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Effect of Financial Literacy on Personal Financial Management Practices: Evidences from the Survey of Urban Dwellers in Addis Ababa, Ethiopia

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A B S T R A C T

The study was conducted to examine the relationship between level of financial literacy and personal financial management practices. Based on the analysis of primary data collected from 402 urban dwellers in Addis Ababa, Ethiopia, this study has showed that there is a positive relationship between financial literacy and financial behaviour. Financial literacy was measured using three indicators, namely: Financial knowledge, financial attitude, and confidence in personal financial decisions. After controlling the effects of demographic and socio-economic variables, the study found that financial attitude and confidence in financial decision making have a statistically significant positive effect on financial management behaviour of urban dwellers in Addis Ababa. Unlike the findings of other studies, this study didn't find statistically significant effect of financial knowledge. It is, therefore, suggested that financial education programs should be given more weight to financial attitude than financial knowledge. Moreover, the study suggests the need for comprehensive national studies to incorporate the context of rural population in order to support the ongoing financial literacy enhancement efforts in Ethiopia.

Introduction

The past two decades have witnessed a growing scholarly interest in personal financial management behaviour. Researchers from finance, economics and other social science disciplines have been trying to understand how people make financial decisions and what brings about the financial outcomes. Empirical evidences show that people lack ability of making optimal decisions related to day-to-day money management, financial planning and debt management. The repercussions of the poor financial decisions are shown in different forms. People with weak financial management capability are found to have minimal savings for emergency and retirements, are disinclined to participate in stock market, and face frequent failures in repaying debt. On the other hand a better financial management ability is associated with positive financial and economic decisions and hence better outcomes.

Existing literature indicated that financial literacy and financial management in the household contributes to saving and wealth accumulation (Behrman et al. 2010; Sekita, 2013), and adequate retirement fund (Lusardi, 2008; Lusardi & Mitchell, 2009; Bucher-Koenen & Lusardi, 2011; van Roij, Lusardi and Rob, 2011). Financial literacy and personal financial management ability also enable individuals to reduce the odds of becoming over indebtedness (Kotze and Smith, 2008; Lusardi, Mitchell and Curto, 2010; Lusardi & Tufano

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2015) and wise use of credit among others.

The effect of personal financial management on the asset and liability side of the household balance sheet suggests the need for augmentation of basic personal financial management ability of people to enhance socio-economic well-being. Unlike the anecdotal and empirical evidences on the importance of personal financial management, suboptimal personal financial decision making resulting from low level of financial literacy prevails both in developed and developing countries (Xu & Zia, 2012; Brascoupe Weatherdon, 2013; Kalppler et al, 2016). Financial literacy and personal finance education; therefore, have become important academic and policy issues since the early 1990s (Holzman, 2010; Kewon, 2011); nonetheless, financial literacy and personal financial management practice in developing countries scantly available (Holzman, 2010; Xu & Zia, 2012, Refera et al, 2016). Various studies have been conducted to determine the causes of inadequate personal financial management practices. They have concluded that financial illiteracy contributes to sub-optimal personal financial decisions.

Financial literacy includes knowledge, skill, attitude and behaviour related to the management of personal finance. Studies on financial literacy show that a low-level of financial literacy levels prevails across the world and it has been affecting the personal financial management capability. Better financial literacy levels have a direct link with savings for emergency and post retirement life, and proper use of debt which contributes to financial health of individual household. The dire need for personal financial education has been felt by respective policy making bodies in many countries. The contemporary scholarly and policy discourse underscores the benefits of personal finance education to individuals and families, the financial system and the economy of a nation. Many developed countries have implemented national financial education policies with an objective to enhance financial literacy and personal financial management ability of citizens. However, similar efforts in emerging and developing countries remained scant until the last few years.

The survey of existing financial literacy and personal financial management practice is the initial step in planning an appropriate financial education policy. Nonetheless, little has been known about financial literacy in developing countries (Xu and Zia, 2012). The current study, therefore, seeks to bridge the gap in the literature by studying the financial literacy and personal financial management practices among urban dwellers in Ethiopia.

Objectives of the Study

The study aimed at examining the relationship between financial literacy and personal financial management practices among urban dwellers in Addis Abba, Ethiopia. The specific objectives include:

1. To measure and describe financial literacy level
2. To measure and describe personal financial management practices
3. To examine the relationship between financial literacy and financial management practices

Review of Related Literature

The stock of studies on financial literacy and personal financial management underscore the importance of optimal financial management (Refera et al. 2016). Existing literature presented empirical evidence showing the positive relationship between financial literacy and personal finical management behavior.

