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Financial Literacy and Saving Behavior of Private Sector Employees in Pakistan: Examining the Mediating Role of Self-efficacy

Muhammad Sadil Ali [*] Imran Ullah Khan Marwat [†]

Abstract: *Based on social cognitive theory and life cycle hypothesis, this paper investigates the impact of financial literacy on saving behavior with mediating role of self-efficacy. Data was collected from 342 respondents by using self-administered questionnaire. Multiple regression analysis was applied to test the hypotheses while Preacher and Hayes (2008) method was used to estimate the mediation effect. Results of this study indicate that financial literacy positively associated with saving behavior suggesting high financial literacy leads to enhance positive saving behavior. It is also observed that financial literacy positively impacts self-efficacy and increases individual's confidence in taking financial decisions. In line with social cognitive theory, results of the study show that self-efficacy positively affects saving behavior. It is also found that self-efficacy mediates the link between financial literacy and saving behavior. Finding of this study has significant implications for policy makers, employees and households, in the sense that they can better facilitate savings and improve wellbeing of nation by taking right financial and saving decisions.*

Keywords: Financial literacy, saving behavior, self-efficacy, social cognitive theory, life cycle hypothesis.

Introduction

Generally savings are considered important for the economic development of a country. Saving is one of the significant economic indicators that play a crucial role in the long term economic growth and financial stability in the emerging countries. Pakistan is considered as developing country (Ali & Hashmi, 2018). The performance and economic growth of Pakistan's economy is considerably slow as compared to the other developing countries. The emerging countries have made significant progress in improving their savings, financial wellbeing, infrastructure and economic growth, while the performance and economic growth of Pakistan's economy is remained nearly stagnant in last 10 years. This difference in economic development is mainly can be attributed to the low savings (Asghar & Nadeem, 2016). In order to advance economic growth, savings are considered to be the essential factor, therefore study of saving behavior and its determinants are important for

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Pakistan. Studies related to behavioral finance revealed that financial literacy has a major contribution to positive saving behavior. More importantly it is documented that saving behavior is affected by other intervening factors such as the level of income, self-esteem, self-efficacy, financial situation, economic conditions and financial environment (Copur & Gutter, 2019; Shih & Ke, 2014).

Financial environment has become more dynamic, complex and change during recent decade and such changes directly and indirectly affect individual saving behavior. It is increasingly obvious that financial problems can impact individuals as well as create negative consequences that affect all economic participants. Management of financial problems and saving decision requires more comparable financial literacy than it required few years ago. Negligence of individual and personal financial decisions can produce negative long-term economic consequences and poor savings (Mpaata, Koske, & Saina, 2021). Financial literacy plays vital role in saving, investment and financial decision making process. Whereas self-efficacy is considered as popular psychological factor that could affect saving behavior and may act as intervening factor between the relationship of financial literacy and saving behavior. Besides positive association between financial literacy and saving behavior, employees with low self-efficacy require higher financial literacy to bring positive saving behavior.

Savings behavior is becoming one of the most interesting and leading research subjects in the developing countries (Widjaja, Arifin, & Setini, 2020). Relevant studies reported several factors affecting saving behavior like; income, financial literacy, family size, consumption pattern, economic empowerment, education and other determinants. Role of financial literacy in saving behavior has been studied in both developed and developing economies (Ismail et al., 2021; Shih & Ke, 2014) whereas limited number of studies have been carried out in Pakistan to investigate this dilemma comprehensively. In addition Bashir, Arshad, Nazir, and Afzal (2013) also suggested that there exist a strong need to conduct more research on financial literacy in Pakistan as there has been very little work done on this phenomenon. Furthermore, there is less knowledge about the mechanism that may explain the link between financial literacy and saving behavior. This paper is first of its kind in Pakistan to examine the association between financial literacy and saving behavior with self-efficacy as a mediating factor. It is important for developing countries and need of hour for Pakistan to improve its saving ratio as many economic indicators have direct relation with savings. Savings leads to increase investment and thereby escalating businesses and flourishes economic growth. It is imperative for policy makers to understand saving patterns and determinants of saving behavior, in this regards an investigation is needed to find out details which provide relevant information. Therefore this study has been taken to examine the mediating role of self-efficacy and provides further empirical evidence from Pakistan.

