Financial Literacy and Management of Personal Finance: A Review of Recent Literatures

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Abstract
The objective of this paper is to present a review and synthesis of recent studies on financial literacy and related issues. Starting with review of prior literature surveys, the current study advances personal finance literature by presenting recent studies on financial literacy, the link between financial literacy and financial management behavior, and financial inclusion. And showed that people, even in developed world, lacks basic knowledge, skill and attitude for optimal personal financial management decisions. As a result enhancing financial literacy and personal finance education becomes relevant policy in developed and high income countries since the mid-1900s. A recent academic and policy interest in developing countries, albeit large scale surveys are lacking, show increasing global relevance financial literacy and savvy financial behavior for socio economic health of a nation. Recent studies from emerging and developing countries confirmed low level of financial literacy and it’s correlation with being female, young or old, unemployed, having low educational attainment, low income, and living in rural area however few studies found some demographic variables insignificant. These studies suggested furthering of financial education to different cohorts of population, especially targeting those with low financial literacy level. Nevertheless, empirical evidences on the impact of financial literacy on financial behavior, and financial inclusion remained mixed, but suggesting positive outcomes of well-designed and targeted financial education, sometimes coupled with other interventions.

Keywords: Financial literacy, financial behavior, financial inclusion, literatures review.

1. Introduction
This study presents the review and synthesis of recent studies on financial literacy and its relationship between personal financial management, financial inclusion. Further, this paper includes the link between personal financial management the ultimate outcomes. Increasing number of studies from finance, economics and publicly funded financial literacy and financial capability surveys showed that most people lacks basic knowledge, skill and attitude required in effecting personal financial management tasks (IPAS, 2012, Xu & Zia, 2012). As a result enhancing financial literacy of people through financial education becomes relevant policy in developed and high income countries (Choli, nd; Fra de & Lopes, 2005; Holzman, 2010). This growing academic and policy interest is not only because people lack basics of personal finance, but the repercussions of failure to optimally manage personal finance have been negatively affecting individuals and entire of economy of a nation. Some authors cited the causes of 2007 financial crises and the challenges that household and economies faced provided a teachable moment (Choli, nd; Donnell & Keeney, 2010; Santos & Abreu, 2013). Moreover, factors like surging cost of living, increasing sophistications of financial market and proliferations of financial products, the rise of open credit society, pension system reforms which all demand individuals to be more responsible in personal finance. Thus positive micro and macroeconomic outcomes of financial education policies underpin financial education policies implemented in many developed countries. But empirical evidences on the outcomes of financial education initiatives remained inconclusive (ROA Garcia, 2011; Xu &Zia, 2012).

Recently the need to design and implement financial literacy enhancement policies have also been recognized in developing and low income countries (Xu & Zia, 2012) as part of financial inclusion (OECD, 2013), other poverty reduction programs and to build a vibrant financial market (Kummar & Annes, 2013) for the fact survey results in this countries, though few, showed how low financial literacy affect personal finance decisions at individual and household level. Further failures to achieve financial inclusion objectives in most developing countries attributed to lack financial literacy (Chiba, 2009). The center for financial Inclusion (2013) also proposed integration of financial capability as one of the pillars in financial inclusion policy and programs in order to ensure a full financial inclusion. The OECD also recommended scaling up the role of financial education to financial inclusion both two developed and less developed countries since the year 2010 (OECD, 2013). Research results supporting the recommendation have also been emerging. For example: Ananths (2011) identified financial illiteracy among factors contributed to microfinance crises in Andhra Pradesh, India, suggesting increasing access to credit for those with low financial literacy could be counterproductive. A recent
Fin Scope Survey III in Uganda (2014) also pointed out low financial illiteracy hindered access to finance. Thus, financial education contributes to solve demand side problems of financial inclusion by increasing demand and proper usage of formal financial services. This in turn enables poverty reduction and sustainable economic growth in developing countries (Chiba, 2009; Kefela, 2011; Fatoki & Oni, 2014).

Nevertheless, the effort in developing countries are not supported by initial survey, but are mostly motivated by the survey results and empirical studies implemented in developed countries(Xu & Zia, 2012) albeit financial literacy and personal financial management capability are context specific demanding prior survey of existing level financial literacy and related financial education requirements and alternative policy interventions. Thus, this study aimed at conducting a survey personal finance literatures with a particular focus on studies in developing countries to fill the literature gap, on hand, and to facilitate further studies.

1.1. Previous Literature Surveys
Policy makers, service providers and academics in financial sector of developed countries in US and Europe proceed in recognizing personal finance education since ‘the mid to late 1990s’ (Choi, nd); thus, prior review studies, discussed hereunder, are mostly related to developing countries.

On Lusardi and Mitchell (2011) results from review of financial literacy studies from seven European countries that uniformly measured basics of personal finance: interest compounding, inflation, risk and return conclude that low financial literacy correlated with identical set of socio demographic factors. Specifically, they observed low of financial literacy among younger or older age group, women, less educated and unemployed. They also noted different level of financial literacy across ethnic groups and religions. Moreover, the authors pointed out a variation on actual financial literacy and individual’s self-assessment, which would probably contribute to committing financial mistakes. Further, their review showed positive relationship between financial literacy and financial behaviors: financial planning, saving, retirement and wealth accumulation, borrowing at lower interest rate, choosing lower fee financial service including lower interest rate debt, and diversification of investment portfolio, however, people across the board found to have unsatisfactory retirement planning. Lusardi (2012) on the review of studies from US and some European countries also showed people lack numerical abilities which are relevant in every day financial decisions. And both studies, consistently, suggested furthering of financial education in developing countries and emphasized the need for targeting groups identified at risk such as women, youth, the elderly, unemployed and less educated, minorities and low income groups in order to overcome repercussions of low financial literacy and resulting suboptimal financial decision in these segments of the population which could affect overall economy.

