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Relationship between Financial Literacy and Behavior of Small Borrowers[#]

Ramesh Prasad Chaulagain *

ABSTRACT

Financial literacy is an emerging and common concept both of education and finance. In general, the concept is important for every ones who has to manage the money; the concept plays vital role for low income people and small borrowers in particular. The small borrowers are those who borrow a limited amount of money from the licensed financial institutions. The borrowers are small on the basis of their credit limits determined by Nepal Rastra Bank. In this study, financial literacy, as one of the significant factors to determine the financial behavior of small borrowers, was measured to establish the relationship to each other. In this paper, the level of financial literacy of small borrowers was compared with their financial attitude and behavior, for which data were collected from survey of small borrowers of two cooperatives licensed by Nepal Rastra Bank. Chi-square test was applied to test the hypothesis that showed the relationship between these selected variables. The analysis showed that the relationship of financial literacy of small borrowers was significant with their financial attitude and behavior. Hence, we argue that that there is a need of a systematic enhancement of financial literacy of the small borrowers to change their attitude and thereby the financial behavior.

JEL Classification: G21, G29

Key Words: Financial Literacy, Financial Behavior, Small Borrowers

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[*] Assistant Director, Nepal Rastra Bank. Also a PhD Scholar, Kathmandu University School of Education, e-mail: chaulagainramesh@gmail.com

I. INTRODUCTION

The Concept

Financial literacy is a growing concern in all around the world for every professionals. It is a personal financial issue under the subject of economics. Sometimes, economics and finance are used interchangeably, but the finance is a part of economics. Both of the subjects move around understanding and using money and resources. There are several priorities to promote financial literacy not only by central bank, but also by financial role players and service providers. Nepal Rastra Bank [NRB] (2011) prioritizes the financial literacy in supplying financial services, first time in the policy framework. Economics gives rise to finance and thereby financial education, financial literacy, financial knowledge and skill. These variables have the continuum of developing money management and to achieve more economic benefits. Financial literacy is also a new educational invention of twenty first century. Organization for Economic Cooperation and Development (2005) mentions that OECD conducted the first international comprehensive study on financial education. It 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 decision making of a person in money management. This is the first definite definition of financial literacy ever found. However, Sarigul (2014) mentions that the concept of financial literacy was first studied in 1997 by Jumpstart Coalition as a personal financial literacy survey (p209). But, Remund (2010) argues that the interpretation and research on financial literacy begins since 2000. Moreover, focus of financial literacy is closely linked with global financial crisis of 2007-09 and thereby it becomes a policy agenda in the financial sector. Aftermaths of global financial distress stimulated the area of financial literacy for policy makers across the globe (Gupta & Kaur, 2014). Similarly, Miller, Reichelstein, Salas and Zia (2014) also highlight that the priority of financial literacy increased after of global financial crisis that teaches the financial system the cost of financial illiteracy, ignorance and unsystematic financial behavior of financial institutions and consumers. However, the effects of the global financial crisis was realized mild in Nepali economy, financial literacy was started to discuss in financial sector thereby with some additional efforts of the central bank as well.

Wagner (2015) opines that global financial crisis raised the issue of financial literacy with higher priority. One of the reasons of the global financial crisis was the poor financial literacy of financial consumers. Normally, the management of money abolished the barter system, however, the concern of using money is closely linked with human but difficult to pinpoint the date and context of beginning of financial literacy. The relationship of knowledge and management of money is inseparable to each other. It is worthwhile to study the issue as a normal phenomenon that is close to human being. Being financially informed, conscious, rational and active person in financial matter, the agenda of financial literacy was established and developed with economic history.

Some Understanding of Financial Literacy

Financial literacy is the ability to make informed judgments and effective decisions making in money management. Such a literacy develops partly through financial experience so it is inherent in most people's lives (NRB, 2011). There are several defining practices of financial literacy by individuals and institutions. Such definitions have captured separate aspects of financial literacy. OECD (2005) has the earliest formal definition of financial literacy. The definition has three major elements; financial literacy is an individual concern, it talks about understanding and knowledge of financial information, skill and confidence to recognize personal financial risks. Additionally, the definition has shown the destination of financial literacy as personal financial well-being. But the definition lacks the financial attitude and part of financial behavior, which is the effect or outcome of financial knowledge and skill. Parker (2010) includes financial knowledge, skill, attitude and decision making (behavior) in financial literacy.