This study extends research on saving behavior and adds some contribution to behavioral finance literature. Owing to the inconclusive findings between financial literacy and saving behavior, this study examines role of self-efficacy as mediating factor. This study helps to test the validity of self-efficacy and saving behavior constructs in a new environment. These constructs have been tested in other countries; due to cultural dissimilarities we cannot generalize the validity results of these constructs in Pakistan as the environment of Pakistan presents a different setting. Findings of this study will be helpful for policy makers in taking right decisions and making effective polices in Pakistan. Policy makers and academicians may use information to educate and promote positive saving behavior to enhance well-being of nation. The basic purpose of this research is to ascertain the importance and inference of financial literary in making saving decisions and to examine a possible psychological mechanism that links financial literacy to saving behavior. The study further shed light on the saving behavior of employees by analyzing the association between selected variables. Study proposed implications using financial theories that linked financial literacy to saving behavior; also explore how financial literacy affects saving behavior and whether these outcomes vary with different level of self-efficacy.

Prior studies have focused on theories that explained saving behavior based on rational-choice and life- cycle theories (Suppakitjarak & Krishnamra, 2015). While explaining saving behavior and financial literacy these theories assumed increased financial knowledge would translate into high savings and correct financial decisions. Whereas, evidence supports that financial literacy and savings have mixed results, with strong effects for high income participants. Moreover, researchers have linked self-efficacy to financial and saving behavior. Likewise, Ando and Modigliani (1963) life cycle hypothesis states that individual saving behavior changes over the time as he/she becomes matured. Experience and level of financial knowledge play an important role to shape new saving style and consumption.

Therefore, this study assume that financial literacy enhances self-efficacy and subsequently behavior towards saving. On the other hand, social cognitive theory of self-regulation by Bandura and Adams (1977) posits that individual's self-efficacy is a psychological factor that affects saving behavior. Further suggest that a person's behavior, cognition and environments play important role in learning new things. Financial literacy increases one's confidence in taking financial decision. Self-efficacy is the ability to cope difficult situations by using cognitive abilities and self-confidence. Social cognitive theory suggests that self-efficacy has a direct relation with saving behavior, high self-efficacy tends to increase saving level of individual as well as household. Self-efficacy plays an important role in shaping saving behavior by influencing how people interpret and respond to the situations. In accordance with the life cycle theory and social cognitive theory, financial literacy and self-efficacy beliefs positively influence saving behavior and demonstrate a positive connection among them.

Literature Review

Financial Literacy and Saving Behavior

A variety of studies have been conducted and literature is enriched with the empirical studies on the financial literacy and saving behavior, however limited literature is available regarding role of self-efficacy in the relationship between these two variables. Researchers have expressed their concerned that financial literacy has important implications for individuals. Howlett, Kees, and Kemp (2008) suggest that young adults must comprehend their potential needs and current financial situation to plan better financial decisions, as neglecting the importance of financial literacy may affect saving decision. In fact financial literacy enhances saving as well as wellbeing of people. Individuals' saving behavior varies with the level of financial literacy they possess; people with low financial literacy have faced many difficulties in making financial decisions. Illiteracy creates a bigger sense of risk and forms nervousness in taking complicated decisions; therefore, high literacy may lead to positive financial behavior and illiteracy affects negatively. Empirical studies recommend that financial literacy plays a vital role in making financial decisions and financial knowledge could influence saving behavior (Lusardi & Mitchell, 2014). Whereas García and Vila (2020) documented that awareness of saving and financial literacy are not enough to improve savings and individual behavior toward long-term savings.

Saving behavior positively contribute in making financial and other saving related decisions (Suppakitjarak & Krishnamra, 2015). Savings have been one of the most important sources of household wealth and have great influence on economy. People save money for different purposes; young people save some part of their income so that when they will become old and will not be able to do work or do not wish to work, then they will have money to fulfill their demand. Nevertheless, saving behavior varies time to time and from country to country. Saving is a measurement tool of economic performance and it is more difficult to measure saving in emerging countries than advanced economies due to the more diversification of saving patterns (García & Vila, 2020). Kimiyagahlam, Safari, and Mansori (2019) stated that financial literacy and saving attitude directly associated with retirement planning behavior. Mpaata et al. (2021) observed that self-control and financial literacy significantly predict saving behavior of individuals.

