MEASURING FINANCIAL LITERACY OF SMALL BORROWERS IN NEPAL

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A Thesis

Submitted to

School of Education

In Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy in Education

Kathmandu University

Dhulikhel, Nepal

March 2018

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DEDICATION

I dedicate this academic creation to my parents, both of whom have left us before.

Though both of them were illiterate from the perspective of formal schooling, they were the sources of love, care, moral values, optimism and trust for me.

This creation is an outcome of their blessings to me from the heaven.

I am proud of them and dedicate this precious piece of work to them.

May their souls rest in peace.

DECLARATION

I hereby declare that this Thesis has not been submitted for candidature for any other degree.

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AN ABSTRACT OF THE THESIS OF

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Abstract Approved by

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Financial literacy is an emerging personal financial agenda at globe. Financial literacy concerns with management of money for consumption expenditure, borrowing and saving at home and outside, which is also termed as personal finance. The borrowing and saving function carried out with formal financial institutions refers to institutional finance. Increasing monetization of the economy, complexities of financial markets, protection of financial consumers and global financial crisis gave rise to agenda of financial literacy to equip customers with personal and institutional financial literacy. Both personal and institutional financial literacy has behavioral implication and affects the financial well-being of individuals. This study used the framework of theory of planned behavior and social cognitive theory. The theory of planned behavior states that the literacy i.e. knowledge and skill on financial matters will develop attitude; and if attitude is positive, the persons will behave accordingly. The social cognitive theory reveals that the literacy alone can also affect financial behaviors. Therefore, both of the theoretical paths leading the behavior with financial literacy in this study are satisfied.

This study aims to fulfill the knowledge gap of an academic study on financial literacy, attitude and behavior, in connection with the reality that several efforts and investments have been made in the financial literacy programs by the central bank, other financial and non-financial institutions in Nepal. This study was carried out by generating empirical evidence on the level of financial literacy of Nepali people and their effects on their financial attitude and behavior on the use of financial resources both at the level of personal and institutional finance.The study used quantitative methodology under which sample survey was carried out with 393 small borrowers out of 20,586 in the Cooperatives in Nepal, who had borrowed up to NPR 500 thousands at a time. Multi-stage systematic random sampling method was applied for the sample selection. Chi-square and logistic regression were used for the data analysis.

The study reveals that level of financial literacy contributes positively to both personal and institutional financial attitude. Personal financial attitude leads to behavior of personal and institutional finance. Institutional financial attitude do not affect both of personal and institutional financial behavior. However, the literacy alone affects both types of financial behavior indicating that the people behave without much evaluation. Moreover, personal financial attitude leading both of personal and institutional financial behavior reveals that people behave as they learn from their personal initiation, financial cultures and traditions. This study has policy implications for promoting institutional financial literacy to increase their positive attitudes towards financial institutional services and resulting to the use of institutional financial services for diverting into formal financial system. For this, financial institutions have more obligations towards their consumers in educating about proper financial services promoting entrepreneurships.

ACKNOWLEDGEMENTS

First of all, I am indebted to Nepal Rastra Bank for providing me three-year deputation leave for this study with scholarship. Especially, I heartily acknowledge Dr. Yubaraj Khatiwada, the then Governor of Nepal Rastra Bank and Mr. Shambhu Thapa, the then executive director, Nepal Rastra Bank (Human Resource Management Department), for their positive contribution for approving the leave. For me, Nepal Rastra Bank is not only my career center, but also an academic facilitator.

Second, it is my pleasure to have guidance of Prof. Dr. Binod Krishna Shrestha, and Dr. Nara Hari Dhakal, as my thesis supervisors. I heartily thank them for the continuous academic care, support and guidance during my study. Similarly, Prof. Dr. Mahesh Nath Parajuli, Dean of Kathmandu University School of Education, Associate Prof. Dr. Bal Chandra Luitel, Associate Dean of Kathmandu University School of Education and Prof. Dr. Mana Prasad Wagley are well-acknowledged for their full-fledged cooperation and guidance during the study. Moreover, Prof. Dr. Madan Kumar Dahal and Prof. Dr. Pitambar Rawal Kshetri are well-acknowledged for their external supervision of my thesis.

The remaining research committee members; Prof. Dr. Bhim Prasad Subedi and Associate Prof. Dr. Laxman Gyawali get my thanks for their comments and suggestions to improve my thesis. More importantly, Mr Surendra Nepal, Lecturer of Apex College in New Baneshwor, is highly valued for his statistical guidance and support in this study. Similarly, I would express my gratitude to Assistant Prof. Dr. Hem Raj Kafle, Kathmandu University, and Dr. Megh Raj Dangal, Kathmandu University School of Arts, for meticulously editing the language and APA formatting of my thesis, respectively.

Moreover, my words of appreciation go to Dr. Vishnu Karki for his statistical counseling and mentoring in my study in the initial stage. Similarly, I heartily acknowledge all of my teachers who taught me from Ka, Kha, Ga, A, B, C, and 1, 2, 3 to PhD. My special thanks go to Mr. Jhamak Bahadur Basnet for inspiring and connecting me to KUSOED for PhD study. Similarly, Assistant Prof. Dr. Prakash Chandra Bhattarai is highly thanked for his continuous inspiration and support during the journey. The roles of Dr. Bhola Prasad Dahal, Dr. Jiwan Khadka were highly instrumental for motivating me with valuable advices. I also thank Ms. Rupa Munakarmi, a PhD scholar of KUSOED for her continuous encouragement and primary editing of my work. Similarly, I would like to thank Assoc. Prof. Dr. Jari Metsämuuronen, NLA University College, Bergen, Norway for his valuable statistical counselling in this study. I remember Mr. Ganesh Khatiwada, office attendant of KUSOED for his regular facilitation in printing the thesis drafts.

My thanks equally go to all of the 393 participants of the study for their good responses, all the 14 branch managers of the cooperatives for their supports, other field employees and chief manager Mr KB Lama of Bindhyabasini Cooperatives, Kavre for their necessary cooperation throughout the data collection period.

Last but not least, my family is my primary world of support and inspiration. I share my love, care and trust to my wife Sabina Dhungana, son Asim and daughter Anmol and appreciate their sacrifice, support and contribution throughout the study. They have also equal share of inspiration in this work.

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LIST OF ABBREVIATIONS

APA	= American Psychological Association
ASIC	= Australian Securities and Investments Commission
CBS	= Central Bureau of Statistics
CFPB	= Consumer Financial Protection Bureau
GoN	= Government of Nepal
ILO	= International Labor Organization
INFE	= International Network for Financial Education
MoF	=Ministry of Finance
NPC	= National Planning Commision
NPR	= Nepali rupees
NRB	= Nepal Rastra Bank
OECD	= Organization for Economic Cooperation and Development
PACFB	= President's Advisory Council on Financial Capability
PACFL	= President's Advisory Council on Financial Literacy
PISA	= Program for International Student Assessment
RTF	= Russia Trust Fund
SPSS	= Statistical Package for the Social Science
UNCDF	= United Nations Capital Development Fund
UNESCO	= United Nations Educational, Scientific and Cultural Organization
USA	= United States of America
WB	= World Bank

CHAPTER I

INTRODUCTION

This study measures the financial literacy level, relationship and contribution of financial literacy of small borrowers. The measurement revolves around financial knowledge, skill, attitude and behavior of personal finance. The study attempts to address three basic concerns, i.e. what financial literacy is, why the small borrowers need to be financially literate and how financial literacy contributes to financial behaviors of small borrowers. The prime objectives of financial literacy are understanding and managing monetary resources to achieve financial independence. Money is an important object because of the monetization of human activities. This thesis raises the issue of understanding and managing the money as a personal finance. Moreover, personal finance is also close to the financial activities these days due to proliferation of financial intermediaries. The proliferation of the institutions needs additional financial awareness and skill to develop financial attitude and thereby improve financial behavior. From the reference, this thesis raises the issue of personal and the institutional finance, which has positive linkage to financial education and traditional experiences.

The linkage has implication to change one's ultimate financial health and prosperity. This thesis revolves around learning the financial matters, changing the financial perspectives through financial awareness and ability, doing good financial behaviors and thereby leading to improvement in financial satisfaction. From the theoretical perspectives, financial behaviors of the participants are subject to affect their financial learning by doing, and subject to improve the financial literacy they achieve from the financial education or other sources. Therefore, this study measures the financial knowledge, skill, attitude and behavior of the small borrowers by using the survey data. The study concludes that financial educational activities are important activities to improve personal and institutional financial behavior of the small borrowers.

Financial education has the implications for increasing the knowledge and skill in financial matters and markets. Jariwala (2013) argues that financial knowledge and skill give rise to the financial literacy of the individuals which is more focused these days due to increasing financial needs, services and risks in the financial markets. This implies that evolution of money, financial market and transactions are scope of financial literacy. Therefore, financial literacy is an emerging issue of personal finance and core competency of individuals around the globe. It's an emerging issue for the developed countries to control the financial crisis and for the underdeveloped countries to increase the pace of national development by improving the financial prosperity of the people.

In some of the developed countries like the USA, Australia, Canada etc, the issue of personal finance is highly valued after world financial crisis in 2007/08. Kempson, Perotti and Scot (2013) link financial literacy with safety net to financial crisis. But, Gupta and Kaur (2014) argue that financial literacy only cannot avoid financial crisis but can bridge the financial risk with financial stability. However, Nepal's endeavor in this agenda is yet to excel compared to that of other countries.

In this reference, this chapter presents context of the study, conceptualization of financial literacy, brief overview of Nepali financial sector, statement of problems, research purpose, research questions and hypotheses of the study, rationale of the study and assumptions and delimitations of the study. This chapter helps readers conceptualize the research topic, structure and the prior contents of the study.

Context of the Study

Managing money is integral to the financial civilization across the globe. Managing limited personal financial resource was challenging for everyone in the past and also these days. Basic reasons for this challenge is the scarce nature of money and general people's inability to manage their personal incomes. Generally, personal income and borrowing are treated as personal financial resources. Money is the center of income and borrowing and is vital in valuing and storing personal properties. Often, people try to achieve financial better-off and prosperity with money. Earning, owning and borrowing money are not sufficient for financial success and well-being because money, as personal financial resource, is always limited. Therefore, management of money is necessary, which is important but a challenging task. The art of understanding, making and managing the money is important to increase the financial health of persons. In this line, Bolanos (2012) describes money as medium of exchange; as the exchange is one of the functions of money. Additionally, money aims to value wealth and properties.

People desire to earn and manage money or personal income more secretly than other ordinary goods and behaviors. Tyson (2010) argues that money is a personal and confidential matter. Individuals always desire to protect the amount of money they have today and desire to increase its volume in the days to come. Here, the skill of money management is important. Management of money and personal finance falls under the subject of economics broadly and under finance particularly. Understanding money, well-planning of making money and a wise management of money help individual's financial safety in the future and thus help achieve personal financial sustainability. A financially aware and skilled person can better understand and manage money.

Lionel Robbins (as cited in Mulligan, 2009) defines economics in relation to personal financial issues and as the science of human behavior which revolves around ends and scarce means, where managing limited personal resources is more significant than how much an individual earns. The awareness and knowhow of managing personal finance plays a vital role in balancing such two contradictions of limited personal financial resources and unfulfilled or emerging demands of individuals. Primarily, a financially conscious and capable person can balance these two contradictions by minimizing the avoidable consumptions expenditure and increasing saving and investment in better yielding areas. In this context, Drexler, Fischer and Schoar (2014) claim that the role of money management between income and consumption goes side by side. But, Bodie, Treussard and Willen (2007) defend the financial life-cycle model in reconciling two opposite aspects of limited income and consistent consumption spending throughout the life of each people. From the perspective of the life-cycle hypothesis, increase in income does not necessarily go side-by side in different phases of human lives. Here, reviewing the evolution of the concept of financial literacy is useful to link financial literacy and money management.

Money and finance are closely linked with human activities from the very beginning. Before, those activities were based on personal knowledge, skill, attitude and behavior. As the world economics developed gradually, pace of personal financial knowledge and behavior were also connected with modernization and globalization. In such, institutional financial knowledge and behaviors are also prevailed. Globally, the institutional financial activities were started since long before. But in Nepal, the institutionalization or modernization of personal finance took place since 1930s. Now, both of the personal and institutional financial knowledge and behavior are in practice. Here, personal financial activities are those which are practiced locally and traditionally. However, institutional financial knowledge and behavior are those which are based on formal setting of finance.

Evolution of Financial Literacy Concept

Broadly, the evolution of the concept of financial literacy is close to human financial civilization and is also linked with the evolution of money, trade, exchange and ownership of the properties. In this sense, financial literacy is not an emerging concept in practice. However it is lately prioritized in educational and financial policies. For example, Nepal Rastra Bank [NRB] (2011b) prioritizes financial literacy in supplying financial services and in policy framework. Sociology, economics, finance, financial education, financial literacy, financial knowledge and skill have the continuum of development and reformulation of concept of the better application of money to achieve more economic benefits. Financial literacy is also a new educational invention of the twenty-first century. Organization for Economic Cooperation and Development [OECD] (2005a) claims itself as the first international comprehensive study on financial education. This claim shows that financial literacy is an emerging educational issue.

There are different views and claims about evolution of the issue of financial education and literacy. Noctor, Stoney and Stradling (1992) have defined (as cited in Jariwala, 2013) financial literacy as informed judgment and ability of person to take decision on money management. This is the first concise definition of financial literacy ever found. However, Sarigul (2014) mentions that the concept of financial literacy was first explored in 1997 by Jumpstart Coalition as a personal financial literacy survey (p209). But, Remund (2010) argues that the interpretation and research on financial literacy began in 2000. Similarly, the focus of financial literacy is also closely linked with global financial crisis of 2007-09 and the policy agenda in the financial sector. "The aftermaths of global financial distress stimulated the area of financial literacy for policy makers across the globe" (Gupta & Kaur, 2014, p.63). Moreover, Miller, Reichelstein, Salas and Zia (2014) also highlight that the priority to financial literacy increased after the global financial crisis, which taught the financial system the cost of financial illiteracy, ignorance and unsystematic financial behavior of the financial institutions and consumers. However, the effects of the global financial crisis were perceived as being mild in Nepali economy, and financial literacy was taken as a subject for discussion in financial sector only with some additional efforts. Therefore, the government, central bank and financial service suppliers have begun this endeavor.

Despite proliferation of financial institutions, services and transaction volumes, many financial consumers still need suitable financial information and skill of managing personal income. In such, financial regulator, financial institutions and the consumers have triangular roles in searching and providing the appropriate financial education. In such, financial literacy has close connections with financial consumers' protection and empowerment from the beginning. There are two roles of financial literacy in financial consumers protection: promoting the financial services for potential consumers and retaining the existing consumers. Jariwala (2013) highlights that financial literacy is one of the good ways of protecting financial consumers by educating them of financial products, systems and institutions. Similarly, Ardic, Heimann and Mylenko (2011) focus on empowering financial consumers through financial literacy. In this connection, NRB (2018) mentions that financial literacy is useful for protecting and empowering the financial consumers who need banking and financial awareness.

To reiterate, financial literacy was considered important from 1990s and prioritized after global crisis of 2007-09. Wagner (2015) opines that the global financial crisis raised the issue of financial literacy with higher priority. One of the reasons of the global financial crisis was poor financial literacy of financial consumers. Though, the concern of using money is closely linked with human but difficult to pinpoint the date and context of the beginning of financial literacy. The relationship of knowledge and practice of money can also be compared with the relationship of fish and water. However, financial literacy is more concerned as knowledge and skill in institutional financial matters. There is another scenario of personal finance which is learned and practiced based on financial culture, indigenous and traditional financial management. Therefore, it is worthwhile to study the issue as a regular and normal human phenomenon from both the perspectives, i.e personal and institutional finance.

Some Definitions of Financial Literacy

Financial literacy is the ability to make informed judgments and effective decisions in money management. Such literacy develops partly through financial experience. NRB (2011a) mentions the financial literacy as an inherent part of people’s lives. There are several defining practices of financial literacy by individuals and institutions. Such definitions have captured separate aspects of financial literacy. OECD (2005a) presents four major elements in financial literacy: an individual financial concern, a financial understanding, a skill and confidence to recognize personal financial risks and financial well-being. But the definition lacks the financial attitude and behavior, which is the effect or outcome of financial knowledge and skill. Atkinson and Messy (2012) mention four dimensions in financial literacy, i.e. knowledge, skill, attitude and behavior. Similarly, Program for International Student Assessment [PISA] (2012) focuses on the contextual nature of financial literacy and application of the financial knowledge into practice. Lusardi (2015) presents financial literacy as a key skill to handle the financial scenario. Huston (2012) links financial literacy with the stock of human capital, where the human capital is a set of financial knowledge and skills. Such knowledge and skills make human a capital.

Similarly, Remund (2010) divides financial literacy into operational and conceptual definition, where the conceptual definition focuses on understanding the financial matters and the operational definition on behavioral and ability aspect of financial elements. The conceptual definition is more common for different areas. However, the operational definition is required to be contextualized in Nepali financial environment as well. From the point of view of financial ability and confidence, Consumer Financial Protection Bureau [CFPB] (2014) states that financial literacy and capability include knowledge, skill and behavior in financial matters. It implies that financial literacy and capability are also used interchangeably. OECD (2012) adds understanding of the financial risk and motivation in financial behavior. But, what sorts of financial risk the people have to face in their daily financial activities is still not explained. Similarly, the World Bank (2012) states financial literacy as an ability to manage personal finance, control the finance, make future financial plan and select appropriate financial products and services. Control of personal finance is an additional skill of managing the personal financial resources in more yielding areas than some unproductive and less utility areas.

Further, Buckland (2010) divides financial literacy into narrow and broader senses, where the narrow sense presents financial consumers as passive individuals who only act according to their knowledge and skill on financial matters. In broader sense, the financial consumers are active economic citizens who understand the financial system from broader perspectives and can analyze and evaluate the financial phenomenon critically. However, the first definition is applied for common individuals; the second demands a developed financial market situation, improved education of persons and a sound economic condition within the country. Moreover, Xu and Zia (2012) define financial literacy as a set of financial awareness and knowledge of financial product, institutions and concepts, financial skill of numeracy, and financial capability of making financial planning. Financial planning is also a part of the financial skill of individuals in balancing limited income and expenditures.

As can be inferred from the above definitions, financial literacy revolves around money, knowledge and application of personal financial matters, ability of controlling personal finance, decision making and being an active and critical economic citizen. All of these definitions have more similarities and fewer differences. The differences are based on contexts, objectives and timing of defining financial literacy. Some of the definitions follow rule of thumb (Ritter, 2003); however financial literacy is a contextual, relative, dynamic and multi-faceted concept of personal finance. Similarly, it is also difficult to develop any concept and definition of financial literacy that is ‘one-size-fits-all'. The financial history, priority and financial culture may differentiate the understanding and financial behavior that makes the issue uncommon and dynamic. However, with financial knowledge and skill as prime factors of financial literacy, the financial attitude and behavior are the outcome factor rather describing all the four variables into a single basket.

A Picture of Nepali Banking Sector

On the basis of above understandings on financial matters, this section presents the concepts of financial knowledge and skill as the important aspects in the financial ecosystem. There are major three stakeholders in the financial sector or ecosystem such as financial service suppliers, service consumers and the regulator. Any changes in position of one of the stakeholders have effects to another. Therefore, the proliferation of the service suppliers also increases the pace of financial education to their financial consumers. Banking sector is one of the significant money business sectors within financial sector for managing peoples' money. The knowledge and skill of money management gives rise to money businesses in the financial sector.

In Nepali financial sector, there are banking sector and some additional financial businesses such as insurance, cooperatives, Citizen Investment Trust, Employees Provident Fund, Postal Saving Bank etc. Banking sector consists of banks and financial institutions. Nepali banking market is growing rapidly for the last eight decades, since the market has a short history. Such a proliferation shows a quantitative growth of financial service supply that assures an increasing access of people in formal financial services. A comparative growth of financial sector is presented in the annexure II, Table 1.

The table shows 147 banks and financial institutions in the financial market. The market includes commercial banks, development banks, finance companies and micro-finance development banks categorized as class A, B, C and D. All of the institutions are regulated and supervised by the Nepal Rastra Bank. There were only three such institutions before the financial liberalization era, i.e. 1980s. Three commercial banks were licensed during 1980s. Other institutions were the outcome of rapid financial liberalization of 1990s. Recently, the banking sector of Nepal has entered in the phase of financial consolidation. Similarly, the priority of expanding the access to finance and financial inclusion have been given by the economy for inclusive growth and development.

Moreover, the cooperative sector is next significant money business market in Nepal. Cooperatives are the member-based financial business, whereas the other banking business is a non-member financial business. As of December 2017, the number of cooperative institutions in Nepal has been reached to 34,500 among which 13,500 are the saving and credit cooperatives. Others are subjective cooperatives such as multi-purpose, agricultural and ones related to fruits, vegetables, etc. The total stake of the cooperative sector in financial sector is around 15 percent, the members of those institutions have reached 7 million. The Government of Nepal is the registrar, regulator and supervisor of such cooperative. Therefore, the tremendous growth of the financial market has supplied its financial services around the urban and semi-urban areas of the country.

There are other types of financial intermediations such as financial non-governmental organizations and some semi-financial entities. All of the financial service suppliers do the similar functions in the same market. The service outlets, number of borrowers, shareholders and depositors have increased. The deposit and credit amounts have also increased. But all of these endeavors are limited among existing and limited financial customers that also within urban and semi-urban areas of the country. Chaulagain (2015b) finds that the expansion of financial services in Nepal is limited in urban and urban centric areas.

Despite the several supply sided financial endeavors, the Ministry of Finance [MoF] (2015) reports that only 40 percent people are getting the financial services from financial market, which implies that there is a wide gap between the service supplied and effective consumption of financial services by all segments of people. For increase in effective demand and consumption of the financial services, people are required to be informed of their financial rights and financial consequences of financial transactions. Making the people financially aware and capable is under the scope of financial literacy of financial service consumers.

Therefore, the financial demand and supply are two sides of the financial landscape. Establishment of financial intermediaries and financial education/literacy plays the roles of financial supply and demand, respectively. The data, as shown in the table 1, shows the expansion of financial services but the quality financial services and majority people are out of this process. Similarly, such gap between financial supply and demand questions the sustainability of financial services uses. The implication of the situation is that people are necessary to educate in financial matters.

Statement of the Problem

In 21st century, access to finance, financial inclusion and financial mainstreaming are the human rights of everyone. These rights are more precise for women, marginalized, poor, deprived, conflict victims, and minority people, who are excluded in the financial landscape. Financial literacy connects those rights and prioritized people. Hence, financial literacy is a global, local, and individual concern in every place and every time. NRB (2012) highlights that the preference of financial literacy should go to the people for those who are excluded from financial mainstream. Despite proliferation of financial market and institutions, a larger segment of people are still excluded from the financial mainstream in Nepal. Along with the endeavor of around eight decades of banking history in Nepal, MoF (2015) reports sixty percent of the people out of formal financial mainstream services. This shows that supply focused endeavors alone are insufficient to increase the access and retention of the people in financial services.

In the same line, OECD (2005a) reports the poor situation of financial knowledge, skill, attitude and behavior of rural people, lower financial literacy of underserved, unbanked or under-banked, financially marginalized, disadvantaged, vulnerable, low income, ethnic minorities, and indigenous consumers and prioritizes making the deprived and low income people financially literate. "Around 3.5 billion adults globally, most of them from developing economies, lack an understanding of basic financial concepts" (Klapper, Lusardi & Oudheusden, 2014). From the development point of view, monetary policy of NRB (2015b) mentions that without uplifting low income people in financial mainstream, national development is impossible. Zia and Xu (2012) believe that there is a lower level of financial literacy of women than the men almost everywhere.

Moreover, people exhibit financial ignorance and confusions of financial market, services and their financial interests. The MoF (2016) mentions that there is a wider gap between financial supply of the services and its effective demand due to poor financial literacy of financial services among the people. Therefore, financial literacy, attitude and behavior are also reflect personal features of people in general, and of small borrowers in particular. Moreover, financial knowledge (Clark, Lusardi & Mitchel, 2015), financial skill (Wagner, 2015), and financial attitude (Robbins & Judge, 2013) of the individuals are responsible to exhibit good or poor financial behavior. Strong and/or poor relationships of financial literacy and exhibition of the financial behavior have multiple implications for the individuals, institutions and the financial system.

Klapper, Lusardi and Oudheusden (2014) report that only 18 percent of Nepali youth are financially illiterate, most of whom are low-income and marginalized. The report questions whether the situation is as poor as what has been presented in Nepal. Similarly, the MoF (2015) reports that only forty percent of Nepali people have access to formal financial settings. In this, Chaulagain (2015b) argues that financial illiteracy is a prime factor for poor financial access of Nepali people. It makes a sense that financial access and literacy are interlinked where poor financial access is backed up by low degree of financial literacy. Due to lack of knowledge and skill of borrowing, people go into multiple financing (e.g. NRB, 2013; NRB, 2014), unnecessary credit and credit duplication, as claimed by Sharma (2012) and therefore go into ‘credit quicksand’.

Often, people make ad hoc financial decisions and display poor financial behaviors such as difficulty in managing expenditure, aimless borrowing and its misuse, borrowing without proper business plan and repayment capacity, emotional investment (e.g. Lawless, 2010), overconfidence (e.g. Monticone, 2011) in financial decision making, inadequate degree of investment diversifications (e.g. Lawless, 2010), poor old-age financial plan, etc. Bashir, Arshad, Nazir and Afzal (2013) opine that people do not know about saving and saving institutions but they still are saving in practice. However, people from heterogeneous personal characters may have different situation of financial literacy, attitude and behavior; Govindarajan (2016) argues that there are different findings in different studies. There are some behavioral lapses people exhibit in their financial behavior such that they ignore the price comparison and give lower priority to negotiations. There is no study yet on why people demonstrate their respective financial behavior despite huge interventions on improving financial literacy of the people.

Similarly, there is a need of connecting financial literacy, attitude and behavior with the behavioral and cognitive theories. The reason behind the search of such theoretical lens is to develop a discussion whether established theories may explain the financial behavior or to search a new theory in the financial case. Both of the theories disseminate the concept of general behavior of the individuals, but it is necessary to check whether the theories work in financial attitude and behavior or not in the Nepali context. However, there might be other behavioral theories, these two helps explain the human behavior including financial behavior from separate perspectives.

All the above mentioned problems raise a question whether the situation of financial literacy in Nepali minorities, women and low income people also follow the same situation or there may be a different picture. Similarly, among the contradictory findings of previous studies that there is or is not significant relationship of financial literacy among demographic variables. There is another question why the situation of financial literacy of those Nepali people is similar or dissimilar with that shown in other studies. Despite the above-mentioned studies on financial literacy, attitude and behavior with reference to their demographic variables, the influence of financial literacy to behavior and the influence of financial attitude to behavior are doubtful.

Moreover, there is another and important financial avenue as personal and non-institutional financial spectrum close to human financial activities, which is, often, less prioritized and less highlighted. Such avenue of finance is beyond formal financial setting, for example, purchasing, selling, etc. People are doing both personal and institutional financial practices. In this, it is also necessary to compare and evaluate the existing financial policies and practices, which are more focusing the institutional finance. On the above ground, the following purpose and therefore the objectives are developed.

Research Purpose

The study aims to measure three aspects of financial literacy: level, associations and probabilistic contribution. The aspects are: first, level of financial literacy; second, relationship between financial literacy, demographic variables, financial attitude and behavior and; third, the contribution of financial literacy on personal and institutional financial attitude and behavior. The following research questions specify and support the solid purposes of this study.

Research Questions

To achieve the purpose of the study, the following research questions are developed.

a) What is the level of financial literacy of small borrowers in Nepal?

b) What relationships do exist between the demographic variables (age, sex, ethnicity, occupation, religion, language, income level, education and marital status) and financial literacy of the small borrowers in Nepal?

c) What relationships do exist between financial literacy and attitude, between financial literacy and behavior and between financial attitude and behavior of small borrowers in Nepal?

d) To what degree and extent does financial literacy of small borrowers of Nepal contribute to their personal financial attitude compare to institutional financial attitude, and to their personal financial behavior compare to institutional financial behavior?

e) To what degree and extent does personal financial attitude of small borrowers of Nepal contribute to their personal financial behavior compare to institutional financial behavior, and institutional financial attitude to personal financial behavior compare to institutional financial behavior?

To achieve the objectives in this study, the following hypotheses were developed.

Hypotheses of the Study

In this study, the following two alternative hypotheses (H_1) were planned to answer the second and third research questions. The hypotheses were developed on the basis of the review of literature and behavioral theories.

H (1): There is relationship between financial literacy and demographic variables such as age (Oseifuah & Gyekye, 2014), sex (Lusardi, 2015), marital status (Rasoaisi & Kalebe, 2015), income level (Xu & Zia, 2012), religion (Agarwalla, Barua, Jacob & Varma, 2015), language, occupation (Murphy, 2013), ethnicity (Kempson, Perotti & Scott, 2013) and education (Scheresberg, 2013).

H (2): There is relationship between financial literacy, attitude and behavior (e.g. Horwitz, 2015; Robbins & Judge, 2013).

To measure the contribution, financial attitude and behavior were divided into personal/institutional financial attitude and personal/institutional financial behavior. Similarly, to measure the contribution, following alternative hypotheses were developed. These hypotheses were related to the fourth and fifth research questions.

H (1): Improved financial literacy of small borrowers is more likely to exhibit positive personal/institutional financial attitude and good personal/institutional financial behavior.

H (2): Positive personal and institutional financial attitude of small borrowers is more likely to exhibit good personal and institutional financial behavior

Rationale and Significance of the Study

This section presents rationale, and significance of the study. There are two-fold rationales of the study, i.e. micro and macro. In micro sense, the study raises the issue of money management, which is related to personal finance, empowering the individuals (Kempson, Perotti & Scot, 2013) from human capital perspective (Lusardi and Mitchel, 2014). In macro sense, financial literacy has implications for development and poverty reduction. Financial literacy contributes in individuals, and social transformation (Nawaz, 2015) and thereby the national development. Financial inclusion, social transformation in making economic society, access to finance, financial stability, and inclusive growth are some of the paths to achieve national development from financing perspective.

Pinto and Coulson, (2011) argue that financially literate persons can understand the general financial system in the beginning stage, are aware of social financial inequality, opportunities and diagnose the reasons for financial marginalization. Such financial perspectives of them can help find the financial remedies. For example, general understanding of financial services available to locale can help them supply the cheaper fund for the business they want to do. Sucuahi (2013) highlights financial literacy as a personal financial matter useful for everyone, particularly for those who are engaged in any entrepreneurship. Financial literacy skill is important to maintain transaction record, to calculate cost, revenue, income and loss, and to make projection of sales and profits.

In the same line, NRB (2012) connects financial literacy with financial inclusion of marginalized, ethnic backwards, ethnic minorities (Sabri, 2011), women, conflict victims, and the deprived and poor (Robson, 2012) in the financial mainstream. Similarly, consumer protection is a significant role of financial literacy. One of the protective measures for all the consumers, financial education is highly gendered, racialized and based on socio-economic class. “Financial education programs aim to target women, low-earners, and ethnic minority groups” (Zokaityte, 2016, p. 32). Moreover, Huston (2012) opines that for developing humans as capital, financial literacy is essentially considered. However, Rooij, Lusardi and Alessie (2011) found that financial literacy has implication in wealth accumulation, retirement planning and saving mobilization of people. OECD (2012b) uncovers that poor financial literacy of the consumers is one of the significant reasons of world financial crisis. It implies that improved financial literacy helps to control the financial crisis.

OECD (2014) highlights the importance of financial literacy in two respects. First, it provides awareness of the complexity of financial products and markets, and minimizing the financial risk that may prevail in regular financial activities. Similarly, Disney, Gathergood, and Weber (2014) argue that financial literacy can help in promoting financial independency of individuals. “Financial illiteracy can render households vulnerable to unfair and abusive practices by financial institutions and to financial frauds and scams” (Lukonga, 2015, p.6).

In macro sense, the issue is more concerned with financial inclusion, access to finance and policy implication. Gupta and Kaur (2014) argue that financial literacy has the policy implication of every nation. Moreover, Hogarth (2006) argues that financial literacy has also externality features, which is to say it is important for the communities and societies. Therefore, the value of financial literacy is higher in underdeveloped countries like Nepal. “Enhancing financial literacy is even more essential in developing countries with low levels of formal education” (Mireku, 2015, p.6). Klapper, Lusardi and Panos (2012) opine that financial literacy has macroeconomic contribution such as financial stability. However financial stability has development implication as well. Rooij, Lusardi and Alessie (2011) argue that financial literacy helps to lower information cost and decreases barriers of participating in financial market.

To sum up, the importance of financial literacy is difficult to list out within limited space of writing. It means that it is the part of day to day practice of every person. Managing personal finance by each individual is the core scope of the issue and is affected by personal, social, national, political, technological and economic factors. However, Nalini (2011) argues that financial literacy is important for all the people. The study is also significant in showing how to explore the matter, what the state of financial knowledge and skill of the people is and how to systematize the issue through definite policies. Particulalry, financial literacy is micro-economic or micro-financial concern.