Hilgert, Hogarth, and Beverly (2003) explored the connection between financial knowledge and behavior by focusing on four financial management activities: cash-flow management, credit management, saving and investment in the USA and found statistically significant relationship between financial knowledge and financial practices related to cash-flow management, credit management, saving, and investment, in that, those with knowledge linked to respective financial management practice had higher financial management practice index. According to the authors, *'[t]his pattern may indicate that increases in knowledge and experience can lead to improvements in financial practices, although the causality could flow in the other direction or even both ways.'*

Kotze and Smith (2008) studied personal financial literacy and debt management as well as their implications to new venture creation in the context of South Africa through a questionnaire survey of management students who had prior work and management experience. The results of the study showed that personal financial literacy of even those with general financial education was lower. However adequate financial knowledge and personal financial management capability showed strong and positive correlation. The study underscored the need for financial education in order to enhance personal financial management capability.

Nyamty & Nyana (2011) examined the effect of financial literacy on personal financial management by taking an equal sample of respondents with finance and non-finance education qualifications. The comparative analysis indicates that financially literate employees are better to appreciate recommended personal financial management tools such as saving, tracking expenditure, debt management, investment and retirement planning than those without financial literacy. This suggests that financial education need to promote in developing countries to enhance individual's financial management capabilities.

Boon, Yee and Ting (2011) studied financial literacy and personal financial planning practices in the area of King Valley, Malaysia. The study measured and described both basic and advanced financial literacy of individuals and explored how far financial literacy affected personal financial management practices. The results showed that the majority possessed both basic and advanced financial literacy. The study also proved that people with high financial literacy have higher tendency to engage in personal financial planning.

Sophie & Adrian (2013) studied personal financial capability and attitude to money as the factors affecting adverse financial outcomes experienced by individuals in United Kingdom. According to their study, adverse financial outcomes such as bankruptcy, repossession of car and house, denial of credit, missing loan payments and unexpected use of bank overdraft were associated with financial capability than attitude to money.

Mahdzan &Tahiani (2013) explored the impact of financial literacy on individual saving in Malaysia using the analysis of survey data from 200 respondents found that both basic and advanced financial literacy are related saving behaviour which is part of personal financial management.

TzeJuen et al. (2013) examined the relationship between financial literacy and money management skills among the youth in Malaysia. The study conceptualized money management to include variables such as financial planning, budgeting, saving and credit management, and financial literacy to cover financial knowledge, financial practice and self-esteem. The study had used data collected through a questionnaire survey of 480 sample respondents and the results of the analysis indicated that money management skills had a statistically significant moderate positive relationship with the three indicators of money management. The study also indicated that financial literacy explained 26.5 per cent of the variations in money management skills of Malaysian youth who participated in the survey. Concerning the effect of each variable, financial management had the highest effect followed by financial knowledge and self-esteem respectively.

Navickas, Gudaities & Krajnakova (2014) identified the effect of low financial literacy on unsatisfactory personal financial management behaviour of the youth in Lithuania.

Refera & Kolech (2015) reported results of a descriptive analysis of a survey of financial management capability of employed people in Jimma town of Oromia regional state in Ethiopia. They found a low personal financial management capability regardless of the surveyed group's educational qualification. The study indicated the need for financial education programmes to enhance personal financial management capability of employees in the study area.

Akben-Selcuk (2015) investigated the factors influencing college students' financial behaviour in Turkey by using a cross-sectional national survey of 1539 students. The study found a low financial knowledge among the study participant. The results also showed a significant positive effect of financial knowledge on financial behaviour and suggested the need for enhancing the financial literacy of students.

Mawti et al. (2017) examined the effect of financial literacy on financial decision making based on a random sample of 320 employees of Egerton University in Kenya found that overall level of financial literacy showed a statistically significant positive effect on personal financial decision making. The analysis with respect to each domains of financial literacy, this study found statistically significant effect of financial knowledge and skill, but financial attitude was found to have no significant effect.

Gupta & Gupta (2018) who studied the effect of financial literacy on investment decision making behaviour of rural people in Himachal Pradesh, India documented a statistically significant association between financial literacy and decisions on investment in financial products.

Materials and Methods

The study was conducted based on primary data collected from a cross sectional survey conducted in Addis Ababa city which is the political and economic capital of Ethiopia. The study considered residents of Addis Ababa who are 18 years and above. The data were collected, using a face-to-face interview, from 402 respondents. The data collection instrument was developed based on the review of related literature and covered questions about financial literacy, personal financial management and socio-economic and demographic characteristics of respondents.