Numerous studies have been conducted to investigate financial literacy in relation to savings. Faulkner (2017) reported that financial literacy is an essential aspect when considering financial decisions. Different citizens have varied level of financial literacy and education with respect to their country. Financial literacy varies because of various factors; it varies with geographical location; a developed country has high level of financial literacy whereas developing countries have low financial literacy and there exists a considerable connection amid financial literacy of an economy and its level of savings (Klapper, Lusardi, & Panos, 2013). Cross-cultural literacy comparisons face two challenges: culture is combination of different values and it affects financial literacy as well as saving behavior of individuals. Culture requires different level of literacy and understanding to function fully.

It has been also argued that financial literacy has been considered as essential factor of individual's savings and could also affect overall economy. Frijns, Gilbert, and Tourani-Rad (2014) stated that personal experience positively impacts financial literacy and high financial literacy leads to increase saving behavior of individuals. Many empirical studies suggest that financial literacy matters in saving behavior across different countries. Shih and Ke (2014) documented that individuals with low financial literacy may not understand inflation and economic aspects and feel that they do not have ability to take difficult saving decisions. In many countries, individuals are encouraged to manage personal finance and take responsibility for their financial affairs. Investment in financial literacy increase net returns to saving. It has also found that financial literacy positively affects individual savings of Malaysian citizens, in the sense that higher financial literacy likely to improve savings of persons (Jonsson, Söderberg, & Wilhelmsson, 2017).

H_1: Financial literacy significantly associated with saving behavior.

Financial Literacy and Self efficacy

Many studies show that there exist a significant and positive association between financial literacy and self-efficacy. Financial literacy boosts self-confidence of an individual in making financial decisions and this impact varies with the age. Moreover, both cognitive ability and self-efficacy relate to financial literacy (Earl, Gerrans, Asher, & Woodside, 2015). Financial literacy helps in economic development, women empowerment, social wellbeing and increased self-efficacy of economically vulnerable groups in developing economies, and it helps individuals in managing money and works in handling financial problems at crises situation (Remund, 2010). Additionally, it has been also reported that high literacy regarding financial management could reduce financial issues like; regularity troubles, legislation problems, knowledge of government involvement in capital markets and may enhance awareness regarding performance of financial market which ultimately increases saving rate of economy.

Herawati, Candiasa, Yadnyana, and Suharsono (2020) identified the factors that influence self-efficacy and reported that financial literacy directly affects financial self-efficacy. Whereas Amagir, Groot, van den Brink, and Wilschut (2020) examined different levels of financial literacy including self-efficacy among high school students in Netherland and reported that different components of financial literacy significantly affect students' behavior and ability. Many other researchers argue that individuals who are more financially literate and bear high self-efficacy have more emergency funds and savings (Babiarz & Robb, 2014). Based on the literature this research assume that financial literacy positively affects self-efficacy in a sense that it increases level of self-efficacy and confidence of individuals.

H_2: Self efficacy significantly associated with financial literacy.

Self-efficacy and Saving Behavior

Self-efficacy plays a considerable role in shaping saving behavior and making correct financial decisions, as self-efficacy is positively associated with cognitive decisions and innovative behavior. Different levels and types of self-efficacy are found to relate with different individual behaviors, for instance, those individuals with positive self-efficacy are more liable to take right actions and are optimistic about their outcomes (Kim & Beehr, 2017). Change in perceived efficacy significantly associate with opportunities and human behavior. Self-efficacy influences the human behavior through patterns, perceptions, actions and emotions. The high and positive self-efficacy leads to better performance achievement and lower the emotional arousal. Asebedo, Seay, Archuleta, and

Brase (2019) investigated how psychological characteristics influence saving behavior and documented that financial self-efficacy directly explains saving behavior, further self-efficacy is essential to understand the relationship between other psychological factors and saving behavior of individuals.