Similarly, Australian Securities and Investments Commission [ASIC] (2014) and Atkinson and Messy (2012) capture four dimensions in financial literacy; knowledge, skill, attitude and behavior of individuals in financial matters. Similarly, Program for International Student Assessment (2012) defines financial literacy as a set of financial knowledge and financial risk where the knowledge is a part of the concept and the risk is a part of financial management. But the definition lacks financial attitude and skill of decision making. In this, Potrich, Vieira and Kirch (2015) present financial literacy as a key skill to handle the financial scenario. From this view, financial skill concerns about the ability of managing money and personal financial resources.

II. REVIEW OF LITERATURE

In this section, four dimensions of financial literacy; financial knowledge, skill, attitude and behavior are reviewed. However, financial education and well-being are described as intervention and impact of financial literacy. Bebas (2012) links the concept of financial education to financial well-being in logic model on the basis of input output and assumptions. The logic model and the theory of changed are used interchangeably, which links any intervention, its outputs, outcomes and impact. This link explains that financial education helps to produce financial knowledge and skill; financial literacy; financial literacy contributes to change financial attitude and thereby improve in financial behavior of the individuals. Ultimately, the financial behavior increases the potentiality of improve in financial well-being. In this context, the major four dimensions of financial literacy are reviewed below.

Financial Knowledge

Financial knowledge has significant stake in financial literacy. Huston (2010) and Potrich, Vieira and Kirch (2014) describe that financial literacy and knowledge are used synonymously. But, financial knowledge is an integral dimension of, but not equivalent to, financial literacy (Huston, 2010). These show that financial education, knowledge and literacy are similar concept to some extent. Sources of knowledge is intrinsic and extrinsic. Some sources of extrinsic knowledge are observation, audio-visual, own experience, listening, reading and research. Similarly, Shim, Barber, Card, Xiao and Serido (2009) find that the financial knowledge has significant contribution in financial behavior of a person. But, Collin (2010) argues that knowledge only is inadequate to change one's behavior. In this connection, Chaulagain (2015) presents financial knowledge as a first dimension in financial literacy that is contributed by financial education. Jariwala (2013) opines financial literacy as basic concept and understanding of financial matters and markets. Basic concepts and understanding of financial services and market are ones of the sources of financial knowledge.

In the similar lines, 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. Hung, Parker and Yoong (2009) argue that the financial knowledge includes perceived knowledge, actual knowledge and financial skill. However, it is necessary to know the basic sources of these knowledge. Perceived knowledge is derived knowledge from other sources. Financial knowledge is often considered central to financial literacy; it should be distinguished from general knowledge (Jariwala, 2013, p.16). Similarly, Bolanos (2012) argues that the financial knowledge is an important dimension of financial literacy. In this sense, financial knowledge contributes financial literacy and thereby financial behavior.

Financial Management Skill

Managing the money is more difficult than the making or earning money. A financially skilled person makes more money by managing how much s/he has than earning. Such skill of money management is alternatively known as financial skill. As Earl, Gerrans, Asher and Woodside (2015) take financial management as a cognitive function. Similarly, Lawless (2010) focuses on investment decision making skill that may add the value of money for longer period of time. Investing the money in earning areas is also a part of money management. There is very thin boarder between financial literacy and skills. Mireku (2015) argues that financial literacy and skill are used synonymously that contributes financial attitude.

Ozdemir, Temizel, Sonmez and Fikret (2015) express financial literacy as synonymous as financial skill that contains ability of money management, financial risk identification, 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 the skill into four types; prose literacy, document literacy, numeracy and problem solving. However, such skill 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 basic level. MacLeod and Straw (Eds) (2010) focus in budgeting, managing debt, selection of appropriate account and understanding the statement are basic capability of a person.

Lusardi (2012) argues that the numeracy and financial literacy are important life-time skills of individual that is closely related with financial decision making in regular financial behavior. She presents saving, investing and borrowing as the indicators of 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. Similarly, Oanea and Dornean (2012) have defined financial literacy as skill and ability in managing personal finance under applied definition. Skill is an ability of person, however, being skilled and applying the skill are not always the same. Hogarth, Beverly and Hilgert (2003) argue that financial literacy helps in financial skill building, however they cannot present the process and contents of skill building. Making financial decision is also a skill that has the behavioral effects.