Assumptions of the Study

The following assumptions are developed to satisfy the data analysis and validate the findings of this study. These assumptions also help in tracking the study.

- ❖ Small borrowers are assumed as small entrepreneurs as well because they borrow for local and small business that uses local financial resources, technology and skill.
- ❖ The participants, who have responded the survey questions, have provided the correct and honest answers as their understanding and conscience.

- As Worthington (2013) suggests, the responses on financial knowledge, skill, attitude and behavior of the participants are based on their self-reporting.
- Jang, Hahn & Park (2014) opine that financial literacy of the participants is a sum of correct responses of financial knowledge and financial skill questions.
- Financial knowledge and financial skill questions are of binary option:– one is coded for each correct response and zero for incorrect and don't know responses.
- Financial attitude of participants is measured in three-point Likert scales where the scale is assumed an ordinal scale.
- As Chaulagain (2015a) suggests, financial behavior of participants is categorized into good, moderate and poor.
- There are some contexts, time lags and assumptions to satisfy while financial education can give rise to financial literacy, literacy helps by promoting financial attitude, attitude can contribute in financial behavior and behavior can contribute in promoting financial well-being of the small borrowers.
- The small borrowers of the cooperatives have the similar financial and social features as the other small borrowers of the financial institutions in the country.

Delimitations of the Study

The following delimitations are set to conduct the research, to analyze the data and to discuss the findings.

Dimensions of financial literacy: There are five common dimensions of financial literacy around the world; financial education, literacy, attitude, behavior and well-being. In this study, three dimensions of financial literacy are discussed and considered for measurement except financial education and well-being. Financial education and well-being are considered on the basis of literature review.

Items: Items are expressed in different ways. Sometimes the items are treated as the contents of the study. It follows what contents are used in the study, whereas there may or may not be more than the contents used outside the study. Metsamuuronen (2002) has explained items as mode of inquiry, i.e. subjective or assay and objective. He has categorized the objective type of items into short answer, binary option and multiple option questions. I have developed the items as measurable elements of my issue of the study. These are collected from several literatures, grounded theorizing process, and panel discussion of the experts. The selected items, which are sixty in total number, are also rated from the experts of the related field. However, there might be some important items of the financial literacy out of my study. From the item selection process, 60 items are limitations of the study.

NRB Licensed Cooperatives and Small Borrowers: The cooperative societies in Nepal are the primary institutions to conduct the saving and credit transactions among the members. There are more than thirty four thousand cooperatives in Nepal, out of which 15 are licensed by the Nepal Rastra Bank. I have selected the cooperatives within province number three as the sources of small borrowers, which are 6 in number. The small borrowers from the six cooperatives are the population for this study.

Personal/Institutional financial aspects: Financial matters are not recent phenomena. There are several traditional and conventional ways of understanding and managing money which also induce the people for better financial behavior. Due to development of financial technology, increased pace of income and employment of the people, increasing financial insecurities and increased financial services and market the space of the institutional financial activities are emerging as challenges. Therefore, this study follows the limited personal and banking and institutional financial matters, market and patterns. However, there may be several other local ways of money management that also have the implications for behavior and well-being.

Meaning of Some Key Terminologies

The meaning of the key terminologies used in this study are as follow. However the meanings may be defined otherwise according to the place and context.

Small borrowers: Those members of the cooperatives who have borrowed up to Nepali Rupees (NPR) 0.5 million at a time. The credit ceiling is determined by the monetary policy of the NRB 2015.

Cooperatives: One of the micro-financial institutions established according to the Cooperatives Act 1990. This Act is now, replaced by Cooperatives Act 2017.

Province Number Three: One of the seven provinces of Nepal.

Financial literacy: Sum of correct responses on the questions about financial knowledge and skills. It’s a degree of financial skills and knowledge.

Financial education: One of the major sources of inputs for financial literacy.

Financial knowledge: Understanding, awareness and information of people in financial matters: it includes both the inherent knowledge and ascribed knowledge.

Financial skill: Minimum ability of people in numeracy, decision making, financial planning, controlling, recording, budgeting, reading and writing financial documents such as voucher, cheque, loan deed, signing the documents, etc.

Financial attitude: Perception, beliefs, cognitive evaluation, and opinion of people towards financial matters and financial market. For this study, those who agree to the statements show a positive attitude and vice-versa when the statements carry a positive notion. The neutral stance they show means they have indifferent attitude.

Financial behavior: Financial activities of people where the money is used as means. For this study, the first-order option on each financial behavioral question denotes good behavior, second order moderate and third order poor financial behavior.

Financial well-being: Financial prosperity of individuals consists of financial satisfaction, decision making, necessary capabilities, autonomy and self-sufficiency

Saving: The amount saved in any formal financial intermediaries for interest-earning and security purpose with particular maturity period. Vij and Nair (2013) defines savings as a surplus income after expenses.

Loan/debt: The amount borrowed from formal financial intermediaries with particular rate of interest with maturity period for further income generation purpose. Vij and Nair (2013) defines credit as borrowing to fulfill the shortage of money to spend or invest.

Interest rate: The additional rate levied in principal amount of credit and provided in principal amount of saving. In return for providing you with financing to purchase a home, automobile, or other asset, banks and other lenders are compensated by charging you interest on your loan (Lawless, 2010, p.111). It is the rate lenders charge you for using their money (Tyson, 2010, p.429).

Share dividend: The dividend is the part of corporate income paid to investors holding an investment; for stock, the dividend is a portion of a company's profits paid to its shareholders (Tyson, 2010, p.426).

Gain tax: The gain tax is levied according to the law in capital gain in the institutions, especially for those who earn interest from saving and dividend from share investment in that institution. Lawless (2010) argues that every people has to pay tax on their income or the amount they earn from any investments.

Penal Interest: An additional rate of amount levied to late payers of credit instalment.

Organization of the Thesis

This thesis includes altogether six chapters excluding preliminaries and supplements. The preliminaries include title page, approval sheet, acknowledgement, dedication, declaration page, table of contents, list of tables, list of fugures, and list of abbreviations. Similarly, the supplements include a list of references and list of annexes. Preliminaries and supplements are the mechanical chapters. The main thesis text is organized as follows:

Chapter one: The first chapter includes the mechanical contents such as introduction, a picture of Nepali banking system, statement of the problem, purpose and research questions, hypotheses, rationale and importance of the study. This chapter helps readers preview the purpose and content of the thesis.

Chapter two: The second chapter presents a review of literature, which also concerns about what the thesis revolves around and why. The chapter starts from discussing economics, finance, education, literacy, etc. It further presents general dimensions of financial literacy such as financial knowledge, skill, attitude, behavior and well-being.

Similarly, some of the linkages of financial literacy such as consumer protection, access to finance, financial inclusion, entrepreneurship development, development contribution of financial literacy, theoretical framework, review of some empirical studies, and conceptual framework of the study are presented.

Chapter three: The third chapter presents the readers how the study is conducted. The chapter includes some of the mechanical parts of the thesis such as research philosophy, methods of data collection, presentation, analysis and generating the findings. The chapter also presents the ethical standard followed in this research. Altogether, the initial three chapters describe the take-off stage of this study. Such preparation makes the readers aware about the study: what, why and how.

Chapter four: The fourth chapter presents core part of the study, which helps to answer research questions in particular. In this chapter, descriptive and inferential statistics are applied to analyze the data as per the need of the research questions. This chapter discusses the findings of the research questions.

Chapter five: The fifth chapter presents summary and the discussion on findings of the study. The discussion is based on the findings, comparison and contrast with the previous studies and meaning making for general people.

Chapter Six: The sixth chapter concludes and provides some implications and provides some spaces for the future study on the financial literacy.

CHAPTER II

REVIEW OF LITERATURE

This chapter critically reviews the established knowledge on financial literacy of several studies from several aspects. This chapter also explores the themes, empirical studies, methodologies and policy documents around the subject of financial literacy. Economics and finance have close relationship to each other. In economics, the behavioral economics is a subject of personal financial understanding and behavior.

Behavioral Economics and Finance

Sometimes, setting a boundary between behavioral economics and finance is difficult. Behavioral economics is about how and why the people manage money i.e. income, personal financial resources and its better utilization. Ricciardi and Simon (2000) opine that behavioral economics is the foundation of behavioral finance. “Moreover, behavioral finance is an extension of behavioral economics, which uses psychological insights to inform economic theory” (Benartzi, 2010). Similarly, Australian Securities and Investments Commission [ASIC] (2011) mentions that behavioral economics and behavioral finance have similar sense in many cases. However, these two domains are complimentary to each other. Behavioral finance is the specific content of economics, and i.e. economics underpins finance. Behavioral economics and finance have close connections with household finance, whereas household finance concerns about how to manage the family economically. Household finance concerns about how to obtain more satisfaction or utility with limited financial resources. In household finance, individuals try to balance income, borrowing, expenditure and saving.

Similarly, Pompian (2006) presents behavioral economics, behavioral finance and behavioral science as synonymous, where behavioral finance is application of psychology to finance. He distinguishes behavioral finance in micro sense, which depends upon rationality feature of individuals, and in macro sense of market efficiency. Market efficiency is a common and wise productivity or effectiveness of financial resources in aggregate financial market. But, Shefrin and Statman (2011) criticize behavioral finance on the ground of market efficiency hypothesis. They further argue that the market is not efficient to ensure people's rational behavior regarding finance. The idea of market efficiency projects a belief in normality of institutional and individual behaviors in the market. Market efficiency is the state of mobilizing the available financial resources in efficient or equitable manner. Therefore, behavioral finance is also the source of a rational financial behavior.

On the same ground, Zokaityte (2016) argues that behavioral economics helps one to understand an irrational money management of households and financial firms. The irrational money management is regarded as the application of money and financial resources in unproductive and less preferable sectors. But, Bloomfield (2006) presents behavioral finance as a controversial issue; however the reason behind its being controversial is not mentioned. Thus, there is close connection between behavioral economics and finance. Sometimes these are inseparable from each other, and are also close to personal finance.

Personal Finance and Financial Literacy

Personal finance is a derivation of behavioral finance. Sometimes, personal finance and financial literacy are also used synonymously, but these are not the same.

Financial literacy is termed as a set of knowledge and skills in managing financial matters, whereas personal finance is a subject about managing personal financial resources, i.e. income and borrowing. In this, Mireku (2015) concludes that financial literacy is close to personal finance. Personal finance deals with how persons utilize available personal financial resources, i.e. income and borrowing in maximizing financial benefits of individuals, whereas financial literacy deals with consciousness and capability of the individuals in managing the financial resources.

Mireku (2015) has the similar opinion on financial literacy as personal finance which relates to measuring the understanding level of financial matters and finding how the understanding affects person's financial behavior. Jang, Hahn and Park (2014) elaborate financial literacy as the ability to understand and make financial decisions on personal finance. The above opinions and arguments show that, financial literacy and personal finance have close relationship. "Personal finance is an interdisciplinary subject and derives its context from subjects such as family studies, economics, psychology, and sociology" (Jariwala, 2013, p.82). Therefore, both financial literacy and personal finance are the issues of managing money. While managing personal finance or managing money, wisdom about money plays a vital role. Wisdom of money management is also termed as rational behavior in finance.

Rationality and Financial Behavior

Personal finance and financial behavior are closely linked with rationality. A rational person always seeks high return with a low cost, and prefers low price than high, the utility from consumption and investments remaining the same. Rationality is a classical concept of economics about consistent behavior of individuals in utilizing money in day to day activities. Rationality is about more and better possible gain with less possible sacrifice. Sometimes it focuses scarcity and choice. This section deals with describing the contribution of rationality in personal financial activities. Rooij (2008) articulates rationality as an act of collecting, processing and analyzing financial information while making financial investment and doing other regular financial activities. In this, Jurevicienel and Ivanova (2013) state the rationality of financial consumers as decision making on the basis of perfect information of the services they consume. The concept stands on consciousness on behavioral finance.

Sometimes, rational decision making, self-interest and perfect information are necessary but not sufficient to ensure financial behavior of an individual. Most of the people behave in-between complete rationality and irrationality. Moreover, in imperfect market situation like today's, perfect information about products and market players is also merely an ideal situation, in which rationality in financial behavior is doubtful. In this, Pompion (2006) highlights bounded rationality in place of a complete rational financial behavior of people. In bounded rationality, in his opinion, people's rational behavior is bounded by his/her knowledge and cognitive capacity. In practice, knowledge and skill are necessary but not sufficient and the economic capacity and market opportunity also affect one's rational financial behavior. In this connection, Mouna and Anis (2015) reject the absolute rationality of financial consumers in financial decision making. In such, relative rationality may include basic needs, poor income situation, availability of goods and services in the market, future expectations and uncertainties etc.

Moreover, Lusardi and Mitchell (2014) argue that conventional micro economics of rational equilibrium between consumption and saving has been changed. They further claim that the notion of conventional economics of priority of saving than consumption of aggregate income in prior period of time has been changed with other factors such as consumption preference, economic environment and life safety benefits. However, since financial literacy is an educational issue, reviewing the literacy concepts is appropriate. In this study, the financial behavior reported by the participants as their own convictions, judgment and understanding are explained as the rational and others as the under-rational financial behavior. Synonymously, the under-rational behaviors are also understood as the bounded rationality. Literacy of the individuals may also affect how far their behaviors are rational and irrational.

Contemporary Literacy Concepts

Reviewing the literacy concept is relevant because finance and literacy are inter-dependent. In this section, some traditional and emerging concepts of literacy are reviewed which have close linkage to finance. The traditional concept of literacy stands on the ability to read and write the things the people desire. Additionally, two aspects of literacy are discussed in this study, i.e. functional and critical, however there may be the other aspects as well. Both of them are the extension of simple reading and writing ability, and not absolutely new paradigm of literacy. United Nations Educational Scientific and Cultural Organization [UNESCO] (2011) states that literacy is a necessary and important aspect of education. Therefore, the literacy is under the umbrella of education. Wallendorf (2001) takes the literacy as a skill, but in practice, it is both skill and knowledge.

In functional approach, literacy is focused on what ingredients are required in human life. Therefore, the concept of functional literacy is dynamic, contextual, and relative. The functional approach rejects the literacy as a mere existence of conventional ability of 3 Rs, i.e. reading, writing and numeracy. “When classic definitions of literacy as the ability to read and write are extended to health, civil society, and, more recently, to things financial, we see how much society values knowledge and information sharing” (English, MacAulay & Mahaffey, 2012, p.17). It implies that the traditional concept of literacy has been widened towards knowledge, information sharing and idea generation on events. Adkins and Ozanne (2005) add marginal literacy to functional literacy. They use the concept of marginal literacy in knowledge and skill of consumption, where the literate consumers are able to understand the quality of consumption and simply can make decision on consumption. As an emerging concept, UNESCO (2011) mentions that literacy is to link with personal well-being, satisfaction and independence, and social welfare. Therefore, the literacy is a life-long endeavor for everyone.

Individuals need several types of knowledge and capability in their lives from the functioning aspect. Some of the aspects are socio-economic, environmental, health and sanitation, housing and safety, information and communication technology, trade and tourism, entrepreneurship, political affairs, foreign affairs, money and finance, etc. Such knowledge and abilities are enveloped in functional literacy and capability. Wagley and Lamichhane (2010) argue that every aspect of literacy skill that is important for everyone in everyday lives falls under functional literacy. Similarly, Bhola (1995) presents the concept of literacy as functional approach that revolves around economy, politics and culture. He further questions about the functionality concepts of literacy to emphasize in contemporary socio-economic setting. However, his focus of functional literacy as work-based literacy is sometimes inadequate because, not all knowledge and awareness of the person are practically applicable in the short run.

Literacy, as understood and described as knowledge and skill of persons, comes from education, experience and observation as output factors. In this connection, Parajuli (2014) denies the adequacy of the 3-Rs of reading, writing and numeracy, which often comes from formal setting of education and argues that a person needs multiple forms of knowledge and literacy in life. He further opines that every aspect of traditional knowledge and practice is parts of education, which are closely linked with human civilization process. In this connection, being financially informed and capable to take better financial decision is a growing concern for every individual from the functional literacy perspective. Therefore, as a functional literacy concept, financial education decreases the cost of life of every people, particularly of the low-income, marginalized, deprived and excluded from mainstream.

From the critical perspective, literacy rejects the reproduction of knowledge and the status quo type of learning approach. The learning is necessarily localized, contextual, transformative and creative, which prioritizes a local need. Gregory and Cahill (2009) opine literacy as a tool of raising the voice of marginalized and excluded segment of people in the societies. From the critical perspective, this study follows concepts on personal financial literacy. However, there is a dramatic change in banking technologies, financial services and rights of financial consumers in the global financial spectrum. So, it is necessary for the people to be conscious of institutional financial activities. They should also play the role of an economic citizen, be critical to the financial services they are getting and search for new financial structures that can serve more people inclusively and bring them in the financial mainstream.

Financial Education and Literacy

Drawing a line of demarcation between financial education and literacy is relevant. These are similar but not the same concepts. This section deals with introduction, comparison, and draws distinction between financial education and literacy. Financial education has two linkages, i.e. forward and backward. The backward linkage is about several educational learning sources such as schools, media, family, colleagues, communities, research and sometimes, self-experiences. Some of its forward linkage is financial knowledge and skill in financial matters. Horwitz (2015) asserts that financial education is the source of financial literacy. Zadeh and Dahmardeh (2013) also opine that financial education and financial literacy are interchangeably used. In fact, literacy and education are similar, but these are not substitutes of each other. Financial education helps in making the people financially literate, where knowledge is the part of literacy. However, there are several other sources of financial literacy rather than education, such as experience, mass media, family and colleagues.

Similarly, OECD (2014) mentions financial education as a demand-side initiative in promoting financial development. It has two implications. First, the education helps in inducing effective demand of services and also financial education has development contribution in any country. Moreover, CFPB (2014) mentions that financial literacy and financial capability are similar concepts that contain financial knowledge, skill and action or behavior. Additionally, Russia Trust Fund [RTF] (2013) mentions that financial education contributes to empowering the women. However, financial education may not change the situation at all. Bolanos (2012) opines that financial education is one of the sources of human capital. Human capital is one of the resources that determine productivity. Knowledge and skill are vital ingredients of human capital. But, Durband and Britt (2012) argue that the goal of financial education goes beyond financial literacy. However, they fail to mention what lies beyond the goals of financial education.

Key Dimensions of Financial Literacy

Dimensions are considered as the broad categories and perspectives of the issue of the study under consideration. This section presents the common dimensions of financial literacy like financial knowledge, skill, attitude, behavior and well-being, but while measuring, first four dimensions are considered. Atkinson and Messy (2012) state that financial knowledge, skill, attitude and behavior are major dimensions of the financial literacy. Financial knowledge is one of the beginning dimensions.

Financial Knowledge

Financial knowledge has significant stake to explain financial literacy. Potrich, Vieira and Kirch (2015) describe financial literacy and knowledge as synonymous. But, financial knowledge is an integral dimension of, but not equivalent to, financial literacy (Huston, 2010, p.307). Bolanos (2012) also argues that financial knowledge is an important dimension of financial literacy. These opinions show that financial education, knowledge and literacy are similar concepts to some extent. Sources of knowledge are intrinsic and extrinsic. Some sources of extrinsic knowledge are observation, audio-visual, own experience, listening, reading and research. Babbie (2011) opines that some of the sources of knowledge are personal experience and self-observation.

Similarly, Shim, Barber, Card, Xiao and Serido (2009) find that financial knowledge has significant contribution to the financial behavior of a person. But, Collin (2010) argues that knowledge only is inadequate to change one's behavior. In this connection, Chaulagain (2015a) presents financial knowledge as a first dimension in financial literacy that is contributed by financial education. Pamarthy (2012) argues that most of the personal financial problems are caused by deprivation of financial knowledge. Knowledge is the prime factor to solve the financial problems of persons. Oanea and Dornean (2012) define financial knowledge as theoretical definition of financial literacy. They further categorize the definition of financial literacy as awareness. However, financial awareness is only a part of financial knowledge.

Montincoe (2010) argues that financial behavior also can affect the financial knowledge. Sometimes, the financial experience can educate the people about right and wrong financial activities. However, it is difficult to claim the degree of the reciprocal relationship between financial knowledge and experiences. Ansong and Gyensare (2012) argue that the environment, family education, and educational level affect the financial knowledge of a person. Agarwalla, Barua, Jacob and Varma (2015) prescribe a scale of high, average and poor level of financial knowledge while measuring it. There are others scales, such as binary or true/false or right/wrong responses that could better represent the quantitative measurement of financial knowledge. But, OECD (2012b) rejects reproduction of financial knowledge, which means that financial knowledge helps in creating a new and expanded concept and practice in financial matters. Financial knowledge and skill are complementary to each other. Sometimes, financial knowledge is one of the sources of financial management skills.

Financial Management Skill

Managing money is more difficult than making or earning money. A financially skilled person makes more money by managing how much s/he has. Such skill of money management is alternatively known as financial skill. Earl, Gerrans, Asher and Woodside (2015) take financial management as a cognitive function. There is very thin boarder between financial literacy and skills. Mireku (2015) argues that financial literacy and skill are used synonymously, which contribute to financial attitude. Relatively, measurement of financial skill is more difficult than understanding and the describing it. Normally, skills possessed by the individuals are observed and self-reported.

Skill is alternatively used as literacy, ability, competency, capability, and proficiency of the individuals in working and decision making. Ozdemir, Temizel, Sonmez and Fikret (2015) present financial literacy as synonymous to financial skill, where the skill involves the ability of money management, identifying and diversifying the financial risk, making financial plan and getting financial information. Skill is very close to the behavior, and the skill which is not practiced is worthless. OECD/Statistics Canada (2011) classifies skill into four types such as prose literacy, document literacy, numeracy and problem solving. However, such skills are more practiced and measured by educated people only.

Generally, financial skill contains financial numeracy, making financial plan for business, making retirement plan, budgeting, record keeping of regular personal transactions and decision making in the basic level. Remund (2010) opines that without financial skill and ability, mere knowledge does not work in a person’s life. It shows that the skill is equally important as knowledge. President’s Advisory Council on Financial

Literacy (2008) mentions budgeting, having emergency fund, understanding how credit works, how compound interest works, how mortgage and insurance work, how purchasing decisions are made as the scopes of financial literacy skill.

President's Advisory Council on Financial Capability [PACFC] (2012) links financial literacy with skill development. The report links financial literacy with US crisis 2008 and reports that the government loses human capital by such crisis, and poor financial literacy is one of the reasons of getting crisis. Lusardi (2012) argues that numeracy and financial literacy are important life-time skills of an individual, which are closely related with financial decision making in regular financial behavior. Numeracy is more related with the capacity of calculating any transaction such as interest rate both in saving and credit, tax to pay on interest and business earning, gain discounts or rebates, penalty and service charges to pay. Lusardi and Mitchell (2007) argue that financial skill is also a basic know how on regular financial matters such as saving, borrowing, retirement planning and financial decision making. Know how is related to the ability to apply the things in practice. But, Miller, Reichelstein, Salas and Zia (2014) argue that investment abilities and pension planning are less important skills for underdeveloped countries. However, record keeping and financial planning such as budgeting, saving and debt planning are vital for them.

Financial Attitude

Financial attitude of a person shows a psychological or mental judgment of financial matters and situation. Carpena, Cole, Shapiro and Zia (2011) opine that financial attitude is the perspective towards financial market and benefits. Normally, the attitude is positive and negative. However, sometimes the individuals also prefer to stay indifferent. Walley et al. (2009) (as cited in Jain, 2014) opine that attitude is divided into three, i.e. positive, negative and neutral. WB (2013) presents attitude of a person as psychological factor that directly affects human behavior. It shows behavioral implication of financial attitude. Similarly, financial knowledge has implications on attitude as well. Moreover, the financial attitude can be divided into personal and institutional. In personal financial attitude, the individuals have their own perception on traditional and non-institutional financial matters such as buying and selling, budgeting, personal borrowing, business planning, etc. In institutional financial attitude, the individuals have particular beliefs and perceptions on institutional financial matters such as interest rate, saving, credit, financial safety, etc.

Similarly, Shim, Barber, Card, Xiao and Serido (2009) find that financial knowledge predicts financial attitude and financial attitude contributes to financial behavior of a person. Knowledge is one of the sources of attitude, but does not always necessarily help in formulating positive attitude. Therefore, this shows that knowledge, sometimes is an independent and attitude is a dependent factor.

Louw, Fouche and Oberholzer (2013) argue that financial literacy helps in developing positive financial attitude. But, PACFC (2012) mentions that mere financial attitude is insufficient to influence financial behavior. Here, financial attitude is subject to change in improved financial literacy of persons. Moreover, Bolanos (2012) divides financial attitude into financial beliefs and financial self-efficacy or confidence. He further argues that financial knowledge increases financial beliefs of students and thereby contributes to financial well-being. Therefore, financial behavior is the immediate target and primary goal of financial knowledge, skill and attitude.

Financial Behavior

Behavior is a demonstration of the activities, which are possible to watch and observe. Dew and Xiao (2011) present financial behavior as the financial management behavior. Financial management involves the activities of managing money in maximizing the yield. The people who manage the money can get positive financial results or well-being and vice-versa. The financial behavior is an application part of financial literacy that has implications to financial well-being. Gradually, a conscious behavior is reflected in decision making, comparing opportunity cost, and seeking alternatives of wastage minimization. Bolanos (2012) argues that the application of financial knowledge and understanding is an important dimension of financial literacy. Application of the knowledge and skill is the behavior. But, Hogarth (2006) finds that knowing and doing are same. It means that the behavior of the individuals is not merely affected by the knowledge and awareness of phenomenon. The context, time lag and some of the loaded assumptions are necessary to satisfy the effects of financial literacy and attitude on the behavior.

In practice, the people have two types of financial behavior, personal and institutional. In personal financial behavior, they use money and income far from any institutional settings such as old-age financial planning, buying and selling of properties, make their future financial budgeting, maintain regular expenditures, etc. In institutional financial behavior they borrow from and save in formal financial settings. But sometimes, financial behaviors are difficult to distinguish in that way, which may have double roles. For example, people can withdraw their saving and use it for consumption expenditure. In such, the money they use has double role of institutional and personal.

Attitude is one of the factors affecting behavior. Lusardi, Mitchell and Curto (2010) argue that the basic implication of financial literacy is to change financial behavior of persons. Therefore, the literacy that cannot change the behavior is worthless. Similarly, Monticone (2010) opines that there is a double relationship between financial literacy and behavior. For example, financial literacy affects financial behavior and vice-versa. However, the debate between effectiveness of financial knowledge into behavior and/or financial behavior into knowledge is to be settled by further studies. But, Lusardi and Mitchell (2013) argue that finding the causal relationship between financial literacy and behavior is difficult. In practice, if literacy and behavior are measured by following the scientific process, the measurement is possible.

But West (2012) finds that financial literacy has minimum effects in financial behavior. Similarly, Scheresberg (2013) opines that financial literacy is one of the predictors of financial behavior of persons. It shows that there are several other factors that also predict or contribute to the financial behavior of the persons than that of the financial behavior. Horwitz (2015) opines that adequate financial literacy only can influence one's financial behavior. However, it is difficult to find the adequate level of financial literacy for each person. The subject, quality and quantity of financial literacy is contextual. It implies that a little financial knowledge cannot change one's financial behavior significantly.

Similarly, Carpena, Cole, Shapiro and Zia (2011) find that there is a time lag between financial literacy financial attitude and behavior of individuals. However, the amount of time lag is unpredictable. Moreover, Collins and Rourke (2012) find a weaker relationship between financial literacy and financial behavior but a strong relationship between financial education and knowledge. It shows that the individuals do not always necessarily behave as they know and are capable in financial matters. CFPB (2015) finds that personality traits of individuals, attitudes, cognitive skills and context affect financial behavior. Personality trait of a decision maker needs positive attitude and contemporary skill. It shows that the knowledge and skill are necessary but not sufficient to change the behavior. Moreover, Horwitz (2015) argues that financial behavior of a person is also affected by several other factors such as culture, economy, economic biasness, time preferences, etc. Culture may include financial and social aspects. But, both of the cultures affect each other. Financial culture thus is related with understanding and use of money in regular lives.

Wagner (2015) divides financial behavior into short-term and long-term financial activities of the individuals. He also argues that financial education contributes long-term financial behavior. Short-term financial behaviors are regular, simple and easy to handle by most of the people such as purchasing vegetables from the market, paying the utility bills etc. The short-term financial behavior is alternatively said as ordinary financial behavior which is affected by experiences, demonstration, learning by doing etc. The long-term financial behaviors are some of the gradual activities to do with money including making budget, financial/business plan, saving promotion, credit utilization, balancing wealth and liability, old-age financial plan that have more connections with financial well-being.

In short, some financial activities have less effect upon the future and some have more effects. Additionally, short-term financial behavior are possible to acquire with learning by doing. However, the long-term financial behaviors are affected by knowledge, skill and attitude of the individuals in financial matters. Sometimes, external situations such as economic environment, government policies and financial market may also affect financial behavior. Finke (2011) prescribes observation in evaluating financial behavior, whereas, Worthington (2013) suggests using self-reported financial behavior in measurement. The observation of financial behavior needs a longitudinal study. But, measurement through self-reported behavior depends on a two-way communication, either in written or verbal form.

Financial Well-Being

Well-being is an aggregate reflection of the quality of human life. Financial wellness and well-being are used synonymously. “Financial wellness is a comprehensive and multidimensional concept incorporating financial satisfaction, objective status of financial situation, financial attitudes, and behavior that cannot be assessed through one measure” (Joo, 2008, p.21). Investing in financial education provides the opportunity to increase financial literacy to reduce the likelihood of making costly financial mistakes and thereby increasing the likelihood of improved financial well-being (Huston, 2012). Moreover, Taft, Hosein, Mehrizi and Roshan (2013) opine that well-being contains satisfaction, better financial status, and better livelihood. WB (2009) and CFPB (2015) state financial well-being as an ultimate destination of financial literacy. It implies that financially literate people may have greater possibility of better financial well-being. Haque and Zulfiqar (2016) find that financial well-being is a result of economic empowerment.

When an individual is happy and satisfied with his/her material and non-material livelihood, the well-being is prevailed. However, the well-being is a relative, contextual and time-specific concept. Way and Wong (2010) support a significant contribution of financial behavior in financial well-being. They further argue that financial well-being is also affected by financial educational interventions, situation of financial vulnerabilities, and the context of individuals, organizations and aggregate financial system as well. In this, Sebstad and Cohen (2003) argue that economic freedom is the financial well-being of the poor people. However, what type of freedom the poor people can enjoy as the financial well-being is left to mention. Some of economic freedom the poor and low income people can enjoy is in financial awareness, ability to make financial decisions, skill to do their own income earning activities and getting protection of their businesses.

CFPB (2015) has defined financial well-being in four major elements, i.e. control on regular finance, capacity to absorb contingent financial shock, meeting financial goals and enjoying financial autonomy in decision making. In developing countries like Nepal where mass poverty and deprivation, unemployment and illiteracy are major socio-economic phenomena, such well-being is questionable. This shows the condition of poor financial well-being in these countries. Horwitz (2015) argues that the financial literacy and behavior has the positive contribution in financial well-being of the individuals. However, it is difficult to find the degree and direction of such contribution.

Robb and Woodyard (2011) also argue that the knowledge, attitude, actions and satisfaction of people affect their well-being. They show a linear path of knowledge to well-being, whereas there are other several additional factors in between the path. But, OECD (2005b) mentions that financial education does not always necessarily contributes financial well-being. “Financial literacy is one of the pillars of financial well-being of the society, both at micro and macro levels” (Rasoaisi & Kalebe, 2015, p.1051). For this, better financial decision in right time matters towards the financial well-being. Navickas, Gudaitis and Krajnakova (2014) opine that decision making capacity on financial matters increases the degree of financial well-being.

Financial Literacy, Access to Finance and Financial Inclusion

This section reviews the triangular relationship among financial literacy, access to finance and financial inclusion. Access and inclusion revolve around financial education and literacy. The proliferation of financial intermediaries is the outcome of democracy and economic liberalization in the beginning of 1990s in Nepal. Easy access to financial services, financial mainstreaming and equitable distribution of financial services among the marginalized, excluded segment of people are basic objectives of such proliferation. The question now arises whether such expansion merely can assure the easy access and inclusion of people in financial service.

NRB (2014) states financial inclusion as an emerging factor to influence economic growth. The growth is influenced both by demand and supply-sided factors of financial development. Empowering the people through financial education is a part of demand-side of finance. Financial inclusion is a concept in mainstreaming all the segments of people in financial services and market. Mainstreaming is a process of including all the deprived, poor, women, marginalized minorities and excluded but desired people in formal financial setting and process. The process demands the involvement and retention of such people as well. The process of financial inclusion considers the supply of financial services to those people who are ready to use them in affordable cost. Hence, financial inclusion is one of the human rights of citizen, where the government and monetary authority are more responsbile in this process.

The WB (2014) mentions that financial literacy and thereby consumer protection can promote financial inclusion by promoting market competition. Furthermore, United Nations Capital Development Fund [UNCDF] (2014) mentions that financial literacy is one of the major tools to improve financial inclusion in Nepal. Similarly, “Access to finance by the poor sections of the society living in the country depends on the degree of financial literacy available for them” (Nash, 2012, p.83). Jariwala (2013) argues that financially illiterate people may invite financial exclusion or compel them to rely on wrong and inadequate financial information and thereby wrong financial decisions. Financial inclusion and access have development implication. However, Khatiwada (2013) doubts that the financial inclusion may always serves the development course of the state. “Greater financial inclusion is achieved when all economic activities and segments of the society have access to financial services with ease and at minimum cost” (Pant, 2016, p.1).