Framework of the Study

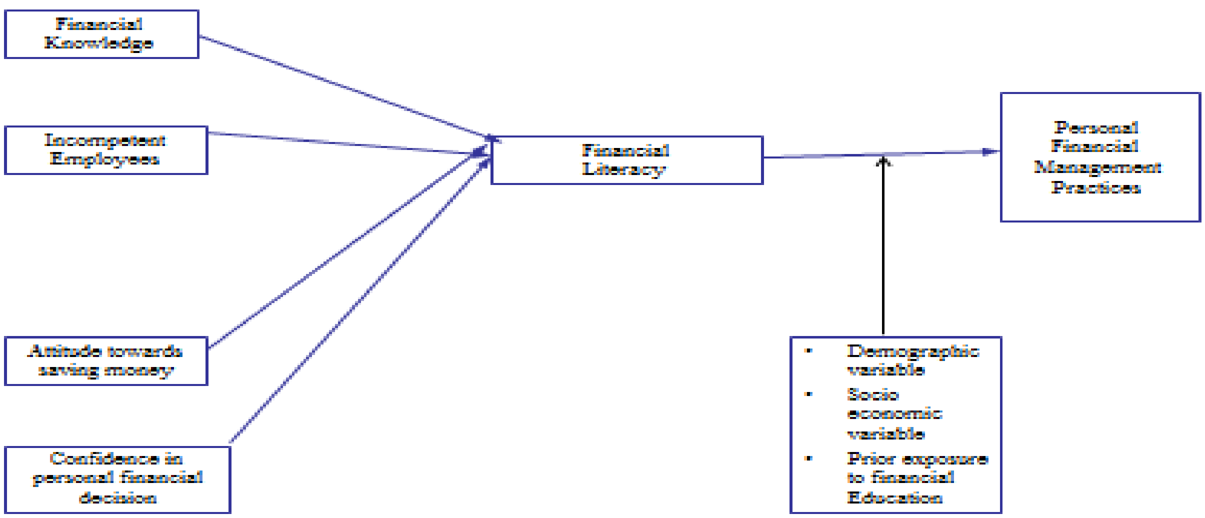
This study intends to analyze the effects of financial literacy on the personal financial management practices of urban dwellers in Addis Ababa, Ethiopia after controlling the effects of respondents' characteristics. The assumed relationship between variables is presented in the form of conceptual model developed by analyzing existing literature and is presented in figure 1.

The conceptual model depicted the fact that financial literacy has direct link with personal financial management practices. The concepts under study, both financial literacy and personal financial management practices, are multidimensional constructs and can be measured through aggregation of measures from indicators, sub-indicators and related variables. Each indicators of the dependent and independent variable and the method of measurement are summarized below.

Financial Literacy

Literature defines financial literacy in different ways. The early definition by Noctor & et al. (1992) cited on Marcolin & Abraham (2006) stated that financial literacy is the ability to make informed judgments and to take effective decisions related to the use and management of money. Atkinson and Messy (2012) cited by OECD (2013) also defined financial literacy as "a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial well-being" (P.5). Lusardi and Mitchell (2013) also coined financial literacy as "ability to process economic information and make informed decisions about financial planning, wealth accumulation and debt management." It can be understood from the definition of financial literacy given above that financial literacy is a multidimensional construct. According to Edwards (2001) a multidimensional construct represents several distinct dimensions of a single theoretical concept. The measurement of multidimensional concept is possible through identification of its dimensions and related variables. Therefore financial literacy in the current study has been measured by using its major components, viz. financial knowledge, financial attitude and confidences in personal financial decision making.

Fig.-1: Conceptual Model of Financial Literacy and Personal Financial Management



Source: developed after reviewing existing literature

Financial Knowledge

The first dimension of financial literacy is basic financial knowledge. Financial knowledge is defined as understanding of key financial terms and concepts needed to function daily in the society. The concept of financial knowledge in the current study was similar to the conventional concept of measuring financial literacy using eight financial literacy quizzes on basic concepts, terminologies and numeracy skills which are applicable in day-to-day financial decisions. This includes knowledge about the time value of money, inflation, interest, ability to compute division, simple and compound interest, understanding the concept of risk and return trade off, and risk diversification. A total of 8 survey questions were used to measure financial knowhow. An overall financial knowledge index was constructed by adding scores of correct responses to each question. Assuming that each question has equal relevance an equal one point was assigned to each correct question, which made an aggregate financial literacy score of a respondent fall in the range of 0 and 8.

Financial Attitude

Financial attitudes and preferences are essential elements of financial literacy (OECD, 2015). The literature argued that favourable attitude is relevant to translate financial knowledge and skill into financial behaviour or actual practices. Therefore, financial literacy study frameworks usually incorporate items intended to measure financial attitudes to examine how the relationship between financial knowledge and attitude translates into financial behaviour. The survey instrument of the study included 11 Likert scale type questions to measure financial attitude and confidence in financial decision making. Each item was separately analyzed and a factor analysis technique was utilized to produce a composite financial attitude and confidence score. The factor analysis indicated that out of 11 items, six items measured two attitude dimensions and the other two items measured confidence in financial decision making. Three remaining measurement items that were not loaded in financial attitude and confidence were excluded from the analysis.