Financial Attitude

Financial attitude of a person shows a psychological or mental judgment of financial matters and situation. In other words, the attitude evaluates how the things are going on, and guides the activities. Financial attitude is a contextual, dynamic and ever-changing domain. Normally, attitude is positive and negative, however, sometimes the individuals also stay indifferent. Walley et al. (2009) (as cited in Jain, 2014) opine that attitude is divided into three; positive, negative and neutral. Knowledge is one of the sources of attitude, but not necessarily knowledge always helps in formulating a positive attitude. Therefore, knowledge, sometimes is an independent and attitude is a dependent factor. Moreover, when the financial attitude is an independent factor, financial behavior is a dependent factor. Carpena, Cole, Shapiro and Zia (2011) opine that financial attitude is the perspective towards financial market and benefits. Similarly, Shim, Barber, Card, Xiao and Serido (2009) find that the financial knowledge predicts financial attitude and the financial attitude contributes to financial behavior of a person.

But, Agarwalla, Barua, Jacob and Varma (2015) and Consumer Financial Protection Bureau (2015) mention that merely the financial attitude does not influence financial behavior. Therefore, financial attitude is not a single factor determining financial behavior. Louw, Fouche and Oberholzer (2013) argue that financial literacy helps in developing positive financial attitude. Here, the financial attitude is subject to change in improved financial literacy of persons. Financial literacy and financial attitude determine not only to financial behaviors of individuals but also to their financial well-being. Atkinson and Messy (2012) argue that negative financial attitude of a person results a negative and defective financial behavior that may not contribute in financial well-being. However, there is positive but not necessarily a proportional relationship among financial literacy, financial attitude, behavior and well-being of individuals.

Financial Behavior

Financial behavior of individuals is important but difficult to understand, define and measure. Behavior is a demonstration of the activities, which are possible to watch and observe by the others too. Tyson (2010) opines that being financally informed and knowing the correct financial activities is not enough to bring financial change, there is need of change a poor financial habits into good. Dew and Xiao (2011) present financial behavior as the financial management behavior. Financial management is the activities of managing money in maximizing the yield. The people who behaves well with the money can get positive financial behavior and thereby sustainable financial well-being and vice-versa. In this, Xio, Chen and Chen (2013) opine that financial literacy influences financial behavior.

Primarily, the financial behavior is about how persons deal with money. In other words, the financial behavior is an application part of financial literacy that is believed to contribute financial well-being of persons positively. Gradually, a conscious behavior shows in decision making, comparing opportunity cost, seeking alternatives of wastage minimization. Financial behavior can be divided into two; consumption and financing. The first one is related with how the money is to use in consumption expenditure and the second one is related with how the money is to use as investment and saving. 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 relationships between financial literacy and behavior; financial literacy affects financial behavior and vice-versa. However, the debate between effects of financial knowledge into behavior and/or financial behavior into knowledge is to establish by further studies. But, Lusardi and Mitchell (2013) find that causal relationship to find between financial literacy and behavior is difficult. In practice, if the literacy and behavior are measured by following the scientific process, however, measuring the literacy and behavior is not that much difficult.

III. RESEARCH METHODOLOGY

Quantitative research methodology is the epistemological direction in this study. Indeed, quantitative research is particularly important for research on financial literacy and education, since the fluency with numbers (for example, understanding the nature of compound interest, both in debt and investment) is a cornerstone of financial literacy (Parker, 2010, p. 88). The cross-sectional survey strategy was used for data collection in this study with pre-structured questions.

Hypotheses of the Study

To test the following hypotheses, Chi-square test statistics is used. Hypothesis is the presumed answer of a particular situation or phenomenon of measurement. When there is need of inferring the mass or population from some units of samples, hypotheses are set and tested. Jackson (2010) opines that the hypothesis is the determination of statements to compare the results. The following alternative hypotheses (H_1) are planned to test in this study.

H_1 (1): There is relationship between financial literacy and education level.

H_1 (2): There is relationship between financial literacy and attitude.

H_1 (3): There is relationship between financial literacy and behavior.

H_1 (4): There is relationship between financial attitude and behavior.