From the capability perspective, economists Amartya Sen and Martha Nussbaum (as cited in Bolanos, 2012) opine that without having access to financial policies, instruments and services, mere financial knowledge and skills are unable to increase financial capability of individuals. Therefore, “financial inclusion has been broadly recognized as critical in reducing poverty and achieving inclusive economic growth” (Kunt, Clapper, Singer & Oudheusden, 2015, p.2). In this, WB (2008) also states that financial market imperfection may cause the poor access of people in financial services. The financial market imperfection is the difference between liberalized financial market principles and prevailing market scenario. Beck, Kunt and Honohan (2009) also claim that market imperfections limit the access to finance. Yet, they opine that globalization can contribute in increasing the access. In practice, the economic liberalization is a seed of market imperfection and thereby the unequal growth and inequitable distribution of the national income. It may also give rise to unequal distribution of national wealth.

Gortsos (2016) claims that there is a triangular relationship among financial literacy, access to finance and financial inclusion. Financial inclusion and access to finance have two facets, i.e. demand and supply side. The supply-side access and inclusion are expected to achieve by supplying the goods and services at affordable cost in required places and required time. However, demand side empowerment is based on how people are informed and capable in financial knowledge and skill. OECD/INFE (2013) mentions that financial education is a source of demand side financial inclusion. Klapper, Lusardi and Oudheusden (2014) argue that financial skill helps in increasing financial inclusion controlling the defaults.

Ardic, Imboden and Latortue (2013) argue that financial inclusion has economic growth and development implications. Suarez (2010) argues that poor access to finance is a development constraint. Likewise, NRB (2015b) states that the lower level of financial inclusion and financial literacy, limited access to finance are causing rural poverty in Nepal. Similarly, NRB (2012) mentions building public confidence as the prime role of the central bank which is also a part of increasing access of people to financial services.

Financial Literacy and Financial Consumer Protection

This section connects financial literacy with consumer protection. Financial consumers are the members, clients and service users of the financial institutions and cooperative societies in Nepal. This study concerns with small borrowers who are the financial service consumers as well. Consumer protection priority is the prime concern of financial literacy and financial literacy is one of the bases of financial consumer protection. Consumer protection highlights how the consumers are enabled for reading, understanding, selecting, negotiating, claiming and comparing the available financial services in a competitive financial market. “Financial literacy initiatives are complementary to, not substitutes for, consumer protection regulation” (WB, 2012, p.29).

There is close relationship between consumer protection and consumerism, whereas consumerism concerns about consumers and their protection. Consumers can be classified into several aspects. Out of them, financial consumers are significant ones. Therefore, WB (2014) mentions that the global crisis has increased the importance of financial literacy and consumer protection. The financial consumers have double roles in financial market, i.e. they supply the surplus money they have as a deposit, which helps in capital formation in national income. Conversely, they consume the resources available with the financial intermediaries as borrowing, and use it in productive roles.

Protection of consumers is also the way of making them empowered and preparing them for sustainable service delivery. Ardic, Heimann and Mylenko (2011) argue that protecting and empowering the financial consumer through financial literacy is an emerging responsibility of the financial system. Similarly, WB (2012) states consumer protection as an act of empowering the financial service users about legal rights and responsibilities of both the institutions and service beneficiaries.

Rutledge (2010) opines that the inflow of new consumers in financial market is being increased in most of the developing and under-developed countries. As an underdeveloped country, Nepal also requires to focus in empowering financial consumers through protecting and educating them about financial market and matters. Simply, the consumers are those who consume goods and services from the market. While consuming the goods and services, skills of a particular nature help them to get more satisfaction with limited resources. Financial literacy is one among the functional skills.

Furthermore, WB (2014) states financial literacy as the contributing factor in protecting financial consumers and thereby neutralizing power relations between financial service providers and consumers. The Bank reports that the financial literacy of consumers also contributes in maintaining transparency, efficiency, competition and access to services positively. However, it is always not necessary that financial ability and awareness of consumers can promote transparency, efficiency, competition and access to service because these domains are more supply-effective than the demand. Jariwala (2013) also opines that financial literacy helps in protecting the financial consumers by informing them about financial instruments and markets. ASIC (2014) also mentions that financial literacy makes the financial consumers well-informed of financial services and protects them from possible loss and fraudulences. Financial loss and fraudulence caused by financial ignorance is an emerging tension for financial system.

In the same lines, OECD (2012b) reports that financial literacy is for informed decision making, managing financial risks and enabling the people to demand high quality financial services than before. Moreover, Gautam (2014) focuses a need of strong financial prudential regulation and supervision to ensure financial consumer protection, especially in deposit-taking financial institutions in Nepal. Less-informed consumers are one of the seeds of financial crisis. The global financial crisis has highlighted the need for effective consumer protection in provision of financial products and services, according to Melecky and Rutledge (2011), who further focus on innovation, competition, fair price, and awareness program in consumer protection. And they propose two modes of financial consumer protection, i.e. prudential regulation and providing the consumers financial education. Regular supervision helps in examining the effectiveness of the services. Wachira and Kihiu (2012) argue that financially literate people can promote market competition such as price, quality of services, negotiation and minimize the financial risk. They further claim that financial literacy helps in empowering the consumers by providing knowledge and skill.

Additionally, Lumpkin (2010) argues that consumer protection is useful to maintain financial stability. Financial stability is the normal situation of operating the financial system. Where the consumers are well-protected, they consume financial services consistently and in fairly competitive way. Therefore, consumer protection increases financial stability. Department of the Treasury (2011) states the process of consumer protection in empowering the consumers for their well-being.

Rutledge (2010) argues that the US financial crisis of 2007-09 has increased the importance of financial literacy and consumer protection necessities. “Consumer protection and financial literacy are essential pillars of a well-functioning and stable financial system” (Lukonga, 2015, p.2). Furthermore, WB (2013) mentions that the financial capability overlaps the issue of financial inclusion and consumer protection. In practice, both inclusion and protection are right-based approaches.

In consumer protection process, it is difficult to determine the degree of fairness, transparency, access, retention, quality service, sufficiency, counseling, disclosure and satisfaction. All of these are relative, contextual and time-specific. The Nepal Rastra Bank Act 2002, Banks and Financial Institutions Act 2006 and other supporting policies and regulations are inadequate to ensure the financial consumers protection. Therefore, there is a need of formulating a financial consumer protection Act in Nepal.

Financial Literacy and Micro Entrepreneurship

This section deals with financial literacy and micro entrepreneurs. Small borrowers are alternatively known as the small entrepreneurs because every borrower borrows the money for small businesses in their own place. Such businesses need limited capital investment, use local technology and skill, consume local raw materials and provide local employment. Entrepreneurship is one of major sources to earn money. Financial literacy has double role in entrepreneurship, one about from where to mobilize the financial resources to run the business, and then about how to maximize profit and better appropriation of the profit for future earnings.

Similarly, OECD/INFE (2013) mentions that financial education is more important for the small entrepreneurs as it helps them to make a financial plan for business, to manage income and expenditure minimizing business expenses. "Financial literacy is first and foremost about empowering and educating consumers so that they are knowledgeable about finance in a way that is relevant to their lives, and enables them to use this knowledge to evaluate products and make informed decisions" (WB, 2009, p.3). Sucuahi (2013) opines that financial literacy is more important for micro entrepreneurs for better mobilizing the financial resources in the business, for making better plan for increasing returns and decreasing wastages and in controlling the risk of possible loss.

Furthermore, providing financial knowledge and skill to the small entrepreneurs is necessary but not sufficient to start, operate and control a successful entrepreneurship. Kotze and Smith (2008a) argue that poor financial knowledge and skill of small entrepreneurs is one of the reasons for the failure of small businesses. Similarly, Fatoki (2014) opines that financial literacy is important in making financial decision in entrepreneurship development. In most of the underdeveloped countries like in Nepal, most of the population depends on small and local businesses for their livelihood. So as, Xu and Zia (2012) opine, financial literacy has significant contribution in managing working capital developing business skill and planning. Working capital is the money to use in regular operation of the businesses.

Financial Literacy and Development

The review of development studies from financial perspective is worthwhile to understand financial literacy has development implication. Sebstad, Cohen, and Stack (2006) link financial literacy with poverty reduction and national development. However, defining the development is a difficult task. Khatiwada (2013) describes the development as a multi-faceted issue, where multiple interventions are necessary to address it. Klapper and Panos (2011) argue that financial literacy helps to reduce poverty, improves personal financial welfare and increases financial stability. But, “financial education is a necessary but insufficient anti-poverty social policy” (Parker, 2010, p.51).

Jariwala (2013) opines that financial literacy is the significant tool worldwide for development and financial system. Hogarth (2006) presents a hierarchical effectiveness of financial literacy in national development. First, financial literacy contributes to personal development, secondly to the family and thirdly to the society and the country as externalities. Yoshino, Morgan and Wignaraja (2015) argue that financial education is an increasing policy agenda for economic development in any country. Economic development concerns about poverty reduction, entrepreneurship, employment, decrease in economic inequality in micro and macro levels. “Financial literacy has been recognized worldwide as a significant element of stability and economic and financial growth” (Potrich, Vieira & Kirch, 2015, p.363).

Similarly, Deng, Chi, Teng, Tang and Chen (2013) argue that financial literacy has development connections, where they are unable to present the connections. “Financial literacy aids in improving the quality of financial services and contributes to the economic growth and development of a country” (Bhushan and Medury, 2013, p.155). Moreover, Rasoaisi and Kalebe (2015) argue that financial literacy has significant contribution in economic growth. They further claim that financial literacy affects economic system and economy through individuals, society and their development. But, Klapper and Panos (2011) argue that it may be inadequate to claim about significant contribution of financial literacy in poverty reduction and financial stability without specific and empirical studies.

Theoretical Framework of Financial Literacy

This section presents some theoretical lenses through which the research issue is compared, interpreted and evaluated. The following theoretical perspectives are useful but not necessarily sufficient to explain the issue of financial literacy and behavior.

Life-Cycle Hypothesis

The life-cycle hypothesis is propounded by Franco Modigliani. The hypothesis stands on the concept of financial literacy for a long-term financial safety. However, the long-term financial behavior of individuals is based on present financial behavior. “Life-cycle models of consumption and saving behavior have been and still are the most important departing points for the description of household financial behavior” (Rooij, 2008, p.3). In this hypothesis, everyone has a life-cycle to pass from childhood to old age and death. This is to say, everyone needs specific life plan regarding personal financial resources and its better utilization. Still, this hypothesis is unable to make a clear-cut demarcation of who needs what sort of specific life-cycle planning. The life-cycle hypothesis is a general theory that does not necessarily represent all people of all the places at a time. Basically, the theory focuses on those people who have regular and particular amount of income and expenditure. But in Nepal, except some job holders and higher income people, the people do not prioritize such wise life-plan of saving and expenditure. Bodie, Treussard and Willen (2007) opine that the life-cycle model is based on financial planning including present investment for future return that would help the person in balancing the income and expenditure in old-age period.

Making a gold standard life-cycle plan which is appropriate for everyone is difficult. Connecting financial literacy with the hypothesis, it can be said that people save less compared to consumption in early state of life, save more compared consumption in the middle age and they consume their saving in latter age. Lawless (2010) argues that the life expectancy of the people is in increasing order due to medical innovation and health consciousness, which demand and validate the need of such life plan. Life expectancy of Nepali people has also increased from 61.9 years in 2002 (NPC, 2002) to 71 years in 2016 (NPC, 2016). Such increase of around 10 years of life expectancy demands a reschedule of our life-cycle financial plan.

Moreover, Modigliani and Cao (2004) opine that the life-cycle model is more appropriate in the developing countries where the saving behavior is poor and thereby weaker consumption expenditure of the people. The NPC (2016) shows that the proportion of aggregate consumption expenditure in aggregate income is 94.7 percent. It denotes that the Nepali people can save only 5.3 percent in aggregate. Thus, the people consume more than their income and the dissaving situation prevails. Similarly, Jariwala (2013) argues that when the young investors are financially literate, they borrow money for consumption expenditure, In the middle age, the same investors repay the old debt and save for the future. It shows a life-cycle plan of personal finance.

The life-cycle model is not used as a rule of thumb (Drexler, Fischer & Schoar, 2014) in financial behavior. It also tends to be overlooked because it is so familiar. The life-cycle model predicts that individuals should follow smooth consumption, in the sense of holding marginal utility constant, across stages of life. The model predicts borrowing prior to labor market entry, wealth accumulation during the working life, and dissaving in retirement. Browning and Crossley (2001) recommend the use of the financial research. Deng, Chi, Teng, Tang and Chen (2013) find that financial literacy has close connections with personal financial behavior and development of a financial plan. In the life-cycle hypothesis, there is a triangular relationship among personal income, saving and expenditure. The hypothesis focuses on how one is capable to save more at present for managing the old-age. It is expected, in this stage, that one should be financially literate on the personal financial matter how s/he is able to make such saving plan for the future.

Theory of Planned Behavior

Attitude and intention of a person are important to influence behavior. The first one is the judgment of the situation and the second one is about the readiness for action. Conner, Rodgers and Murray (2007) argue that conscientiousness has significant influence in connecting attitude and behavior. The human behavior is psychologically affected by human conscience, carefulness, self-dependent, mental alert and sensitiveness towards the activities. The interplay between positive attitude and good intention increases the likelihood of good behavior accordingly. Conner, Rodgers and Murray (2007) opine that perceived behavioral control under the theory of planned behavior influences the human behavior by influencing the attitude and/or intentions to behave.

But, Bagozzi, Baumgartner and Yi (1989) argue that people sometimes cannot necessarily generate a good intention whether s/he has positive attitude. It indicates some lapses between attitude and intention: social norms and part of behaviors may be those lapses. Intention is more contextual than the attitude, i.e. attitude is relatively a long-term mental determination to act than the intention. Therefore, it is clear that intention is closer to behavior than attitude. Ouellette and Wood (1998) opine that intentions, past behaviors and habits of a person affect their current activities. Habit is a consistency of past activities the person desires to follow repeatedly, whether it is good or bad. Similarly, Bock, Lee and Lee (2010) find that intention to knowledge sharing depends on the attitude of knowledge sharing, subjective norms and climate. In short, intention is a function of attitude, subjective norms and climate of activities to do.

According to the theory, the attitude and behavior of the individuals are subject to change in knowledge and ability in different subjects. Similarly, the behavior of the individuals also depends on attitude and knowledge. Here, the behavior is dependent and attitude is the independent variable. It shows the effects of independent variables on the human behavior in two ways, i.e. knowledge to behavior and knowledge to attitude and behavior. Therefore, to explore the relationship in the current study, there is theoretical background. The theory of planned behavior supports that financial behavior of small borrowers are subject change their financial literacy and attitude.

Social Cognitive Theory

Social cognitive theory, by Albert Bandura, posits that the human behavior is subject to change by learning others' behavior. This is also explained as 'demonstration effects'. But, in this, people often forget and ignore why others do the particular behavior. Additionally, the theory describes that people are quickly affected from other's behavior and demonstration in their cognition and thereby they follow the others. For example, a 4-5 year old baby starts to brush the teeth when s/he sees her/his parents doing so without any judgment or evaluating the phenomenon. The theory further argues that the learners can control the behavior they learnt from such demonstration. However, the theory is based on learning from others' behavior, it is also called social learning theory.

Bandura (1999) argues that environmental influence becomes a decisive factor in determining human behavior. In this theory, there is no role of attitude and intention formation. It shows that the people can behave as they learn from others' behaviors and environments. The environment of learning may include friends, neighbors, media effects etc. Bandura (1999) also introduces the inborn skill of individuals that also affect the human behavior. According to him, cognitive effect, i.e. knowledge and skill, is responsible in changing human behavior. People learn everything from outside and they follow it, sometimes unknowingly. Thus, people first learn, behave and, if necessary, think. Thinking is linked with their attitude, which may not necessarily prevailed.

The human behavior is also subject to influence by others' behavior where the individuals see, understand and follow others' behavior. In this also the role of knowledge and skill are decisive factors in behavior. Here, knowledge and skill are independent and the behaviors is dependent variable. Therefore, to explore the relationship in the current study, the support of the theory is prevailed.

Theory of Change

Everything in the world changes except the change itself. Similarly, Stein and Valters (2012) explain theory of change as a roadmap, a blueprint, an engine of change, a theory of action, logic model and more. The theory of change model in this thesis is used from the perspective that educational intervention is expected to contribute in financial well-being through changing financial literacy, attitude and behavior. Blending the model in this research issue, financial education as an input or intervention variable, the financial knowledge and skill are the output variables, financial attitude and behavior as outcome variables and financial well-being as an impact variable in financial literacy framework. Alternatively the framework is also described as transmission mechanism of financial education to well-being. Dahal and Upreti (2015) present theory of change as logic model that includes the process of intervention to its impact. There is a debate that whether the theory of change is a theory, approach or a model. Rogers (2014) describes it as input to impact model in between of which output and outcome lie. But, Weiss (1995) describes theory of change as implementation theory (as cited in Blamey & Mackenzie, 2007). In this thesis, the theory of change is used as a model to demonstrate how the financial education helps to achieve financial well-being.

However, all of the theories were developed in western countries based on the different contexts, this study can add the Nepali contexts from the financial field. The additions were based on how the behaviors were affected. For example, theory of planned behavior explored that the intention and attitude were the major determinants of human behavior. In this, the current study has tried to contextualize the financial literacy to contribute in financial attitude and thereby the financial behavior. Similarly, social cognitive theory explored that the cognitive effects of peers and contexts can contribute to the behavior. In the same line, the current study has again contextualized financial literacy to contribute to financial behavior. It meant that financial knowledge and skill could contribute to financial behavior without changing financial attitude.

Empirical Review on Financial Literacy

This chapter reviews some of the research reports which are openly accessed during the study period, published in 2013 and onwards. The synopses of the studies are discussed below.

Jariwala (2013): The study is designed as exploratory and descriptive. The study first measures the level of financial literacy, and investigates the relationship between the financial literacy level and some of the socio-demographic variables. Similarly, the effect of financial literacy to monthly spending/income ratio, monthly saving/income ratio and investment decision are also analyzed. The study uses 11 demographic and social characteristics of the participants. Among them age, gender, education, occupation structure and monthly income are common with the present study. Moreover, the research participants are the financial investors in urban areas of Gujarat state of India, whereas the reason for selecting merely the urban investors is not mentioned. The researcher has used 385 samples for survey but there is not definite number of population. The selection criterion of 385 is non-probability and convenient sampling that helps in paralyzing the spirit of a quantitative study, where generalization is in question. The study finds significant impact of financial literacy on investment decision, and control in spending. behavior. This study explores the impact of financial literacy on behavior.

Horwitz (2015): The study concerns two foundations: contribution of financial education programs on financial literacy and outcomes, and the determinants of the financial education. The study finds mixed results that are moderate effects of financial education in behavior and well-being. The study explores three links: between financial education and literacy, between financial education and behavior and between financial education and well-being. The study uses two methods, secondary and primary data based quasi-experiment. Horwitz (2015) used age, ethnicity and education as demographic control variables, marital status and gender as familial control variables and income and net worth as financial control variables. Similarly, the measurement of relationship between financial literacy and financial well-being in this study finds no significant difference. In other words, financial literacy does not affect financial well-being directly, whereas in such transmission, change in financial attitude and behavior are also necessary.

Mireku (2015): The study investigates financial literacy of 3,932 university students in Ghana through a survey. The study measures financial literacy level, determinants of financial literacy and effects of financial literacy in decision making and financial behavior. In this study, financial literacy level of the participants is categorized in high (80 percent and above score), moderate (60 and more, below than 80 percent score) and low (below than 60 score) rate of financial literacy. The categorization is applied in the present study as well. The study from Ghana finds low financial literacy of college students, and income, sex, education and work experience are presented as major contributor variables in financial knowledge and behavior.

Wagner (2015): This study investigates the contribution of financial education on financial knowledge of college students and finds that financial education mostly contributes to financial literacy, basically in knowledge. Moreover, financial education has mixed effects in short-term financial behavior and significant effects in long term financial behavior. Wagner (2015) also finds the experience as the contributing factor on financial behavior in short-term.

Review of Some Financial Policies

This section reviews some financial policies from the financial literacy perspective. Refera, Dhaliwal and Kaur (2016) argue that financial literacy is also a policy concern of every country, particularly of the under-developed ones. Similarly, OECD (2012a) suggests that how to improve the financial literacy of individuals is a policy priority of countries. Some of the financial policy documents are reviewed below.

NRB Act 2002 (NRB, 2002): As a central bank of Nepal, the NRB has some public obligations for strengthening their financial behaviors and well-being. To ensure the obligation, the Act mentions strengthening the public confidence towards financial system as one of the major objectives of the Bank. Public confidence is also related to the financial capabilities or knowledge and skill of the people. When the people are aware of the financial system, financial matters, perceive the financial market and institutions accordingly, public confidence is expected to increase.

Banks and Financial Institutions Act 2006 (NRB, 2006): The prime focus of the Act is protecting the financial consumers in every financial aspect. However, the Act lacks clear-cut reasons, way forwards and modalities of how to increase and protect the public confidence of the people. The Act presents three types of financial consumers, i.e. shareholders, depositors and borrowers. Primarily the financial system has the prime obligation to increase their confidence in financial services and system.

Micro Finance Policy (NRB, 2008): The micro finance policy of the government presents one of the prominent solutions to minimize poverty, empowering the people as a small credit supply to them. The policy mainly highlights a supply-side concept that helps in supplying and managing the credit that contributes to poverty reduction. The demand-side approach, where it is necessary to empower financial consumers through financial education and protection, is not considered in this policy.

Nepal Rastra Bank Strategic Plan 2012-2016 (NRB, 2012): Nepal Rastra bank presents two basic challenges in financial consumer empowerments: first, how to improve financial safety and how to increase public confidence in financial services and market, second, how to manage the grievances of financial consumers, how to well-inform them, how to promote a healthy and competitive financial environment so that the financial consumers could consume financial services as they need in affordable cost. Besides, increase in quality financial services to the consumers is also the matter to be considered by the central bank. To increase the access of people, only the supply-sided efforts are inadequate to make them financially capable. Such a triangular relationship among financial inclusion, access to finance and financial literacy has an aim of achieving inclusive growth and financial stability in aggregate.

Monetary Policy 2015 (NRB, 2015b): The monetary policy 2015 highlights formulating financial literacy policy for promoting people's financial inclusion, protecting the financial consumers and increasing their access to financial services. The policy has also mentioned coordinating with the government for developing the educational curriculum by including financial literacy.

Cooperatives Act 2017 (Department of Cooperatives, 2017): The Cooperatives Act 2017 has reestablished and introduced several provisions of membership, financial transactions, cooperatives and stakeholders of cooperatives which may be the authentic and major sources of cooperative education for the members and general people. However, the Act is not sufficient to capture the process. The forthcoming rules would clarify more provisions.

Conceptual Framework

This section presents a structural demonstration of the study that includes causal inter-relationship of variables, theories, methods, and findings. The foundations of the frameworks are literature, methodology, the data and theories. This section also demonstrates a graphical mechanism or a pathway about how financial interventions or inputs are transmitted to financial well-being. The model follows the theory of change or logic model that revolves around intervention to impact. Bolanos (2012) argues that a theory of change posits that enhancing financial literacy promotes a transmission of human capital (knowledge and skills) to financial capital, and social capital.

The model explains about financial education as an intervention or input, financial literacy as output, financial attitude and behavior as outcomes and finally the financial well-being as impact variables. The model shows a hierarchical relationship among the variables: financial education, literacy, attitude, behavior and well-being, other things remaining the same. Between these linkages, there may emerge several assumptions, contexts, time lags, and preferences of individuals. However, the model of hierarchical relationship does not necessarily follow a golden standard always and everywhere.

There are three interrelationships presented in the framework, between financial education and literacy. Here, financial literacy is dependent and the financial education is an independent variable. Subsequently, the other relationship prevails between financial literacy as an independent and financial attitude as a dependent variable. Moreover, the third relationship exists between financial behavior and well-being where financial behavior is an independent and well-being is the dependent variable. Shim, Barber, Card, Xiao and Serido (2009) suggest the conceptual model of financial literacy, its transmission mechanism as the simplest demonstration and the dimension-wise inter-relationship between and among the variables, theoretical connections, and expected and resulted outcomes.

On the basis of the literature survey, a conceptual model or framework is developed. In the model, there are some relationships between and among the variables. However, the degree of relationship may be different. These inter-linkages between the variables are not totally free from assumptions and conditions to satisfy. The assumptions are contextual and time-and place-specific. When such conditions are satisfied, then the relationships are satisfied and vice-versa. For example, financial education makes the people financially literate if the courses of study or subject matters are appropriate as the beneficiaries. Similarly, financial literacy can improve the financial attitude and behavior of the participants if they follow their knowledge and skill accordingly. The relationship of the different variables is supported briefly and separately in the following table.

Table 1

Relationship between the Financial Variables

Contributing variables	Outcome variables
Financial education	Well-being (e.g. OECD, 2014), financial knowledge and behavior (e.g. Collins, 2010), financial knowledge, attitude and behavior (e.g. Jang, Hahn & Park, 2014), financial literacy and behavior (e.g. Wagner, 2015), but not always contributes financial decision making and behavior (e.g. Willis, 2008), moderate effects to well-being (e.g. Horwitz, 2015).
Financial knowledge	Financial behavior (e.g. Clark, Lusardi & Mitchel, 2015), Financial well-being (e.g. Wagner, 2015), financial attitude and behavior (e.g. Atkinson & Messy, 2012)
Financial skill	Financial behavior (e.g. Wagner, 2015), Financial well-being (e.g. CFPB, 2015), financial well-being (e.g. Wagner, 2015)
Financial literacy	Financial behavior (e.g. Mireku, 2015), both of financial behavior and well-being (e.g. Bhushan & Medury, 2013), both of financial attitude and behavior (e.g. Agarwalla, Barua, Jacob & Varma, 2015), financial behavior (e.g. Bolanos, 2012), financial wellbeing (e.g. Taft, Hosein, Mehrizi & Roshan, 2013)
Financial attitude	Financial behavior (e.g. Robbins & Judge, 2013), Financial literacy (e.g. Thapa & Nepal, 2015), financial behavior (e.g. Atkinson and Messy, 2012), financial behavior and well-being (e.g. Wagner, 2015)
Financial behavior	Financial well-being (e.g. CFPB, 2015)
Over/under confidence	Financial behavior (e.g. Willis, 2011)
Risk taking attitude	Financial behavior (e.g. Grable, 2008)

Source: Literature survey (compilled by researcher)

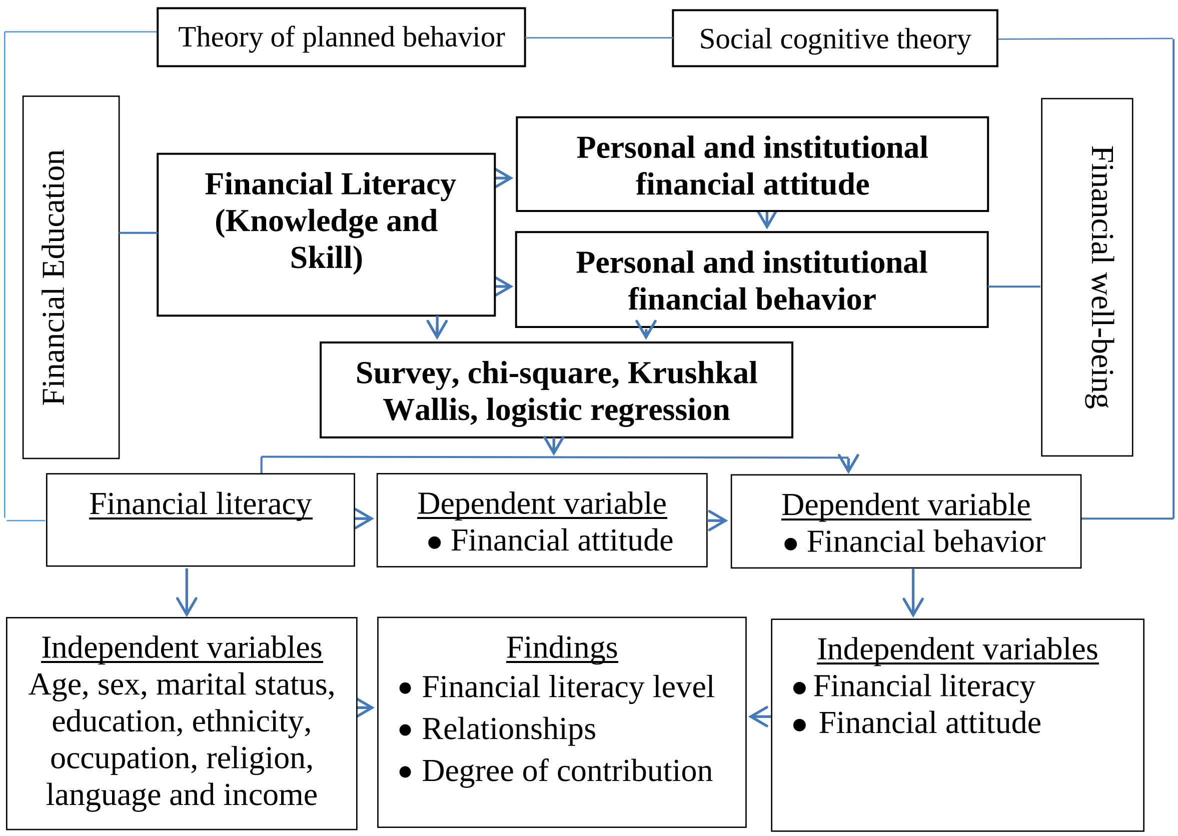
Financial education helps in improving financial literacy and thereby contributes to financial attitude and behavior of the participants. Ultimately, if the participants follow good financial behavior, the likelihood of financial well-being increases. This positive and linear path model is proposed as a transmission model of financial education and literacy in this study. Bebas (2012) links the concept of financial education to financial well-being in logic model on the basis of input-output and assumptions. This model works to a greater extent as the model has better logic of the causes and consequences. Therefore the model is also called the result chain model. Sebstad, Cohen and Stack (2006) describe the causal relationship among the financial literacy variables such as financial education as input variable, knowledge, skill, attitude and behavior as outcome variables and behavior and wellbeing as the impact or dependent variable.

In this study, among the five dimensions mentioned in the framework, three dimensions are only measured to find their relationship and contribution. The linkage between financial education and literacy and between financial behavior and well-being is both literature-and theory-based. Wagner (2015) also argues that there is a relationship between financial education, literacy, attitude, behavior and well-being. But in this study the relationship between financial literacy and attitude, between attitude and behavior and between literacy and behavior are empirically measured.

The graphical representation presents a conceptual model of the study in which the relationship of the variables, theories, their relationship and contribution are depicted. The theory of the planned behavior and the cognitive theories connect financial behavior with financial literacy and attitude. In this study, the concept of financial literacy is sketched among financial knowledge, skill, attitude and behavior. The transmission of educational inputs has the probability of promoting financial knowledge, skill, thereby formation of positive attitude on financial services and good financial behavior.

Therefore, in the measurement, only four variables, i.e. financial knowledge, skill, attitude and behavior are considered. The conceptual demonstration is as follows.

Figure 1 Conceptual Framework of Financial Literacy



Despite financial literacy, there are other factors that have also important role in contributing financial behavior of the individuals. Among them is, the confidence level of the people. This is divided into two, i.e. over-and under-confidence. Overconfidence (Ritter, 2003) is equal to the abnormal optimism and expectation towards the situation that drives one to take risk. Similarly, under-confidence is the state of risk aversion that may lead one to lose the opportunity cost in the financial market. Financial confidence is a composite measure of subjective financial knowledge and financial skills (Horwitz, 2015).

As additional factors that affect financial behavior of the individuals, Horwitz (2015) presents personal beliefs, OECD (2012a) mentions personal preference, Jariwala

(2013) presents intention, Monticone (2011) adds self-control, Lyons (2005) presents environmental factors, Buckland (2010) presents contexts, Nelson, Smith, Shelton and Richards (2015) add financial emotion, and Parker (2010) presents psychological constructs and internal readiness. In the same line, Wagner (2015) argues that financial behaviors are not only influenced by financial education, but also by the experiences and financial culture that the people are following traditionally. Financial culture is a landscape of managing the money as regular activities.

Concluding the Chapter

In the beginning part of this chapter, some thematic reviews are presented. The themes include behavioral and personal finance, rational financial behavior, some of key dimensions of financial literacy, consumer protection, inclusion, access, entrepreneurship and development implications of financial literacy in Nepali context. Next, some of key behavioral theoretical reviews connects financial literacy with financial behaviors. The theories are theory of planned behavior, social cognitive theory, theory of change and life-cycle hypothesis. Therefore, some of the empirical studies are reviewed. Finally, a demonstration of conceptual framework with key elements is presented and analyzed. The important conclusion of this chapter is about linkages between and among different financial variables. It shows that there are certain degree and extent of interconnections among them, which have impact on financial system and thereby in development.