Attitude towards the Importance of Personal Financial Management

Attitude towards the importance of personal financial management refers to the perception of a person towards significance of using personal financial management practices. It has been measured using three consecutive survey questions designed in the form of 5-point Likert scales ranging from ‘strongly agree’ to ‘strongly disagree’. The overall score was then constructed using a summative score development approach. The overall attitude towards the importance of personal financial management is supposed to be within the range of 1 to 5.

Attitude towards Money

The other financial attitude variable is the attitude towards money. It was measured using 3 statements designed in the form of 5-point Likert scale. These statements were supported in many prior studies and include in the OECD financial literacy and financial inclusion survey framework (OECD, 2013; OECD, 2015). The overall money attitude score has been constructed using summative score approach. The overall money attitude score is expected to be within the range of 1 to 5.

Confidence in Personal Financial Decision Making

Confidence in financial decision making can show the extent of knowledge that a person has, about the issue under consideration. The study instrument thus includes two items that capture responses in the form of a 5-point Likert scale to measure whether individuals are confident in making routine personal financial decisions and how far they are confident in the appropriateness of their past decisions. The overall score of confidence in personal financial decision making was constructed using a summate score development approach. Therefore, the overall score is expected to fall between 1 and 5 in which five represents high confidence in personal financial decision making and appropriateness of past decisions.

Overall Financial Literacy

Financial literacy is a multidimensional construct which has been measured by combining the overall score in the above stated four domains of financial literacy. The overall score of financial knowledge, attitude to personal financial management, attitude to money, and confidence in making personal financial decisions were summed up to develop a new variable that represents overall financial literacy level of a person. Considering the maximum possible expected score in each domain, the overall financial literacy score of a person is supposed to be in the range of 0 and 23.

Personal Financial Management Practices

Personal financial management practice refers to various strategies and actions that a person implements to improve financial well-being. It is also defined as the application of financial knowledge, skill and attitude in the management of money in its various forms. Personal financial management practice is a multi-dimensional construct which includes money management, financial planning and management of debt. A total of 27 survey questions were used to measure financial management practices categorized under money management, financial planning and debt management. After the content and face validity of the survey instrument was satisfied, the reliability of the scale items was tested using a Chorombch's alpha. The alpha coefficient for the 9 Likert scale items is used to measure financial management practice was 0.723. A composite financial management score has been created for each of the three domains of personal financial management and the overall personal financial management practices. The score was created by assigning an equal 1 point to positive responses of a survey question or survey questions that show a positive personal financial management practices.

Money Management Practices

Money management is the first indicator of personal financial management which has been used in most of the prior studies. This indicator describes an individual's day-to-day financial management, for both short and long term needs. Individuals use financial strategies to shape their expenses in response to income and vice versa even when income is volatile or unpredictable. Strategies commonly used include saving excess cash, deferring major purchases for the sake of immediate needs, or borrowing when there is an income gap. Those that successfully balance their income and expenses have a better ability to meet their daily needs and financial obligations (Ladha, et al, 2017). Money management practice of urban dwellers in the current study has been measured using four sub-indicators, namely: responsibility in household financial management, financial control practice, ability to get both ends meet and the general approach to financial management.

Financial Planning Practices

The second domain of personal financial management is financial planning. Financial planning encompasses the ability of a person to understand the need for planning to cope up with future financial commitments such as retirement and unforeseen events calling for significant financial need. This means that a person with financial capability understands the need for identifying financial needs both in the short and long term and optimally allocates hardly earned financial resources across the life cycle. Financial planning practices include the saving practice, retirement planning, and investment practices. This indicator captures the behavior of intentionally or habitually putting away assets, as well as the magnitude of assets immediately available. People save in different forms, both in money (cash and accounts) and in tangible items that can store a value for a later date, such as a land, gold or livestock. Most individuals have a diverse portfolio of assets to satisfy different liquidity needs: cash in a bank or mobile account is ready for immediate emergencies, while commitment savings plans or livestock store value for longer term purposes (Ladha, et al, 2017).

Debt Management Practices

A good debt management practice is highly desirable for household financial stability. If properly used, personal debt can contribute to household financial prosperity but personal debt is not without risk. When used inappropriately, personal debt has a tendency to be the most important contributing factor to distress, financial difficulty or even bankruptcy, particularly when experiencing cash flow difficulties. OECD (2013) stated that some credit behaviours can indicate low levels of financial literacy (particularly if people are paying interest on non-essential purchases), and may also indicate an inability to make ends meet, particularly if credit is being used for food and regular bills. A better debt management practice in this study is considered the ability to access debt when needed only for productive purposes. The overall debt management index was constructed by assigning one point to the situation in which a person had borrowed only for productive purpose.