Data and Measurement

Data in this study are captured from measurement of financial knowledge, skill, attitude and behavior of the small borrowers. There are ten questions each for measuring financial knowledge and skill, whereas twenty questions each used for measuring financial attitude and behavior. Binary scale are used for measurement of financial knowledge and skill, three point Likert scale is used for measurement of financial attitude and multiple options scale is used for measurement of financial behavior. Jang, Hahn and Park (2014) suggest binary scale to measure objective financial knowledge. The measured financial literacy, attitude and behavior are categorized into ordinal data. To measure the financial literacy, score method is used where the *correct* response is scored one and zero score for *incorrect* and *don't know* response. World Bank (2013) suggests the score method for correct response in measuring financial literacy of the people. As Mireku (2015) advices, the financial literacy level is categorized into three; high (score 16 and above out of twenty or 80% and above), medium (score 12 to 15 or between 60% and 79%) and low (below 12 or below 60%) in this study. As Atkinson and Messy (2012) suggest, financial attitude is also categorized into three; positive, negative and neutral in this study. Similarly, as Lusardi (2015) suggests, financial behavior is categorized into three; good, moderate and poor in this study.

In this study, self-reported financial literacy measure (Koenen, Lusardi, Alessie, & Rooij, 2016) has been used for measurement of financial knowledge, skill, attitude and behavior. The correctness of the response is based on the terms defined in this research because there may be multiple or otherwise understanding and definitions of these concepts in practice. The definitions are based on the reference and banking practice in Nepal.

Population and Samples

The study targeted the small borrowers as source of information who is the small entrepreneur as well; they borrow for small and local businesses. Small borrowers are those who borrow a limited amount of money for business from cooperative societies. NRB (2015) mentions that the micro credit limit for the preceding fiscal year as NPR 500 thousands. To select the small borrowers as samples, the cooperatives licensed by the Nepal Rastra Bank are selected because NRB (2013) states the saving and credit cooperatives also as the micro financial model in Nepal. There are 15 such cooperatives licensed by the Nepal Rastra Bank, among them six cooperatives are established in province number three of Nepal.

Among the six, two cooperatives capture more than 98 percent of the population or the small borrowers. Therefore, two cooperative societies, established one in Kavrepalanchowk and another in Kathmandu districts are source of population and samples. Moreover, the cooperative located in Kathmandu valley provides the services to its small borrowers in all the three districts in the Kathmandu valley. In this sense, the smaples are selcted from total four districts. Total 20,586 small borrowers of the two institutions are the population from which 393 participants are selected as the representative samples by using the Yamane (1967) formula (as cited in Bhattarai, 2015) $n = \frac{N}{1 + N(e)^2}$. Here, n is the sample size, N is the population size and e is the level of significance; 5 for this study.

IV. DATA ANALYSIS

This section presents data and analysis. The data includes the description of sample characteristics and the test of hypothesis. The characteristics of the samples are as follow.

Characteristics of the Participants

In this study, the characteristics of the samples are measured in nine categories; age, sex, marital status, ethnicity, occupation, first speaking language, religion, monthly income and education level. The frequency distribution and categories of the characteristics are shown in Annex I. The age of the participants is divided into five groups, sex, marital status and monthly income into two groups, occupation, language and religion into three, and education into six groups. There are around 40 percent of participants in age group 25-34 years and 5.34 percent of participants above 55 years as highest and lowest. Sex-wise there are 81.17 percent female participants and remaining males. Similarly, 92 percent participants are married and remaining unmarried. Participants below per capita earning and above per capita earning are forty and sixty percent respectively. The per capita earning for the period was NPR 6500 approximately per month. Moreover, one third of the participants are illiterate group and 9-12 class passed group each.

Level of Financial Literacy

However, financial literacy is a relative term, for example, it may be one thing for a business person, another for a job holder, a farmer, and a household. In the Annex II, aggregate level of financial literacy of participants are shown. According to the table, the number of participants and the level of financial literacy goes parallel. The table also shows that, however the majority of participants are relatively having low income, rural women and less educated people, the financial literacy is in greater degree. The finding shows that the number of participants scoring high, medium and low level of financial literacy are 180 (45.8 percent), 150 (38.2 percent) and 63 (16 percent) respectively.