CHAPTER III

RESEARCH METHODOLOGY

In the previous chapter, some of the literatures on themes, theories and policies around the financial literacy were reviewed. The major message of the review is that there are interconnections between financial literacy dimensions such as financial education, literacy, attitude, behavior, financial well-being and financial development of the country. This research follows an explanatory sample survey method with a specific structured questionnaire. Such method helps in theory testing, measuring causal relationship between and among the variables and to measure effects and contribution of independent variables on dependent variables. This chapter broadly presents research philosophy and methodology of this study and helps readers to know how the research was conducted. From the research paradigmatic point of view, the sample survey study is rooted in post-positivism paradigm.

Research Paradigm: Post-Positivism

The present study follows post-positivistic paradigm in the sense that the research was also affected by the context, feature of the participants and time of response. Given (2008) argues that post-positivism includes both ontological and epistemological position in research, both of which are parts of philosophy in social science research.

Philosophy of Research

The philosophical premise in this study is divided and described below as separate branches, such as ontology, epistemology and axiology.

Ontology of the Study

From the perspective of existence of something (Jupp, 2006), financial literacy is an object, which is measurable, quantifiable and comparable. Financial literacy is measurable because it includes the individuals' financial knowledge and skill in personal and institutional financial matters. Therefore, the ontological notion in the current research is the single reality of financial literacy at a time that shows a level of financial literacy of a person and its measurable effects to financial behavior. Hitchcock and Hughes (1995) (as cited in Cohen, Manion & Morrison (2007) opine that epistemology bridges the ontology and methodology.

Epistemology of the Study

This study follows a deductive and objective epistemology that follows expansion dimension rather than the depth. In other words, the study verifies the existing financial literacy theory and findings of other studies and establishes the knowledge in the Nepali context. The epistemology connects researcher and participants at a particular degree.

Axiology of the Study

In cross-sectional sample survey research, the participants respond structured and horizontal information. In this, the data and the participants are value-free from the researcher and the data. The researcher has limited role with participants and data.

Methodology of the Study

In the present study, as a cross-sectional sample survey, the quantitative methodology is applied for getting and analyzing the data. In this research, three major measurements of financial literacy were planned, i.e. status or the level, the relationships between the variables and contributions of financial literacy and attitude on the behavior.

Under-the-above mentioned methodology and measurement concepts, the following set of methods are used in this study. The bases of methodology are as follows.

Firstly, statement of the problems, research questions, research hypotheses and rationale of the study in the first chapter have demanded the survey design as to seek the situation of financial literacy, relationship among financial literacy, attitude and behaviors of the small borrowers. The statement of the problems demands whether the small borrowers understand the financial matters they are practicing or they are using by practice only. Similarly, a contextual study in the field of financial education is one of the significant factors to contribute their financial attitude and behavior. In the same line, the research questions demand a measurement of four major financial constructs, i.e. financial knowledge, skill, attitude and behavior. Moreover, the research hypotheses are developed to test whether the generally established understandings are established in our context or there might be an otherwise situation. The rationale of the study, also depends upon the measurement where the survey design is more proximate and reliable way in the social science research.

Secondly, literature review has also driven the research towards measuring financial literacy of the individuals. Small borrowers or the individuals are targeted as the unit of the study. To establish a normal trend, tradition and path among financial knowledge, skill, attitude and behavior, this study has selected a survey method. In this normal path, the financial education and financial well-being are the backward and forward linkages which are not used in measurement but connected with the literature reviews in this study. On the basis of the reviews, the survey method is applicable to measure the status, relationships and contributions of the variables.

Data and Measurement

Measurement of data in this study includes four constructs of financial literacy, i.e. knowledge, skill, attitude and behavior of financial matters. Moreover, the attitude and behavior are further classified into personal and institutional dimensions while measuring the contributions. Objective type questions are used while measuring all the constructs. There are ten questions each for measuring financial knowledge and skill, whereas twenty questions each used for measuring financial attitude and behavior.

To measure the data, three separate scales were used in this study. Financial knowledge and skill were measured by using binary options scale of yes/no or correct/incorrect and don't know. Yes or correct responses were scored 1 for each and zero for no or incorrect and don't know responses. The measurement is binary from the scoring perspective. Jang, Hahn and Park (2014) suggests binary scale to measure objective financial knowledge and WB (2013) suggests the scoring method for correct response in measuring financial literacy of the people. The measurement of financial knowledge and skill produces the financial literacy.

In this study, three are three and two negative-notion questions asked in financial knowledge and skill tests respectively. Here, those who responds yes and don't know get zero score and those who responds no get score 1 in each question. The correct responses, which get 1 each in financial knowledge and skill questions, are added to get the total score in financial literacy. The correctness of the response is based on the terms defined in this research because there might be multiple or otherwise understandings and definitions of the concepts. The definitions are based on the references and banking practices in Nepal. Total score helps to categorize the level of participants in financial literacy as high, medium and low. The level of financial literacy in this study is categorized in line with Mireku (2015). The ordinal category of financial literacy is as follows: high (score 16 and above or 80% and above), medium (score 12 to 15 or between 60% and 79%) and low (below 12 or below 60%).

Similarly, three-point Likert scale containing agree, disagree and neutral (Atkinson & Messy, 2012) options was used to measure the personal and institutional financial attitude. However, some of the previous studies preferred using five or more points Likert scale to measure people's attitudes. Agree and disagree gave the meaning of positive and negative attitude when the statements were asked in positive notion. When the statement carried a negative notion or sense, agreeing with the statement showed a negative attitude and vice-versa. Three points of such scale were the original and the remaining options were the extension of the three-point Likert scale. Preston and Colman (2000) argues that the three-point Likert scale is easy to use. Agarwalla, Barua, Jacob and Varma (2015) use five-point Likert scale, but after, they convert the scale into positive, indifferent and average financial attitude. Zokaityte (2016) uses binary mode of attitude, i.e. positive and negative, whereas the individuals also desires to stay neutral. Hence, the nature of my participants is more vulnerable in terms of sex, education, economic and professional background for which the three-point Likert scale is more suitable for measuring their responses.

Moreover, multiple options/scale questions are used to measure personal and institutional financial behavior of the participants. Lusardi (2015) used multiple-choice questions to avoid the potential measurement bias. In the same way, among the twenty financial behavioral questions, 11 personal and 9 institutional financial behavioral questions are asked. In both the dimensions, the responses are categorized into good, moderate and poor financial behavior. In other words, good financial behaviors are normal and expected behaviors which are relatively preferable. The moderate financial behavior fall in between good and poor financial behaviors. Poor financial behavior is unexpected, abnormal and weaker behavior in money management that might have poor contribution in financial well-being of the people in general. Atkinson and Messy (2012) also use three categories such as high, moderate and low, where high and low financial behavior is difficult to understand.

Furthermore, the measured financial literacy, attitude and behavior are categorized into ordinal data. The financial literacy level is categorized into three in this study: high, medium and low. Financial attitude is also categorized into three: positive, negative and neutral. Similarly, financial behavior is categorized into three: good, moderate and poor. Now, such ordinal scale data demands non-parametric tests.

Survey Instrument

The questionnaire is basic instrument for survey research that is necessary to be scientific, contextual, measurable and understandable. Monticone (2011) rejects an ad hoc based questionnaire in financial literacy research. In this study, the questionnaire includes five sections. The first section includes the introductory part and inquires some of the personal characteristics of the participants. The characteristics are age, sex, marital status, occupation, education level, income level, religion, ethnicity and language. The second section raises ten questions on financial knowledge with options for true/false (e.g. Earl, Gerrans, Asher & Woodside, 2015) and ‘don’t know’ responses. The third section raises ten financial skill questions again with options of true/false (e.g. Sabri,

2011) and don't know responses. Similarly, the forth section ask twenty statements of personal and institutional financial attitude with three possible options: agree, disagree and neutral. The last section of the questionnaire ask twenty questions about personal and institutional financial behaviors of small borrowers with three possible options. See the questionnaire in annex I (table 1).

Population and Samples

Representative sample size from the population is calculated as 393. The study targets the small borrowers as participants who are the small entrepreneurs as well in the sense that they borrow to run small and local businesses. Some of the small and local businesses in Nepal are agriculture, small trade, small industries, etc. There are several such small borrowers in the country who borrow small amount of money to invest in small businesses either from micro-finance institutions or from the cooperatives. Based in the fact that NRB (2013) has categorized the saving and credit cooperatives as the micro financial model in Nepal, the members of cooperatives are selected as the small borrowers. There are only fifteen cooperatives in the study period, licensed by the Nepal Rastra Bank for limited banking activities. Nowadays, there are about thirty four thousand and five hundred cooperatives established in Nepal. Out of those fifteen, six cooperatives are located in province number three of the country. The current study focuses the small borrowers of those six cooperatives in the province.

As preliminary data of these six institutions as of July 15, 2015; total number of small borrowers are 20,991 (see annexure II, table no. 3). The representative sample size of the population, according to the sample size formula, is calculated 393. The Yamane (1967) formula (as cited in Bhattarai, 2015) $n = \frac{N}{1 + N(e)^2}$ is used to calculate a representative sample size from the population size. Here, n is the sample size, N is the population size and e is the level of significance, i.e. 5 for this study. Moreover, two cooperatives among the six carry 98 percent of the total population. Therefore, other institutions than the two are not considered for the data collection due to their poor weightage of the population and samples. Moreover, the eight samples carried by the rejected four cooperatives are proportionately distributed between the two cooperatives. Now, rescheduled institutions, population and samples are shown in the following table.

Table 2

Population and Samples

S.N.	Cooperative Societies	Small Borrowers (population)	Sample Size
1	Bindhyabasini	10,292	196
2	Mahila	10,294	197
	Total	20,586	393

Source: Bindhyabasini and Mahila Cooperatives (as of 15 July, 2015)

Now, population of the study is revised as 20,586 keeping the sample size almost the same as 393 by using the same formula. Again, the total samples are divided between the institutions (Bindhyabasini and Mahila) proportionately as their respective population. The sample sizes for the institutions are 196 and 197, respectively. These two institutions are located in different districts, i.e. Kavrepalanchowk and Kathmandu, respectively. Again, there are separate sections or branches with these separate institutions which had separate size of small borrowers, i.e. population. Again, the respective samples of each institution are divided among their sub-sections or branches proportionately as respective population. The proportion of population and samples of Mahila Cooperatives are presented in the following table.

Table 3

Population and Samples of Mahila Cooperative (Kathmandu)

S.N	Branch	Population	Samples	S.N.	Branch	population	Samples
1	Balaju	1,416	27	6	Chapagaun	1,247	24
2	Balkhu	1,638	31	7	Lagankhel	919	18
3	Sankhu	770	15	8	Kamalbinayak	906	17
4	Thankot	978	19	9	Sallaghari	1,004	19
5	Jorpati	1,416	27		Total	10,294	197

Source: Mahila Cooperatives Society, Kathmandu (as of 2015, July 15)

The table presents the branches, population and respective samples of the Mahila Cooperative society in Kathmandu valley. Mahila cooperatives includes nine sections/braches within Kathmandu valley. Kathmandu valley includes three districts, i.e. Kathmandu, Lalitpur and Bhaktapur. As in the above table, the first five sections/braches are in Kathmandu district, the other two in Lalitpur district and the remaining two in Bhaktapur district. Similarly, the distribution of population and samples of Bindhyabasini Cooperative of Kavrepalanchowk district is presented in the following table.

Table 4

Population and Samples of Bindhyabasini Cooperative (Kavrepalanchowk)

S.N.	Branch	Population	Samples	S.N	Branch	Population	Samples
1	Dhunkharka	1,951	37	4	Panauti	1,603	31
2	Khopasi	2,048	39	5	Panchkhal	1,541	29
3	Banepa	3,149	60		Total	10,292	196

Source: Bindhyabasini Saving and Credit Cooperative Society, Kavre (as of 2015, July 15)

The table presentes the branches, population and respective samples of Bindhyabasini Cooperative society in Kavre district. There are five sections/branches in Bindhyabasini Saving and Credit Cooperative Society having separate population sizes.

Total sample size 196 is divided among the sections proportionately as the respective population sizes. Regarding the sample size, there are several views and claims.

Corbetta (2003) recommends 400 samples for more than 8000 population; Cohen, Manion and Morrison (2007) suggest collecting 379 samples for population size of 20000 to 30000. Teddlie and Tashakkori (2009) emphasizes on 384 for more than of 3000 population as the representative sample size, all at 5 percent of significance level. From the above references, the sample size 393 is sufficient as the representative size for this study to represent the population size of 20,586 at five percent of significance level. The following section explains briefly the technique of sample selection.

Sampling Technique

There are total 14 sections/branches of the two cooperatives. These cooperatives are located in two different districts, Kavre and Kathmandu but covered total four districts, Kavre, Kathmandu, Lalitpur and Bhaktapur. Each sections/braches have separate number of population and samples. Multi-stage systematic random sampling technique is used to find the required samples. Multi-stage systematic random sampling technique contains more than one stages, systems and randomness to select the samples from the population units. In multi-stage, two cooperatives are selected among fifteen through more than one stages. Selection of the institutions are the fundamental to select the sample units, i.e. small borrowers, because the borrowers are related to the financial cooperatives. Similarly, the sample units, i.e. small borrowers are selected systematically and randomly from the institutional/branch strata. The samples are selected systematically, the class interval between one to another samples is 52. Therefore, the sampling technique included stage-wise systematic random selection.

To find each sample from each branch of the cooperatives, class interval is calculated as 52. The class interval is calculated by dividing the population by respective sample size. There might be a bit difference in the class interval, somewhere, due to rounding error. The technique of randomness is applied to find the appropriate position of each sample in the population list with the help of a website (https://www.random.org) in each branch/section.

When the first unit of sample is identified by using the above-mentioned technique, the gap of 52 is maintained in sample selection from the population list to select another sample unit. The same process is repeated until the required samples from each section/branch are found. The list of participants is used as provided by each cooperative society without rearranging the order of the original list.

Data Collection Technique

In each section/branch of the cooperatives, there are several monthly group meetings of female borrowers in diversified locations. The survey is conducted in the group meeting according to the meeting schedule provided by the respective sections/branches of cooperatives. In each survey, I present myself and request the participants, who are selected as sample, to fill up the questionnaire. Statistics Canada (2010) suggests that self-enumeration of data reduces the non-response error, incomplete response, the cost of data collection, and helps maintain the secrecy of the information and data. In the process of self-enumeration, administration error and the non-response error are near to zero in this study.

Similarly, in the survey, there were 122 (32.7 percent) participants who are unable to read and write. Out of the total illiterate participants, 20 are males and 102 females. I ask and rate the responses of the questions targeted to the illiterate participants, both of the males and females. The interview venues of the data collections are the places of group meeting and branch offices of the respective participants. The brief features of the participants of this study are as follows.

Participants

The small borrowers were those who borrowed up to NPR 500 thousands from the cooperatives. The limit of the borrowing was determined by the Nepal Rastra Bank. Such credit limit was practiced in the micro finance institutions in Nepal. NRB (2013) mentioned that the licensed cooperatives were one of the models of the micro finance in Nepal. There were three main reasons for selecting small borrowers as participants of the study. First, their limited capacity of borrowing, hence those are relatively low income, poor, deprived, and marginalized people. NRB (2012) mentions that the low income people, women, marginalized, conflict victim, poor and deprived people have low financial literacy. Second, second reason is that every borrower is the compulsorily the saver according to the Cooperatives Act 1991 and new Cooperatives Act 2017.

Every borrower and/or saver is compulsorily the member who must have the share ownership of the institution. In other words, the borrower is easy to ask about borrowing, saving and share ownership. The third reason is that the small borrowers of such institutions are the small entrepreneurs as well because they borrow to do any small business in local places. In this, NRB (2008) states the micro credit as a part of micro-finance that may contributes in poverty reduction through entrepreneurship. The concept of micro credit is emerged to serve the people at margin and small entrepreneurs, which has the contribution in income generating for financial independence.

Tools Development

This section presents the steps and processes of tools development to measure the financial literacy. Developing absolutely effective tools to measure knowledge, skill, attitude and behavior is difficult. For example, Monticone (2011) rejects an ad hoc or fictitious tool to measure financial literacy. An unprocessed tool may produce poor findings and thereby misguide the readers and stakeholders. The objective of the steps and process of tools development, in this study, is to disclose how to make the questionnaire contextual to low income, deprived and marginalized Nepali people. In this, Campanelli (2008) advises three steps in tools development as literature review, experts' consultation and understanding cultural and language issue of participants while developing the survey questions. However, recognizing the expert is a difficult task. She further opines that the development of questionnaire is a qualitative process.

The items to measure financial literacy are difficult to find outright. Contextually developed items can better represent the ground reality of financial matters. Three steps were followed in this study to collect the measurable items of financial literacy: literature review, open interviews and panel discussion. And the items were verified through the rating process of experts and role players of the financial field. Later on, some rounds of tools verifications were also followed. The steps of the tools development were as follows.

Step I: Some books, journal articles, working papers, research reports, and empirical studies of financial literacy and personal finance are reviewed.

Step II: Open interviews with some of the small borrowers of cooperative societies to identify the contextual measurable items of financial literacy are conducted. Those small borrowers are not included in sample survey. This is in line with Guzys and Kenny

(2015), who suggest selecting the participants on the basis of their experience and knowledge.

Step III: A panel discussion consisting of some experts, experienced and role players in cooperatives and microfinance sector is conducted. The inputs and experiences shared by the participants were considered to collect the measurable items. Dew and Xiao (2011) opine that the panel discussion among the experts help in assuring face and content validity. Guzys and Kenny (2015) also explain that such a panel discussion is a part of Delphi, however they have confusion whether the Delphi is a method or a technique used in a research. In this study, the process was used as the item selection technique.

Step IV: Collecting the items: Total 85 measurable items were collected from the above three processes. Those items were sent for rating to the experienced and role players in the same field through e-mail. Total 27 role players responded the e-mail out of 35, where the response rate was around 77 percent. The rating scale was used five-point Likert scale that included whether they were ‘strongly agree’, ‘agree’, ‘indifferent’, ‘disagree’ and ‘strongly disagree’ on the statements sent them. The items were selected which scored at least 70 % of strongly agree on each of the statements. Amsal, Kumar and Ramalu (2014) suggest selection of the items which scored above 70 percent in item rating. In the same line of the process, total sixty items scored 70 percent and above from the rating process. The items were divided into four constructs of financial literacy, i.e. financial knowledge, skill, attitude and behavior. In financial literacy issue, the items might have sometimes multiple roles, i.e. one item may have more than one uses in the constructs.

A draft of the questionnaire is presented in a professional panel discussion including the thesis supervisors, other professors, faculties and PhD candidates in my respective school of the university. The mode or scale of inquiry is suggested by the panel according to which the draft is refined. Some rounds of expert discussion are followed to verify the questionnaire including some language editing and simplifying the questions. Campanelli (2008) also suggests on rewording the questions, if necessary, in this stage. By the same processes, the draft is developed for a pilot test.

Pilot Study

Total fifty survey data are collected from four cooperatives within three districts: Lalitpur, Dolakha and Ramechhap. The number of data collected in the pilot study is 12.72 percent of the survey sample size. All the cooperative institutions, number of participants, area of piloting and participants are selected purposively in the pilot study. In the same line, Campanelli (2008) suggests testing the draft questions with some of the same ground of people to whom the sample survey is to conduct. However, she does not mention the appropriate size of sample in a pilot test. The Sttistics Canada (2010) mentions two to hundred pre-tests useful in sample survey. “A pilot test of a questionnaire or interview survey is a procedure in which a researcher makes changes in an instrument based on feedback from a small number of individuals who complete and evaluate the instrument” (Creswell, 2012). Therefore, pilot study was used to test the questionnaire.

One of the main purposes of the pilot study is to find the reliability of the questionnaire for which Cronbach’s alpha (α) is used. SPSS 20 version is used to calculate Cronbach’s alpha. Jackson (2010) states that the Cronbach’s alpha (α) ranges between zero and one, where higher range is preferable. The preference indicates the reliability of the tools used. The Cronbach's Alpha (α) of financial attitude and behavior are .82 and .87 respectively in the pilot test data. It shows a satisfactory level of Cronobach's Alpha for measuring the constructs. It also shows that the reliability of the questionnaire is at satisfactory level. After the pilot study, the questionnaire is revised and simplified for some of the terminologies, whole items, with financial literacy constructs remaining the same. The pilot data is not used in the main survey data.

Demographic Variables and Items

A total of eleven demographic variables are measured in the study out of which two are not applicable for the purpose of analysis, i.e. name and address of the participants. Nine demographic variables measured and analyzed are as follows.

Table 5

Demographic Variables

Variables	Sources
Age	World Bank (2012), Oseifuah and Gyekye (2014)
Sex	Atkinson and Messy (2012), Sarigul (2014), Lusardi (2015)
Occupation	Rasoaisi and Kalebe (2015)
Ethnicity	Xu and Zia (2012), Rasoaisi and Kalebe (2015)
Marital status	Agarwalla, Barua, Jacob and Varma (2015)
Religion	Murphy (2013), Bashir, Arshad Nazir & Afzal (2013)
Language	Used as expert's advice
Income level	Kempson, Perotti and Scott (2013)
Education	Scheresberg (2013), Zadeh and Dahmardeh (2013)

Source: Literature survey (compiled by researcher)

The basic financial literacy items (e.g. Hagedorn, Schug & Suiter, 2016) are distributed among four constructs of financial literacy: financial knowledge, skills, attitude and behavior. A total sixty items are used in this study including ten items in financial knowledge and skill each and twenty items each in financial attitude and behavior. Jariwala (2013) uses total fifty items and Mireku (2015) uses total 51 items including some of the non-financial items in the measurement of financial literacy test in their doctoral studies.

In this study, self-reported (e.g. Horwitz, 2015) financial knowledge and skill items are considered for measurement. Wagner (2015) opines that self-reported financial literacy indicates as the stock of financial literacy with people. In measuring financial knowledge of the participants, five basic concepts of the financial products and five sub-concepts of basic finance are used. The sub-products are closely related to the given financial products. WB (2013) also states that the financial skill of a person is to be measured by asking the people whether they have the ability of calculating, planning and doing something. In this study, total ten items are used in testing financial skill of the participants. Rooij, Lusardi and Alessie (2011) find that the personal financial planning is more affected by gradual level of financial literacy than the basic level. (see table no.6).

In financial attitude test, total twenty items are used by using three-point Likert scale including agree, disagree and indifferent options. The financial attitude includes financial motivation, beliefs, desire and claim towards financial services, institutions, employees and behavior. The attitude items are divided into personal financial and institutional financial attitudes. In the personal financial attitude, total nine and in institutional attitude, total eleven items are measured (see table no.7).

In the financial behavior test, again total twenty self-reported financial behavioral items are used. Xiao (2008) argues that when observing the behavior is difficult in research, self-reported behavior is preferred. In the same line, Armitage and Conner

(2001) argue that self-reporting is more useful and powerful than the observed behavior. The three options are categorized as good, moderate or average and poor or weak as the responses in each financial behavior question. Among the twenty items of financial behavior, eleven are personal and nine are institutional (see table no.8).

Hogarth, Beverly and Hilgert (2003) classify the financial behavior of individuals into high, medium and low in hierarchical order. Such evaluation may create confusions to the readers to know the classification. Generally, such categorization is appropriate when measurement follows range or rank. An alternative categorization of one's financial behavior is good, moderate and poor/weak. Hence, the categorization may be contextual and time-specific. This means, a financial behavior good for today may not be good for always and a poor financial behavior for one place may not be equally poor for another place. Therefore, the category also helps in development of contextual instruments.

Measurement Statistics

Most of the nature of the data used in this study was categorical, i.e. nominal and ordinal scale. The demographic variables, except income level, are nominal data. Financial literacy levels are categorized in ordinal scale, i.e. high, medium and low. Financial attitude levels are also in ordinal scale, i.e. agree, neutral and disagree, and so are financial behavior, i.e. good, moderate and poor. Therefore, the test statistics applied in all the analysis in this study is non-parametric. Hypotheses are tested by using chi-square tests. "The Chi-square statistic is a non-parametric (distribution free) tool designed to analyze group differences when the dependent variable was measured at a nominal level" (McHugh, 2013). In the similar vein, Beins and McCarthy (2012) argue that Chi-square test of independence is used to measure whether there is a relationship between the variables when the data are nominal.

To measure the significant relationship between dependent and independent variables, Chi-square and Chi-square (Fisher's Exact) tests are applied. To measure the probabilistic contribution of independent variables to dependent variable, the binary logistic regression model is applied. "Logistic regression is appropriate when the predicted outcome is binary" (Healy, 2006, p.2). The following are the logistic models developed to test in this study. First, when the personal financial attitude is the dependent, financial literacy is independent and sex, marital status and income level are the control variables. The expected model is as follows:

Model 1: log [p/(1 -p)] = log (p) = B0 + B1 (Sex) + B2 (marital status) + B3 (income level) + B4 (financial literacy) + ei … (1)

Logit (p) ranges between 0 and 1.

Where, p= the probability of a small borrower who has more positive personal financial attitude;

Sex= 1 if the participant is male, 2 for otherwise;

Marital status= 1 for married participants, 2 for otherwise;

Income level= 1 for less than monthly income NPR 6500, 2 for otherwise;

Financial literacy = in percentage of total score;

ei = error term that helps to keep all the effects than the mentioned independent variables to dependent variables and remain constant for the time. Log [p/(1 -p)] = log (p) (Peng, Lee, & Ingersoll, 2013).

Second, when the personal financial behavior is dependent, financial literacy is independent and sex, marital status, income level are the control variables. Here, the expected model is as follows:

Model 2: log [p/(1 -p)] = log (p) = B0 + B1 (Sex) + B2 (marital status) + B3 (income level) + B4 (financial literacy) + ei … (2)

Third, when the institutional financial attitude is dependent financial literacy is indepnednt and sex, marital status, income level are the control variables. Here, the expected model is as follows:

Model 3: log [p/(1 -p)] = log (p) = B0 + B1 (Sex) + B2 (marital status) + B3 (income level) + B4 (financial literacy) + ei … (3)

Where, the institutional financial attitude=1 for positive institutional financial attitude, and 0 for otherwise

Fourth, when the institutional financial behavior is dependent financial literacy is independent and sex, marital status, income level are the control variables. Here, the expected model is as follows:

Model 4: log [p/(1 -p)] = log (p) = B0 + B1 (Sex) + B2 (marital status) + B3 (income level) + B4 (financial literacy) + ei … (4)

Where, institutional financial behavior=1 for good institutional financial behavior, and 0 for otherwise

Fifth, when the personal financial behavior is dependent personal financial attitude is independent and sex, marital status, income level are the control variables. Here, the expected model is as follows;

Model 5: log [p/(1 -p)] = log (p) = B0 + B1 (Sex) + B2 (marital status) + B3 (income level) + B4 (personal financial attitude) + ei … (5). Where, personal financial behavior=1 for good personal financial behavior, and 0 for otherwise.

Sixth, when the institutional financial behavior is dependent, personal financial attitude is independent and sex, marital status, income level are the control variables. Here, the expected model is as follows:

Model 6: log [p/(1 -p)] = log (p) = B0 + B1 (Sex) + B2 (marital status) + B3 (income level) + B4 (personal financial attitude) + ei … (6)

Where, institutional financial behavior=1 for good institutional financial behavior, and 0 for otherwise.

Seventh, when the institutional financial behavior is dependent, institutional financial attitude is independent and sex, marital status, income level are the control variables. Here, the expected model is as follows:

Model 7: log [p/(1 -p)] = log (p) = B0 + B1 (Sex) + B2 (marital status) + B3 (income level) + B4 (institutional financial attitude) + ei … (7). Where, institutional financial behavior=1 for good institutional financial behavior, and 0 for otherwise

Eighth, when the personal financial behavior is dependent, personal financial attitude is independent and sex, marital status, income level are the control variables. Here, the expected model is as follows:

Model 8: log [p/(1 -p)] = log (p) = B0 + B1 (Sex) + B2 (marital status) + B3 (income level) + B4 (personal financial attitude) + ei … (8)

Where, the personal financial behavior=1 for good personal financial behavior, and 0 for otherwise.

Quality Standards

Babbie (2011) argues that reliability and validity are the parts of quality standard of any research. Given (2008) describes reliability in the research as the symptom of similar result that occurs from the multiple researches if the issue or agenda of research is the same and the researches are carried out through using similar process. “Reliability of an instrument is based on the ability of the instrument to elicit the same response each time and, for this, the instrument will be administered” (Bhattarai, 2015, p.68). To assure the reliability in this study, the Cronback’s Alpha (α) is measured in each of the dimensions of financial attitude and behavior as follow:

Table No 6

Test of Reliability

Personal financial attitude	Institutional financial attitude	Personal financial behavior	Institutional financial behavior
8 items (α)= .78	9 items (α)= .76	11 items (α)= .78	6 items (α)= .60

Mir and Abbasi (2012) opine that a minimum level of Cronbach’s Alpha would be 0.5 for social science research. From this perspective, the dimensional Cronback’s Alpha was at satisfactory level in this study.

Dew and Xiao (2011) suggest following content validity by consulting the expert group of the related issue so that the process and persons help to ensure the contents of the study. In this study, the items of measurement are selected from several rounds of interviews, consultations and panel discussions. Babbie (2011) argues that construct validity is ensured when the variables and their connection according to the theories are discussed. In this study, five dimensions such as financial literacy, personal/institutional financial attitude and personal/institutional financial behaviors are measured to analyze their interconnection with suitable test of statistics. The interconnections are measured by using chi-square test, Krushkal-Wallis test and logistic regression. Therefore, construct validity is established in this study. Moreover, criterion validity is also considered in this study. This is related to the criterions of the study by comparing and contrasting the findings of this study with the previous studies. Babbie (2011) suggests external criterions of previous similar studies. In this study, some of the PhD theses and several of other empirical studies are compared.

Ethical Considerations

Ethical issue is a genuine agenda in this research that helps to ensure the goodness of the data and findings. In this research, the following ethical standards are considered:

- Non-maleficence (Babbie, 2011): No harm and exploitation of participants;
- Informed consent (Babbie, 2011): Appropriate climate setting with participants;
- Secrecy (Babbie, 2011): A rational level of secrecy of the information and data;
- Academic use of the information: Only the academic use of the data and the information;
- Right of the participants: Autonomy of withdraw or correct their views and responses.

Concluding the Chapter

This chapter presented several ways of data gathering and analysis in this thesis. The process of data collection starts from philosophical premise of the study, i.e. ontology and epistemology. Modes of data and measurement, population and sample size, sampling techniques, data collections techniques, process of tools development, identification of the items used in measurement, development of logistic models, and quality standard of the thesis are the basic contents of this chapter. This chapter helps the readers to know how the research was done.

CHAPTER IV

MEASUREMENT OF FINANCIAL LITERACY

In the previous chapter, the research methodology was presented. In this chapter, data analysis is presented, by using descriptive and inferential statistics. Frequency descriptions of demographic variables, measurement of financial literacy, attitude and behavior of the small borrowers are described by using descriptive statistics. Similarly, some inferential statistics for hypothesis tests and measurement of contribution are used. The measurement begins with descriptive analysis by using descriptive statistics.

Demographic Situation

In this study, nine common demographic variables of the participants are collected from literature reviews to examine the relationship with financial literacy. Those variables are also the factors and/or determinants of the financial literacy of small borrowers. The variables are sex, age, marital status, ethnicity, first language, religion, occupation, income level and educational level. From the data collection, two attributes of the sex, marital status and income level, three attributes of ethnicity and language, religion, and occupation, five groups of age, and six of educational level are found.

The age of the participants is grouped in five continuous series as the data is collected. The age of the participants ranges between 18 and 58 years. The highest number of the participants, i.e. about forty percent, are in group of 25 to 34 years and the lowest, i.e. about 5 percent in group of 55 years and above. The education level of the participants also is grouped in six continuous series as illiterate to Bachelor level passed. Similarly, sex-wise, 81 percent of participants are female and among the total, 92 percent are married. There are about 45 percent Brahmins/Chhetris and 48 percent are Janajatis. Among the total, 47 percent are doing agriculture and 44 percent doing business. Moreover, 74 percent participants have Nepali as first language and bout 80 percent participants had Hindu religion. According to monthly income, there is less variation among the participants. The data is presented in annexure II, table no. 2.

Financial Literacy

Financial literacy in this study consists of knowledge and skills in financial matters and thus financial literacy of small borrowers is measured by summing the score of correct responses of the items in financial knowledge and skills. Jariwala (2013) opines that summation of financial knowledge and skill generate the financial literacy. Item-wise responses of the participants in financial knowledge and skill are presented in annex II (table 4 and 5).

The score-based sum of the financial literacy is further categorized into three, i.e. high, medium and low. There may be several other ways to calculate such level. Among them the scoring technique is widely used. In this technique, the total score is divided into particular categories on the basis of the range of the obtained score obtained by each participant. The aggregate financial literacy level of the participants is calculated and presented in the following table.