Overall Personal Financial Management Practices

Overall personal financial management Practice is an aggregate multi-dimensional construct. The measurement of overall personal financial management practice was carried out by aggregating the overall score of the three financial management indicators as a composite score.

Characteristics of the Sample

Among the sample respondents, 50.5% were females and the remaining 49.5 % males. According to result, around one-third of the sample respondents (31.10%) were between the ages of 29 and 38. The respondents under the 18 – 29 year and 39 – 48 year age categories accounted for 29.35% and 22.89% of the sample respectively. Based on the civil status, 60.70 % were married. With regard to educational attainment, the majority (29.30%) attended a primary education followed by 28.90% of respondents with secondary education level qualification and 26.87 % of the respondents was found having a tertiary level college diploma and above educational qualification. And only 14.9% of the respondents reported didn’t attend any formal education. The employment status in the sample indicated that a majority (49%) was found to have in paid employment status or working for salary and wage and 27.4% had been self-employed individuals who run various businesses ranging from a petty trade to formal and large business enterprises of their own. And only 23.4% of the sample was in unemployed status. Respondents' income was measured based upon their self-reported answer of having or not having adequate and reliable monthly income. Accordingly 55.2 % of the respondents have no adequate monthly income.

Method of Data Analysis

A descriptive analysis and four stage hierarchical multiple regression analysis techniques were employed for analyzing the data.

Result and Discussion

Both descriptive and inferential statistics were employed for data analysis. First each variable was analyzed using a descriptive method. Next a correlation analysis was employed to examine the relationship between financial knowledge, financial attitude and financial behavior.

Descriptive Statistics of Financial Literacy Score

The purpose of the current study was to empirically examine the relationships between financial literacy and personal financial management practices among urban dwellers in Addis Ababa, Ethiopia. Financial literacy in the current study was coined to incorporate four domains: basic knowledge of personal finance, attitude to money and attitude towards the importance of personal financial management, and confidence in making financial decisions. The financial literacy level of the respondents was measured using 19 survey questions. By combining positive responses to each survey question scores were constructed for each domain and for overall level of financial literacy.

Table-1: Descriptive Statistics of Financial Literacy Scores

Domains of financial Literacy	Minimum	Maximum	Mean	Std. Dev.
Financial Knowledge	1.00	8.00	5.16	1.95
Attitude to saving money	1.00	5	3.31	.940
Attitude towards the importance of personal financial management	1.00	5.00	3.38	.866
Confidence in financial decision making	1.00	5.00	2.86	.973
Aggregate financial literacy score	7.67	21.33	14.71	2.87
Aggregate financial literacy score percent	*33.33*	*92.75*	*63.94*	*12.49*

Source: computed based primary data

The study has measured financial literacy level of the respondents under four dimensions, viz. financial knowledge, attitude towards the importance of personal financial management, attitude to saving money, and confidence in making proper personal financial decisions. The descriptive statistics summarized on table 1 show the average score of respondents which were computed based on answers to questions designed to measure financial literacy with respect to each domains of financial literacy. The first domain of financial literacy in the study is financial knowledge. The financial knowledge was measured using eight objective questions and the aggregate financial score was constructed by aggregating a one point assigned to each correctly answered question. The descriptive statistics presented in table 1 indicated that about five questions (M = 5.16, SD 1.95). This shows that majority of the respondents scored 62.5 % of the maximum financial knowledge score. The second domain of financial literacy is financial attitude. Two different financial attitude dimensions were measured in the study, viz. attitude towards the importance of personal financial management and attitude towards saving money. A composite attitude scores were constructed from a set of five point Likert scale questions. The maximum attitude score in both cases is supposed to be 5. The results showed the average score with respect to both attitude factors was found around 3. These indicate that the respondents have a favorable attitude towards saving money and recognized the importance of proper personal financial management practices.

The overall financial literacy score of each respondent was constructed by aggregating the scores obtained in individual financial literacy domains. The result indicated that the mean score of the sample amounts about 63 percent of the maximum possible overall financial literacy score of 23 points.

Personal Financial Management Practices

A personal financial management practice is a multi-dimensional construct which includes money management, financial planning and management of debt. A total of 27 survey questions were used to measure financial management practices. After the content and face validity of the survey instrument was satisfied, the reliability of the scale items was tested using a Chorombch's alpha. The alpha coefficient for the 9 Likert scale items is used to measure financial management practice was 0.723. A composite financial management score has been created for each of the three domains of personal financial management and the overall personal financial management practices. The score was created by assigning an equal 1 point to positive responses of a survey question or survey questions that shows a positive personal financial management practices.