There are two reasons of higher score or levels of financial literacy however the participants are relatively less literate. *First*, the rigorous process of contextual tools formulation. The tools formulation process follows literature review, interviews with small borrowers, and panel discussions with experts and experienced role players of financial field and rating method of item selection. *Second*, the terminologies are related to the financial practice, which are using in daily financial activities of the small borrowers. Similarly, these days, the cooperative institutions counsel, provide orientations and trainings to their members about financial matters, services and institutions. Another reason for high level of financial literacy in this study is the effect of international provision of cooperative education. The cooperative education is the awareness program in most of the member and community based cooperatives in Nepal. These institutions counsel and train potential members in initial orientation programs about the institution, services they offer, cost and benefits of the services and alike. Tchami (2007) mentions in his handbook that education, training and informing the member is one of the seven international principles of the cooperatives formulated by International Cooperative Alliance in 1995.

In a Cambridge research, by National Bureau of Economic Research (NBER), Clark, Lusardi and Mitchel (2015) also find an average of 80 percent of financial knowledge of the employees which was relatively high score. Their finding of high financial literacy shows that when the participants have less diversity, in terms of occupation, the participants can respond the questions correctly, if the questions are contextual too. Similarly, Klapper, Lusardi and

Oudheusden (2014) mention that a global study on financial literacy, conducted by Standard and Poor, reports 71 percent of financial literacy level in Denmark, Norway and Sweden. The same study reports that only 18 percent Nepali youths are financially literate. The survey study uses the five questions about understanding and management of money for all the 140 countries including developed, developing and underdeveloped countries like Nepal. It provides two messages: the financial literacy score is achieved high if the questions are comfortable as the context, and as comfort as their business and financial experiences. The questions are familiar and comfortable for developed countries and more educated persons. Similarly, the same question may not work effectively and equally in all the country, place and professionals.

The implication of high degree of financial literacy contributes in increasing self-capacity in decision making, good behavior and thereby improved financial well-being. Theoretically, financial literacy is the source of self-efficacy in financial activities and good financial health of individuals. 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). Self-efficacy opens the market opportunity in finding, comparing and judging the better financial landscape for those who are financially literacy. It helps in increasing the self-confidence.

Increased financial literacy has also the human capital implication according to the human capital theory. Improved knowledge and skill in several matters including personal finance, individuals can develop themselves and contribute the society as capital. 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 more financial literacy contributes individuals to become human capital.

Education and Financial Literacy

The education level of participants are classified into six; illiterate, literate, class 1-5 pass, class 6-8 pass, class 9-12 pass and above class 12 pass. Literate participants are those who can simply read and write without any school education. Near to one third participants are illiterate, hence most of them are women from low income group. The result is shown in Annex III. In the education and financial literacy, the upper most class; among the participants above than 12 class, 62.50 percent have high financial literacy. It shows that the participants with higher the education have also higher financial literacy. Here, only 28 percent of illiterate participants have high financial literacy. The relationship between education and financial literacy of small borrowers is statistically significant (p=.00). It indicates that their financial literacy can be improved by motivating them for higher education.

The statistically significant relationship between education level and financial literacy level of small borrowers shows that education plays decisive role in their financial literacy. The finding is consistent with Potrich, Vieira and Kirch (2015). It indicates that the education makes difference in financial literacy of small borrowers. The result shows that increasing education helps in increasing financial literacy. Education is the prime source of financial knowledge and skill. Education also helps to understand the financial services and thereby motivate towards positive financial attitude. Financial information is the power, and such information mostly comes from formal education sources, print Medias and other visual aids. 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 that financial education as a source of financial literacy, however Wagner (2015) finds that financial education affects both of financial literacy and behavior.

Financial Literacy and Attitude

The financial attitude includes 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 analysis; the description of financial attitude and relationship of financial literacy level with financial attitude. Financial literacy level is converted into ordinal scale on the basis of total score, i.e. high, medium and low. Financial attitude is also ranked as positive, neutral and negative.

Average positive financial attitude of small borrowers is the highest both in significant variables as 66.9 % (Annex IV) and insignificant variables as 62.52 % (Annex V). It shows that the majority of small borrowers have positive attitude towards financial matters, market and services. The largest positive financial attitude or 87 percent small borrowers is in income-saving relationship that they are interested to increase their saving while income increases. The smallest number of participant or 11.7 percent have positive financial attitude in quick returns from their current business anyway. It indicates that people believe on a normal trend of return from their business than an inconsistent benefits.