Copur and Gutter (2019) investigated the sociological and psychological factors of saving behavior among university employees and reported that psychological factors significantly related with individual saving behavior. However, Hmieleski and Baron (2008) reveal that higher level of self-efficacy is not always beneficial for entrepreneurs and savers, indeed it may affect negatively on saving decision under some circumstances, for example someone who consider he has strong ability to handle financial matters but actually he does not make correct decisions. This misjudgment of skills and negligence of financial matters can have severe long-term economic consequences. High levels of self-efficacy influences individuals' behavior and create benefits to individual well-being and social welfare. Self-efficacy makes management of personal finance more effective and successful. Also Farrell, Fry, and Risse (2016) find that self-efficacy improves financial and behavior of women. Women having high self-efficacy make better financial decisions than those women who have low level of self-efficacy.

H_3: Self efficacy significantly associated with saving behavior.

Self-efficacy as a Mediator

In literature self-efficacy has been used as a mediator between different variables. For example, Mindra and Moya (2017) have conducted a research on mediating role of self-efficacy and found that self-efficacy mediates the link between financial literacy and financial attitude. Moreover, Rothwell, Khan, and Cherney (2015) reported that self-efficacy plays mediating role in the financial capabilities of low income family and further stated that self-efficacy mediates the relationship between financial knowledge and saving outcomes. In psychology and management literature self-efficacy has been used as a mediator to modify relationship among variables. Self-efficacy plays a bridging role among different psychological factors and saving behavior of individuals, employees and household. Mulasi and Mathew (2021) reported that financial literacy effects financial behavior through financial self-efficacy which suggest that financial literacy and self-efficacy both are vital in shaping financial behavior of individuals.

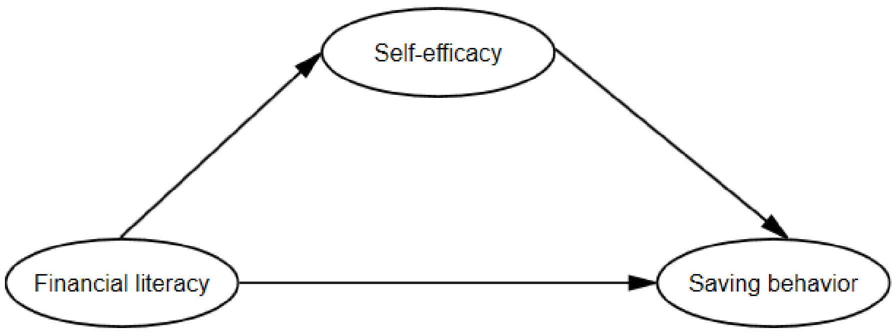
Singh, Barreda, Kageyama, Singh, et al. (2019) documented that financial literacy is key element of self-efficacy which affects saving and financial behavior of individuals. The financial literacy and self-efficacy shapes the formation of an adequate saving behavior. Recent literature focuses on self-efficacy of college and university students and reported that self-efficacy mediates the association of positivity and performance of university students. Likewise, Wardana et al. (2020) observed that attitude and self-efficacy can mediate the relationship between student's entrepreneurial education and entrepreneurial mindset. Moreover, Anwar, Jamal, Saleem, and Thoudam (2021) documented that self-efficacy and entrepreneurial attitude mediate the relationship between traits and entrepreneurial intentions. Self-efficacy is more related with students' physical activities and plays mediating role in the relationship between physical activities and students emotional intelligence. Based on the prior literature and social cognitive theory, it is hypothesized that self-efficacy mediates the association between financial literacy and saving behavior as financial literacy increases self-efficacy of individuals and consequently self-efficacy improves positive saving behavior. On the basis of theoretical evidence this study assumed following hypothesis:

H_4 : *Self efficacy mediates the relationship between financial literacy and saving behavior.*

Conceptual Framework

The literature presented in the preceding section and the four hypotheses developed as a consequence help present theoretical and conceptual model for this study. Figure 1 presents the conceptual framework of the study.

Figure 1
Conceptual Framework/ Research Model



Methodology

Research Design

Research design is a frame work applied to conduct research, collect data and test hypotheses in order to achieve desired objectives of the study. The present study is based on quantitative research design and cross sectional in nature as data was collected at one point of time and analyzed accordingly.