Survey financial literacy literatures across the globe by Xu & Zia (2012), which aimed at providing evidences on the importance and level of financial literacy, its correlates, and effects with having practical implications pointed out increasing relevance of financial literacy both in developed and developing countries. They advance prior reviews by showing financial literacy in developing countries was low. They also underscore lack studies in developing countries albeit the same is highly needed for policy making and academic purpose. Their result, confirmed Lusardi & Mitchel (2011) & Lusardi (2012) with respect to the correlation between financial literacy and socio demographic factors. Similar to Lusardi & Mitchel (2011), differences across ethnic groups, and employment status also observed at global level. Further, behavioral factors such as perception towards importance of financial literacy, satisfaction on current level of financial literacy and its outcome were found to affect level of personal financial management capability. They suggested promotion of financial education policies for the fact increasing number of impact assessment studies were emerging with positive outcomes although overall empirical evidence to date reads mixed.

In their review, ‘Economic Importance of Financial Literacy’, Lusardi & Mitchelle (2013) affirmed that existing literature show financial literacy increases with age, but decline at old age. And also females at all age recorded lower financial literacy than male. The various alternative explanations on gender gap cited by Lusardi and Mitchel didn’t pointe out why female tend to have low financial literacy, even after having a higher educational in some cases. However they anticipated that female might acquire financial literacy in some different ways, which would be a potential area of further study to inform financial education policies to introduce targeted programs aimed at improving financial literacy of females. Consistent with, preceding reviews, this paper concludes an increasing level of financial literacy with higher education, income, and employment. Variations by race and ethnicity, gap between rural and urban dwellers are also persistent across age and different financial literacy measurement questions. Lusardi and Mitchel (2013) also stated that, “[their] findings might suggest that financial literacy is more easily acquired via interactions with others, in the workplace or in the community.” Moreover, the influence of family background and nationality gap were also observed and leads to conclude:

“…..while financial illiteracy is widespread, it is also concentrated among specific population sub-groups in most countries studied to date. Such heterogeneity in financial literacy suggests that different mechanisms may be appropriate for tracking the causes and possible consequences of the shortfalls.”
The above reviews, in general, showed low level of financial literacy across demographic and socio-economic characteristics of people in different countries suggest the relevance of financial education, especially, targeting a particular group for prompt outcomes. It was also noted from Xu & Zia (2012) recommendation of financial literacy policy in developing country is not only motivated by survey results in developed world, but experimental findings emerging from developing countries have been suggesting positive outcomes of well-designed and targeted financial education programs.

As financial literacy is a recent phenomenon in developing countries only a few literature surveys available from India and South Africa that adopted a national financial literacy policies through their financial sector regulatory organs. On Kummar & Annes (2013) & Subha & Priya (2014) the importance of financial literacy in India and the government initiatives were suggested to strengthen for the fact existing studies concluded that low financial literacy has been challenging financial inclusion and financial market development in the country. Though few survey reviewed, Kummar & Annes (2013) pointed out that, “the financial literacy level majorly depends upon education and income level of the individuals; the social factors such like family size, family background, age, regions, nature of employment also have a little impact on this” (pp. 85). Subha & Priya (2014) also underscored the need to studies identifying the more at risk population group and furthering ongoing financial literacy program towards this groups.

Similar to the case in India, Fatoki & Oni (2014) indicated scant availability of financial literacy surveys and inconsistent measurement and research methods limit their policy and practical implication. Based on the review of available studies they showed same low financial literacy in South Africa. Apart from enhancing financial education in South Africa, they suggested further and comprehensive researches reduce measurement and methodological inconsistencies, on one hand, and providing comprehensive view of financial literacy across demographic and socio-economic characteristics of the population for evidence based financial education policy and implementations.

1.2. Significance of the Study
There are previous literature surveys on financial literacy, so far we reviewed, (Lusardi and Mitchell (2011), Lusardi (2012), Lusardi & Mitchelle (2013), but focused on studies implemented in developed countries in US and Europe that early adopted financial education policies. Though the study of Xu & Zia (2012) covered various studies across the globe including forthcoming empirical studies in developing countries, they affirmed scanty of financial literacy research in most developing countries. Further, Kummar & Annes (2013), Subha & Priya (2014), Fatoki & Oni (2014) are among recent surveys of literature in developing countries, but they are country specific. Thus, building on these papers, the study hopes to advance personal finance literatures by providing synthesis of recent studies from developed countries. The paper therefore contributes in filling the literature gap and enables comparison of findings across different countries in the world. Further, it will highlight potential research areas.

1.3. Objectives and Methodology
The objective of this study is to review and summarize recent studies on financial literacy and related issues. Recent studies covering of 2010-2015 were first collected from journal, working papers, proceedings and, thesis. The collected studies then classified under four research themes, namely: financial literacy and its correlates, financial literacy and personal financial management behavior, financial literacy and financial inclusion, and financial management and its outcome. Finally, each paper was reviewed separately and presented chronologically under each theme. Finally the results are discussed in a ways draw conclusion and directions for further studies.

2. Level of Financial Literacy and Its Correlates
This sub-section presents results from survey and empirical studies implemented in different countries to measure level of financial literacy and its correlates either in entire population or in particular groups: youth, employed people, SME, and Investors. The reviewed studies are organized chronologically in order to point out changes on level of literacy and its correlates, compared to prior literature surveys presented above.