Kruskal-Wallis (H) test is used to find the association between financial literacy and attitude. From the analysis, the small borrowers have positive attitude towards the cooperative institutions and they are motivated by the institution in doing their present business. The mean rank shows that the financial literacy of people in moving towards one with increasing level of financial literacy. The hypothesis for the test is as follow:

H_1: *There is relationship between financial literacy and attitude.*

There are thirteen financial attitudinal statements, out of total twenty, have insignificant relationship with financial literacy (Annex V). The insignificant relationship in the statements show that their attitude do not have any statistical relationship with their financial literacy.

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 attitude (Annex IV).

Business Motivation: The cooperative institutions are member based organizations which provide loan and promote saving of members but also motivate their members in doing local businesses as their knowledge, skill and capacity of investment. The significant relationship between the attitude and financial literacy (p=.00) indicates that business success of small borrowers also depends on the institutional 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 people. Around 72 percent of small borrowers oppose to earn profit from present business anyway. Majority of the participants reject an immature and inconsistent income from their business. The relationship between the attitude and financial literacy (p=.00) indicates that their attitude towards a normal rate of return is caused by their financial literacy.

Business Consistency: In Nepal, small borrowers are facing some uncertainties of their business and its long term sustainability. Such uncertainty attitude demotivate them in their work by which their credit may go to default, which may negatively affect their financial well-being in the long run. Therefore, their beliefs and judgment on their income earning work is appropriate to measure. As a result, majority of the participants (more than 70 percent) believe that their business goes continue for a longer period of time. The significant relationship between the attitude and financial literacy (p=.00) shows that small borrowers have positive attitude on their business continuity due to their financial literacy.

Service Availability: The beliefs of members towards service supply in cooperatives can motivates them for saving and credit. Such beliefs helps the cooperatives in retaining their existing members and attract the new members as well. Majority of small borrowers (74.7 percent) believe that the cooperative institution they affiliated with has provided sufficient financial services they need. Therefore, the statistical relationship between such attitude and financial literacy (p=.00) shows that such positive attitude is also caused by their financial literacy.

Financial Goal Setting: Setting a financial goal, of everyone in general and small borrowers in particular, is an important financial belief. Such goal setting helps in allocating financial resources in good manner and control the personal finance as well. Majority of participants (82.1 percent) were found positive towards setting a goal that their saving and credit is to contribute in their financial well-being. The financial literacy is statistically significant with this attitude (p=.00) which indicates that more financially literate people have positive attitude towards setting a financial goal and vice-versa.

Selection Autonomy: Every members of cooperatives have 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. In this, 76.8 percent participants feel that they are free to choose their financial transactions, such as saving and credit, and institutions as they require. Similarly, the statistical relationship between such attitude and their financial literacy find significant (p=.00) that shows that level of financial literacy of the participants makes difference in their financial attitude on freedom of the selection.

Contingent Saving: Normally, low income and marginalized people save for minimizing the expenses and for contingent use of the saving. A significant number of small borrowers (82.6 %) have positive attitude on positive contribution of saving in managing their contingent financial need. Similarly, the significant relationship of such attitude and financial literacy of them (p=.00) indicates that saving is required also for handling the contingent financial crisis of participants.

Financial Literacy, Attitude and Behavior

To find the relationship of financial behavior with financial literacy and attitude of the small borrowers, the following hypothesis is developed.

H_1: *There is relationship between financial literacy and behavior, and between financial attitude and behavior.* See annex VI.

There is a mix result in measuring relationship of financial literacy and attitude with financial behavior. In this study, among 20 financial behavior items, six are significant with both the financial literacy and attitude, where two are insignificant with both of the financial literacy and attitude. Similarly, ten items are significant with financial literacy but insignificant with financial attitude and two are significant with financial attitude but insignificant with financial literacy. The findings are consistent with Wagner (2015); Scheresberg (2013) and Selcuk (2015). But, Monticone (2011) questions of a particular extent of financial literacy necessary for trading-off risk and return of a particular financial investment. He has the same opinion whether financial literacy, behavior and well-being does not go parallel; some inertia, over-confidence and behavioral biases also affect in financial behavior and thereby the financial well-being.