Sample and Procedure

Employees working in the private sector organizations were contacted to obtain data. They were personally approached by researchers and were briefed about the purpose of the study to get their willingness. They were also ensured that their personal information will be kept confidential. The participants showed their willingness to participate in the research and they were handed over questionnaires with guideline and necessary assistance. The participants filled a series of questionnaires accordingly. Responses obtained through questionnaire were analyzed through SPSS 25 version and SPSS Process Macro. Multiple regression analysis was applied to test the hypotheses while Preacher and Hayes (2008) method was used to estimate the mediation.

Sample Size and Technique

Self-administered questionnaires were distributed among participants who are living and working in Pakistan. Convenience sampling method has been employed to collect data from respondents as this is the easiest technique among all sampling methods. The sample has been selected by following the guidelines proposed by the study of MacCallum, Widaman, Zhang, and Hong (1999) which suggested that a sample of 1000 respondents is excellent sample size and a sample size of 500 is very good sample. Moreover a sample size of 300 is good sample while sample of 50 participants is poor sample. Therefore, total 500 questionnaires were distributed among participant and out of which 342 were received back making 67.3% response rate.

Measures

Self-administered questionnaire was used to collect primary data from respondents. Mainly items have been adopted from previous related studies to measure selected variables. Likert scale was applied to all items of variables constructed in the proposed conceptual framework whereas demographic variables were measured by related scale other than Likert scale. Following measures were adopted and used in this study.

Saving behavior scale (SB)

Saving behavior items were adopted from Nga, Yong, and Sellappan (2010); Delafrooz, Paim, and Khatibi (2011) containing 7 items. Few of them are; (1) I save to achieve certain goals, (2) I save money on regular basis for future. Complete questionnaire has been distributed among participants where respondents were asked to mark the item/statement that describes their behavior towards saving. High scale shows respondents have positive saving behavior while low scale reveals less inclination toward savings.

Financial Literacy (FL)

Financial literacy items have been adopted from the study of Hira and Loibl (2005). Total 7 questions were used to measure financial literacy of respondent. Few sample statements are: (1) I have no difficulty in understanding financial terms. (2) I have the ability to manage money and can easily solve financial problems. (3) I can prepare my own financial budget. Highest scale strongly agree means the participants possess high level of financial literacy and low scale means respondent have low level of financial literacy.

Self-Efficacy (SE)

To measure self-efficacy researchers have used Likert scale and all relevant items were adopted from previous studies. Schwarzer, Bäßler, Kwiatek, Schröder, and Zhang (1997) have developed 10 items to measure self-efficacy, few items of them are; (1) it is easy for me to achieve my goal. (2) I have confidence on my own skills. (3) If I am in trouble, I am always searching for solution.

Control Variables

Gender age, qualification and level of income were used as control variables. Demographic variable were included because saving behavior may vary with age qualification and level of income. Gender differences also affect saving behavior because female have different attitude and behavior than men regarding saving behavior.

Results

Demographic profiles of the respondents

Demographic profiles explain the statistics of respondents which includes; detail of age, gender, income level and qualification of the participants. Demographic information of participants are given in Table 1.

Table 1
Demographic Characteristics of Participants (N=342)

Variables		f	%
Gender	Male	213	62.3
	Female	129	37.7
Age	18-25	179	52.3
	26-33	100	29.2
	34-41	38	11.1
	42-49	20	5.8
	50 and Above	5	1.5
Qualification	Bachelor and below	115	33.6
	Master	165	48.2
	MS/M. Phil	52	15.2
	PhD	10	2.9
Monthly Income (PKR)	20,000 or less	67	19.6
	21,000-40,000	84	24.6
	41,000-60,000	77	22.5
	61,000-80,000	51	14.9
	81,000-100,000	46	13.5
	Above 100,000	17	5

The above table shows that most of the respondents are male (62.3%) and as far as qualification is concerned most of the participants have Master degree (48.2 %). Moreover, 24.6 % respondents are earning 21,000 to 40,000 and only 5% of the respondents are earning moreover than 100,000 rupees per month.