Table 7

Overall Financial Literacy Level of Small Borrowers

Statistics	Low	Medium	High	Total
Financial Literacy	63	150	180	393
Percentage	16	38.2	45.8	100

Source: field data (compiled by researcher)

The table shows the number of participants having low, medium and high financial literacy level. About 46 percent of the participants score the high level of the financial literacy. Moreover, in the measurement, the role of mean, median and standard deviation values of financial literacy are also important, as presented in the following table.

Table 8

Mean, Median, Standard Deviation and Quartiles of Financial Literacy

Statistics	Financial knowledge	Financial skill	Financial literacy
Mean	7.0	7.4	14.4
Median	7.0	8.0	15.0
Standard deviation	1.7	2.5	3.6
Quartile I	6	7	13
Quartile II	7	8	15
Quartile III	8	9	17

Source: field data (compiled by researcher)

Generally, the first quartile, the second quartile or the median and the third quartile fall in financial literacy score 5, 10 and 15, respectively, in the data distribution from 0 to 20, i.e. 25 percent of the data fall in each quarter of the distribution. From the statistical calculation of the literacy score, it is observed that first, second and third quartiles are 13, 15, and 17, which shifts the aggregate financial literacy of the participants to the right side of the distribution. It means that the distribution is positively skewed and the responses tends to the total score 20. The mean score 14.4 shows the higher range of financial knowledge and skill of the small borrowers.

In the distribution, approximately 196 have scored above and below the median value, i.e. 15. It shows that there are higher level of financial understanding of the small borrowers. Similarly, 98 participants or 25 percent of the participants have the scores above third quartile, i.e. 17. In this study, financial literacy index (Clark, Lusardi &

Mitchel, 2015) range between 0 and 20 where the mean, median and standard deviation of the total score are 14.44, 15 and 3.55 respectively. The result shows that the financial literacy score of the small borrowers ranges between 14.44 ± 3.55 or between 10.9 and 17.99. The finding concludes that the financial literacy of the small borrowers is higher than the average ranges.

Relationship between Demographic Variables and Financial Literacy

Descriptions of participants and data are presented at beginning stage and then three relationships are measured in this section. The first relationship relates demographic variables with financial literacy, the second relates financial literacy with financial attitude, the third relates financial literacy with financial behavior, and the fourth relates financial attitude with financial behavior. Moreover, the level of financial literacy of small borrowers, the relationship of financial literacy with the demographic variables, financial attitude and behavior are measured and described. The description of financial literacy is the first measurement and presentation.

In order to measure the relationship with financial literacy, nine common demographic variables of participants such as sex, age, marital status, ethnicity, first language, religion, occupation, income level and educational level are used. “A significant aspect related to the issue of financial literacy is the identification of its relationship with socioeconomic and demographic variables” (Potrich, Vieira & Kirch, 2015, p.363). The hypotheses are tested by using the financial literacy level, which is classified into three, i.e. high, medium and low.

Parson’s Chi-square test is used to measure the significance of independent variables in dependent variables. In this measurement, financial literacy is the dependent and demographic variables are the independent variables. Chi-square (Fisher's Exact) test (e.g. Bolboaca, Jantschi, Sestras, Sestras & Pamfil, 2011) is used to test the hypothesis in case of having frequency less than five in any categories of demographic variables. Hypothesis for this section is that; there is relationship between financial literacy and the demographic variables of small borrowers. The findings of the analysis are as below.

Age and Financial Literacy

In this study, the age of the participants is classified into five continuous groups as the data is collected from the survey. The CBS (2012) reports that the working age for Nepali populations is 15 to 59 years. The number of participants beyond 59 years is 11 (2.8 percent) in this study. Among the 21 participants above 55 years, remaining 10 participants fall in age between 55 and 59 years. It shows that 97.2 percent of participants are under working age. Hence the participants, or small borrowers in this study, are working age people or the entrepreneurs. The frequency distribution and the relationship between age and the financial literacy of the small borrowers are presented in the table.

Table 9

Age and Financial Literacy Level of Small Borrowers

	Age (n, %)					Total	χ^2	*p*
Literacy	<25	25-34	35-44	45-54	55≤			
Low	4 (9.8)	21 (13.5)	22 (17.7)	9 (17.6)	9 (42.9)	65		
Medium	16 (39)	62 (39.7)	49 (39.5)	19 (37.3)	2 (9.5)	148	17.04	.04
High	21 (51.2)	73 (46.8)	53 (42.8)	23 (45.1)	10 (47.6)	180		
Total	41 (100)	156 (100)	124 (100)	51 (100)	21 (100)	393		

Source: Field data (compiled by the author)

The number of highest small borrowers fall in the age group of 25 to 34 years, i.e. 156 (39.7%). When age increases, the number of small borrowers or entrepreneurs decreases, after the second age group. The Chi-square (Fischer's Exact) test shows that there is significant relationship between age and financial literacy of small borrowers (p=.04). Hereby, the hypothesis about the relationship between financial literacy and age is retained. It indicated that age is one of the important factors to determine financial literacy of the small borrowers.

Sex and Financial Literacy

As in the previous studies, sex is also a factor to affect financial literacy. In this study, the descriptive data of sex of participants and its relationship with their financial literacy are measured, which is shown in the following table.

Table 10

Sex and Financial Literacy Level of Small Borrowers

	Sex (n, %)		Total	χ^2	*p*
Literacy	Male	Female			
Low	10 (13.5)	55 (17.2)	65		
Medium	26 (35.1)	122 (38.2)	148	1.27	.53
High	38 (51.4)	142 (44.5)	180		
Total	74 (100)	319 (100)	393		

Source: Field data (compiled by the author)

In the table, there is a wider difference in frequency distribution of male and female, i.e. 18.8 and 81.2 percent respectively. However, the level of high financial literacy among the male and female participants is 51.4 and 44.5 percent respectively. It shows that there is better financial literacy ratio in males than in females. Conversely, the stake of males and females in low financial literacy is also consistent as in high financial literacy, i.e. 38.4 and 16.6 percent respectively. From chi-square test, the relationship between financial literacy and sex of small borrowers is insignificant (p=.53). Hereby, the hypothesis about the relationship between financial literacy and sex of the small borrowers is rejected. It indicated that sex of small borrowers does not determine their financial literacy. It also shows a goodness of fit in financial literacy.

Ethnicity and Financial Literacy

The Census report of the CBS (2011) shows that there are 125 castes and ethnicity in Nepal. The stake of Brahmin (28.8 %) and Chhetri (44%) in Nepal hold major stake both in national data and in this study. Janajatis in this study is grouped of Newars, Tamangs and few Danuwars. Dalits include the castes such as Sarkis (cobbler), Damaains (those who sew the cloths) and Kamis (those who make domestic iron instruments). Financial literacy level of different ethnic groups is presented in the following table.

Table 11

Ethnicity and Financial Literacy Level of Small Borrowers

	Ethnicity (n, %)			Total	χ^2	p
Literacy	Brahmins/Chhetris	Janajatis	Dalits			
Low	21 (20.9)	39 (20.9)	5 (16.7)	65	7.74	.10
Medium	63 (35.8)	72 (38.5)	13 (43.3)	148		
High	92 (52.3)	76 (40.6)	12 (40)	180		
Total	176 (100)	187 (100)	30 (100)	393		

Source: Field data (compiled by the author)

The number of Janajati participants is found highest, i.e. 187 (47.6 percent) but it is observed that Brahmin-Chhetri group of participants have the highest financial literacy, i.e. 92 (52.3 percent). However, the relationship between financial literacy and their ethnicity is statistically insignificant (p=.10). Hereby, the hypothesis about the relationship between financial literacy and ethnicity is rejected. In other words, ethnicity does not determine the level of financial literacy of small borrowers.

Marital Status and Financial Literacy

From data collection, only 6 samples shows the marital status as ‘single’, which is few in numbers so, these are merged with married group because they are married once. The frequency distribution of the data in terms of financial literacy level and their relationship are shown in the following table.

Table 12

Marital Status and Financial Literacy Level of Small Borrowers

Literacy level	Marital status (n, %)		Total	χ^2	*p*
	Married	Unmarried			
Low	64 (17.5)	0 (0)	64		
Medium	139 (38.1)	8 (30.8)	147	9.01	.01
High	162 (44.4)	18 (69.2)	180		
Total	365 (100)	26 (100)	391		

Source: Field data (compiled by the author)

In above table, the wide gap between number of male and female participants is seen. All of the married participants have medium and high level of financial literacy. Similarly, Chi-square (Fisher’s Exact) test shows that there is significant relationship between marital status and financial literacy of small borrowers (p=.01). Hereby, the hypothesis about the relationship between financial literacy and marital status of the small borrowers is retained. It shows that the marital status of small borrowers affects their financial literacy.

Occupation and Financial Literacy

Most of the participants are found engaged in agriculture while the remaining have trade and business as occupation. Most of the trade or business of the participants also includes agricultural business. In other words, most of the borrowers used their loan amount in agricultural activities. The status of the occupation of participants and its relationship with financial literacy is shown in the following table.

Table 13

Occupation and Financial Literacy Level of Small Borrowers

	Occupation (n, %)			Total	χ^2	p
Financial literacy	Agriculture	Job	Business			
Low	26 (14.9)	2 (5.7)	33 (20.1)	61		
Medium	66 (37.9)	11 (31.4)	60 (36.6)	137	6.6	.16
High	82 (47.1)	22 (62.9)	71 (43.3)	175		
Total	174 (100)	35 (100)	164 (100)	373		

Source: Field data (compiled by the author)

According to the above table, the ratio of high financial literacy is in agricultural, job-holders and business persons, respectively. It shows that the job holders have the better financial literacy. But, the Chi-square (Fisher's Exact) test shows that there is not a significant statistical relationship between the financial literacy and occupation of the participants (p=.16). Hereby, the hypothesis about the relationship between financial literacy and occupation of the small borrowers is rejected. It also indicates that the occupation of the participants does not affect in their financial literacy.

First Language and Financial Literacy

According to the census report of CBS (2011), out of total 123 languages spoken in Nepal, Nepali, Tamang and others are recognized in this study. The status and relationship of financial literacy of the small borrowers and their first language is presented in the following table.

Table 14

First Language and Financial Literacy Level of Small Borrowers

	First language (n, %)			Total	χ^2	*p*
Literacy	Nepali	Tamang	Others			
Low	35 (12)	28 (29.2)	2 (33.3)	65		
Medium	116 (40)	31 (32.3)	1 (16.7)	148	16.12	.00
High	140 (48)	37 (38.5)	3 (50)	180		
Total	291 (100)	96 (100)	6 (100)	393		

Source: Field data (compiled by the author)

From the above table, it is noted that most of the participants use Nepali as the first language whereas only around one fourth of them speak Tamang language as their first language. The participants having Danuwar, Newari and Bhojpuri as the first language are re-grouped into ‘others’ which are found 3, 2 and 1 in numbers, respectively. More than 77 percent of Nepali speaking participants have high and medium financial literacy. Similarly, Chi-square (Fisher's Exact) test indicates a statistically significant relationship between first language and financial literacy of small borrowers (p=00). Hereby, the hypothesis about the relationship between financial literacy and first language of small borrowers is retained. In other words, the result shows that the first speaking language of the participants determines their financial literacy.

Religion and Financial Literacy

The CBS (2011) reports total 10 religions in which 81.3 percent are Hindus and 9 percent Buddhists. In this study, Hinduism and Buddhism are major religion of the participants. The data of 15 Christians and 1 Kirat are re-grouped into 'others'. The financial literacy of different religion groups and its relationship is presented in the following table.

Table 15

Religion and Financial Literacy Level of Small Borrowers

Literacy	Religion (n, %)			Total	χ^2	*p*
	Hindu	Buddhism	Others			
Low	45 (14.7)	17 (27)	1 (6.2)	63		
Medium	117 (38.2)	23 (36.5)	5 (31.2)	145	7.5	.10
High	144 (47.1)	23 (36.5)	10 (62.5)	177		
Total	306 (100)	63 (100)	16 (100)	385		

Source: Field data (compiled by the author)

In the given frequency distribution as in above table, Chi-square (Fisher's Exact) test shows that there is insignificant relationship between religion and financial literacy of small borrowers (p=.10). Hereby, the hypothesis about the relationship between financial literacy and religion of the small borrowers is rejected. In other words, the religion does not affect financial literacy of small borrowers.

Income Level and Financial Literacy

Monthly income is based on self-reporting of participants, which is divided into two groups, below and above the per capita national income per month of the study period. The frequency distribution of monthly incomes, financial literacy levels of participants in different income groups and its relationship are shown in the table.

Table 16

Income Level and Financial Literacy Level of Small Borrowers

	Monthly income (NPR) (n, %)		Total	χ^2	*p*
Literacy	<6500	>6500			
Low	29 (18.5)	35 (15.8)	64		
Medium	64 (40.8)	73 (32.9)	137	4.17	.12
High	64 (40.8)	114 (51.4)	178		
Total	157 (100)	222 (100)	379		

Source: Field data (compiled by the author)

In the table, descriptive statistics shows that the higher the income level, better financial literacy compared to that of lower income people. However, the statistical relationship between monthly income and financial literacy of small borrowers does not exist (p=.12). Hereby, the hypothesis about the relationship between financial literacy and monthly income level of small borrowers is rejected. In other words, the income level is not found responsible for enhancing financial literacy of small borrowers. Thapa and Nepal (2015) finds that income level of students influences their financial knowledge.

Education and Financial Literacy

The education level of participants are classified into six aspects: illiterate, literate, class 1-5 pass, class 6-8 pass, class 9-12 pass and above class 12 pass. Literate participants are those who could simply read and write without any school education. Around one third of the participants are illiterate. Most of them are women from low income group. The data is presented in the table.

Table 17

Education and Financial Literacy Level of Small Borrowers

	Education (n, %)						Total	χ^2	*p*
Literacy	Illiterate	Literate	1-5	6-8	9-12	> 12			
Low	42 (33.9)	5 (12.5)	1 (10)	3 (7.9)	11 (8.7)	1 (2.7)	63		
Medium	46 (38)	14 (35)	4 (40)	18 (47.4)	42 (33.1)	13 (35.1)	137	47.25	.00
High	34 (28.1)	21 (52.5)	5 (50)	17 (44.7)	74 (58.3)	23 (62.2)	174		
Total	122 (100)	40 (100)	10 (100)	38 (100)	127 (100)	37 (100)	374		

Source: Field data (compiled by the author)

In the education and financial literacy, the upper-most class, i.e. among the participants with education above class 12, the level of financial literacy is higher than other groups. It is seen that the participants with higher education have higher level of financial literacy. There is statistically significant relationship between education and financial literacy of small borrowers (p=.00). Hereby, the hypothesis about the relationship between financial literacy and education of small borrowers is retained. It indicates that their financial literacy could be improved by motivating them for higher education.

Financial Literacy and Attitude

The financial attitude is described as personal judgment, motivation, beliefs, desire and claim towards financial services, institution, and employees. Twenty financial statements are used to measure the attitude of small borrowers in the study. This section contains two measurement analyses: the description of financial attitude and relationship of financial literacy level with financial attitude. For the analyses, financial literacy is levelled into ordinal scale on the basis of total score, i.e high, medium and low. Financial attitude is ranked as positive, neutral and negative.

As descriptive analysis, average positive financial attitude of small borrowers is the highest both in significant variables as 66.9 % (annex II, table 9) and insignificant variables as 62.52 % (annex II, table 10). It shows that the majority of the small borrowers have positive attitude towards financial matters, market and services. As a result, 87 percent small borrowers have positive attitude in income-saving relationship that they are interested to increase their saving while income increases. Only 11.7 percent of them have the positive financial attitude in quick returns from their current business. It indicates that people believe in a normal trend of returns from their business than inconsistent benefits. Similarly, Kruskal-Wallis (H) test is used to find the relationship between financial literacy and attitude. From the analysis, the small borrowers have positive attitude towards the cooperatives and they are motivated by the institution in doing their present business. The hypothesis for the test is as follow:

H_1: There is relationship between financial literacy and attitude.

Among the twenty financial attitudinal statements, thirteen have insignificant relationship with financial literacy (annex II, table 10). The insignificant relationships in the statements show that their attitudes do not show any statistical relationship with their financial literacy. Therefore, the attitude they show may be due to other factors rather than their financial literacy. Moreover, financial literacy have a statistically significant relationship with remaining seven financial attitudes (annex II, table 9). It means that the hypothesis is retained in these items. The seven significant attitude items are explained briefly in the following paragraphs.

Business Motivation: The cooperatives are member based organizations, which mobilize saving and provide loan within its members. While providing the credit to their members for entrepreneurships, the cooperatives encourage them as their knowledge, skill and capacity of investment. While responding about their motivators of their business, around seventy percent of participants show the belief that the business they are doing is motivated by the cooperatives. However, the relationship between attitude and financial literacy is found significant (p=.00), this attitude is caused by their financial literacy. Hereby, the hypothesis about the relationship between financial literacy and attitude on business motivation of small borrowers is retained. This implies the attitude of the small borrowers on the financial institution that business success depend on their counseling and motivation.

Quick Returns: While doing business, the rate of return is possible with particular gestation period of the investment. The maturity of benefits or gain does not depend on desire and need of the people. Therefore, the small borrowers or entrepreneurs are also asked their attitude on a quick returns from their business. Around 72 percent of small borrowers oppose to earn untimely profit from present business. In other words, income-earning needs a particular amount of investment and a gestation period for return.

Most of the participants reject an immature and inconsistent income from their business. Similarly, there is a statistical relationship between such attitude and financial literacy (p=.00). Hereby, the hypothesis about the relationship between financial literacy and attitude on quick returns of small borrowers is retained. In other words, such attitude is closely associated with their financial literacy.

Business Consistency: In Nepal, small borrowers are facing business uncertainties and poor sustainability. Such uncertainty attitude demotivates them in their work. That may lead to credit default, which may affect their financial well-being negatively in the long-run. As a result, majority of the participants (more than 70 percent) believe that their business continue for a longer period of time. It means that they do not feel secured in their business. As such, the relationship between attitude and financial literacy is statistically significant (p=.00). Hereby, the hypothesis about the relationship between financial literacy and attitude on business consistency of small borrowers is retained. In other words, their positive attitude is closely associated with their financial literacy.

Service Availability: The beliefs of members towards service supply in cooperatives can motivate them for saving and credit. The service users demand varieties of such services according to their capacity, objectives, needs and priority. Such beliefs help the cooperatives in retaining their existing members and attracting the new members. Therefore, it is important to understand the attitude of the small borrowers whether they have positive attitude towards the cooperatives with which they are affiliated. In this, majority of small borrowers (74.7 percent) believe that the cooperatives provide sufficient financial services. There is a statistically significant relationship between the attitude and the financial literacy (p=.00). Hereby, the hypothesis about the relationship between financial literacy and attitude on service availability of small borrowers is retained. This shows that the positive attitude was caused by their financial literacy.

Financial Goal Setting: Setting a financial goal by everyone in general and small borrowers in particular, is an important financial belief. Such goal setting helped in allocating financial resources in good manner and controlling the personal finance. It is relevant to measure the attitude of small borrower: whether they provide their financial goal-setting in their life-cycle. Majority of participants (82.1 percent) are positive towards setting a goal in that their saving and credit is to contribute in their financial well-being. Their financial literacy is found statistically significant with this attitude ($p=.00$). Hereby, the hypothesis about the relationship between financial literacy and attitude on financial goal setting of small borrowers is retained. It implies that more financially literate people have more positive attitude towards setting a financial goal and vice-versa in their lives.

Selection Autonomy: Every member of the cooperatives has the right of free entry and exit in the institution for their financial transactions. Similarly, they are also free to select the amount and institution for their saving and credit activities. It is therefore, important to measure their attitude on this issue to find out how far they are aware and feel comfortable with such freedom. In this connection, 76.8 percent participants feel that they are free to choose their financial transactions, such as saving and credit, and institutions as they required. There is a statistical relationship between such attitude and their financial literacy ($p=.00$). Hereby, the hypothesis about the relationship between financial literacy and attitude on selection autonomy of small borrowers is retained. It shows that the level of financial literacy of the participants affected their financial attitude on the freedom of selection.

Contingent Saving: Normally, low-income and marginalized people save for minimizing the expenses and for contingent use of the saving. It is important to understand how far the participants perceive the saving in terms of its contingent use in their contingent financial needs. A significant number of small borrowers (82.6 %) have positive attitude on positive contribution of saving in managing their contingent financial needs. Similarly, a significant relationship of such attitude and financial literacy (p=.00). Hereby, the hypothesis about the relationship between financial literacy and attitude on contingent saving of small borrowers is retained. It further implies that saving has also implication for handling contingent financial crisis of the participants.

From the above analysis, the relationship of financial attitudinal statements can be inferred to have significant link with financial literacy level of the participants. It shows that financial literacy affects their financial attitude. In aggregate, financial attitude of small borrowers has statistically significant relationship with their financial literacy (p=.00). It shows that increment in the financial literacy level contributed in developing positive financial attitude towards financial services and institutions.

Financial Literacy, Attitude and Behavior

Both financial literacy and behavior are categorical and ranked data. Financial literacy is ranked in high, medium and low; financial attitudes are ranked as positive, negative and neutral and the financial behaviors are categorized as good, moderate and poor/weak. To measure the relationship of financial literacy and financial behavior, Krushkal-Wallis test is applied. While measuring the relationship between financial behavior and attitude, financial behavior is the dependent and the attitude is the independent variable. To measure the relationships, the average values of financial attitude are divided into two. The basis of the division is median value.

Initially, the median of financial attitude is 1.45, which means that the small borrowers having the average financial attitude less than 1.45 shows positive financial attitude and vice-versa. From this, the average financial attitude is divided into two, positive and negative. Kruskal-Wallis test is applied to find the relationship between financial attitude and behavior. Chi-square test is used for measuring the significant relationship between financial literacy and behavior. The relationships between financial literacy, attitude and behavior are depicted in Annex II (table 11 and 12). To find the relationships, the following hypothesis is developed.

H_1: There is relationship of financial behavior with financial literacy and attitude.

The relationships of financial literacy and financial attitude are measured with the twenty financial behavioral items as depicted in the following descriptions.

Purchasing: In this study, purchasing behavior within limited money resources is reported by 81.3 percent of small borrowers as good behavior. Similarly, there is a statistically significant relationship between financial literacy and their purchasing behavior ($p=.00$), but is insignificant with regard to their financial attitude ($p=.05$). Hereby, the hypothesis about the relationship of purchasing behavior with the financial literacy is retained and with attitude of the small borrowers is rejected. It implies that purchasing behavior is caused more by financial literacy than financial attitude of the small borrowers.

Contingent expenditure: A separate saving for such contingent financial management is a good behavior for this study, as reported by 71.6 percent of small borrowers. There is a statistically significant relationship between the behavior and financial literacy of participants (p=.00), but is insignificant relationship with their financial attitude (p=.37). Hereby, the hypothesis about the relationship of contingent expenditure behavior with the financial literacy is retained and with attitude of the small borrowers is rejected. It further shows that managing a contingent source of money is caused by financial literacy but not by their financial attitude.

Liquidity management: Holding a part of income or money for regular consumption purpose is called liquidity management. Managing a regular liquidity is reported by 64.5 percent of participants as a good financial behavior. Similarly, there is a statistically significant relationship of liquidity management behavior and financial literacy of the small borrowers (p=.00), but is insignificant relationship of the behavior with their financial attitude (p=.06). Hereby, the hypothesis about the relationship of liquidity management behavior with financial literacy is retained and with attitude of the small borrowers is rejected. It shows that the financial literacy is a causal factor for the liquidity management behavior but financial attitude is not the causal factor.

Business accounting: Managing the business account regularly is a good financial behavior. Where, small borrowers are also small entrepreneurs. They should maintain a good account of purchasing and selling the goods and services they produce. Here, 71.3 percent of the small borrowers reports to have maintained such accounting. Similarly, such behavior has statistically significant relationship with both of their financial literacy (p=.00) and attitude (p=.00). Hereby, the hypotheses about the relationship of business accounting behavior with both the financial literacy and attitude of the small borrowers are retained. It shows that managing regular business account is caused both by their financial literacy and financial attitude.

Budgeting: Estimating the future income and expenditure for regular financial purpose is another good financial behavior. Around half of the participants report making personal budget, a good financial behavior, while around 31 percent of them report that they can make the personal budget sometimes only. However, there is a statically significant relationship between the budgeting behavior and financial literacy of the small borrowers ($p=.00$), but insignificant with financial attitude ($p=.05$). Hereby, the hypothesis about the relationship of budgeting behavior with the financial literacy is retained and with attitude of the small borrowers is rejected. It indicates that budgeting is more related with improvement in financial literacy rather than their financial attitude.

Old-age financial planning: Managing financial resources for the old-age period by increasing saving is a good financial behavior in this study. This is reported as good behavior by 83.1 percent of small borrowers. Both of the relationships, between the behavior and financial literacy ($p=.00$) and between the behavior and financial attitude ($p=.01$) are significant. Hereby, both of the hypotheses about the relationship of old-age financial planning behavior with financial literacy and attitude are retained. This shows that saving behavior for old age is influenced both by financial literacy and attitude of small borrowers. Yuan and Yang (2014) find relationship between financial literacy and retirement planning in China at marginal level. It means that retirement planning also depends on financial knowledge and skill of the individuals.

Wellbeing: Financial well-being is the major financial concern of everyone. Increasing personal income and saving to achieve the financial well-being is reported by 77.7 percent of participants as a good behavior in this study. Similarly, the relationships between financial literacy and the financial behavior (p=.00) and between financial attitude and the financial behavior (p=.00) are significant. Hereby, both of the hypotheses about the relationship of well-being affecting behavior with financial literacy and attitude are retained. It shows that increase in income and saving for achieving financial well-being go consistent with financial literacy and attitude of the small borrowers.

Experiencing financial transactions: From the point of view of formal financial practice, a consistent financial transaction with financial institutions is reported by 82.4 percent of small borrowers as a good financial behavior in this study. This behavior is statistically significant with financial literacy of small borrowers (p=.01), but insignificant with their financial attitude (p=.40). Hereby, the hypothesis about the relationship of experiencing financial transaction behavior with the financial literacy is retained and with attitude of the small borrowers is rejected. This indicates that experiencing saving and credit transactions from financial institutions is caused by financial literacy but not by their financial attitude.

Separate accounting: Separating a business and personal income-expense is taken as a good behavior of small borrowers or entrepreneurs in this study. As such, 56 percent of the participants report that they have separate accounts of personal finance and business. Here, 32.5 percent of them report a combined account of business and personal financial activities. However, the relationship between financial literacy and the behavior is significant (p=.00), but insignificant with their financial attitude (p=.06). Hereby, the hypothesis about the relationship of separate accounting behavior with the financial literacy is retained and with attitude of the small borrowers is rejected. This indicates that making a separate account of business and domestic transactions is caused by financial literacy but not by their financial attitude.

Use of self-capital in business: Prioritizing the personal financial resources in small business is a good financial behavior in this study. Kotze and Smith (2008b) opine that personal capital is a better source of financing in business. There is insignificant relationship between financial literacy and the behavior ($p=.09$) and between financial attitude and the behavior ($p=.07$). However, 75.1 percent participants desire to borrow for doing business rather than using self-capital. Hereby, both of the hypotheses about the relationship of use of self-capital behavior in business with financial literacy and attitude of the small borrowers are rejected. One of the possible reasons behind this relationship is poor increment in self-capital of Nepali people. NRB (2015a) reports that Nepali people are able to save only 13.92 percent of their income, where saving is the major source of self-capital.

Credit utilization: In credit utilization behavior, the use of borrowing in particular business is a good financial behavior. In this study, 82.1 percent of small borrowers report their good financial behavior, i.e. they utilize their borrowing as the borrowing objective. However, both of the relationships, between the behavior and financial literacy ($p=.33$) and between the behavior and financial attitude ($p=.36$) are insignificant. Hereby, both of the hypotheses about the relationship of credit utilization behavior with financial literacy and attitude of the small borrowers are rejected. This implies that financial literacy and attitude are unable to establish any relation in credit utilization behavior.

Review of financial statements: Periodic and self-review of financial position is expected as a good behavior in this study. In this line, 57.3 percent small borrowers show their preferences to take the employees' help. There is a significant relationship between financial literacy and the behavior (p=.00), but is insignificant relationship between financial attitude and the behavior (p=.29). Hereby, the hypothesis about the relationship of review of financial statement behavior with the financial literacy is retained and with attitude of the small borrowers is rejected. This shows that financial literacy is more important than the financial attitude in influencing the review behavior.

Negotiation: Negotiation with financial institutions for competitive interest rates both in saving and credit and other financial service charges is a good financial behavior in this study. Majority (71.7 percent) of small borrowers reported such good behavior. However, there is statistically significant relationship of the behavior with their financial literacy (p=.00) and financial attitude (p=.01). Hereby, both of the hypotheses about the relationship of negotiation in saving and borrowing behavior with both of financial literacy and attitude of the small borrowers are retained. This indicates that better financial literacy and positive financial attitude explain the negotiation behavior of small borrowers. The finding goes in line with Sebstad, Cohen and Stack (2006), who highlight financial negotiation as an effective financial behavior.

Risk diversification: Informed financial customers are expected to diversify their saving in more than one financial institution for risk minimization due to liquidity risk. In this connection, 72.5 percent of small borrowers report that they save their money in more than one financial institution. This is a good financial behavior from the point of view of risk minimization. Similarly, there is a statistically significant relationship between financial literacy and risk diversification behavior of small borrowers (p=.02) but is insignificant relationship of the behavior with their financial attitude (p=.33). Hereby, the hypothesis about the relationship of risk diversification behavior with the financial literacy is retained and with attitude of the small borrowers is rejected. This resonates Awais, Laber, Rasheed and Khursheed (2016), who conclude that financial experience and literacy contributes in risk tolerance in investment and thereby good financial decision making behavior.

Credit repayment: Timely repayment of debt installment is also taken as a good financial behavior in this study. In this line, 95.4 percent of small borrowers report such a good behavior. However, there is insignificant relationship between financial literacy and credit repayment behavior (p=.86) but a significant relationship between financial attitude and the behavior (p=.04). Hereby, the hypothesis about the relationship of credit repayment behavior with financial literacy is rejected and with attitude of the small borrowers is retained. This indicates that the behavior is caused by positive attitude but not by the financial literacy of the participants.

Business insurance: Business insurance of small enterprise is an important subject and insuring business is a good behavior. In this study, less than 20 percent of the small borrowers report that they have more than one business insurance. Among them, 53 percent have only one business insurance. But, there is a significant relationship between insurance behavior and financial literacy (p=.00) but insignificant relationship of the behavior with financial attitude (p=.33). Hereby, the hypothesis about the relationship of business insurance behavior with financial literacy is retained and with attitude of the small borrowers is rejected.

Multiple credit: Multiple credits is an emerging problem in the field of finance these days. Multiple credits is a practice of borrowing from more than one financial institution for the same purpose, simultaneously. In this study, 60.9 percent of the small borrowers are borrowing only from one institution, whereas 39.1 percent are borrowing from more than one. This shows that there is insignificant relationship between non-multiple credit behavior and their financial literacy ($p=.63$), but significant relationship between the financial behavior and financial attitude of the participants ($p=.04$). Hereby, the hypothesis about the relationship of multiple credit behavior with financial literacy is rejected and with attitude of the small borrowers is retained. This shows that minimizing multiple credits is not caused by their financial literacy but by positive financial attitude.

Review the loan documents: While borrowing from financial institutions, it is a good behavior to self-understand the rate of interest, terms and conditions of the loan or be informed with the help of family members. Here, 65.2 percent of small borrowers report such good behavior. Similarly, 25.8 percent of them report that they take the information from the employees of the institution. Here, both the relationships between the behavior and financial literacy ($p=.00$) and between the behavior and financial attitude ($p=.03$) are significant. Hereby, both of the hypotheses about the relationship of review of loan documents behavior with financial literacy and attitude are retained. This shows that financial behavior is influenced both by the financial literacy and attitude of the small borrowers.

Balancing income and expenses (ends met): Focusing a financial balance by increasing personal income and minimizing the regular expenditure in everyday life is taken as a good financial behavior in this study. The relationship of the behavior is significant with financial literacy (p=.00), but insignificant with financial attitude (p=.05). Hereby, the hypothesis about the relationship of balancing income and expenses behavior with the financial literacy is retained and with attitude of the small borrowers is rejected. It shows that financial literacy affects the behavior but financial attitude does not.

Borrowing plan: The basis of borrowing is estimating income and expenditure from any business. Assessing income and expenditure from a business is a good financial behavior in this study. Thus, 90.8 percent of small borrowers report that they assess the income and expenditure of business while they make a business plan. The financial behavior is statistically significant both with financial literacy (p=.00) and financial attitude (p=.01). Hereby, both of the hypotheses about the relationship of borrowing plan behavior with financial literacy and attitude of the small borrowers are retained. This shows that both financial literacy and attitude of small borrowers influence the behavior significantly.

Measurement of Contribution

In the previous section, the relationships between the demographic variables, financial literacy, attitude and behavior were measured and found mixed results. In this section, the contributions of the financial variables are measured by using logit analysis. Sing (2006) opines that when the dependent and independent variables are non-metric (nominal and ordinal) with the dichotous dependent variable, logistic regression analysis is appropriate to find the contributions. This section presents the data analysis related to the fourth and fifth research questions of this study.