The financial behavioral items, which are statistical significant both with financial literacy and attitude indicate that the behaviors are influenced both by the literacy and attitude. Similarly, those items which are statistical significant, only with financial literacy but not with financial attitude, show that the behaviors are influenced by the literacy but not by the attitude and vice-versa. Similarly, those behavioral items insignificant with both of the literacy and the attitude show that these behaviors are not affected by their financial literacy and attitude.

V. CONCLUSION AND IMPLICATIONS

Conclusion

Major objective of this study is to measure the level of the financial literacy of the small borrowers and to find whether the financial literacy and attitude contributes their financial behavior or not. It is necessary to measure the relationship that financial behavior has the well-being implications of the individuals. The measurement of the financial literacy shows that the level of the financial literacy of the small borrowers is relatively high. The study finds that there is statistically significant relationship between financial literacy and attitude, between financial literacy and behavior and between financial attitude and behavior. Therefore, to change the financial behavior of the small borrowers, their financial literacy is to be improved. Similarly, the improved education contributes the financial literacy of the individuals. The take-home message of the study is to educate and improve the financial literacy to change the behavior of the people.

Implications

This study has three-fold implications; for the government, service suppliers and researchers. Primarily, the government includes Ministry of Education and the central bank for this concern. The government should develop curriculum from the school and college level education. Such curriculum based financial literacy programs have long term and sustainable effects to the students. 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. Similarly, the central bank should regulate banks and financial institutions in compulsory provision of financial education program for their service consumers such as counselling and training programs. Kempson, Perotti and Scot (2013) prescribe financial literacy as a policy agenda both in high and low income countries.

The service suppliers are very close to the service consumers rather than the policy makers and other sectors. Educating and counseling the people is the social obligations of the financial service suppliers as well. Hence, the improved financial literacy impacts the well-being of the people, the financial service suppliers should develop a clear cut, common and appropriate financial literacy programs to their clients frequently. Educating the clients also contributes to minimize the cost of finance, helps in decreasing the defaults and increases the quality of financial services.

The researchers can be benefitted from this study to focus their issue. They can use the Nepali context of socio-economy which is different from the previous studies. Behrman, Mitchell, Soo and Bravo (2012) advice to formulate the education policy to improve financial behavior through improving the financial literacy. There are several areas under this issue for research in Nepal. Nepal (2016) suggests to study the impact of financial literacy in financial inclusion, particularly for Nepal.

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ANNEXES

Annex I: 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 speaking 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 than NPR 6500	157	41.43
	Above than NPR 6500	222	58.57
	Total	379	100
9	Education level		
	Illiterate	122	32.62
	Literate	40	10.70
	Class 1-5 pass	10	2.67
	Class 6-8 pass	38	10.16
	Class 9-12 pass	127	33.95
	More than class 12 pass	37	9.90
	Total	374	100

Annex II: 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

Annex III: Education and Financial Literacy Level

	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		

Annex IV: 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			

II.

Annex V: 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 (30.6)	157 (40.4)	113 (29)	389	2.4	.30
Income-saving	340 (87)	17 (4.3)	34 (8.7)	391	4.2	.12
Asset growth	332 (84.7)	27 (6.9)	33 (8.4)	392	4.6	.10
Price comparison	298 (76.8)	47 (12.1)	43 (11.1)	388	1.6	.44
Average percentage	62.52	20.74	16.74			

III.

Annex VI: The Relationship of Financial Behavior with Financial Literacy and Financial Attitude (H-test)

S.N.	Financial behavior	Financial literacy (p)	Financial attitude (p)
1	Credit utilization	.33	.36
2	Review of financial statements	.00	.29
3	Negotiation in saving and credit	.00	.01
4	Risk diversification	.02	.33
5	Credit repayment	.86	.04
6	Business insurance	.00	.33
7	Multiple credit	.63	.04
8	Purchasing behavior	.00	.05
9	Contingent Expenditure	.00	.37
10	Liquidity management	.00	.06
11	Business accounting	.00	.00
12	Budgeting	.00	.05
13	Old-age financial planning	.00	.01
14	Increase in income and saving	.00	.00
15	Formal financial transactions	.01	.40
16	Separate accounting	.00	.06
17	Use of self-capital in business	.09	.07
18	Loan documents	.00	.03
19	Assessment of income and expenditure	.00	.01
20	Balancing income and expenditure	.00	.05