Murithi, et al (2012) in there study of investors’ behavior in India found investors in India are aware of the risk and return trade off, an aspect of financial literacy relevant to investors. And most of them have higher educational qualification, but still their investment portfolio is not diversified, and their investment decisions are mostly guided by safety than return on investment evidenced by the fact that the proportion of investment confined to bank accounts, life insurance, mutual fund gold, are land are large. Based on the study, the authors concluded that, “Most of the investors make investment decisions using two or more sources of information. Most of the investors discuss with their family and friends before making an investment decision.” The study, in general, shows the influence of social groups on personal financial decision. This finding is somewhat related with experimental study in Kenya that found that financial literacy education showed better effect when the same
content is offered to the individuals in the same group. (Gine et. al 2014) which suggested the implication of sociological factors on personal financial decisions in developing countries where there exists strong family and social ties.

Bhattacharjee (2014) also assessed financial literacy and its influencing factors in India using questionnaire survey of investors in three villages of Barpeta district of Assam, collected data on basic and advanced personal financial knowledge, focused on: financial products and services, and instruments as indicator of financial literacy. The result indicated that, majority have basic knowledge about saving account and basic financial instruments like life insurance policies, public provident fund and national saving certificate. Nevertheless, advanced knowledge pertaining to financial market instruments, existence of capital market, mutual fund were found low. The correlation and regression analysis implemented in this study also showed demographic factors: education, income, age, nature of employment and place of work has significant relationship with level financial knowledge. Accordingly, an increase in age, income, and education are more related to better financial literacy; whereas, there was no significant effect of gender. The findings in this study are consistent with Murithi, et al (2012) in that investors in India have basics of personal finance, though lacks advanced knowledge. This paper found significant relationship between education and financial literacy of investors. Yet, age and financial literacy don’t show significant relationship, which is contrary to prior results in developed countries (Mitchel (2011) and Lusardi (2012), Lusardi & Mitchell (2013).

Arshad, et al (2013) in their study of financial literacy and influence of psychological factors in Pakistan investigated the effect of five psychological factors, viz: ‘hopelessness, religiosity, financial satisfaction, retirement planning intention, and risk preference’ on financial literacy, data about basic financial literacy (numerator, interest calculation, inflation, time value of money, and money illusion) and advanced financial literacy (stock market function, mutual fund, bond pricing, company stock, long term return, and riskiness of assets in the portfolio), demographic and physiological factors were collected through a questionnaire survey of 120 sample investors who had a financial dealing with National Saving Center of Pakistan. The result showed that only one-third of the sample answered 55% of the questions though the response with respect to each questions varies. This shows that majority are not financial literate demanding financial education intervention. Financial literacy was found to have a positive correlation with retirement intention, financial satisfaction, religiosity, high risk preference. With regard to demographic factors, level of finally literacy in the study sample increased with age, and is better among males, marrieds. Though small coefficient, level of education also showed a positive correlation. The OLS regression analysis in the study also revealed that independent variables explained 50% of the variation on financial literacy; off which hopelessness, retirement planning intention, gender and financial satisfaction were statically significant. The result in this study founded in behavioral economics and finance theories, that according to Hilgert, Hogarth, and Beverly (2003), underlined the influence of psychological factors in applying financial literacy to financial capability.

Bhushan and Mudery (2013) concluded, based on a questionnaire survey of 516 sample salaried employees in Himachal Pradesh, India analyzed using descriptive statistics and ANOVA, low level of financial literacy (overall mean = 58.3 %). And found statistically different level of financial literacy across gender, education status, and income, nature of employment, and place of work. Yet, age showed no differences. Further, financial literacy levels didn’t show difference across geographical regions. This study, consistent with prior literature surveys in section 1.1, found being male, having high educational attainment, high incomes are associated with better financial literacy. Similarly, employment in non-governmental organization, and living in urban area and better financial literacy are associated. Nayebzadeh, et al (2013) also examined level of financial literacy and its relationship with demographic characteristics. The result found lack of financial literacy for handling daily financial issues. Nevertheless, the relationship between financial literacy and socio demographic factors, except marital status was not significant. Which is not consistent with Bhushan and Mudery (2013) found differences across socio demographic factors among Indian employees, and with the common trend in the literature.

Prior survey studies surmised the correlation between financial literacy and age in which youngsters are mostly found to have low financial literacy. Recent studies with a particular focus on youth also emerging from different countries. Among these, Shaari, et al. (2013) examined youth financial literacy and its determinants in Malaysia using a questioner survey of 384 convenient samples of students from local universities and found an overall moderate level of financial literacy, in that, about 65 percent of the sample scored 5-8 out of 12 questions intended to measure financial literacy. Results of one way ANOVA also indicated financial literacy level significantly varies with age and year of study in college, field of study and spending habit. Contrary to findings of previous studies that considered sample in general population of different countries, financial literacy of male and female was not statistically different in this study. The regression analysis further indicated that the independent variables explained small amount of variation on financial literacy level(r-square =0.067). And of the five independent variables, age and spending habit showed a significant negative relationship with financial literacy; yet year of study and being a business major showed a significant positive
relationship with level of financial literacy.

Similarly, Shahrabani (2013) assessed financial literacy of college students in Israeli and examined the associations financial literacy would have with socio-demographic factors, as well as the difference between Arab and Jewish students. The study was based a questionnaire survey to collected primary data from 547 students from two colleges. Descriptive statics and chi square test of difference between different groups employed for data analysis showed an overall level of financial knowledge. And ‘[t]he results also indicate that FL is particularly acute among specific demographic groups, such as women and Arabs.’ (p.544) But the difference between Jewish and Arab students with respect to questions pertaining to calculation was not significantly different. Moreover, the result from logistic regression indicated that financial knowledge of Israeli students was explained by gender, academic year, work experience, and major area of study. Based on the study the author suggested personal finance education at college level which could address both general requirements and considered group differences as well.