This section includes calculation and analysis of the degree of the contribution of financial literacy and attitude to behavior. For this purpose, eight different contributions are measured. These include three measurements: First, contribution of financial literacy on personal financial attitude and behavior, and institutional financial attitude, and behavior, Second, contribution of personal financial attitude on personal and institutional financial behavior, Third, contribution of institutional financial attitude on personal and institutional financial behavior. Reed and Wu (2013) suggest the following three common assumptions to fulfill while using the logistic regression to measure the prediction of independent variables to dependent variables.

1. Dependent variable necessary to be of dichotomous categorical (nominal, ordinal) data
2. The dichotomous categories necessary to be mutually exclusive and exhaustive
3. Need to be a larger sample size for maximum likelihood coefficients

For the measurements, all of the above assumptions are satisfied in this study. For the analysis, the percent of financial literacy score is used, the initial three point categorization of financial attitude is re-categorized into positive and negative on the basis of median value, and the initial three categorizations of financial behaviors are re-categorized into good, and poor, again on the basis of median value. The hypotheses for the measurement are developed as follows:

H (1): Improved financial literacy of small borrowers is more likely to exhibit positive personal and institutional financial attitude.

H (2): Improved financial literacy of small borrowers is more likely to exhibit good personal and institutional financial behavior.

H (3): Positive personal financial attitude of small borrowers is more likely to exhibit good personal and institutional financial behavior.

H (4): Positive institutional financial attitude of small borrowers is more likely to exhibit good personal and institutional financial behavior.

The hypotheses were tested with the following measurements.

Contribution of Financial Literacy on Personal Financial Attitude

In this, the first hypothesis is tested, where; financial literacy percentage is expected to contribute on personal financial attitude of the small borrowers. Eight personal financial attitude items ire used in the measurement. For this, initial three point Likert scale data is converted into dichotomous data as positive and negative on the basis of median value of personal financial attitudinal items. “To use the logistic regression for measuring the likelihood of contributing dependent variable by independent variables, the financial attitude and behavior ire divided into two on the basis of the median value” (Foster, Barkus & Yavorsky, 2006). The median value of the personal financial attitude is 1.25, which means that those who achieve median value 1.25 and below shows the positive attitude and those above 1.25 shows negative attitude. Now, calculated personal financial attitude is re-coded as ‘1’ for positive and ‘0’ for negative. In this measurement, sex, marital status and income level of the small borrowers are used as the control variables. All of the control variables are dichotomous.

As a model summary, Omnibus test of model coefficient shows that the model is fit (p=.00) in establishing the relationship between the dependent and independent variables. Hereby, the hypothesis about improved financial literacy of small borrowers that has more likely to exhibit positive personal financial attitude is retained. Similarly, Nagelkereke R square validates the relationship between predicted variable, i.e. personal financial attitude of small borrowers with selected predicting variables. Jariwala (2013) claims that R square varies between 0 and 1, where the greater the value of R square predicts the higher degree of effects of independent variable (s) in dependent variable. Therefore, Nagelkereke R square value 0.10 indicated 10 percent predictability of independent variables on dependent variable. The summary of analysis is as follows.

Table 18

Summary of Financial Literacy Contributing Personal Financial Attitude

Predictor	B	S.E.	Wald	df	Sig.	Exp(B)
Sex	-.27	.29	.82	1	.36	.77
Marital status	.06	.46	.02	1	.90	1.06
Income level	-.13	.24	.28	1	.60	.88
Financial Literacy (%)	.03	.01	22.06	1	.00	1.03
Constant	-1.92	.72	7.09	1	.01	.15

Source: Field data (compiled by the author)

The above table presents the result of logistic regression in measuring the degree of contribution of financial literacy and some of demographic variables in personal financial attitude. The result indicates that sex; marital status and income level are statistically insignificant, which show that these variables have insignificant relationship with personal financial attitude of small borrowers. However, financial literacy is statistically significant in predicting personal financial attitude of small borrowers (p=.00). The data on above table shows that one percent improvement in financial literacy increases the odds of improving positive personal financial attitude of the small borrowers by 1.03 times. In other words, if the financial literacy of the small borrowers improved by 10 percent, the possibility of improving positive personal financial attitude of small borrowers would be 10.3 times. Agarwalla, Barua, Jacob & Varma (2015) opine that the odds ratio indicates a direction and degree of influencing of independent variable

(s) to dependent variable. They further mention that odds ratio more than one shows the chance of positive influence and vice versa.

"The standard error less than 2 in each independent variabled showed the model free from multi-colinearity" (Thapa & Nepal, 2015, p.61). The above analysis depicts that improved financial literacy of small borrowers is more likely to exhibit positive personal financial attitude of small borrowers significantly. The logistic regression model for this analysis is: logit (p) = -1.9 -.27 (Sex) +.06 (marital status) -.13 (income level) + .03 (financial literacy) + ei … (1). The model depicts that, other things remaining the same, the degree of improvement in personal financial attitude of small borrowers towards positive depend on increased financial literacy score.

Contribution of Financial Literacy to Personal Financial Behavior

Nine personal financial behaviors are measured in this analysis. Initially, the personal financial behavior is measured as good, moderate and low or weak or poor, and are coded as 1, 2, and 3 respectively. To convert the multiple responses of personal financial behavior into dichotomous categories, median value is measured from the initial dummy coding, which is 1.27. It means that those who are responding the median value 1.27 and below exhibit good personal financial behavior and above median value 1.27 exhibit poor personal financial behavior. Now, good and poor personal financial behaviors are re-coded as '1' and '0', respectively, to apply the binary logistic regression. The percentage of financial literacy score is used as the independent variable. Similarly, sex, marital status and income level of participants are used as control variables.

As a model summary, Omnibus test of model coefficient shows that the model is fit (p=.00) in establishing the relationship between the dependent and independent variables. Hereby, the hypothesis about improved financial literacy of small borrowers that has more likely to exhibit good personal financial behavior is retained. Similarly, Nagelkereke R square validate the relationship between predicted variable, i.e. personal financial behavior of small borrowers with selected predicting variables. Nagelkereke R square value is 0.19 that indicates 19 percent predictability of independent variables to dependent variable. The summary of logistic regression is as follows.

Table 19

Summary of Financial Literacy Contributing Personal Financial Behavior

Predictor	B	S.E.	Wald	df	Sig.	Exp(B)
Sex	-.90	.32	7.76	1	.01	.41
Marital status	-.69	.48	2.08	1	.15	.50
Income level	-.35	.25	2.04	1	.15	.70
Financial Literacy (%)	.05	.01	30.64	1	.00	1.05
Constant	-3.34	.90	14.15	1	.00	.04

Source: Field data (compiled by the author)

The above table presents the result of logistic regression in measuring the degree of the contribution of financial literacy and some of the demographic variables to personal financial behavior. The result shows that marital status and income level are statistically insignificant, where sex has significant relationship (p=.01) with personal financial behavior. The result indicates that the financial literacy of male small borrowers is more influencing in personal financial behavior than that of female small borrowers. However, financial literacy is in significant (p=.00) with personal financial behavior. The data on table shows that one percent improvement in financial literacy increases the odds of good financial behavior of small borrowers by 1.05 times. In other words, if the financial literacy of the small borrowers is improve by 10 percent, the probability of improving good personal financial behavior of small borrowers is 10.5 times. Here, the standard error less than 2 in each independent variable shows the model free from multi-colinearity. The hypothesis as improved financial literacy of small borrowers is more likely to exhibit good personal financial behavior is retained from the above analysis. The logistic regression model for this analysis is as follow:

logit (p) = -3.34 -.90 (Sex) -.69 (marital status) -.35 (income level) + .05 (financial literacy) + ei … (2). The model depicted that, other things remaining the same, the degree of improvement in personal financial behavior of small borrowers towards good depends on their increase in financial literacy score.

Contribution of Financial Literacy on Institutional Financial Attitude

In this measurement, total eleven items of institutional financial attitude are used. Initially, the institutional financial attitudes are measured as positive, neutral and negative, which are coded as 1, 2, and 3, respectively. To convert the multiple responses on institutional financial attitude into dichotomous categories, median value is measured as 1.22. It means that those who respond the median value equal and below exhibit positive institutional financial attitude and above the median value exhibit negative institutional financial attitude. Now, positive and negative personal financial attitude are re-coded as ‘1’ and ‘0’, respectively. The percentage of financial literacy score is used as the independent variable. Similarly, sex, marital status and income level of participants are used as control variables.

As a model summary, Omnibus test of model coefficient shows that the model is fit (p=.00) in establishing the relationship between the dependent and independent variables. Hereby, the hypothesis about improved financial literacy of small borrowers that has more likely to exhibit positive institutional financial attitude is retained. Similarly, Nagelkereke R square validate the contribution of financial literacy on predicted variable, i.e. institutional financial attitude of small borrowers. Nagelkereke R square value 0.11 indicates 11 percent predictability of independent variables to dependent variable. The summary of the logistic regression is as follow.

Table 20

Summary of Financial Literacy Contributing Institutional Financial Attitude

Predictor	B	S.E.	Wald	df	Sig.	Exp(B)
Sex	-.17	.32	.30	1	.59	.84
Marital status	-.25	.47	.30	1	.59	.78
Income level	.32	.26	1.60	1	.21	.72
Financial literacy (%)	.04	.01	19.12	1	.00	1.04
Constant	-3.68	.92	15.90	1	.00	.03

Source: Field data (compiled by the author)

In the above table, results of logistic regression in measuring the degree of contribution of financial literacy and some of demographic variables in institutional financial attitude are presented. The result shows that sex, marital status and income level are statistically insignificant in showing the contribution. However, financial literacy is statistically significant (p=.00). This indicates that one percent improvement in financial literacy increases the odds of improving positive financial attitude by 1.04 times. In other words, improvement in financial literacy of the small borrowers affects the institutional financial attitude towards positive. Since, the standard error less than 2 in each independent variable shows the model free from multi-colinearity. The hypothesis of improved financial literacy of small borrowers more likely to exhibit positive institutional financial attitude is retained from the analysis. The logistic regression model for this analysis is as follows:

logit (p) = -3.68 -.17 (Sex) -.25 (marital status) -.32 (income level) +.04 (financial attitude) + ei … (3). The model depicts that, other things remaining the same, the degree of positive institutional financial attitude of small borrowers depends also on their improved financial literacy. In other words, improved financial literacy helps in improving positive financial attitude.

Contribution of Financial Literacy on Institutional Financial Behavior

Initially, the institutional financial behavior is also measured as good, moderate and low or weak or poor. These are coded as 1, 2, and 3 respectively. Total six institutional behavioral items are used in measurement which have Chronbach Alpha 0.60. To convert the multiple response of the behavior into dichotomous categories, median value is measured, which is 1.50. It means that those who respond the median and below exhibit good institutional financial behavior and above median exhibit poor institutional financial behaviors. Now, good and poor personal financial behavior are re-coded as ‘1’ and ‘0’, respectively, to apply the binary logistic regression. The percentage of financial literacy score is used as the independent variable. Similarly, sex, marital status and income level of participants are used as control variables.

As a model summary, Omnibus test of model coefficient shows that the model is fit (p=.00) in establishing the relationship between the dependent and independent variables. Hereby, the hypothesis about improved financial literacy of small borrowers that has more likely to exhibit good institutional financial behavior is retained. Similarly, Nagelkereke R square validates the contribution of financial literacy on predicted variable, i.e. the institutional financial behavior of the small borrowers. Nagelkereke R square value 0.23 indicates 23 percent predictability of independent variables to dependent variable. The summary of logistic regression analysis is as follows.

Table 21

Summary of Financial Literacy Contributing Institutional Financial Behavior

Predictor	B	S.E.	Wald	df	Sig.	Exp(B)
Sex	-.99	.31	10.62	1	.00	.37
Marital status	.10	.51	.04	1	.84	1.11
Income level	-.19	.25	.57	1	.45	.83
Financial literacy (%)	.05	.01	45.26	1	.00	1.05
Constant	-3.00	.79	14.20	1	.00	.05

Source: Field data (compiled by the author)

In the above table, the result of logistic regression in measuring degree of contribution of financial literacy and some of demographic variables on institutional financial behavior are presented. The result shows that the control variables such as marital status and income level are statistically insignificant but sex is significant (p=.00) to show the relationship of these variables with institutional financial behavior. The result indicates that the financial literacy of male small borrowers is more influencing in institutional financial behavior than that of female small borrowers. Similarly, the financial literacy is significant (p=.00) in contributing the institutional financial behavior. In this model, one percent change in financial literacy indicates that the odds of improving good institutional financial behavior by 1.05 times. Thus, the standard error less than 2 in each independent variable shows the model free from multi-colinearity. The logistic regression model for this analysis was as follows.

Logit (p) = -2.99 -.99 (Sex) +.10 (marital status) -.19 (income level) +.05 (financial literacy) + ei … (4). The model depicts that, other things remaining the same, the degree of improvement in good institutional financial behavior of small borrowers depends also on their increased financial literacy percentage.

Contribution of Personal Financial Attitude on Personal Financial Behavior

In this study, personal financial attitude is expected to contribute to personal financial behavior of the small borrowers. In this measurement, dichotomous personal financial attitude, with eight items, is the independent and dichotomous personal financial behaviors, with eleven items, is the dependent variable. Moreover, sex, marital status and income level of the small borrowers are the control variables. All of the control variables are dichotomous.

As a model summary, Omnibus test of model coefficient shows that the model is fit (p=.00) in establishing the relationship between the dependent and independent variables. Hereby, the hypothesis about improved personal financial attitude of small borrowers that have more likely to exhibit good personal financial behavior is retained. Similarly, Nagelkereke R square validates the relationship between predicted variable, i.e. personal financial behavior of small borrowers with selected predicting variables. Nagelkereke R square value 0.09 indicates 9 percent predictability of independent variables on dependent variable. The following table presents the result of logistic regression in measuring the contribution of personal financial attitude and some of the demographic variables on personal financial behavior. The summary of logistic regression is as follows.

Table 22

Summary of Personal Financial Attitude Contributing Personal Financial Behavior

Predictor	B	S.E.	Wald	df	Sig.	Exp(B)
Sex	-.69	.32	4.72	1	.03	.50
Marital status	-.96	.48	3.95	1	.05	.38
Income level	-.26	.25	1.09	1	.30	.77
Personal Financial Attitude	.86	.24	12.25	1	.00	2.35
Constant	.16	.51	.10	1	.75	1.18

Source: Field data (compiled by the author)

The result indicates that the marital status and income level are statistically insignificant, but the sex is significant (p=.03) in showing the relationship of personal financial attitude on personal financial behavior of the small borrowers. The result indicates that the personal financial attitude of male small borrowers is more influencing in personal financial behavior than that of female small borrowers. However, personal financial attitude is statistically significant in predicting personal financial behavior of small borrowers (p=.00). The data on above table shows that one time improved personal financial attitude increased the odds of improving personal financial behavior by 2.35 times.

The standard error less than 2 in each independent variable shows the model free from multi-colinearity. The above analysis shows that improved personal financial attitude of the small borrowers is more likely to exhibit good personal financial behavior of small borrowers significantly. The logistic regression model for this analysis is:

logit (p) = .16 -.69 (Sex) -.96 (marital status) -.28 (income level) +.86 (personal financial attitude) + ei … (5). The model depicts that, other things remaining the same, the degree of improve in personal financial behavior of small borrowers towards good also depends on improved financial attitude.

Contribution of Personal Financial Attitude on Institutional Financial Behavior

In this, personal financial attitude is expected to contribute on institutional financial behavior of the small borrowers. In this measurement, dichotomous personal financial attitude with eight items and dichotomous institutional financial behavior with six items are used. Moreover, sex, marital status and income level of the small borrowers are the control variables. All of the control variables are dichotomous. As a model summary, Omnibus test of model coefficient shows that the model is fit (p=.00) in establishing the relationship between the dependent and independent variables. Hereby, the hypothesis about improved personal financial attitude of small borrowers that has more likely to exhibit good institutional financial behavior is retained. Similarly, Nagelkereke R square validates the relationship between predicted variable, i.e. institutional financial behavior of small borrowers with selected predicting variables. Nagelkereke R square value 0.10 indicates 10 percent predictability of independent variables on dependent variable. The summary of logistic regression is as follows.

Table 23

Summary of Personal Financial Attitude Contributing Institutional Financial Behavior

Predictor	B	S.E.	Wald	df	Sig.	Exp(B)
Sex	-.79	.30	7.11	1	.01	.46
Marital status	-.40	.51	.59	1	.44	.67
Income level	-.27	.25	1.21	1	.27	.76
Personal Financial Attitude	.93	.24	15.70	1	.00	2.54
Constant	.66	.53	1.53	1	.22	1.93

Source: Field data (compiled by the author)

The above table presents the contribution of personal financial attitude and some of the demographic variables on institutional financial behavior. The result indicates that marital status and income level are statistically insignificant, but the sex is statistically significant (p=.01). Furthermore, the financial attitude of the male small borrowers is more influencing in institutional financial behavior than that of female small borrowers. However, personal financial attitude is statistically significant in predicting institutional financial behavior of small borrowers (p=.00). The data on above table shows that one time improved personal financial attitude increases the odds of improvement in institutional financial behavior by 2.54 times.

Since, the standard error less than 2 in each independent variable shows the model free from multi-colinearity. The above analysis shows that improved financial attitude of the small borrowers is more likely to exhibit good institutional financial behavior of the small borrowers significantly. The logistic regression model for this analysis is: logit (p) = .66 -.79 (Sex) -.40 (marital status) -.27 (income level) +.93 (personal financial attitude) + ei … (6). The model depicts that other things remaining the same, the improvement in institutional financial behavior of the small borrowers towards good also depends on improved financial attitude. Moreover, two contribution models; contribution of institutional financial attitude on personal and institutional financial behaviors are insignificant. This indicates that institutional financial attitudes are neither important in predicting institutional nor personal financial behavior.

Concluding the Chapter

In this chapter, three types of data measurement and analysis were presented such as the level of financial literacy, relationships between the variables and probabilistic contribution of independent variables to dependent variables. There were greater level of financial literacy and mix relationships between the variables. This chapter concludes that there are inter-relationships between different financial variables and contribution of independent to dependent variables.

CHAPTER V

RELATIONSHIP AND CONTRIBUTION OF FINANCIAL LITERACY

In the previous chapter, the data on financial literacy was measured and findings were derived from the analysis. This chapter presentes the summary of the study and discussion on findings. The summary includes the findings, whereas the discussion includes both of comparison of other empirical studies and theoretical blending of the findings of this study. The major finding of this research is the interconnections between demographic variables, financial literacy, attitude and behavior. The connections are divided into relationship and contribution index.

Similarly, the contributions are discussed from the perspective of the lens of the social cognitive theory and the theory of planned behavior. Moreover, the discussion connects policy implications in the areas of education and finance. Overall findings indicate that financial behavior of the small borrowers depended on financial education, experiences and culture. The research suggests that the small borrowers are in need of financial education to improve their financial literacy and thereby to change personal/institutional financial attitude and behavior.

Summary of the Findings

This section contains the summary of the findings. In the summary, findings of the demographic variables, relationship among the variables and contributions of one to other variables are discussed. Among nine demographic variables, four variables have significant relationship with financial literacy. Similarly, there are mixed relationships between financial literacy and attitude, between financial literacy and behavior and between financial attitude and behavior. Moreover, the financial literacy and attitude have also the mixed contribution on financial behavior of small borrowers.

Financial Literacy Level

Measurement of the financial literacy level of the small borrowers was the demand of the first research question. As a result, 180 (45.8%) small borrowers score high level, 150 (38.2%) score medium level and 63 (16%) score low level of financial literacy among 393. The mean, median and standard deviation of the financial literacy are 14.4, 15 and 3.6, respectively, in 0 to 20 ranges. The data shows that 84 percent small borrowers score sixty percent and above score in financial literacy. In other words, they are knowledgeable and skilled in financial matters in this research context. The findings also indicates that financial literacy of the small borrowers is strong.

Relationship between Financial Literacy and Demographic Variables

This sub-section presents the findings of the second and third research questions. The second research question demand the relationship between demographic variables and financial literacy level of the small borrowers. For this, age, marital status, first language, education, income level, sex, ethnicity, occupation and religion of the small borrowers are used in the measurement. Among them, only the first four variables are significant with their financial literacy. Therefore, the four demographic variables are important predictors or factors for the financial literacy of the small borrowers in this study. The findings indicates that while educating the small borrowers in financial matters, those four variables are to be considered.

Similarly, as per the demand of the third research question, financial literacy has mixed relationship with financial attitude and behavior of the small borrowers. As per the demand of the same research question, there is mixed relationship between financial attitude and behavior of the small borrowers. Among 20 financial attitude items, seven show significant relationship with their financial literacy and the remaining are insignificant. The seven items are business motivation, quick returns, business consistency, service availability, financial goal setting, selection autonomy and contingent saving. Moreover, there are significant relationships between financial literacy, attitude and behavior. Among 20 financial behavioral items, six are significant with both the financial literacy and attitude. The items are business accounting behavior, old-age financial planning behavior, wellbeing affecting behavior, negotiation behavior, review behavior and borrowing plan behavior. Among twenty, two items, i.e. use of self-capital behavior and credit utilization behavior, are insignificant with both of financial literacy and attitude.

Similarly, among the twenty financial behaviors, ten items such as purchasing, contingent expenditure, liquidity management, budgeting, experiencing financial transactions, separate accounting, review of financial statements, risk diversification, business insurance and balancing income and expenses are significant with financial literacy but insignificant with financial attitude. Among the twenty behaviors, two items such as credit repayment and multiple credit are significant with financial attitude but insignificant with financial literacy. The findings show that there are mixed relationships between financial literacy and attitude, between financial literacy and behavior and between financial attitude and behavior. Among the relationships, financial literacy is key with financial attitude and behavior.

Contribution of Financial Literacy and Attitude on Behavior

This sub-section presents the findings related to the fourth and fifth research questions. The questions demand the probabilistic contributions of independent variables on dependent variable. To measure the contributions, eight logistic models are developed. Among the models, the first four are significant to show the contribution of financial literacy to personal/institutional financial attitude and behavior. In this, financial literacy is predicting and the financial attitudes and behaviors are the predicted variables. In the first model, the finding shows that the probabilistic contribution of one percent increment in financial literacy increase the odds of improving the personal financial attitude of the small borrowers.

In the second model, the finding shows that the probabilistic contribution of one percent increment in financial literacy increases the odds of improving the personal financial behavior of the small borrowers. In the third model, the finding shows that the probabilistic contribution of one percent increment in financial literacy increases the odds of improving the institutional financial attitude of the small borrowers. In the fourth model, the finding shows that the probabilistic contribution of one percent increment in financial literacy increases the odds of improving the institutional financial behavior of the small borrowers. Overall, the contributions of independent variables to dependent variables are positive. The positive contribution indicates that the independent variables are significant to affect or improve the respective dependent variables.

Moreover, the probabilistic contributions of the attitudes on the behaviors are measured in next four logistic models. In the fifth model, the finding shows that the probabilistic contribution of one-time improvement in personal financial attitude increases the odds of improving the good personal financial behavior of the small borrowers. In the sixth model, the finding shows that the probabilistic contribution of one-time improvement in personal financial attitude increased the odds of improving the good institutional financial behavior of the small borrowers. Those contributions again indicate that the respective dependent variables are possible to affect or improve by altering the independent variables. The two contributions are positive and greater than the other contributions. But, remaining two models are insignificant, where the institutional financial attitude is proposed as the predictor and the personal and institutional financial behavior are proposed as the predicted variables. The findings indicated that financial behaviors of the small borrowers are not subject to change in institutional financial attitudes. The summary of the contributions, derived from the logistic regression analysis, is depicted in the following table.

Table no 24

Summary of Logistic Regression Analysis

S.N.	Predicted variable	Predicting variable	Control variables	Items	P	R-Square	Exp (B)
1	PFA	FL	Y, M.S. and Sex	8	.00	.10	1.03
2	PFB	FL	Y, M.S. and Sex	11	.00	.19	1.05
3	IFA	FL	Y, M.S. and Sex	9	.00	.11	1.04
4	IFB	FL	Y, M.S. and Sex	6	.00	.23	1.05
5	PFB	PFA	Y, M.S. and Sex	11	.00	.09	2.35
6	IFB	PFA	Y, M.S. and Sex	6	.00	.10	2.54
7	IFB	IFA	Y, M.S. and Sex	6	.06	Insignificant	
8	PFB	IFA	Y, M.S. and Sex	11	.08	Insignificant	

Source: Field data (compiled by the author)

In the table; PFA, PFB, IFA, IFB, FL, Y and M.S. stand for personal financial attitude, personal financial behavior, institutional financial attitude, institutional financial behavior, financial literacy, income level and marital status, respectively. Similarly, p value is the measured coefficient that shows the significance of the relationship between independent and dependent variables. R-square is the negelkerke R-square value and exp (b) indicates the odds ratio. The above table shows that the first four models are significant to display the probabilistic contributions of financial literacy to personal and institutional financial attitude and behavior of the small borrowers. The coefficients of exponential beta (B) displays positive contribution in the attitude and the behavior with one percent improve in the financial literacy and one point change in financial attitude respectively. Similarly, the personal financial attitude is significant to contribute personal and institutional financial behaviors with more degree of contribution coefficients than the former four contributions. But, the institutional financial attitude is not significant to contribute personal and institutional financial behavior.

Discussion on the Findings

This section presents the discussion on findings of all the research questions. However, financial literacy is a relative term. For example, it might be one thing for a business person, another for a job holder, a farmer, and a household. For this study purpose, financial literacy is a sum score of financial knowledge and skill in financial matters at the basic level. In another words, financial literacy is the degree of financial understanding and ability in calculation of financial transactions. The individuals can learn financial matters from financial culture, tradition and education.

The level of financial literacy of the current study is consistent with Clark, Lusardi and Mitchel (2015) where financial literacy of the employees is at higher level with 3.7 financial literacy indexes in 0 and 5 ranges with standard deviation 1.2. Similarly, the study also finds an average of 80 percent of financial knowledge of the

U.S. employees in an internet survey study. The finding indicates that when the U.S. participants have less diversity in terms of occupation, the participants can respond the questions correctly and if the questions are contextual.

Moreover, Ozdemir, Temizel, Sonmez and Fikret (2015) find 58.8 college students from economics stream who achieve high level of financial literacy and only 6.8 in low level. But they do not mention the range of the score for the categorization and the basis and process of item selection for the measurement. This implies that the subject economics is one of the favorable factors for better financial concepts, awareness and knowledge in financial matters. Therefore, the subject related to economics and finance might come true and effective determinant of financial literacy on the same contexts.

But, Priyadarshini (2015) find low level of financial literacy of research participants in a PhD study of South India. In the study, the participants are 435 women from faculties of college of arts and science. The study mentions that low level of financial knowledge and skill in financial matters give rise to poor financial literacy of the participants. In the study, one of the possible reasons for the low level of the knowledge and skill is the subject area of the participants, i.e. arts and science. Therefore, improved financial knowledge and skill of the small borrowers in the current study are significant to demonstrate the higher level of financial literacy. However, Priyadarshini (2015) opines that financial awareness is the source of financial knowledge.

Moreover, financial literacy is also affected by level of the national development and geographical disparity. However, these variables are not included in measurement of the current study. On this reference, Klapper, Lusardi and Oudheusden (2014) mention that a global study on financial literacy, conducted by Standard and Poor, reported 71 percent of financial literacy level in Denmark, Norway and Sweden. The same study reported that only 18 percent Nepali youths were financially literate. The study use the five questions about understanding and management of money for all the 140 developed, developing and underdeveloped countries like Nepal. The study is unable to disclose the pass level of financial literacy.

In that study, the questions might have been familiar and comfortable for the developed countries and more educated persons. Here, the pace of socio-economic development of the countries also give rise in higher level of financial knowledge and skill. But, in case of Nepal, the level of financial literacy is very poor, i.e. 18 percent. There might be two reasons for the poor level of financial literacy of Nepali youths; uncomfortable questions used in the measurement and the poor socio-economic development of the country. The poor socio-economic development of the country is responsible for poor education, income, and financial development. The same questions might not be effectively and equally convincing for the other countries, places and professionals. The current study also gives a message that the financial literacy score is achieved high if the questions are comfortable as the context, and as comfort as the business and financial experiences of the participants.

In the current study, there are two possible reasons of the strong score or levels of financial literacy even though the participants are relatively less literate. First, the rigorous process of contextual tools formulation, which follow literature review, interviews with small borrowers, panel discussions with experts and experienced role players of financial fields, and the rating method of item selection and pilot study. In the study, the measurement of financial knowledge and skills is based on stock concepts, i.e.

self-reporting of knowledge and skills the participants' conscience. There are several possible sources of basic knowledge and skills such as peers, family, financial cultures, society and formal educational settings. Second, the members of the cooperatives, who are technically the service users too, might have been influenced by the peer effects in learning the financial matters. There might also be a role of counseling, orientations and trainings to their members about financial matters and services by the service provider institutions. An awareness program like cooperative education is held in some of the member-and community-based cooperatives in Nepal. In this connection, Tchami (2007) mentions that the education including training and member awareness is one of the seven international principles of the cooperatives formulated by International Cooperative Alliance (ICA) in 1995.

High degree of financial literacy implies the increasing self-capacity in decision making, good behavior and thereby improved financial well-being. Financial literacy is also the source of self-efficacy in financial activities and good financial health of individuals. Self-efficacy concerns rationality in terms of price and utility, and investment and returns. “Self-efficacy theory claims that a strong sense of self-efficacy enhances accomplishment, allows a person to overcome obstacles, face challenges, and persist in their efforts to reach a goal” (Bebas, 2012, p.19). Self-efficacy opens the market opportunity and helps in increasing self-confidence.

Similarly, increased financial literacy has also the implication of the human capital. Through improved knowledge and skill in personal finance, individuals can develop themselves and contribute to the society as capitals. Capital is one of the sources or factors of production (Dae-Bong, 2009) of goods and services. In the similar context, Melike, Melda, Seckin, and Elcin (2005) compare human capital and human qualification as equal. It implies that greater financial literacy contribute individuals to become human a capital. “Human capital is the sum of abilities, knowledge and skills that are specific to individuals” (Melike, Melda, Seckin, & Elcin, 2005). Moreover, Huston (2010) opines that financial literacy and knowledge are parts of human capital. From the theoretical perspective, improved financial literacy of small borrowers opens the door of several opportunities to them such as market access, access to the jobs, venture creation, search of market opportunities, etc.

Moreover, Lusardi and Mitchel (2014) argue that investing in financial knowledge contributed in making human capital, which ultimately helps in income and wealth generation. Human capital is an investment because, in the process of getting financial knowledge and skill, individuals have to pay money. Finke (2011) divides the human capital into finance-and investment-related aspects. However, the finance-related human capital considers money, its knowledge and application in wealth maximization process. The investment-related human capital concerns how to induce investment in education and skills to make a human a capital. Huston (2012) argues that financial education is the source of human capital. Bolanos (2012) links financial literacy as a source of human capital. He further opines that the basic sources of human capital are knowledge, skills and ability to use the knowledge and skills in practice.

Horwitz (2015) argues that human capital, as a theoretical framework of financial literacy, which is based on knowledge and ability that has also the behavioral implication in finance. The connection between the theory and the finding of this study implies that education give rise in financial literacy of the small borrowers that helps to make them human capitals. Investing and cultivating knowledge and skill make the human a capital. Huston (2010) opines that human capital has also the well-being implications. Therefore, financial literacy has also a human capital implication.

From the perspective of human capital theory, financial literacy or financial knowledge and skills have potential to be used in entrepreneurship, employment and other income generating processes. In other words, the perspective is useful to open the opportunities, to search of better financial alternatives and to minimize the financial wastages. Financial wastages are termed as unnecessary or unproductive expenditures and control of investment from relatively low earning areas. Financial control helps increase financial benefits. Moreover, from the life-cycle hypothesis perspective, the small borrowers have to manage their personal financial resources according to their life-cycle needs. Life-cycle hypothesis considers age, income, saving, expenditure, financial plan, life-long needs, satisfaction, etc.

Among the demographic variables of the small borrowers in this study, age is statistically significant with financial literacy of small borrowers. The early age participants achieve higher level of financial literacy than the later age. The early age participants includes two groups, i.e. the age less than twenty five years and between twenty five and thirty four years. Hence, the age is an indicator of behavioral activeness and learning consciousness of the individuals. The early aged small borrowers have higher financial literacy compared to other age groups. This finding further indicates that while providing financial literacy to small borrowers, it is better to consider their age because the age is a decisive factor and thereby affect their financial literacy. The priority is needed to provide for working age group while providing financial education.

In an OECD research, Atkinson and Messy (2012) find a low financial literacy among youths and elders. They mention two reasons behind the finding that elder people feel difficulty with fast-changing technology and they may have cognitive deterioration in that age. Similarly, Finke (2011) finds age of participants as stronger predictor of financial literacy and argue that advanced-aged people may lose their cognitive and calculative memory. Therefore, in the later age, people's financial literacy would diminish. Moreover, Thapa and Nepal (2015) find significant relationship between age and financial literacy in their study of the college students in Kathmandu valley. But, the finding of the current study is inconsistent with Oseifuah and Gyekye (2014). They find insignificant relationship between financial literacy and age of the college students of bachelor level in South Africa.