Table-2: Aggregate Personal Financial Management Score

Domains of Personal Financial Management	Minimum	Maximum	Mean	Std. Dev.
Money Management	1.00	9.00	4.63	1.70
Financial Planning	.00	7.00	3.45	1.46
Debt Management	.00	1.00	.714	.453
Overall Personal Financial Management Practice	2.00	15.00	8.79	2.69
Overall Personal financial practice score in Percentage = (Overall personal financial Management Score / 19) * 100	10.53	78.95	46.28	14.14

Source: computed based primary data

The observations in table 2 show the descriptive statistics computed for the aggregate personal financial management practice indicators. The financial management practice was measured in terms of money management, financial planning and debt management. The money management score was computed from positive responses given to 11 consecutive survey questions. The sample average money management score was 4.63. This suggests that on average urban dwellers in Addis Ababa, Ethiopia scored about 45% of the maximum money management score.

The Relationship between Financial Literacy and Financial Management Practices

Table 4 shows the results of person product moment correlation analysis conducted to examine the relationship between indicators of financial literacy and personal financial management practices.

Table-3: Correlation between Financial Literacy and Personal Financial Management

	AFKS	ASM	APFM	CFDM	MMP	FPP	DMP
Aggregate finical knowledge score (AFKS)	1						
Attitude to Saving Money (ASM)	.138**	1					
Attitude to Personal Financial Management (APFM)	.074	.083	1				
Confidences in financial decision making (CFDM)	.184**	.157**	-.001	1			
Money Management (MMP)	.060	.191**	.377**	.229**	1		
Financial Planning Practice (FPP)	.330**	.126*	.198**	.224**	.302**	1	
Debt Management practice (DMP)	-.082	.137**	.103*	.022	.194**	.135**	1

***. Correlation is significant at the 0.01 level (2-tailed).*
**. Correlation is significant at the 0.05 level (2-tailed).*
Source: computed based primary data

The first indicator of financial literacy, aggregate financial knowledge score, showed a statistically moderate positive relationship with financial planning practices. This implies the fact individuals with greater financial knowhow engaged in personal financial management. The second indictor of financial management, attitude to saving money has showed statistically significant positive correlations with the three indicators of financial management practice, however the confects remained week. Similarly the attitude of a person towards the importance of personal financial management showed statistically significant positive relationship with all indicators of financial management practice. The confidence of respondents on the ability of making personal financial decision has a positive and statistically significant relationship with money management practice and financial management practice, but its association between debt management practices was not statistically significant.

The Results of Multiple Regression Analysis

The analysis in this section focuses on testing of hypotheses about the relationship between financial literacy and personal financial management practices. Previous studies showed that financial literacy contributes to better financial management practices. This study; therefore had tried to examine the tenability of the hypotheses in the context of urban dwellers in

Addis Ababa. The study also aimed at controlling the effects of other variables while examining the effect of financial literacy on financial management practices after controlling the effect of demographic and socio-economic characteristics of respondents. A hierarchical multiple regression analysis technique has been employed for analysis. The results are presented in Table 5 to 7. Before the regression analysis, the assumptions of multiple linear regression were tested. According to the results, the no auto-correlation assumption is not violated (Durbin - Watson test = 1.728) and multicollinearity is not a concern, according to VIF (<10) and the tolerance indicator (>0.1). Moreover, the linearity of the relationship between the dependent and independent variables and the normality of all continuous variables were also explored using graphical methods and found acceptable.

Table-4: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.224a	.050	.036	13.89198	.050	3.442	6	392	.003	
2	.411b	.169	.143	13.09261	.119	9.221	6	386	.000	
3	.420c	.176	.148	13.05386	.007	3.295	1	385	.070	
4	.570d	.325	.295	11.87984	.149	20.964	4	381	.000	1.728

Source: computed based primary data

Table-5: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3986.007	6	664.334	3.442	.003[a]
	Residual	75650.897	392	192.987		
	Total	79636.904	398			
2	Regression	13470.154	12	1122.513	6.548	.000[b]
	Residual	66166.750	386	171.416		
	Total	79636.904	398			
3	Regression	14031.687	13	1079.361	6.334	.000[c]
	Residual	65605.217	385	170.403		
	Total	79636.904	398			
4	Regression	25866.148	17	1521.538	10.781	.000[d]
	Residual	53770.755	381	141.131		
	Total	79636.904	398			

