7	3.3	33.3
	4.0000000000000000	5	6.8	8.3	41.7

4.166666666666667	5	6.8	8.3	50.0
4.333333333333333	1	1.4	1.7	51.7
4.500000000000000	2	2.7	3.3	55.0
4.666666666666667	3	4.1	5.0	60.0
4.833333333333333	4	5.5	6.7	66.7
5.000000000000000	2	2.7	3.3	70.0
5.166666666666667	2	2.7	3.3	73.3
5.333333333333333	3	4.1	5.0	78.3
5.500000000000000	2	2.7	3.3	81.7
5.666666666666667	1	1.4	1.7	83.3
6.500000000000000	2	2.7	3.3	86.7
6.666666666666667	2	2.7	3.3	90.0
6.833333333333333	1	1.4	1.7	91.7
7.000000000000000	1	1.4	1.7	93.3
7.166666666666667	1	1.4	1.7	95.0
7.666666666666667	1	1.4	1.7	96.7
7.833333333333333	1	1.4	1.7	98.3
8.166666666666670	1	1.4	1.7	100.0
Total	60	82.2	100.0	
Missing System	13	17.8		

Total	73	100.0		
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