OSeifuah & Gyekye (2014) analyzed level of financial literacy of undergraduate students in South Africa. A questionnaire survey with 50 undergraduate commerce students was used to collect data about level of financial literacy across demographic, socio economic characteristics. A logistic regression and chi-square static employed for data analysis identified various factors related to overall low level of financial literacy. The result showed that being male, financing college using bank loan, participation in family financial management decision and exposure to money management course showed significant positive relationship with level of financial literacy. But student with low pocket money who comes from low income family were found to have low level of financial literacy. The study didn’t show a statistically significant difference on attitude to financial planning, recording and saving between those with high and low financial literacy.

Shankari, et al (2014) studied financial literacy basic banking product awareness advanced banking knowledge, and financial behavior using a sample survey of 500 respondents in Tamil Naidu, India found an overall low financial literacy in the sample. Contrary to existing literatures no significant relationship between level of financial literacy and demographic variables such as ‘Age, Gender and Educational Qualification of the respondent’ were evidenced.

Bucher-Koenen & Lamla, (2014) approached financial literacy study from a new perspective and came up with a new insight on the factors affecting financial literacy. They hypothesized that socio economic and political setting could possibly affects the way people acquire financial literacy and their financial behavior. To examine their contention they modified commonly used empirical models to reflect how changes in the institutional environment might drive financial literacy investments and which factors promote and hinder finical literacy accumulation. The empirical evidence was based on comparing financial literacy level of people in west and East Germany after 20 years of fundamental economic and political change implemented in East Germany. They analyzed data from SAVE 2009 using descriptive and regression analyses. In addition they implemented a thought experiment. And the study results identified low financial literacy level in East Germany showing ‘[…] that even 20 years after German reunification, there are fundamental differences in financial knowledge between East and West Germans. [And] these differences can neither be explained by differences in socio-economic characteristics (including income, employment status and financial wealth), by different risk preferences nor by a measure for openness to change.

The study, however, showed that the gap in financial literacy for some groups found to be closer. ‘For instance, women and those who have migrated from East to West Germany have caught up with their West German peers.’ On the other hand, a gap in financial literacy between East and West Germany persists across all educational groups, among high-income earners and those who describe themselves as being open to change.

Kumar & Mishra (2015) recently examined the modifiers of financial capability in India, which emphasized financial capability as an extension of financial literacy and fills the gap in showing how financial literacy leads to financial capability, which is more behavioral and experiential aspect of personal financial management. A structured interview conducted with a sample of 200 employed people in Ulthra Pradesh, India analyzed using one way ANOVA to examine whether financial capability index constructed from the questionnaire item on dimensions of financial capability could show statistically significant difference across demographic and socio economic factors. And the result show that financial capability varies across gender, age, income and education; which is consistent with most previous studies on financial literacy and financial capability. The study suggested that financial capability improving policies need to take these factors so as to bring desired change in personal financial management capability. The study confirmed prior studies in India and other countries.

3. Financial Literacy and Personal Financial Management

Personal financial management refers to the management of money in its various forms to ensure short and long term financial security. Dowling et al (2009) defined that “financial practice as a set of behavior which include cash management, credit management, financial planning, investments, insurance, retirement planning, and

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"estate planning," which requires understanding of basic concepts of finance and economics, such as interest and inflation, and performing some computations, risk diversification, awareness of financial products and ability to choose the one with ones best interest. Researches on financial literacy hypothesized that financial literacy and savvy personal financial management behavior are related. These studies according to Hilgert et al (2003) instituted in classical economics ‘….and operate under the implicit assumption that increases in information and knowledge will lead to changes in financial management practices and behaviors.’(p.109) Similarly, Roa Garcia (2011) in the review of ‘Financial Education and Behavioral Finance’ pointed out that increasing financial education programs across the world and the related studies measuring financial literacy and the impact of financial education ‘[…] assume that access to increased education and financial information produce better informed individuals who then, based on life-cycle models and the assumption of rational expectations, make optimal saving and investment decisions.’(P.9) Nevertheless, both Hilgert et al (2003) & Roa Garcia (2011) stated that the empirical evidences on the impact of financial literacy on financial behavior are not conclusive. Similarly Xu and Xia (2012) on their survey noted mixed finding which are not conclusive, but suggesting that financial education improves financial literacy and also results in improved financial behavior. Hilgert et al (2003) & Roa Garcia (2011), in this regard, similarly cited behavioral finance and economics literatures that posit the relevance of psychological factors on personal financial management decision making.

The effect of behavioral factor and practical experience on financial management behavior leads financial education to shift emphasis from financial literacy to financial capability. According to Kumar & Mishra (2015), “Financial capability is precisely the skills to manage financial resources in a way that one can optimize the use of a single penny earned or spent.” Zakaria & Sabri (2013) based on review of surveys conducted in 10 different countries tried to formulate indicators of financial capability also identified four indicators, in use with slight variation in the contextual application, ‘[…] focus on general four domains; managing money, staying informed, choosing products and planning ahead (p. 197). Thus, in financial capability effort is beyond imparting knowledge to developing behavior of practicing suggested personal financial management tools and techniques, such as budgeting and financial planning, keeping personal finical records, seeking relevant information to use in making saving, investment, borrowing and other financial decisions. Studies discussed hereunder thus tried to examine how far financial literacy and behavioral traits factors are related with one or more aspects of personal financial management capability.

A study by Kanpon, Lusardi and Panos (2012) also examined the effect of financial literacy on financial behavior, and financial and real outcomes in Russia, which represented emerging economies affected by financial crises. The study used an individual level survey data collected from sample Russians in 2008 and 2009 to measured financial literacy in terms of personal finance basics and financial service awareness, financial behavior, outcomes across socio economic profiles. A polled data regression analysis revealed that ‘financial literacy was positively related with usage of formal financial service, but negatively with usage of informal credit’. With respect to outcomes of financial literacy, they found that high level of financial literacy was related with high spending capacity and high amount of unspent income during the financial crises. The result shades light on how financial literacy enables individuals to cope up with macro-economic shocks through saving and wise of personal finance.