Source: computed based primary data

The results in table 4 indicate that all the four successive multiple regression models are significant at $p < 0.01$ which showed that the models have the ability to explain the dependent variable. The demographic control variables (gender, age and marital status) included in the first model explained 3.6 per cent of the change in overall personal financial management practice index (adjust r-square = 0.036). The model is significant at $F(6, 392) = 3.442$ at $P < 0.05$. The inclusion of socio-economic control variables improved the explanatory capability of the first model by 11.9 per cent (r-square change = 0.119). The adjusted r-square in the second model was 0.143 which indicated that demographic and socio-economic control variables in the model explained about 14.3 per cent of the total variation in overall personal financial management index in the sample. The comparison of the explanatory ability of model one and model two indicated that socio economic variables (education level, employment status and availability of sustainable income in the household) introduced in the second model had more effect than demographic variables in the first model. Nonetheless, the inclusion of exposure to personal finance related education/training in the third model has showed only a slight change in overall explanatory capability of the previous models. The resulted change in the adjusted r-square in the third model was only 0.007. Moreover, the observed change was not statistically significant at $P < 0.05$. This suggests that out of the three blocks of control variables, socioeconomic variables were found to explain most of the variation in overall personal financial management practice index.

The final model incorporated the four financial literacy domains which are the primary focus of interest. The inclusion of these independent variables improved the fit of the model and the proportion of variation was explained. The r-square and adjusted r-square values in the final model were 0.325 and 0.295 respectively. This showed that the final model, which covers all the independent and control variables explained 29.5 per cent of the variability of overall personal financial management index. A look at the change statistics with respect to the fourth model also revealed that the adjusted r-square increased by 14.9 per cent, which implied that the four indicators of financial literacy, independent variables in the model, explained 14.9 per cent of the variability in personal financial management practice index, keeping demographic, socio-economic and access to financial education variables controlled. In addition to it, the overall fit of the model for the regression analysis also provided calculated regression coefficient.

Table-6: Summary of Hierarchical Multiple Regression Analysis for Predicting Overall Financial Management Practice Score

Variables	Model I			Model II			Model III			Model IV		
	B	SEB	B	B	SEB	B	B	SEB	B	B	SEB	B
(Constant)	47.954	1.614		52.132	2.112		52.839	2.142		15.989	4.836	
Gender	4.472	1.423	0.158	3.967	1.359	0.14	3.827	1.358	0.135	2.887	1.251	0.102
Age_18 To 28	-2.64	2.083	-0.085	-2.539	2.071	-0.082	-2.084	2.08	-0.067	-0.027	1.916	0
Age_29 To 38	-3.574	1.939	-0.117	-4.452	1.856	-0.146	-4.222	1.855	-0.139	-1.152	1.743	-0.038
Age_49 To 58	-3.952	2.517	-0.089	-1.966	2.496	-0.044	-1.817	2.49	-0.041	-0.087	2.296	-0.002
Age- Above 58	-8.365	3.567	-0.126	-3.501	3.463	-0.053	-3	3.464	-0.045	0.45	3.194	0.007
Marital Status (Single=1)	-2.95	1.546	-0.102	-2.378	1.466	-0.082	-2.436	1.462	-0.084	-1.769	1.334	-0.061
No Formal Education				-1.541	2.442	-0.039	-1.191	2.443	-0.03	0.757	2.268	0.019
Primary Education				-2.291	1.866	-0.074	-1.994	1.868	-0.064	-0.972	1.728	-0.031
Secondary Education				1.75	1.813	0.056	1.947	1.811	0.063	2.253	1.661	0.072
Unemployed				-8.254	1.802	-0.248	-8.435	1.799	-0.253	-6.74	1.677	-0.202
Self Employed				1.599	1.605	0.05	1.299	1.609	0.041	2.042	1.471	0.064
Have No Sustainable Income				-4.443	1.393	-0.156	-4.154	1.398	-0.146	- 2.762	1.288	-0.097
Accessed Financial Education							-2.441	1.345	-0.086	-0.981	1.277	-0.035
Aggregate FKL Score										0.337	0.342	0.046
Summated Score of Money Attitude										1.537	0.668	0.102
Attitude to Personal Financial Management										5.292	0.702	0.325
Confidence on Financial Decision Making										2.689	0.666	0.184

Source: computed based primary data

Table 6 summarizes the calculated regression coefficients and associated test statistics of all the models. The results in the table provide relevant information to test the stated hypothesis on the relationship between the dependent variable (personal financial management practice index) and the explanatory variables (the four indicators of financial literacy) after controlling the effect of demographic and socio-economic characteristics of the sample in the first two models and access to personal finances related education/training contents. The focus of interpretation, in a hierarchical regression is the final model that includes all the predictor and control variables. The four independent variables in the model are aggregate financial literacy score, attitude to money, attitude to personal financial management, and confidence in personal financial decision making. It was hypothesized that these financial literacy indicators didn't affect financial management practice among urban dwellers in Addis Ababa, Ethiopia. The results; however, have showed that, except aggregate financial knowledge score, explanatory variables had a statistically significant positive relationship with personal financial management practice.