Age and financial literacy, and thereby formulating a life-cycle financial plan, also can be explained through a life-cycle model. Life-cycle hypothesis also postulates an important life-cycle financial plan for balancing personal income between spending and saving according to the different age stages. The financial literacy of small borrowers and their working age have the relationship. It indicates that age helps to develop a life-plan in financial matters. According to the hypothesis, the individuals should focus in earning and saving in working age than the consumption expenditure. For earning, the individuals should be engaged in productive work for which they should learn and improve their financial self-efficacy. There are mixed relationship of age of participants with their financial literacy in some of the previous studies.

Bodie, Treussard and Willen (2007) opines that life-cycle model stands on how to reconcile two extremes of resource limitations and increasing consumption expenditure during the life. The implication of age-financial literacy relationship in life-cycle model is that the financial planning during the life depends on age of individuals. In early age and old age, the people consume more and save less. In middle and working age, they earn and save more but consume less, with compare to earning and saving. In such, financial capability of the individuals is helpful to formulate the life-cycle financial plan, minimize the cost of living and increases the financial benefits. Similarly, better financial literacy increases the probability of skills of formulating life-cycle financial plan. “The initial rise with age might be interpreted as an increase in experience, while the subsequent decline could be the result of deteriorating cognitive functions” (Mireku, 2015, p.36).

The significant relationship between financial literacy and first language of small borrowers shows that, the first language of participants has the possibility to affect financial literacy of the participants. This indicates that means of communication is important while providing financial education. Therefore, the financial literacy is more effective as the people speak and understand the language of education. In this study, 74 percent of the participants spoke Nepali as the first language, which indicate that the participants are able to understand the financial matters and are skilled to make financial plan. Constitution of Nepal states Nepali language as the government official language. Language barriers also affect financial knowledge.

Similarly, the statistical relationship between marital status and financial literacy of the participants is significant. The descriptive statistics shows that the unmarried participants have more medium and high level of financial literacy with compared to the married ones. It shows that the marital status of the small borrowers has decisive role in their financial literacy. In such, marital status is to consider while providing the financial education. In Nepali culture, the women are relatively free in their first house for education and learning of the scenarios. Such freedom is a possible reason for peer effects in their financial literacy. The result is inconsistent with the study of Potrich, Vieira and Kirch (2015), which is conducted among Brazilian people.

Moreover, the relationship between education level and financial literacy level of small borrowers is statistically significant. It shows that education plays decisive role in their financial literacy. The descriptive statistics shows that when the education of the participants is increased, their financial literacy level is also increased. The finding is consistent with Potrich, Vieira and Kirch (2015), who put that the education is a determinant in financial literacy of participants. Traditionally, the education is the source of financial literacy. It implies that increasing education helps in increasing financial literacy. Education is the prime source of financial knowledge and skill. More specifically, education also helps one to understand the financial services and thereby motivate towards positive financial attitude. More educated people can understand economics and finance because the formal education system teaches a basic level of financial information and skill of money management. Sucuahi (2013) argues financial education as a source of financial literacy. In the same lines, Walstad, Rebeck and MaCDonald (2010) also find that the students of the similar course may have more effects in financial knowledge.

There are mixed results in the relationship of financial literacy and financial attitude of small borrowers. In a PhD study of Ghana, Mireku (2015) finds a positive relationship of the financial literacy with the financial attitude of participants. As this study finds that improved financial literacy of the small borrowers is responsible for forming the positive attitude towards financial services and service providers. It shows that financial literacy is one of the significant sources of financial literacy of small borrower. Therefore, financial attitude leads to financial behavior.

Again, there is mixed finding of significant and insignificant relationship between financial literacy, attitude and behavior of the small borrowers. The relationship between the financial literacy and attitude are significant and insignificant with six and two financial behaviors respectively. The relationship of financial literacy is significant with ten financial behaviors but the financial attitude is insignificant with the same behaviors. Similarly, the relationship of the financial literacy is insignificant with two behaviors where the financial attitude is significant with the same behaviors. The findings communicate that the relationship between financial literacy, attitude and behavior is not in the same lines. In this, Horwitz (2015) and Mireku (2015) find significant relationship between financial literacy and behavior. Priyadarshini (2015) also finds a significant relationship among financial skill, attitude and behavior in a PhD study in South India.

On the reference of the probabilistic contribution of some of the variables to institutional and personal financial attitude and behavior. Six out of eight models are fit to show such contribution. In the first four models, the financial literacy is major contributing factor to financial attitude and behavior. In the next two findings, financial attitude is major contributor to financial behavior. But, Govindarajan (2016) finds that financial knowledge of students has no influence on financial decision making. It may be due to lack of any real-life financial experience. However, he further finds that financial skills of numeracy affects their financial behavior significantly. But, Donohue (2011) discovers that financial knowledge was responsible for financial behavior. But, by how much the knowledge was responsible was not mentioned in her doctor of education thesis. She further presents a positive cycle among financial education, knowledge and behavior. Sometimes, may be due to measurement and data errors, financial literacy may not show any relation with the behavior.

Further, Shim, Barber, Card, Xiao and Serido (2009) find that financial knowledge contributes financial behavior directly rather through financial attitude and perceived behavioral control. Perceived financial behavioral control is the beliefs of behavioral direction whether the financial behaviors are easy or difficult. However, they are unable to estimate the degree of change in behavior with financial literacy. The finding of the current study is consistent with Bayrakdaroglu and San (2014), who also find that a point increase in financial literacy level increases 1.1 times of probability of stock participation behavior. This positive and better index of probability of contribution shows that financial literacy of the participants is a decisive factor to contribute in financial behavior. Similarly, Mandell and Clein (2007) also find that financial literacy score significantly contribute the bill payment and saving behavior.

Fernandes, Lynch and Netemeyer (2014) find that financial literacy predict 0.1 percent variance in financial behavior. However, the finding depicts a slower effect than the former. The measurement shows that the financial literacy predicts behavior directly. But, Calcagno and Monticone (2014) claim that poor financial behavior is not necessarily always cause by low level of financial literacy. It means that financial behavior is not merely affected by financial literacy, there might be several other factors. Despite the financial factors, time lag between literacy to behavior and attitude to behavior also plays a decisive role. In other words, literacy and attitude do not necessary to convert into behavior in a short-run. From the above studies, it is concluded that financial literacy is necessary but not always a sufficient condition in improving financial behavior of the participants. Financial behavior is subject to change by contextual and personal factors.

Moreover, in model number five and six, personal financial attitude is the independent variable to contribute personal and institutional financial behaviors. Here, the relationship between the attitude and behavior is significant. The sources of personal financial attitude might be financial culture, tradition of personal finance and peer effects. Therefore, the results shows that small borrowers have the financial attitude based on the socio-cultural traditions, experiences and the peer influences. But, the measurement shows that institutional financial attitude is not contributing factor on personal and institutional financial behavior.

Moreover, the result shows that the financial literacy has the similar odds ratio in predicting both of financial attitude and behavior. But personal financial attitude is more powerful to show the probability of predicting both the personal and institutional financial behaviors of the participants with compare to the former contributions. The findings imply that the contribution of personal financial attitude to the behavior is more powerful than the contribution of the financial literacy on the behaviors. On the basis of the results, the following conceptual model presents two channels of influencing the financial behavior of the small borrowers, i.e. direct and indirect (see in figure 2). In direct influence, the behavior was expected to influence directly by financial literacy. In indirect influence, the behavior was expected to contribute through attitude formation.

With the reference to the formation of financial attitude to influence behavior, the theory of planned behavior is more influencing in validating the probabilistic effects of financial attitude on financial behavior. The theory asserted that the behavior is affected through change in attitude. Similarly, the theory of planned behavior asserts that the human behavior is affected as the plan. The plan is a linear and hierarchical relationship among the designed or planned actions. Ajzen (1991) and Ajzen (2011) argue that the designed actions are attitude, intention and behavior. More specifically, “intentions to perform behaviors of different kinds could be predicted with high accuracy from attitudes to the behavior, subjective norms, and perceived behavioral control; and these intentions, together with perceptions of behavioral control, account for considerable variance in actual behavior” (Ajzen, 1991, p.179). Behavioral control is the basic premise of the theory. Behavioral control is possible when one could judge and intend to do or not to do something. In the same line, Chatzisarantis and Hagger (2007) argue that intention bridges attitude and behavior.

In the current study, financial attitude is an intermediary variable in measuring the contribution of financial literacy on the behavior. Financial literacy is a backward linking variable for financial attitude and forward linking to financial behavior. Financial behavior is a forward or short-term destination factor of the financial attitude. The study finds that the financial attitude predicts healthy financial behavior. Similarly, Bolanos (2012) presents a causal framework between financial attitude and behavior in which the attitude affects behavior through financial self-efficacy. Financial self-efficacy is the ability and confidence of making the financial decision, which is primarily affected by financial knowledge and skill.

Moreover, the financial behavior is one of the several human behaviors. This study helps to connect financial literacy and attitude with financial behavior. The synopsis of the theoretical perspective shows that financial attitude and behavior also are interpreted through these theories. Both of the theories show separate paths of contributing the financial behavior that the behavior is possible to change by understanding and by observing or learning others' behavior. With reference to the contribution of financial attitude on behavior, Bandura (1999) argues that attitude influences the behavior. The lesson to learn from this theoretical perspective is that the small borrowers are motivated towards good financial behavior if they are involved in exposure visits, visual aids from medias and financial role models because demonstration effect is more influencing to change one's financial behavior.

Thus, in the first four logistic regression models, social cognitive theory seems more influencing that the financial behaviors of the small borrowers are affected by demonstration and by learning what and how the peers are doing their financial activities. The social cognitive theory is based on the direct effects of learning on the behaviors, without forming any cognitive judgment and analysis. Wagner (2015) finds that increase of one more point in financial literacy increases the likelihood of a financial behavior by two percentage points. From the rationality point of view, such behaviors are also explained as irrational behavior which are not based on judgment.

Besides, social cognitive theory postulates a short-term cognitive decision of individuals while doing something. "Bandura's social learning theory explores the idea that knowledge develops through the observation of others and thus, how behaviors are learned" (Begich, 2017, p.25). In financial behavior, mainly for small borrowers, this theory is more applicable because most of the participants learn their financial behavior from their family, peers, environment, society and institutions. Mireku (2015) also connects the theory in financial behavior in his doctoral study stating that the people can learn the financial activities from the local contexts, environment and social interactions. The theory highlights that the learning of behavior is based on social contexts, peer reciprocal, environment and socio-economic phenomena.

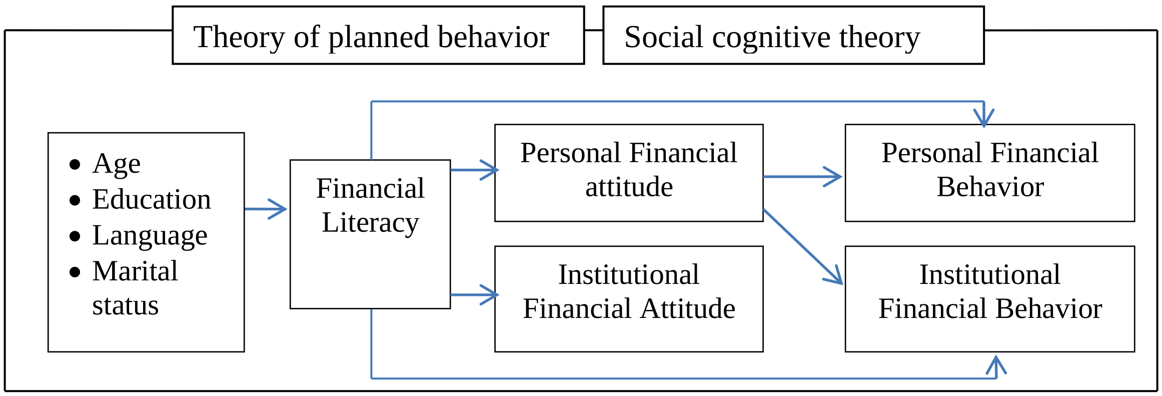
The small borrowers, under micro-finance model in Nepal, decide their financial behavior in groups. They save, borrow, repay the loan, purchase share, etc. in their groups. This means that they learn from their group behavior and their peers of the service provider, i.e. cooperatives. Its effect fall quickly to them and they are motivated to do it. They might (or might not) evaluate their behavior after they behave. In such a situation financial literacy might affect the financial behavior directly, without forming the financial attitude. The data, in this study, also shows that there is significant relationship among financial literacy and behavior. Similarly, the contribution of financial literacy in financial behavior is also positive and significant. Therefore, this theory is blended in this study. However, the theory is silent about the source (s) of attitude formation and the impact of behavior. The human behavior is neither the first nor the ultimate action in human lives. Human behavior has backward and forward linkages.

The theory of planned behavior stood on line of hierarchy among attitude formation, conversion of attitude into intention and thereby the behavior is influenced. Moreover, Armitage and Conner (2001) argue that perceived behavior control could better predict intention and behavior. The perceived behavioral control factor is also understood as self-efficacy or self-confidence of doing some actions. Knowledge and skill are some of the factors to influence self-efficacy. But, Conner, Rodgers and Murray (2007) argue that intention formation is not always a necessary condition for behavioral control of persons. This shows that sometimes, self-efficacy is more powerful in behavioral control. Similarly, the probabilistic effect size of personal financial attitude on both of the personal and institutional behavior is higher than the probabilistic effect size of the financial literacy on attitude and behavior. This indicates that financial behavior would be more sustainable when the small borrowers show their financial behavior by financial analysis. The analysis is a part of attitude formation and thereby increases the possibility in showing rational behavior.

Similarly, the effect size of the financial literacy on financial attitude and behavior show that this chain of behavior might be suitable for the short term financial behaviors. From both the theoretical perspectives, the probabilistic contribution of the financial literacy and attitude on behavior established by the theories have been confirmed, which is demonstrated in the following figure. In this, Carpena, Cole, Shapiro and Zia (2011) argue a causal framework between financial literacy and outcome, i.e. financial attitude and behavior. Therefore, the combination of social cognitive theory and theory of planned behavior explaining the prediction of financial behavior could be shown by the following figure.

Figure 2

Financial Literacy, Social Cognitive Theory and the Theory of Planned Behavior



The above figure shows a causal relationship between the variables like demographic variables and financial literacy, personal and institutional financial attitude and personal and institutional financial behavior. As stated above, the theory of planned behavior helps to establish the prediction of financial behavior via financial attitude. However, the measurement of intention is beyond the scope of this research. The role of intention is difficult to measure in self-reported data in a cross-sectional survey. Here, the cause of influencing the financial attitude is financial literacy as the finding of this research. Similarly, there is possibility of influencing financial behavior by financial literacy directly as the social cognitive theory. Therefore, the contribution of financial literacy to behavior, financial attitude to behavior and financial literacy to attitude have been established. The data, theory and literature have approved this path.

From the rationality aspect, the behaviors are affected by attitude and intention. In rational behavior, the individuals behave with information and evaluation or analysis of the future consequences of the activities they do with money and resources. Jureviciene1 and Ivanova (2013) introduce rationality as the perfect information while using the financial services. Similarly, in rationality the people estimate the cost and benefits of the financial behavior which also makes the small borrowers small entrepreneurs. Therefore, the connection of financial behavior with theory of planned behavior is close to the rationality concept. But in practice, such perfect information, evaluation and analysis may not always be possible.

Pompion (2006) introduces the bounded rationality, which compromise a midway in behavior. From the bounded rationality aspect; the financial behavior is also termed as irrational or impulsive when the small borrowers behave the financial resources without any estimation and analysis of future consequences. Their financial behaviors are influenced by the observations and peer effects or without any rational financial assessment. Similarly, from the critical aspect, the small borrowers who deal with their monetary resources through attitude formation, they might raise the question to the service supplier about their financial rights. Such behavior helps them to be economic citizens. Therefore, the theory of planned behavior is also close to blend the critical financial literacy aspect to the financial behavior, which is related to influencing the behavior by the judgment and assessment of financial scenario. This echoes Ajzen (2011), who argues that the behaviors of the individuals are influenced by the reasons, beliefs and plan of actions.

Hence, institutional financial attitude is unable to contribute to personal and institutional financial behaviors of the small borrowers. It shows in Nepal that the local and personal financial attitude formation is more influencing than the institutional financial attitudes in the given context. One of the possible reasons behind the influence of personal financial attitude on behavior is the financial culture of small borrowers in which they are habituated and experienced. Moreover, focusing merely on the institutional financial literacy, attitude and behaviors are more influenced by the western concept of personal finance which may be partially true. In such, priority of traditional knowledge and practices in finance have also the roles to enhance the financial well-being of small borrowers.

Insignificant relationship and contribution of institutional financial attitude on personal and institutional financial behavior also indicates that contextual financial attitude and behavior are vital. Similarly, this finding also shows ineffective activities of the financial institutions in motivating the small borrowers. This brings a new scenario from this contextual study that the institutional practices which are guided by western concept of banking and financing are ineffective to reflect in the financial behavior. The finding also demands a new avenue of discourse that neglecting an indigenous ways of knowing the finance and activities may not serve Nepali context. The context is not following the western or institutional finance as expected by its designers.

From the perspective of critical financial literacy; the institutional financial behavior might make the small borrowers more mechanical rather than the critical citizens in financial matters. There is a need of searching financial right of everyone in financial market that helps to promote financial inclusion and thereby inclusive development. Poor education, mass poverty and social discrimination are some of the root barriers of promoting critical financial literacy in Nepal.

The existing power relations in the society and the dominations of particular group of people may also cause limited access, inefficient utilization of resources and inadequate financial market access. Similarly, increasing globalization also creates the giant rivals in market leading to the disappearance of local products, skills, and resources.

As such, a local context of financial understanding and settings in need of development. The possible context may be developing the curriculum in local language, developing awareness program in local context and relaxing the procedures of financing. Similarly, promoting local institutions such as cooperatives may be another way out. Educating the people can help in diminishing the control of financing by certain powers in the society. It is a long term process in educating the people.

Similarly, the issue of financial literacy is necessary to understand beyond simple financial matters prevailed around us. It's not only a matter of consuming a financial service available and search of it. Consuming financial services with low possible cost and maximizing the financial benefits are necessary but not sufficient. Financial literacy goes or should go beyond the money management and financial autonomy for every financial consumers. In this, financial self-efficacy plays vital role. Arthur (2012) argues that people should be a consumer citizen rather than merely a consumer. Consumer citizens or critical financial consumers are explained as conscious, responsible, critical and rational towards self and social financial cost and benefits not only for a short-term but also for a long-term.

Ineffective institutional financial attitude to contribute institutional and personal financial behavior also demands a separate study. The study would compare the usefulness of personal and institutional finance. Current study only may be insufficient to declare that institutional efforts are useless, but local financial ways of knowing are useful. The scenario that institutional financial knowledge and behavior explores a policy dilemma. The dilemma is between policy and practice. Most of the financial policies prioritize the formal setting of finance. But, this study signals a new avenue that the role of personal finance is also significant for small borrowers.

In the same line, financial literacy should go with promoting local knowledge and behavior in new ways that institutional financial attitude could contribute on financial behavior. It also shows that only western ways of knowing and applying financial activities in daily lives of small borrowers is not sufficient. Similarly, the current policy priority regarding western style of formal finacial setting is inadequate in Nepali financial scenario to improve financial behavior. Moreover, ignoring the local knowledge in policy priority might create a situation of poor implementation of the policies in financial sector.

Concluding the Chapter

In this chapter, summary and discussions on findings were presented. In first part of the chapter, findings are summarized. The part captures the level, relationship and contribution of the variables. In second part, the findings are discussed on the basis of data, theory and literatures. This chapter helps readers to know about what and why the findings of this study are important in Nepali context. The discussion explores the linkage and connections between financial literacy and behavior. The chapter concludes that there are interconnections in financial literacy, attitude and behavior. Moreover, financial literacy and attitude contribute financial behavior.

CHAPTER VI

CONCLUSION AND IMPLICATIONS

In the previous chapter, the findings of this study were discussed. In this chapter, some conclusions of this study are drawn. The conclusions of the study are based on the findings, review of the literature and the theories of behavior. Similarly, this chapter also presents some implications for the beneficiaries of this study and delineates some avenues for future research. The study concludes that financial literacy leads financial behavior.

Conclusion

To measure level of financial literacy of individuals, a proper, contextual and tested instrument is appropriate. People understand financial matters and systems in their own ways and thereby the level of financial literacy of people may also be different. Financial awareness and understanding of people depends on time, context, level of financial development of the country and need of the people. However, a minimum level of financial awareness and skill are necessary for everyone, which fall under functional education. Therefore, the gold standard of any contribution of financial education to literacy, attitude, behavior and well-being may not be possible. Similarly, providing one-size-fits all type of financial education to all the people in same way may not make the people financially literate. Such type of financial diversities are affected by peer effects, financial culture, observations, tradition and experience of individuals in financial matters. The study concludes that there are theoretical and empirical interconnections between the financial education, demographic variables, financial literacy, attitude, behavior and well-being. Other things remaining the same, improved financial education contributes in financial well-being of the small borrowers by improving their financial literacy, attitude and behavior.

This study explores the avenues of financial concept, some rationales and ways of contributing the financial behaviors. The measurement of the financial literacy level brings the answer of the concept of financial literacy. The measurement of contribution of financial literacy to behavior answers about why the people need financial literacy. The path model of the contribution of financial literacy to behavior answers that how the financial literacy can change the financial behavior. This study has added a new knowledge on behavioral theories that financial awareness has also the contribution on financial behavior.

Normally, financial education, literacy, attitude, behavior and well-being have a hierarchical and mechanical pathway. However, it is difficult to develop a universal line of formula and index to join these aspects of financial literacy. In other words, it is difficult to find a typical width, degree and maturity of those aspects as the gold standard. Similarly, there are some assumptions to satisfy the pathway, which are contextual, relative and time-specific. Therefore, this study also explores a pathway of financial education to well-being.

Moreover, financial literacy is necessary but not sufficient condition to change one's financial behavior. In this, Robson (2012) argues that financial literacy is not a financial panacea. In practice, the financial behavior of the small borrowers and other people is not affected by merely the financial attitude, demography, financial literacy and intentions; there are several other factors such as socio-economic and cultural factors. As finding, a low degree of contribution on financial behavior in this study also signals that there are other factors than the financial literacy to affects the behavior. Financial culture and traditions also has a significant role in this connection.

Methodologically, development of an evaluation scale of the financial behaviors of the small borrowers with logical and proximate options for rating is a new departure in this study. Similarly, dividing the financial attitude and behavior into personal and institutional categories is another departure in measurement of financial literacy dimensions. Moreover, multi-mode measurement of financial attitude variables also has new space in such research. For example, financial attitude is dependent when financial literacy is independent and the attitude is independent when financial behavior is dependent. Measurement of financial behavior through self-reporting technique is also a new departure. This way of data collection is a new and practical for better exploring the financial phenomenon.

The study reveals that level of financial literacy contributes positively on both personal and institutional financial attitude. Personal financial attitude leads to behavior of personal and institutional finance indicating that personal initiation has more influence on financial practices in Nepal. But, institutional financial attitude do not affect both of personal and institutional financial behavior. However, the literacy alone affect the both type of financial behavior indicating that the people behave without much evaluation. This study has policy implications for promoting institutional financial literacy to improve their positive attitudes. Such positive attitude leads to good institutional financial behavior. Therefore, the ultimate target of any financial interventions is to affect the people’s financial well-being. Financial behaviors are necessary to improve good, for which their financial literacy is necessary to improve.

Implications

This study has multi-fold implications: for the government, financial service suppliers, financial service users and researchers. The government includes ministry of education and the central bank for this concern and formulation of the policy is major agenda. Xu and Zia (2012) argue that measurement of financial literacy is the first step for policy intervention. Therefore, formulating education policy to improve financial behavior by improving the financial literacy is essential. The government is required to develop curriculum by focusing financial educational subjects from the school-and college-level education. Kempson, Perotti and Scot (2013) also prescribe financial literacy as a policy agenda both in high-and low-income countries.

The previous studies indicated that educational progress, particularly on economics and finance, would be more beneficial for improving financial education and thereby the literacy of the people. A curriculum-based financial educational program has long-term and sustainable effects to the students for educating them about financial matters and thereby improve their financial attitude and behavior. The students of today will be the human capital for the days to come; they will be the entrepreneurs, business persons, politicians, policy makers, bureaucrats, etc.

Since institutional financial attitude do not contribute in personal and institutional financial behavior indicating that people are not encouraged to use institutional financial interventions. The people need to be facilitated to increase their readiness to use the financial measures to bring formal financial system for the poor people. The people appeared to use institutional financial measures merely of their own motivation rather than the motivation of formal sector. This notion should be capitalized to increase formal systems. Since financial literacy alone induce both types of financial behavior but this research did not explain the reasons. There may be emotional impression, heard mentality, social norms, cultural aspects, therefore future research should include other theoretical framework such as the theory of reasoned actions which deals with self-efficacy, peer pressure, cultural capital to explain them.

Hence, institutional financial attitude of the small borrowers have no effect on the personal/institutional financial behavior. A scenario has prevailed that whatever the cooperatives provide the financial education to their clients seems ineffective. NRB (2016) circulates a regulation to the licensed banks and financial institutions for awareness obligation of that institution towards their clients. Similar regulations are necessary to circulate to the cooperatives by the government as well since the government is the regulator and supervisor of these institutions. On the reference of gap between policy and practice, the new policy formulation and effective implementation of the existing policies to empower the financial consumers is demanded. For this, a policy research in this agenda might be a guideline that might explore the policy perspective in Nepali context.

Similarly, the service suppliers are very close to the service consumers rather than the policy makers and other sectors. Educating and counseling the people comprise the corporate social responsibility and the social obligations of the financial service suppliers as well. But, the financial intermediaries are using such an effective way of empowering the financial consumers as marketing strategy of their financial services rather than as an obligation. In fact, the institutions should think from other side also that educating the clients may contribute in minimizing the cost of finance, helps in decreasing the defaults and increases the quality of financial services. Therefore, this study will be helpful for the service suppliers to establish the rationale of financial education to their clients. Moreover, the researchers can explore the local financial spectrums and traditional financial inter-connections in this issue. Economics and finance are the wider area for researching in which the researchers can search the root causes of financial scenarios. On the ground, the study suggests following avenues of future researches.

Spaces for the Future Research

From the perspective of research; there are several spaces for future research in the field of financial literacy. Small borrowers are one segment of people who are considered in this study on the basis of their poorer financial position than others in the society. There are other segments of people to focus financial literacy such as school and college students, big borrowers and business persons, basic level employees of financial institutions and cooperatives, political persons and policy makers, bureaucrats, Dalits, household women, board of directors of financial institutions and cooperatives, etc. In this research, the contribution of financial literacy to financial behavior is studied and found a positive and significant impact measurement. There are other avenues of the issue linking with other areas such as developing the entrepreneurship, access to finance, financial inclusion, national development, modes of financial literacy trainings, etc.

Pinto and Coulson (2011) have suggested the need to diagnose the social financial injustice among the people in financial literacy research. It is worthwhile to establish the financial equality and equity that demand the research. Similarly, there is a need of in-depth studies of financial illiteracy and its connections to socio-economic power relations and whole development process of the country. Nepal (2016) suggests studying the impact of financial literacy in financial inclusion. The theoretical or thematic reviews of this study revealed a triangular relationship among financial literacy, financial inclusion and access to finance. Such relationship requires substantiation through some empirical researches. Literacy, access and inclusion have the development implications too.

Financial literacy may cross the border of formal financial services. Our country is still suffering from poor formal financial service supplies in rural areas. The MoF (2015) reports 60 percent people out of formal financial services in the country. In this connection, a research focusing how the rural people understand the financial services, institutions and how and why they are consuming informal financial services with its bleak consequences would be worthwhile. For this, longitudinal studies may be more useful. Meanwhile, a policy research in the field of financial literacy also may be a demand. Such policy research would help to develop policy priorities and identifies the primary beneficiaries of the financial literacy programs.

Hence, this study is unable to bring the agenda of informal financial activities prevalent in rural areas, and also unable to critically analyze the western design of institutional financial activities. Therefore, there is a need for exploring rural and contextual setting of financial activities by longitudinal studies. Moreover, the current study is based on the survey data on stock concept of financial knowledge and skill. Such study is unable to present the determinants and factors affecting the financial literacy of the people of Nepal, particularly of the rural and financially vulnerable people. Similarly, this study is unable to explore the reasons for poor contribution index of financial literacy on financial attitude and behavior. This also demands a study in search of other contributing factors to financial attitude and behavior of Nepali people.

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Annexes

Annex I

Table 1

Financial Literacy Survey Questionnaire

(साना ऋणीहरुको वित्तिय साक्षरता मापन) सहभागी सर्वेक्षण प्रश्नावली

नमस्कार !

म काठमाडौं विश्वविद्यालयको विद्यावारिधि **(PhD)** शोधार्थी हुँ । सहकारी संस्थाबाट बिभिन्न स-साना व्यवसायिक प्रयोजनका लागि सानो रकमको ऋण लिएका ऋणी सदस्यहरुको वित्तिय ज्ञान, सीप, दृष्टिकोण र व्यवहारको अध्ययन गर्ने सिलसिलामा म यहाँको समय, जानकारी र सहयोगका लागि अनुरोध गर्दछु । यस अध्ययनको प्रयोजनका लागि **वित्तिय** भन्नाले हरेक व्यक्तिका नगद सम्बन्धि बचत/ऋण, लगानी, आम्दानी/खर्च, र योजना आदि बुझ्नुपर्दछ । र **वित्तिय साक्षरता** भन्नाले वित्तिय जानकारी, सचेतना, ज्ञान र सीप सम्बन्धि हरेक व्यक्तिको दक्षता/क्षमता भन्ने बुझ्नुपर्दछ । यी बिषयहरुमा यहाँबाट उपलब्ध भएका सुचना एबं जानकारी गोप्य रहने र अनुसन्धान प्रयोजनमा मात्र उपयोग गरिनेछ । यस अध्ययन सम्बन्धि कार्यमा यहाँको सहभागिता र सहयोगका लागि हार्दिक धन्यबाद व्यक्त गर्दछु ।

विद्यावारिधि शोधार्थीः **रमेशप्रसाद चौंलागाईं**

Greetings!

I am a PhD researcher of Kathmandu University School of Education. This study investigates financial knowledge, skill, attitude and behavior of small borrowers or small entrepreneurs of cooperatives. I request your time, information and cooperation in this respect. For this study, 'financial' means the transactions including saving, credit, investment, income, expenditure and planning of money resources of individuals. Financial literacy, for this study, includes financial information, awareness, knowledge and skill. All the information and opinion collected from you will be kept secret and will only be used for the study purpose. Many thanks for your participation and cooperation in this study process.

PhD Researcher: **Ramesh Prasad Chaulagain**

खण्ड कः परिचय (Section A: Introduction)

तपाईंसंग सम्बन्धित तपशिल बमोजिमका व्यक्तिगत विबरणमा बुँदा बमोजिमको जानकारी भर्नुहोस वा चिनो (✓) लगाउनुहोस ।
(Please tick (✓) or fill up the personal information below related to you).

१) नामथर (ऐच्छिक):	२) हालको ठेगाना:	
1. Name (optional):	2. Recent address:	
३) हालको उमेर:	४) हालको पेशा:	
3. Recent age:	4. Recent occupation:	
५) जात/जाती:	६) भाषा:	७) धर्मः
5. Ethnicity:	6. Language:	7. Religion:

८) लिङ्गः	महिला ☐	पुरुष ☐	

8. Sex: Female ☐ Male: ☐

९) वैबाहिक स्थितिः	विबाहित ☐	अविबाहित ☐	एकल ☐

9. Marital status: Married ☐ Unmarried ☐ Single ☐

१०) शैक्षिक योग्यताः	निरक्षर ☐	साक्षर ☐	कक्षा १ देखि ५ उतीर्ण ☐
कक्षा ६ देखि ८ उतीर्ण ☐	कक्षा ९ देखि १२ उतीण ☐	उच्च माध्यमिक शिक्षा भन्दा माथि उतीर्ण ☐	

10. Educational qualification: Illiterate ☐ Literate ☐ Class 1-5 Pass ☐ Class 6-8 Pass ☐, Class 9-12 Pass ☐ Above Higher Secondary Pass ☐

११) मासिक आम्दानी (रु):	६५०० भन्दा कम ☐	६५०० भन्दा बढि ☐

11. Monthly income (NPR): Below 6500 ☐ Above 6500 ☐

खण्ड ख: वित्तिय ज्ञान (Section B: Financial Knowledge)

यस खण्डमा १० वटा कथनहरु प्रस्तुत गरिएको छ। हरेक कथन तपाईलाई ठीक लागेमा **हो**, ठीक नलागेमा **होईन** र थाहा नभएमा **थाहा छैन** भन्ने (तीन मध्ये कुनै एक) विकल्प (बाकस) मा चिनो (✓) लगाईदिनुहोस।

(This section includes ten statements. Tick on **yes**, if the statement is correct,tick on **no** if the statement is incorrect, and tick on **don't know**, if you do not know the statement).