Mahdzan & Tahiani (2013) also explored the impact of financial literacy on individual saving in Malaysia. For the purpose a survey data from 200 respondents with diverse demographic and economic characteristics were analyzed using a probit model of regression which showed that financial literacy, both basic and advanced knowledge are related with high saving. The study suggested, like studies from India (Sarr & et al, 2012, Kumar et al, 2012, and others), that government should promote financial education in order to improve the saving in the population. Suwanaphan (2013) also argued for the same based on the analysis of sample survey of 400 sample academic support staffs of Change Mi University in Thailand which showed an overall low financial literacy negatively affected saving behavior or leads to overspending.

On Juen et al. (2013) money management skill, a dependent variable conceptualized to include: financial planning, budgeting, saving and credit management abilities, and its relationship with (1) financial knowledge, (2) financial practice, and (3) self-esteem also considered in the context of Malaysian. Based on the analysis of survey data from a sample of 480 youth, they found significant moderate positive correlation of financial knowledge, and self-esteem with money management skills. The multivariate analysis implemented to determine the significant predictors for money management skills also indicated 26.5 % explanatory power of the independent variable in the study. Concerning the effect of each variable financial management practice found to have the highest effect followed by financial knowledge and self-esteem.

Ali & et al (2013) conducted a pilot study on financial literacy and satisfactions based on a sample 199 employed people in Malaysia. And A factor Analysis technique in the study identified financial planning having higher significant relationship with financial literacy than other pre identified antecedents such as “[…] basic money management, investment know-how, attitude to money and financial activities.” (p. 323)

Navickas, Gudaitis & Krajnakova (2014) also examined how level of financial literacy influenced
personal finance management of Lithuanian population, aged between 18 and 30. A descriptive analysis of data from an online survey of 437 sample respondents from different parts of the country revealed low level of financial literacy, which is related to unsatisfactory personal finance management that they argued leads to “......spends a lot of money because of impulsive or unnecessary buying, which eventually leads to lower saving rates and lower investment returns.’ (p.39)

The result in the above three studies show the relationship that financial literacy has with different financial management behavior, such as usage of formal financial product, financial management practices: financial planning, saving, credit management which enables individual to maintain stable financial status even during the time of financial crises. In other words the above studies show how low financial literacy attributed to undesired financial behavior. The studies examining psychological factors such as self-esteem and impulsive buying also established relationship with financial management behavior underscoring the importance of including behavioral factor in financial education frameworks.

Personal financial management behavior studies reviewed so far considered financial literacy, both knowledge of personal finance basics and financial product and services awareness are associated with financial inclusion. Majority of adults in developing countries, however, neither has access to formal financial service nor used existing service partly because of financial illiteracy. Thus, financial literacy and capability in developing and emerging countries become an integral part of financial inclusion agenda. And most financial education programs are delivered by financial institutions and their regulatory agencies or by other stakeholders with a mission to improving usage of formal financial services that can have a positive welfare effects. The following section of the review; thus, presents synthesis of literatures surveyed on the relationship between financial literacy and financial inclusion, next to a brief overview financial inclusion.

4. Financial Literacy and Financial Inclusion

Financial inclusion is defined as the availability of banking services at an affordable cost to deprived and low income groups. Financial inclusion in developing countries is overwhelmingly important for the fact vast majority of smallholder farmer in rural and urban poor remain with limited access to formal financial product and service. Financial inclusion has become the growing concern of development finance both at academic and policy front for the fact empirical evidences have been showing access to finance contributes to improvement of socio economic wellbeing of the poor. Financial exclusion may attribute to various factors that can be classified under supply side and demand side factors. With respect to supply side barriers to accesses has been the main concern in least developing countries however emerging financial sector developments and innovations expected to minimize problem of access at least in urban areas. Nevertheless, level of access and usage of formal financial service remained unsatisfactory. For example on their paper Xu & Zia (2012) quoted a survey result in sub-Saharan Africa which reads as follow,

As FinScope survey results indicate, a large proportion of the population in countries such as Mozambique, Malawi, and Nigeria lack of awareness of basic financial products and concepts such as savings accounts, interest on savings, insurance, and loans. (p.9)

This might show lack of knowledge and financial inclusion seems related and prevalent in least developing countries in east Africa, but requires further study to use financial education as alternative policy intervention. Thus, financial literacy and education programs implemented in least developing countries are related to financial inclusion. And there are increasing number of studies examining how far financial literacy affected success of various financial inclusion models. For example: Slibley (2010) in the study of relationship between financial capability and household economic wellbeing in rural households participated in financial capability intervention in Fuji. The study revealed that financial competence and financial inclusion measured in terms of number of back accounts are highly related and affirmed the propositions that financial illiteracy leads to self-exclusion from formal financial service. The finding of the study supports the need for increasing effort to finical education for rural poor so as to demand and use formal financial services.

In support of this Tustin (2010) showed that financial literacy training enhanced personal financial management behavior of trainees including usage of formal financial products. Their conclusion is based on an experimental research implemented to investigate the impact of the Bubomi financial literacy flagship program developed by Absa Group Limited, one of South Africa’s largest financial service organizations. The study compared after treatment observations of financial knowledge, confidence of individuals benefited from the financial literacy program (experimental group consisting 393 sample respondents) collected through a questionnaire survey in the Gyianni area. Results of quantitative data analysis: descriptive statistics, one way ANOVA and Chi square to tests revealed that the composite mean score of three financial literacy constructs are statically different and the mean in experimental group is higher. The Chi-square test also showed that all items, except two items measuring financial confidence (specifically: financially I did like to live for today only and financial planning is only important for wealthy people) are statically different and higher in experimental group. These quantitative results were also supported by a qualitative analysis of 9 focus group discussions that showed
beneficiaries of the trainees perceived having improved financial knowledge and becoming more confident in performing basic financial activities. They also found to believe the relevance better and responsible personal finance management. Although the study is based on self-reported financial knowledge and attitudes, the authors suggested the furthering financial education for the positive change of personal financial management formal financial service usage resulted from the training.