Financial knowledge and Financial Management Practices

Regarding decision with respect to the relationship between financial knowledge and financial management practice, a slight positive relationship was observed (B = .33), which is not statistically significant (t =.342, P = .325). However the positive relationship between financial literacy and personal financial management is suggestive that financial knowledge contributes to personal financial management and it is in line with previous findings; the current result showed that the null hypotheses should be accepted.

Attitude to the Importance of Personal Financial Management Practices

The attitude of a person towards the importance of personal financial management showed a positive relationship ($B = 5.292$; $t = 7.542$, $P < .01$). Specifically, a unit increase in the overall attitude towards the importance of personal financial management results in 5.292 point increase in overall personal financial management index. This shows that we have no sufficient evidence to accept the null hypothesis; therefore it is intuitive and also in line with previous studies to conclude that an individual with a favourable attitude towards the importance of personal financial management engaged in using the optimal personal financial management practice.

Attitude to Money and Personal Financial Management Practices

Attitude to money measured whether a person tends to spend money now or prefers to save it for the future. The relationship between attitude to money and personal financial management was found to positive ($B = 1.537$) with $t = 2.301$, $P < 0.05$. This showed a statistically significant positive relationship between attitude to money and personal financial management practice index. The regression coefficient (B) indicates that a 1 point increase in overall score of attitude to money results in 1.537 point increase in overall personal financial management index. Consistent with previous studies, we have no sufficient evidence to accept the null hypothesis. Therefore it is conclude that individuals with a favourable attitude towards saving money have a better financial management capability and follow a number of recommended financial practices.

Confidence in Personal Financial Decisions Making and Personal Financial Management Practices

People with adequate financial literacy have confidence in making an appropriate personal financial management decisions. The results in table 25, confirmed the assumption that confidences in financial decision making has a positive relationship ($B = 2.689$) with personal financial management index, ($t = 4.037$, $P < 0.01$). Based on these results we have no sufficient evidence to accept the null hypothesis and can concluded that confidence in financial decision making has a positive relationship with the extent of personal financial management practice used by individuals. More specifically the calculated regression coefficient indicates that a unit increase in financial decision making confidence index of a person results in 2.689 point increase in aggregate financial management practice index.

Conclusions

The study aimed at examining the effect of financial literacy for personal financial management practices. The descriptive statistics employed in the study showed that urban dwellers in Addis Ababa, Ethiopia has a low to moderate level of financial literacy and personal financial management practices index. Four stages hierarchical multiple regression analysis used in the study intended to explain the effect of financial literacy after controlling the effects of demographic variables, socio-economic variables and exposure to financial education. The results indicated that the control variables in the first block of analysis, the demographic variables explained about 3.6 % of the change in overall personal financial management practice score, whereas the socio-economic which includes education, employment, and income found to account for 11. 9 % of the changes in personal financial management practices. Nevertheless the further inclusion of prior exposure to financial education as a control variable result only a slight change in the adjust r square. The results from the three successive models have showed that the control variables together explained 15.06 per cent of the changes in overall personal financial management practices score of urban dwellers in Addis Ababa, Ethiopia. The inclusion of the independent variables, the four domains of financial literacy (financial knowledge, attitude to personal financial management, attitude to money, confidence in personal financial management decision making), in the fourth block of the regression analysis has shown that the final regression model explained 29.5 per cent of the variability of overall personal financial management practices. The increment of the adjusted r-square in the fourth model indicated that financial literacy alone explained 14.9 per cent of the total variability of overall personal financial management practices score of urban dwellers in Addis Ababa, Ethiopia.

Regarding the effect of each domains of financial literacy the results showed that attitude towards the importance of financial management practices, attitude towards saving money, confidence in personal financial decision making have statistically significant positive effects on overall personal financial management practices. Yet the study didn't find a statistically significant effect of financial knowledge.

The findings of the study in general have suggested that enhancing financial literacy of urban dwellers in Addis Ababa, Ethiopia result in improved personal financial management practices such as proper management of money, financial planning, and debt management. It has also been inferred from the findings of the study that the financial education programmes need to give more weights to attitude and behavioural factors such as improving awareness of the importance of proper personal financial management. It has also been appeared important to inculcate favourable attitude to the use of money in a way that it enables to meet both short and long term goals of the household. Moreover teaching practical financial management skills to people is equally important to inculcate the positive attitude in improving their capability and confidence in making optimal personal financial decision making.

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