सि.नं. SN	कथनहरु Statements	हो Yes	होईन No	थाहा छैन Don't know
१	बैंक/वित्तिय/सहकारी संस्थामा ब्याज आर्जन हुने गरी सुरक्षित रुपमा राखिएको रकम बचत हो। Saving is the amount kept safely in banks/financial/cooperative institutions to earn the interest.	☐	☐	☐
२	ब्याज सहित फिर्ता गर्नुपर्ने गरी बैंक/वित्तिय/सहकारी संस्थाबाट लिएको रकम ऋण हो। Debt is the amount borrowed from banks/financial/cooperatives to refund with interest.	☐	☐	☐
३	संस्थाले ऋण दिए वापत निश्चित प्रतिशतको दरले ऋणीसंग असुल्ने थप रकम ऋणको ब्याज हो। Debt rate is the additional money levied by the institution on debt.	☐	☐	☐
४	कुनै व्यक्तिले कुनै संस्थाको अंशियारका रुपमा संस्थामा लगानी गर्ने रकम शेयर हो। Share is the amount invested in any institution by any person as an owner.	☐	☐	☐
५	शेयरमा गरिएको लगानीमा संस्थाको नाफामध्येबाट बर्षको एकपटक प्राप्त हुन रकम शेयर लाभाँस हो। Share dividend is an additional amount received against share investment a year.	☐	☐	☐
६	शेयरमा प्राप्त हुने लाभाँस र बचतको ब्याज आयमा सदस्यले नियमानुसार तिर्नुपर्ने रकम कर हो। The members should pay the tax on share dividend and interest income according to the law.	☐	☐	☐
७	सहकारी संस्थाले सदस्यहरुसंग धितो जमानी (समुह/बचत/स्थिर सम्पत्ती) लिएर मात्र ऋण दिने गर्दछ।	☐	☐	☐

	The cooperative institutions provide the loan to their members only against collateral (group/saving/fixed assets).			
८	ऋणीले तिर्ने किस्ता रकम तोकेको समयमा नतिरेमा साँवा ऋण रकममा संस्थाले हर्जाना लगाउंछ। The institution levies the penalty on debt principal when the borrowers fail to pay the debt installment.	☐	☐	☐
९	ऋणको भाखा नाघेपछि किस्ता तिरेमा सहकारी संस्थाले ऋणींलाई पाकेको ब्याजमा नगद छुट दिन सक्छ। The cooperative institutions can provide cash discount when the debtor pays the due installment.	☐	☐	☐
१०	पोहोर जतिकै घरायसी सामान यस बर्ष किन्न पोहोर सामान किनेकै जति पैसा भए पुग्छ। The same amount of money is enough to purchase the same quantity of consumption goods as last year.	☐	☐	☐

खण्ड गः वित्तिय सीप (Section C: Financial Skill)

यस खण्डमा १० वटा कथनहरु प्रस्तुत गरिएको छ। हरेक कथन तपाईंलाई ठीक लागेमा **हो**, ठीक नलागेमा **होईन** र थाहा नभएमा **थाहा छैन** भन्ने (तीन मध्ये कुनै एक) विकल्प (बाकस) मा चिनो (✓) लगाईदिनुहोस।

(This section includes ten statements. Tick on **yes**, if the statement is correct, tick on **no** if the statement is incorrect, and tick on **don't know**, if you do not know the statement).

सि.नं.	**कथनहरु**	हो	होईन	थाहा छैन
१	सयकडा रु. ६ का दरले बचत रु. १,०००।- मा १ बर्षमा ६० रुपैयाँ ब्याज प्राप्त हुन्छ। NPR 1000 can earn an interest of NPR 60 at 6 percent per annum.	☐	☐	☐
२	बचतको ब्याज रु. ५०० मा संस्थाले सयकडा ५ का दरले कर कट्टा गर्दा रु.४७० ब्याज बांकी रहन्छ। When 5 percent tax is deducted from the interest of the earning NPR 500, it remains NPR 470.	☐	☐	☐
३	रु. १,६०० को चामल, रु. ४०० को एउटा झोला र रु. १५० को तरकारी किन्न जम्मा रु. २,१०० चाहिन्छ। NPR 2100 is needed to purchase a bag of rice of NPR 1600, school bag of NPR 400 and vegetable of NPR 150.	☐	☐	☐
४	तपाईं आफनो बचत बृद्दि गर्दै लैजाने योजना बनाउन सक्षम हुनुहुन्छ। You are able to make a saving plan.	☐	☐	☐
५	तपाई ऋणको किस्ता नियमित रुपमा चुक्ता गर्दै लैजाने योजना बनाउन सक्षम हुनुहुन्छ। You are able to make a regular debt repayment plan.	☐	☐	☐
६	तपाईं आफ्नो व्यवसाय शुरु गर्दा लगानी र नाफा रकमको योजना बनाउन सक्षम हुनुहुन्छ। You are able to estimate an investment and profit while making a business plan.	☐	☐	☐
७	तपाई व्यवसायमा आईपर्नसक्ने जोखिम कम गर्ने उपाय खोज्न आफैं सक्षम हुनुहुन्छ। You are able to make a risk minimization plan of your business.	☐	☐	☐
८	तपाईं दैनिक खर्च आबश्यकतानुसार भए नभएको लेखाजोखा गर्न सक्षम हुनुहुन्छ। You are able to assess your regular expenditure as your need.	☐	☐	☐
९	तपाई भविष्यमा आईपर्नसक्ने आर्थिक समस्या समाधान गर्ने योजना बनाउन सक्षम हुनुहुन्छ।	☐	☐	☐

	You are able to make a contingent plan.			
१०	तपाई आफुले गर्ने व्यवसाय छनोटको निर्णय आफै गर्न सक्षम हुनुहुन्छ। You are able to decide your business yourself.	☐	☐	☐

खण्ड (घ): वित्तिय दृष्टिकोण/अवधारणा (Section D: Financial Attitude)

यस खण्डमा २० वटा कथनहरु प्रस्तुत गरिएको छ। हरेक कथनमा तपाईं सहमत (१), तटस्थ (२), र असहमत (३) हुन सक्ने विकल्प रहेकोले तीन विकल्पहरुमध्ये तपाईंलाई उपयुक्त लागेको कुनै एक विकल्प (बाकस) मा चिनो (✓) लगाउनुहोस।

(This section includes twenty statements. In every statements you may agree, disagree and remain indifferent. If you agree to the statement, tick on 1, if indifferent, tick on 2 and if disagree, tick on 3)

सि.नं.	कथनहरु	१	२	३
१	मैले गरिरहेको व्यवसायको लगानी रकम अन्य व्यवसायमा लगाउन सके बढि फाईदा हुनसक्ने देख्छु। I prefer to invest the same money as present business in an alternative business for more profit.	☐	☐	☐
२	म जसरी पनि छिटो भन्दा छिटो माध्यमबाट आफ्नो व्यवसायिक आम्दानी बृद्धि गर्न चाहन्छु। I prefer to increase my business income as fast as possible.	☐	☐	☐
३	मेरो हालको व्यवसाय लामो समयसम्म निरन्तर चलिरहने बिश्वाश गर्दछु। I believe that the present business I am doing sustains for a long period.	☐	☐	☐
४	म छरछिमेकीको देखासिकीले गर्दा बचत गर्न र ऋण गरि व्यवसाय गर्न आकर्षित भएको हुँ। I am motivated in saving and business loan from my neighbors.	☐	☐	☐
५	मैले गर्ने बचत तथा ऋण कारोबारले मेरो आर्थिक उन्नतीमा सघाउ पुऱ्याउंछ। My saving and loan transaction contributes in my economic progress.	☐	☐	☐
६	मैले गर्ने बचतले आकस्मिक रुपमा आईपर्नसक्ने खर्च जुटाउन मदत गर्दछ। My saving helps me to maintain contingent expenditure.	☐	☐	☐
७	म आम्दानीको बृद्दिसंगै बचत पनि वृद्दि गर्न चाहन्छु। I am interested to increase my saving with increment in income.	☐	☐	☐
८	मैले गर्ने नियमित बचतले मेरो सम्पत्ती वृद्दि गर्न मदत गर्दछ। My regular saving will contribute in increasing my asset.	☐	☐	☐
९	एक भन्दा बढि पसलमा मुल्य दाँजेर उपभोग्य सामान किनेमा सस्तो पर्नसक्छ। The cost of consumption goods may be cheaper while we compare purchasing.	☐	☐	☐
१०	म कुनै संस्थाबाट भन्दा साहुमहाजनबाट ऋण लिन उपयुक्त ठान्दछु। I prefer to borrow from landlords rather than from the institutions.	☐	☐	☐
११	मैले कारोबार गर्ने संस्थाका सबै कारोवार र सेवाहरु पारदर्शी रहने गर्दछ। The transaction and service, of the institution I relate with, are transparent.	☐	☐	☐
१२	संस्थाले प्रदान गर्ने बचत बढाउदै लैजाने सल्लाह सुझावप्रति म सन्तुष्ट छु। I am satisfied with the institutional advices to increase my savings.	☐	☐	☐
१३	म सहकारी संस्थासंग बचत तथा ऋणको कारोबार गर्दा ठगी नहुने ठान्दछु। I am confident that there is no any institutional fraudulence of saving credit in which I relate with.	☐	☐	☐
१४	मलाई सहकारी संस्थाले व्यवसाय गर्न उत्साहित गरेकोले हालको व्यवसाय गरिरहेको छु। I am doing my present business with encouragement of the cooperative I am related with.	☐	☐	☐
१५	म संस्थाबाट प्राप्त हुने ऋणको सदुपयोग सम्बन्धी सल्लाह उपयोगी रहेको ठान्दछु। I realize that the loan utilization advices from the cooperative I relate with, are useful.	☐	☐	☐
१६	म संस्थाबाट लिएको ऋण जुनसुकै काममा उपयोग गर्न स्वतन्त्र छु। I am free to utilize in any activities the institutional loan I have taken.	☐	☐	☐
१७	एक कामका लागि एकै समयमा धेरै संस्थाबाट ऋण लिने व्यक्ति आर्थिक समस्यामा पर्न सक्छ।	☐	☐	☐

	The person who borrows from more than one institution for same business simultaneously may enter into a financial crisis.			
१८	म संस्थाबाट ऋण लिने उद्देश्य पुरा गर्न मात्र संस्थामा नियमित बचत गर्ने गर्दछु । I save my money in an institution only for borrowing purpose.	☐	☐	☐
१९	मैले कारोबार गर्ने संस्थाले मेरो आवश्यकता अनुसारको बचत/ऋणको सेवा उपलब्ध गराउने गर्दछ । The institution in which I am involved for transaction provides the saving/loan services as I need.	☐	☐	☐
२०	म बचत तथा ऋणको कारोबार गर्दा कारोबारको रकम र संस्था छनोट गर्न स्वतन्त्र छु । I am free to select the amount and institution for saving and loan transaction.	☐	☐	☐

खण्ड (ङ): वित्तिय व्यवहार (Section E: Financial Behavior)

यस खण्डमा २० वटा प्रश्नहरु प्रस्तुत गरिएको छ । हरेक प्रश्नमा दिईएका तीन वटा सम्भावित उत्तरहरुमध्ये तपाईंलाई उपयुक्त लागेको एउटा उत्तर छनोट गरि दायाँ पट्टिको कुनै एक विकल्प (बाकस) मा चिनो (✓) लगाईदिनुहोस ।

(This section includes twenty questions with three possible answers in each. Please tick on the suitable box in the right side).

१) तपाईं दैनिक उपभोग्य बस्तु किन्दा पैसा र सामानको खरीद प्राथमिकता कसरी मिलाउने गर्नुहुन्छ ? How do you determine your purchasing priority to balance money and goods?			
सम्भावित उत्तरहरु (Possible answers)	क)	पैसाको सीमा भित्र रहि आबश्यक सामानमात्र किन्छु । (Purchase only necessary goods within money limit)	☐
	ख)	आफ्नो पैसा भएसम्म धेरै सामानहरु किन्छु । (Purchase everything within money limit)	☐
	ग)	थप पैसा सापटी लिएर पनि धेरै सामानहरु किन्छु । (Purchase everything by borrowing)	☐
२) तपाईंले आकस्मिक घरायसी गर्जो टार्न चाहिने रकम कसरी जुटाउने गर्नुहुन्छ ? How do you arrange your contingent domestic expenditure?			
सम्भावित उत्तरहरु (Possible answers)	क)	छुट्टै बचत गरेर । (Separate saving)	☐
	ख)	छरछिमेकीको सहयोग लिएर । (Neighbor's help)	☐
	ग)	गर्जो टार्ने कुनै योजना छैन । (I have no contingent plan)	☐
३) के तपाईं दैनिक खर्चका लागि आफुलाई चाहिने रकम आफ्नो साथमा राख्ने गर्नुहुन्छ ? Do you keep some money for regular expenditure with you?			
सम्भावित उत्तरहरु (Possible answers)	क)	सधै । (Regularly)	☐
	ख)	कहिलेकाँहि । (Sometimes)	☐
	ग)	कहिले पनि राख्ने गर्दिन । (Never)	☐
४) के तपाई आफुले गर्ने व्यवसायको आम्दानी खर्चको हिसाबकिताव राख्ने गर्नुहुन्छ ? How do you account your business income and expenditure?			
सम्भावित उत्तरहरु (Possible answers)	क)	सधै । (Regularly)	☐
	ख)	कहिलेकाँहि । (Sometimes)	☐
	ग)	हिसाबकिताव राख्ने गर्दिन । (Never)	☐
५) के तपाईले भविष्यमा हुनसक्ने आम्दानी र खर्चको अनुमान गर्ने गर्नुहुन्छ ? Do you estimate your future income and expenditure?			
सम्भावित उत्तरहरु	क)	सधै । (Regularly)	☐

(Possible answers)	ख)	कहिलेकाँहि । (Sometimes)	☐
	ग)	अनुमान गर्ने गर्दिन । (Never)	☐
६) तपाईले बुढेसकालका लागि आबश्यक खर्च धान्ने पैसाको जोगाड कसरी गर्नुहुन्छ ? How do you manage money for your old-age expenditure?			
सम्भावित उत्तरहरु (Possible answers)	क)	बचत बृद्दि गरेर । (Increase saving)	☐
	ख)	पेन्सन वा सरकारले दिने ज्येष्ठ नागरिक भत्ता प्राप्त गरेर । (Pension or governmental old-age allowance)	☐
	ग)	पैसा जोगाड गर्ने गर्दिन । (I have no plan)	☐
७) तपाईले पारिवारिक आर्थिक उन्नती हासिल गर्न के कुरामा जोड दिनुहुन्छ ? What is your preference to achieve family financial prosperity?			
सम्भावित उत्तरहरु (Possible answers)	क)	आम्दानी र बचत बृद्दि । (Increase in income and saving)	☐
	ख)	दैनिक खर्च कटौति । (Curtail in expenditure)	☐
	ग)	आर्थिक उन्नतीप्रति चिन्ता छैन । (No preference)	☐
८) तपाईंले बिगत बर्षहरुदेखि नै बचत तथा ऋणको कारोबार कसरी गर्दै आउनुभएको छ ? What is your experience of saving and credit transaction?			
सम्भावित उत्तरहरु (Possible answers)	क)	संस्थासंग मात्र । (Only with financial institutions)	☐
	ख)	साहुमहाजन एवं संस्था दुबैसंग । (Both with landlords and financial institutions)	☐
	ग)	साहुमहाजनसंग मात्र । (Only with landlords)	☐
९) तपाईंले घरायसी र ब्यवसायिक आम्दानी खर्चको हिसाबकिताव कसरी राख्ने गर्नुभएको छ ? How do you account your business and personal income/expenditure?			
सम्भावित उत्तरहरु (Possible answers)	क)	अलग अलग । (Make separate account)	☐
	ख)	एकै ठाउँमा । (Make a combined account)	☐
	ग)	हिसाबकिताव राख्ने गर्दिन । (Make no account)	☐
१०) तपाई आफ्नो ब्यवसायमा लगानी थप गर्दा कुन विकल्प लिनुहुन्छ ? What option of additional money do you choose when you expand the business?			
सम्भावित उत्तरहरु (Possible answers)	क)	आफ्नै पैसा । (Self-money)	☐
	ख)	संस्थासंग ऋण माग । (Borrowing from financial institute)	☐
	ग)	साहुमहाजनसंग ऋण माग । (Borrowing from landlord)	☐
११) तपाई आफ्नो दैनिक आम्दानी र खर्चको सन्तुलन कसरी मिलाउनुहुन्छ ? How do you prefer to balance your income and expenditure?			
सम्भावित उत्तरहरु (Possible answers)	क)	आम्दानी बढाएर र दैनिक खर्च घटाएर । (Increase regular income and decrease expenditure)	☐
	ख)	आम्दानी र दैनिक खर्च दुबै बढाएर । (Increase both of income and expenditure)	☐
	ग)	सन्तुलन मिलाउदिन । (No balance I maintain)	☐
१२) तपाईले संस्थाबाट लिएको ऋण हाल कुन ब्यवसाय गर्न उपयोग गरिरहनुभएको छ ?			

In what business are you using the amount borrowed from the institution?			
सम्भावित उत्तरहरु (Possible answers)	**क**)	ऋणको उद्देश्य अनुरुपको व्यवसायमा । (As per the borrowing objective)	☐
	ख)	अन्य व्यवसायमा । (In other businesses)	☐
	ग)	सामाजिक वा अन्य काममा । (In social or other activities)	☐
१३) तपाईंले संस्थाबाट लिएको ऋण र संस्थामा राखेको बचतको अबस्थाको जानकारी कसरी लिने गर्नुहुन्छ ? How do you check your saving and credit balance?			
सम्भावित उत्तरहरु (Possible answers)	**क**)	आफैंले वा परिवारका सदस्यको सहयोगमा । (Myself or with family help)	☐
	ख)	संस्थाका कर्मचारीको सहयोगमा । (With the help of the employees)	☐
	ग)	जानकारी लिन गर्दिन । (I don't check)	☐
१४) तपाईं संस्थाबाट ऋण लिंदा ऋणमा लाग्ने ब्याजदरबारे कसरी मोलतोल गर्नुहुन्छ ? How do you negotiate the interest rate while you borrow from an institution?			
सम्भावित उत्तरहरु (Possible answers)	**क**)	आफैंले । (I negotiate myself)	☐
	ख)	अन्य व्यक्तिको सहयोगमा । (With other's help)	☐
	ग)	मोलतोल गर्ने गर्दिन । (I don't negotiate)	☐
१५) तपाईंले हाल कतिवटा बित्तिय संस्था र सहकारी संस्थामा नियमित बचत गर्नुभएको छ ? In how many financial institutions or cooperatives are you saving your money these days?			
सम्भावित उत्तरहरु (Possible answers)	**क**)	एकभन्दा बढिमा । (In more than one)	☐
	ख)	एउटामा मात्र । (In only one)	☐
	ग)	नियमित बचत गर्दिन । (I don't save regularly)	☐
१६) के तपाईंले संस्थाबाट लिएको ऋणको किस्ता नियमित रुपमा तिरिरहनु भएको छ ? Do you repay your debt installment regularly?			
सम्भावित उत्तरहरु (Possible answers)	**क**)	नियमित रुपमा तिर्ने गर्दछु । (Regularly)	☐
	ख)	आफुसंग पैसा भएको बखत मात्र तिर्ने गर्दछु । (Only when I have money)	☐
	ग)	किस्ता तिर्ने गर्दिन । (I don't repay)	☐
१७) तपाईंले हाल कति प्रकारको व्यवसायिक बीमा गरिरहनुभएको छ ? How many business insurance you are doing these days?			
सम्भावित उत्तरहरु (Possible answers)	**क**)	एकभन्दा बढि । (More than one)	☐
	ख)	एउटा मात्र । (Only one)	☐
	ग)	व्यवसायिक बीमा गरेको छैन । (None)	☐
१८) तपाईंले हाल एउटै व्यवसाय गर्न कतिवटा संस्थाबाट ऋण लिईरहनु भएको छ ? From how many institutions are you borrowing for the same business these days?			

सम्भावित उत्तरहरु (Possible answers)	**क**)	एउटाबाट मात्र । (From only only)	☐
	ख)	दुईटाबाट मात्र । (From two)	☐
	ग)	दुईभन्दा बढिबाट । (From more than two)	☐
१९) तपाईं संस्थाबाट ऋण लिंदा गरिने तमसुक लगायतका कागजात र शर्त बन्देजको जानकारी कसरी लिनुहुन्छ ? How do you be informed of loan deed and its terms and conditions while borrowing from financial institution?			
सम्भावित उत्तरहरु (Possible answers)	**क**)	आफैं वा परिवारका सदस्यको सहयोगले । (Myself or with family help)	☐
	ख)	संस्थाका कर्मचारीको सहयोगले । (With employees' help)	☐
	ग)	जानकारी लिने गर्दिन । (I don't take any information)	☐
२०) तपाईंले संस्थाबाट ऋण माग गर्दा कुन कुरालाई मुख्य आधार मान्नुहुन्छ ? What is your main basis while borrowing from financial institution?			
सम्भावित उत्तरहरु (Possible answers)	**क**)	व्यवसायको सम्भावित आम्दानी खर्च । (Possible income expenditure of business)	☐
	ख)	छरछिमेकीको सल्लाह । (Neighbor's advice)	☐
	ग)	हचुवाका भरमा । (Not any basis)	☐

Annex II

Table No: 1

Growth of Banks and Financial Institutions in Nepal (as of the end of 2017)

S.N.	Date of operation	Class A	Class B	Class C	Class D	Total
1	Before 1930s	1	-	-	-	1
2	1930-1939	-	-	-	-	-
3	1940-1949	-	-	-	-	-
4	1950-1959	-	1	-	-	1
5	1960-1969	2	-	-	-	2
6	1970-1979	-	-	-	-	-
7	1980-1989	3	-	-	-	3
8	1990-1999	5	1	23	2	31
9	2000-2009	6	32	13	10	61
10	2010-2017	12	33	6	30	81
	Total	29	67	42	42	180
	Balance (after merger)	28	36	25	58	147

Source: Nepal Rastra Bank (data compiled by researcher)

As of NRB (2017), the total branches of banks and financial intermediaries (BFIs) are 5394, where the average population for each BFI branch is 5,343).

Table 2:

Sample Characteristics

S.N.	Characteristics	Number	Percentage
1	Age		
	> 25 years	41	10.43
	25-34 years	156	39.70
	35-44 years	124	31.55
	45-54 years	51	12.98
	55 years ≤	21	5.34
	Total	393	100
2	Sex		
	Male	74	18.83
	Female	319	81.17
	Total	393	100
3	Ethnicity		
	Brahmin/Chhetri	176	44.78
	Janajati	187	47.58
	Dalit	30	7.64
	Total	393	100
4	Marital status		
	Married	365	92.35
	Unmarried	26	7.65
	Total	391	100
5	Occupation		
	Agriculture	174	46.65
	Job	35	9.38
	Business	164	43.97
	Total	373	100
6	First language		
	Nepali	291	74.05
	Tamang	96	24.43
	Others	6	1.52
	Total	393	100
7	Religion		
	Hindu	306	79.48
	Buddhism	63	16.36
	Others	16	4.16
	Total	385	100
8	Monthly income		
	Below NPR 6500	157	41.43
	Above NPR 6500	222	58.57
	Total	379	100
9	Education level		

Illiterate	122	32.62
Literate	40	10.70
Grade 1-5 pass	10	2.67
Grade 6-8 pass	38	10.16
Grade 9-12 pass	127	33.95
More than Grade 12 pass	37	9.90
Total	374	100

Table 3

Population and Sample Size of Cooperatives

S.N.	Cooperative Societies	Borrowers (Population)	Sample Size
1	Bindasini SACCOS	10,292	192
2	Manakamana Cooperative	268	5
3	Sagun Cooperatives	55	1
4	Nepal Cooperatives	51	1
5	Mahila Cooperatives	10,294	193
6	Himalay Cooperatives	31	1
	Total	20,991	393

Source: Head office of the related cooperative societies (collected by researcher)

Table 4

Frequency Distribution of Financial Knowledge of Small Borrowers

Response	Saving	Loan	Credit rate	Share	Dividend	Tax	Collateral	Penal	Discount	Inflation	Average
Yes	353	352	350	286	282	252	286	34	240	328	
Percent	89.8	89.8	89.3	74.3	72.9	64.8	72.8	8.9	61.1	84.1	70.78
No	24	27	18	34	30	54	93	320	87	31	
Percent	6.1	6.9	4.6	8.8	7.8	13.9	24	83.6	22.7	7.9	18.63
Don’t know	14	13	24	65	75	83	9	29	56	31	
Percent	3.6	3.3	6.1	16.9	19.4	21.3	2.3	7.6	14.6	7.9	10.3
Total	391	392	392	385	387	389	388	383	383	390	
Percent	100	100	100	100	100	100	100	100	100	100	100

Table 5

Frequency Distribution of Financial Skill of Small Borrowers

Response	Interest	Tax	Expenses	Saving	Installment	Business	Risk	Review	Contingent	Business	Average
Yes	213	163	276	333	339	328	309	306	295	348	
Percent	54.2	43.1	71.3	85.6	86.9	84.1	78.8	77.9	76	89	74.69
No	94	65	53	43	41	46	65	68	62	37	
Percent	23.9	17.2	13.7	11.1	10.5	11.8	16.6	17.3	16	9.5	14.76
Don’t know	86	150	58	13	10	16	18	19	31	6	
Percent	21.9	39.7	15	3.3	2.6	4.1	4.6	4.8	8	1.5	10.55
Total	393	378	387	389	390	390	392	393	388	391	
Percent	100	100	100	100	100	100	100	100	100	100	100

Table 6

Financial Knowledge and Skill Items

Financial Knowledge	Source	Financial Skill	Source
Saving	CFPB (2014)	Saving planning	Oseifuah & Gyekye (2014)
Credit	Kumah & Sare (2014)	Installment plan	Field
Share	Lawless (2010)	Business plan	Field
Inflation	Jariwala (2013)	Business risk mitigation plan	Field
Collateral	Lawless (2010)	Contingent plan	Field
Interest rate	Lawless (2010)	Skill of reviewing the expenditure	Field
Dividend	Field	Interest calculation	Field
Tax	Tyson (2010)	Tax calculation	Field
Penal interest	Field	Expenses calculation	Field
Discounts	Field	Business decision	Field

Table 7
Personal and Institutional Financial Attitude Items

Personal financial attitude	Source	Institutional financial attitude	Source
Opportunity cost	Kumah & Sare (2014)	Formal financial institutions	Field
Quick return	Field	Transparency	Field
Business consistency	Field	Saving motivation	Calcagno & Monticone (2014)
Demonstration effect	Field	Fraudulence	Field
Financial goal setting	Field	Business motivation	Field
Contingent use of saving	Field	Credit counseling	Calcagno & Monticone (2014)
Income-saving relationship	Field	Credit autonomy	Field
Asset growth consciousness	Lusardi & Mitchel (2013)	Debt quicksand	Field
Price comparison	Dew & Xiao (2011)	Saving for credit	Field
		Service availability	Field
		Selection autonomy	Field

Table 8
Personal and Institutional Financial Behavior Items

Personal financial behavior	Source	Institutional financial behavior	Source
Purchase plan	Field	Credit utilization	Field
Contingent expenditure	Horwitz (2015)	Review of financial balance	Tyson (2010)
Cash/liquidity management	Lawless (2010)	Negotiation	ILO (2011)
Business accounting	Field	Risk diversification	Jariwala (2013)
Budgeting	Zakaria & Sabri (2013)	Credit repayment	Sucuahi (2013)
Old-age financial planning	Lusardi & Mitchel (2013)	Insurance	Zadeh & Dahmardeh (2013)
Financial well-being affecting	Field	Multiple credits	Field
Experiencing financial transaction	Field	Review of Documentation	Field
Separate accounting	Sucuahi (2013)	Borrowing plan	Lawless (2010)
Increase in self-capital	Kotze & Smith (2008a)		
Balancing income-expenses	Field		

Table 9

Financial Literacy and Attitude (significant), α=0.05

	Financial attitude (n, %)					
Items	Positive	Neutral	Negative	Total	χ^2	p
Business motivation	272 (69.7)	168 (12.6)	69 (17.7)	390	31.1	.00
Quick returns	45 (11.7)	63 (16.4)	277 (71.9)	385	19.2	.00
Business consistency	274 (70.8)	65 (16.8	48 (12.4)	387	10.1	.00
Service availability	289 (74.7)	59 (15.2)	39 (10.1)	387	11.2	.00
Financial goal setting	317 (82.1)	34 (8.8)	35 (9.1)	388	29.7	.00
Selection autonomy	298 (76.8)	49 (12.6)	41 (10.6)	388	17.3	.00
Contingent saving	322 (82.6)	28 (7.2)	40 (10.3)	390	22.8	.00
Average Percentage	66.90	12.80	20.30			

Table 10

Financial literacy and attitude (insignificant), α=0.05

	Financial attitude (n, %)					
Items	Positive	Neutral	Negative	Total	χ^2	p
Financial institutions	147 (38)	168 (43.4)	72 (18.6)	387	4.4	.11
Transparency	289 (74.7)	48 (12.4)	50 (12.9)	387	.30	.86
Saving motivation	323 (82.2)	26 (6.6)	36 (9.2)	385	2.8	.25
Fraudulence	303 (77.3)	47 (12)	42 (10.7)	392	1.5	.47
Opportunity cost	230 (58.6)	95 (24.3)	66 (16.9)	391	5.4	.07
Counseling	312 (79.8)	37 (9.5)	42 (10.7)	391	1.8	.41
Credit Autonomy	78 (20.1)	145 (37.4)	165 (42.5)	388	.36	.83
Demonstration effects	115 (29.8)	170 (44)	101 (26.2)	386	5.59	.06
Debt quicksand	281 (72.4)	61 (15.7)	46 (11.9)	388	1.9	.39
Saving for credit	119	157	113	389	2.4	.30

	(30.6)	(40.4)	(29)			
Income-saving	340	17	34	391	4.2	.12
	(87)	(4.3)	(8.7)			
Asset growth	332	27	33	392	4.6	.10
	(84.7)	(6.9)	(8.4)			
Price comparison	298	47	43	388	1.6	.44
	(76.8)	(12.1)	(11.1)			
Average percentage	62.52	20.74	16.74			

Table 11

Krushkal-Wallis test of financial attitude and financial behavior (α=.05)

Items of financial behavior	χ^2	P	Items of financial behavior	χ^2	p
Credit utilization	2.02	.36	Business accounting	10.74	.00
Review of statements	2.45	.29	Budgeting	5.98	.05
Negotiation	9.97	.01	Old-age financial planning	8.62	.01
Risk diversification	2.21	.33	Financial well-being	16.06	.00
Credit serve	6.28	.04	Financial experience	1.83	.40
Insurance	2.20	.33	Accounting separation	5.50	.06
Multiple credit	6.61	.04	Use of self-capital	5.46	.07
Purchasing plan	6.20	.05	Documentation	6.79	.03
Contingent living cost	2.00	.37	Business plan	9.29	.01
Cash management	5.77	.06	Income-expenditure	6.13	.05

Table 12

Krushkal-Wallis Test of Financial Literacy and Behavior

	Financial behavior					
Items	Good	Moderate	Poor	Total	χ^2	p
Review of statements	142	223	24	389	55.2	.00
	(36.5)	(57.3)	(6.2)			
Negotiation	281	45	66	392	93.9	.00
	(71.7)	(11.5)	(16.8)			
Risk diversification	285	99	9	393	11.7	.02
	(72.5)	(25.2)	(2.3)			
Insurance	77	130	183	390	18.5	.00
	(19.7	(33.3)	(46.9)			
Purchasing plan	314	50	22	386	83.5	.00
	(81/3)	(13)	(5.7)			

Contingent accounting	277	59	51	387	65.1	.00
	(71.6)	(15.2)	(13.2)			
Liquidity management	251	128	10	389	26.1	.00
	(64.5)	(32.9)	(2.6)			
Business accounting	278	63	49	390	84.2	.00
	(71.3	(16.2)	(12.6)			
Budgeting	192	121	78	391	39.3	.00
	(49.2)	( )	( )			
Old-age financial planning	325	31	35	391	22.9	.00
	(83.1)	(7.9)	(9)			
Increase income/saving	303	65	22	390	34.7	.00
	(77.7)	(16.7)	(5.6)			
Financial experience	318	59	9	386	12.8	.01
	(82.4)	(15.3)	(2.3)			
Separating accounting	219	127	45	391	34.8	.00
	(56)	(32.5)	(11.5)			
Documentation	255	101	35	391	88.5	.00
	(65.2)	(25.8)	(9)			
Business plan	356	16	20	392	31.3	.00
	(90.8)	(4.1)	(5.1)			
Income-expenditure	312	39	39	390	108.7	.00
	(80)	(10)	(10)			
Credit utilization	320	52	18	390	4.8	.33
	(82.1)	(13.3)	(4.6)			
Credit serve	375	12	6	393	1.3	.86
	(95.4)	(3.1)	(1.5)			
Multiple credit	238	107	46	391	2.7	.63
	(60.9)	(27.4)	(11.8)			
Use of self-capital	92	292	5	389	7.9	.09
	(23.7)	(75.1)	(1.3)			
Average	66.8	21.5	8.60			