The result on Cautor (2010) was also in the same line. Coustor examined the role of financial literacy on the demand to financial service using a randomized field experiment of financial literacy training program (FLTP) for microfinance clients in Bohal, India. And found a statically significant positive effect of FLTP on improving financial literacy level of clients. Although the author indicated that other factors such as initial level of financial literacy, schooling, past participation in capital market, and others factor which were not considered in the study could contribute the outcomes, concluded that attending a carefully designed FLTP improved financial literacy and demand for welfare improving financial services such as saving and pension. Subsequent studies in different parts of India also calls for financial education, strengthening, the empirical evidence of Cautor (2010) for the fact survey result (Nalini, 2011) and empirical studies (Sarr & et al (2012) showed low access to and usage of formal financial service in different parts of the society identified with low financial literacy though few (Cole, Sampson and Zia, 2011) recommend alternative strategies to financial education to enhance financial inclusion in India.

On Nalini (2011) survey of SME entrepreneurs in Tamil Nadu, India showed low financial literacy hindered access to and usage of existing financial services, based on which the author suggested financial institutions to streamline their client financial education programs and “the government should include financial literacy in curriculums at Scholl and college, so that students can understand the significance of financial literacy which would turn the future entrepreneurs more competitive.”(p.197) Similarly, Kumar et al (2012) based on the study of secondary data on the role banks in achieving financial inclusion in India advocated furthering of the role that financial literacy and credit counsel units in Indian banks playing in financial inclusion.

Yet, Cole, Sampson and Zia (2011) on empirical study aimed at examining the effect of financial literacy and reduction in transaction cost on demand to financial service in emerging economies, represented by large scale survey in India and Indonesia, found low financial literacy and low financial inclusion in both countries, but observed financial literacy lead to financial inclusion only with part of the sample having low educational level and no prior financial education. The result of their experiment also showed that small incentive offered for participant to open and use a saving account showed better effect than financial education. The study implied reducing transaction cost as alternative strategy. Further, indicated that financial education can serve the purpose if targeted those will low initial education attainment. The growing role of financial literacy, even in this case, is not rejected but cautions to design effective financial literacy program and the need to compare other alternative strategies are suggested. Sarr & et al (2012) also shared the importance of financial education for clients for the fact they found most saving accounts opened through financial inclusion programs remained dormant. They conclude that financial education on saving account transaction activity given to clients of commercial banks the randomly assigned to treatment group showed a higher increase in usage of no-frills saving account compared with the level of usage in the control group; which justifies the importance of financial education for a better financial inclusion in developing countries.

Warchira & Mkihiu (2012) employed multinomial logistic regression model to see how financial literacy affected access to finance based the 2009 National Financial Access (NFA) survey in Kenya found financial literacy which had a positive, but not no signify effect. Bust still suggested financial literacy improvement for overall low level with positive effect indicated some hope. The finding on Gathak (2013) also found financial literacy had the second largest significant positive correlation, which was next to culture, with financial inclusion in their study of the demand side challenges to financial inclusion in India which added enhancing awareness about the service offered by financial intuitions, and the benefits of being financially included, among other things, to increase demand to and usage of financial service.

The study by Sayinzoga, Bulite and Lensink (2013) administered an experiment of financial education in rural Ruanda found statistically and economically significant effect of financial education in enhancing level of financial literacy and financial behavior. Specifically, the study found significant change saving, loan take-up and enhanced income generation activity startup, debt repayment in experimental group compared to the sample in the control group. Though the study showed the positive effect of financial education, like speculation by Coster (2010) and the finding by Cole et al (2011), affirmed the possible effect of other factors to explain the link between financial literacy and financial behavior. This suggests further studies to include other variables such as monetary incentives (Cole Sampson, Zia, 2011), trust on formal financial service providers, improved perception on the relevance of being financial included (Gathack, 2013) and others with alternative policy implication in increasing demand to and usage formal financial services.

Despite other studies called up on alternative strategies, none of them totally reduce the role of financial education, but Gupta and Sing (2013) appeared different to conclude no effect of financial literacy.
based on low correlation between financial literacy of Indians taken from 2011 census India and financial inclusion level based on global and financial inclusion index of India resulted low correlation. They also argued that although financial literacy was found low at a national level some state reported to have high literacy showed low level of financial service usage showing the relevance of other factors. The following researches: Robert et al. (2013) and Hieltjes and Patova (2013) are also in lack evidence on the effect of financial literacy having on financial inclusion. Robert et al (2013) based on analysis of survey data from clients and employees of MFIs in eastern Uganda concluded that client financial literacy and outreach are not significantly related and recommend changing of attention from client financial education to other aspects of outreach. The finding on Hieltjes and Patova (2013) who implemented a randomized control trial to examine the effect of financial literacy and transaction cost among low income people, in Zeway Ethiopia also found no evidence on the effect of financial literacy training and financial awareness messages having on bank account uptake and usage, but found reduction in transaction cost, as found on Cole et al (2011), had more effect. These, thus, implies a need to target alternative interventions in addition to financial literacy.

Cole et al (2014) on their experimental study of financial education and its effects on financial knowledge, behavior and outcome in South Africa, find that financial education has a positive effect on improving saving behavior, low interest for loan application and use higher purchase as consumer finance option. This study also show financial literacy improves participants’ awareness of budgeting, saving and use of credit. And positively effects on their attitude and perception, and confidence on the use of formal financial products. Yet financial education does not seem to have an effect on financial planning. Similarly there was no evidence on the link between financial literacy and improvement in wellbeing. The result by Cole et al (2014) supports the underpinning of policies in South Africa that directs banks to engage in consumer financial education for the fact the experimented financial education resulted in improved personal financial capability. This is in line with Tustine (2010) who recommend the same in South Africa.

Gine et al (2014) used an experimental study to measure the direct impact and social network spillover of providing financial literacy and discount voucher on farmers’ decision to purchase drought insurance in Kenya obtained that the social support effect on the impact of financial literacy in improving farmers demand to insurance take up, but not on the impact of discount voucher. This leads to conclusion that financial literacy has more effect on financial behavior when more members in the social network have access to similar financial literacy programs. This study also implies that the designing and implementation of financial education in least developing countries in Africa where the social bondage sociological factors for better impact.

The recent trend in literature, though remained mixed, indicated the importance of financial education policy intervention, which are well designed, targeted, and implemented either alone or as part of alternative strategies (for example reduction in transaction cost) to enhance financial literacy & awareness of formal financial service and benefits of informed and disciplined usage in developing countries.

5. The Outcomes of Personal Financial Management

The role of personal finance on individuals, financial system and the economy presented to justify financial education investments. The arguments are theoretically convincing, but to date empirical evidences showing ultimate impact of financial education are not widely available. The outcome of better personal finance management can be explained interims of asset accumulation, debt reduction, or net worth, which is the difference between what individual own and owes though measurement and data availability may challenge researchers. Some studies that we come across during our review are discussed below.

Behrman et al (2012) suggested ‘that by investing in financial literacy, individuals, firms, and governments can enhance household wealth and wellbeing.’(p.9) based on significant positive effect of financial literacy on wealth accumulation the found in Chile. Their finding strengthened Hastig & Mitchel (2010) reported a positive correlation between financial literacy and retirement saving in Chili. It was also noted on the review of financial literacy studies in some European countries that financial literacy and retirement wealth showed causality (Lusardi and Mitchel, 2011). Rooij & et.al (2011) also found a causal relationship between financial literacy and wealth holdings after controlling other determinants of wealth such as income, age, educations, family composition, risk tolerance, patience, and attitude towards saving. The study of Sekita (2013) on relationship between financial literacy and wealth accumulation in the context of Japan also confirmed previous studies, showed a positive contribution of financial literacy on wealth accumulation.

Canpon et al (2012) also showed how financial literacy, which partly matters for optimal personal finance decisions, creates difference on financial wellbeing. Kanpon et al (2012) on their study implemented in Rusia after the financial crises concluded that financial literacy enables individuals to withstand macro-economic shocks. This conclusion was based on the results of poled data regression analysis employed to analyze individual level survey data from Rusia collected in 2008 & 2009 which showed high level of financial literacy was related with high spending capacity and high amount of unspent income during the financial crises. Similar to this paper, McCarthy (na), Sophie, Mark and Adrian (2013) and other studies conducted after the financial
crises argued that the causes of the crises and the resulting challenge are related with poor personal finance decisions. Few empirical studies also examined whether financial literacy and behavior are related to adverse financial outcomes. For example: Sophie, Mark and Adrian (2013) used a data from a large sample survey of British population to explore how socio economic factors, money attitude, and financial capability contributed to experiencing adverse financial outcomes such as bankruptcy, denial of credit, repossessions of home and other equipment, high bank overdraft. They found greatest effect of financial capability compared to money attitude and socio economic differences. However they suggested that money attitudes should be considered in overcoming adverse financial outcomes for those fact money attitudes didn’t show relationship with socioeconomic difference like that of financial capability, consistent with the trend in literature, varied with socioeconomic variable. The inclusion of behavioral factors, in this case, enabling people to perceive relevance of security motive to having money along with financial literacy and education was suggested to reduce adverse financial outcomes. In a similar vein, McCarthy (nd) based on the analysis of nationally representative data from financial capability survey in UK and Ireland found statistically significant and economically import effect of individuals behavioral traits on financial distress although demographic and economic factors are important determinants. And they suggested adoption of behavioral change approaches, in addition to enhancing financial literacy and education, to enable people overcome financial distress. Nevertheless, both authors stated lack of empirical evidences on the issue to convince policy makers.

In case of developing countries, financial education are offered along with financial service and other development oriented programs such as entrepreneurship and SMEs assuming financial literacy would enhance to demand for welfare improving financial service such as saving account, microcredit, Insurance, and optimal management of household and SME finance which, in turn, expected to result in better saving, low indebtedness, participation in income generating activates and wealth accumulation. In line with this, we across few studies that considered outcomes of financial literacy in some way are discussed below.

Sayinzoga, Bulte and Lensink (2013) on their experimental study of financial education program in rural Rwanda indicated improved financial knowledge and behavior are translated into increase saving, loan uptake and business startup which will lead to income generation and welfare improvement. Yet Cole et al (2014) on their experimental study of financial education and its effects on financial knowledge, behavior and outcome in South Africa, lacks evidence on welfare improvement effect of financial education though positive effects on knowledge and behavior were evident.

Few studies also tried to include benefits to financial institutions resulting from improved financial literacy and behavior of clients. For example: the study of Alex & Amos (2014) concluded, based on analysis of survey data from customer relationship managers in Kenya that financial education to children and their parents contributes to an increase on children saving accounts indicating the need for integrating appropriate financial education while introducing new saving account. Gine et al (2014) which found higher impact of financial literacy than monetary incentive on demand to whether insurance in Kenya also demonstrate the role of financial literacy on increasing demand for forma financial service, which not only benefit policy holders, but also insurance companies to increase their sales volume. Wise (2013), however based on a study in Canada, found financial education to improve the performance of youth entrepreneurs, among other things, by enhancing credit management which lead to better debt repayment ability. These studies; thus, indicate client financial education would benefit service providers to increase demand for their products, reduce credit default, and maintain long term relationship with client.

Yet, Hieltjes and Patova (2013) concluded that financial education and financial massage by commercial banks have no impact on saving account uptake and usage, which is similar to the finding of Cole et al (2011), which discussed under financial literacy and financial education above. Robert et al. (2013) also showed lack of empirical evidences on the relationship between financial literacy and outreach performance of MFIs in Uganda.

Like the link between financial literacy and financial management behavior, research on outcomes of financial literacy at individual and financial institution level appears mixed albeit most studies showing positive outcomes of financial management in terms of increased saving, wealth accumulation, debt repayment and ability to withstand financial and economic socks are increasing. Further, some studies also tried to show investing in financial client financial education can be linked with institutional performance for the fact it can increase product uptake and usage, which can help to broaden customer base and also create opportunity to sale different products to customers who are aware of products and their services. Further, institutions that target SME and other underserved segments can reduce credit default problems by improving their client financial management capabilities.

6. DISCUSSIONS AND CONCLUSIONS
Survey of previous literature reviews showed that financial education and improving personal financial management was recognized in America and Europe since early to mid- end of 1990s and renowned global
interest in the aftermath of 2007 financial crises, but few has been known in the case of developing countries until recently. The objective of this paper; thus, is to review and discuss recent studies to fill the gap using emerging research on financial literacy and its correlates, the link between financial literacy and financial behavior, and financial inclusion with developing countries in more focus.

The survey of financial literacy around the globe by Xu & Zia (2012) and other similar survey of literatures (Mitchel, 2011; Lusardi, 2012, Lusardi & Mitchell, 2013) from the developed countries consistently pointed out low financial literacy level reported on national surveys and other studies underpinned publically funded financial education policy in developed and high income countries. Nonetheless, evidences from developing countries, especially in Africa, remained scant. Though large scale national or regional surveys are still lacking, emerging research in developing countries albeit based on small sample from narrowly defined population (students, employed people, SMEs, investors), and limited geographical scope, also reported low financial literacy. This shows that people both in developed and developing countries lacks basic knowledge, skill and attitude required in making optimal personal decisions. Thus, studies recommending furthering of financial literacy education have been increasing.

Financial education and literacy improvement policies implemented in developed and high income countries have long become recognized. Subsequent impact assessment studies also witnessed the fact that financial education improves financial literacy albeit no conclusive evidence as to the effect on changing financial behavior. There existed some empirical studies contended the positive effect of financial education for the fact translation of financial literacy into financial behavior can be influenced by psychological and sociological factors. Nevertheless, recent empirical studies suggesting promotion of financial education in developing and low income countries arguing that financial literacy interventions if well designed to targeted the needs in particular segment of the population proves to have positive outcomes. In relation to this, surveys of financial literacy have identifying factors influencing financial literacy to provide policy makers with level of financial literacy and related interventions across different socio demographic variables.

The current paper identified that financial literacy is correlate with socio demographic variables: gender, age, and education attainment, income, living in rural or urban area, ethnicity, and employment status. More specifically, it is learned that women, young and old age, people with low educational attainment and low income level, unemployed, rural inhabitants, and people with less experience in developed financial market are found to have a statically significant association with low level of financial literacy. Thus, financial literacy education policies need to identify how to best improve financial literacy level in these segments of a population. Further, including psychological, social factors in designing contextualizing financial education implemented with a practical sense of idiosyncratic issues in financial landscape and economic system where individuals apply personal finance management appeared to enhance the link between financial literacy and desired behaviors.

Policy makers in developing countries are considering financial literacy as part of financial inclusion programs. Thus, studies examining how financial education offered with the purpose to increase financial inclusion serve the purpose have been available. Especially, studies from India and South Africa, where both financial sector regulatory organ of the government adopted financial literacy policy have relatively more academic papers. Like the case of the link between financial literacy and personal financial management behavior, studies on financial literacy and financial inclusion are mixed, but increasing recent experimental findings have been suggesting for further financial education, which sometimes coupled with other interventions, such as monetary incentives.

Researches showing ultimate impact on individual are very few. But indicated the fact that improved personal financial management contributes to increase personal saving, reduce over indebtedness, and participation in investment and income generating activities which all enable wealth accumulation and sustainable socio economic life. Further, studies including ultimate impact on individuals, performance of financial institution and overall economy also appeared potential research area.

The current review, in general concludes increasing relevance of empowering people to take more responsibility in their personal finance decisions to ensure better financial future. The role of optimal personal financial decisions and implications to financial sector overall economy also appeared relevant, yet financial education efforts in developing countries are not well recognized. Having an overall low level of financial literacy in developing country and increasing anecdotal and empirical findings suggesting the positive outcome of adopting financial literacy policy makers and academics in developing countries should institute financial literacy survey of their population and develop appropriate financial education and other alternative strategies to benefit from enhanced personal finance decisions and financial inclusion.

Further, impact assessment of ongoing and future financial education programs are also a potential area of academic interest to refine existing mixed findings. Some authors critiqued research methodological rigor for lack conclusive evidence on the effect of financial education. For example McCormic (2009) on the review effectiveness of youth financial education in US opined that: “weaknesses in assessment measures,”
attributed to lack of] “definitive statements on the impact of financial education [on behavior]” (p. 76). McCormic (2009) also stated other critique in the field of financial education impact statement that pointed out lack of researcher control on non-random sample in voluntary in financial education programs where researcher could not randomize the participants. In our review of recent studies only a handful are free from similar critique, thus future studies need to consider well designed research approach to improve evidence based policies to improve financial literacy and personal financial management. There is also lack of studies trying to link financial education and financial outcomes, and existing evidences are mixed, thus. Thus, more research in this regard are also helpful to enhance the real impact of personal financial decision on the life of individual and households, and overall economy.

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