Reliability and Correlation Analysis

Reliability analysis has been carried to check the internal consistency of the scales used in this study to measure variables. Cronbach's Alpha shows that all measuring scales are quite reliable as all values are above 0.70. Cronbach's Alpha of financial literacy scale has been estimated at 0.81, whereas Cronbach's Alpha value of self-efficacy is 0.71 and dependent variable has 0.85 Cronbach's Alpha value. This analysis shows that our measuring scales are trustworthy and there is no problem of inconsistency exists.

Table 2
Reliability and Correlations analysis (N=342)

Variables	M	SD	1	2	3
1. Financial literacy	3.67	0.78	(0.81)		
2. Self-efficacy	3.78	0.69	0.48**	(0.71)	
3. Saving behavior	3.60	0.85	0.55**	0.45**	(0.85)

Note. Parenthesis () shows value of Cronbach's Alpha.
**p >.01

Correlation matrix explains and measures the strength of relationship between variables. Table 2 presents correlations of financial literacy, self-efficacy and saving behavior. Financial literacy positively correlated with self-efficacy and (0.48**) value shows correlation between these variable is statistically significant. Similarly, result also shows that the association between self-efficacy and saving behavior is positive and significant (0.45**). Results further reveal that correlation between financial literacy and saving behavior is also positive (0.55**). 3.67 mean value of financial literacy shows that average persons have enough financial literacy.

Multiple Regression Analysis

Table 3 shows regression analysis of independent and dependent variables while table 4 depicts result regarding mediation analysis. Multiple regressions have been run to formally test the four hypotheses already discussed in previous sections. Results are provided in two separate tables (table 3 and 4) to present discussion on the four hypotheses clear and distinct from each other. Below table shows results of regression analysis for outcomes.

Table 3
Hierarchical Regression Analyses for Self-efficacy and Saving Behavior

	Self-efficacy			Saving behavior		
Predicators	β	R^2	ΔR^2	β	R^2	ΔR^2
Step 1						
Control Variables		0.01			0.02	
Step2						
Financial literacy	0.44***	0.25	0.24	0.60***	0.32	0.30
Mediator						
Self-efficacy				0.56***	0.23	0.21

***p < 0.001

In the above table value of R^2 is .02 for control variables and change in R^2 values for financial literacy and self-efficacy are .30 and .21 respectively, which show control variables explain nearly 2% variation in dependent variable while 30 % variation in saving behavior is explained by financial literacy and self-efficacy brings nearly 21% change in saving behavior. Beta value of financial literacy when regressed using dependent variable saving behavior, estimates at 0.60*** with p-value< .001, which means one unit change in financial literacy results in 0.6 percent change in saving behavior, thus hypothesis one is accepted. Beta value of financial literacy is positive 0.44*** (p-value< .001) when regressed using self-efficacy as dependent variable showing 1 unit change in financial literacy brings nearly 0.44 unit change in dependent variable which is consistent with the second hypothesis of the present study. Moreover, self-efficacy beta is 0.56*** (p-value< .001) positive and significant when regressed with dependent variable saving behavior, which depicts 1% change in self-efficacy leads to 0.56 percent change in saving behavior, therefore hypothesis 3 is also accepted.

Mediation Analysis

This study used SPSS Process Macro of Hays to analyze the proposed mediation. Model 4 is selected from given template for mediation test in SPSS Process as specified by Preacher and Hayes (2008). Results of mediation effects are presented in Table 4, which shows direct effect, indirect effect and total effect of the specific variables along with relevant values. According to Preacher and Hayes (2008) there exists mediation if indirect effect becomes statistically significant with no zero value lying between the lower limit confidence interval and upper limit confidence interval.

Table 4
Mediated Regression Analysis (N= 342)

	Effect	**SE**	**T**	**p**	**Boot LLCI**	**Boot ULCI**
Total effect	0.60	0.05	12.2	0.00	1.04	1.77
Direct Effect	0.48	0.05	8.78	0.00	0.37	0.58
Indirect Effect	0.12	0.04	-	-	0.06	0.22

Note. Bootstrapping (5000 re-sampling). LLCI Lower Limit Confidence Interval. ULCI Upper Limit Confidence Interval. IV Financial literacy, DV Saving behavior, Mediator Self efficacy.

Using Process Macro, the result of mediation analysis in the Table 4 shows that self-efficacy mediates the relationship between financial literacy and saving behavior. In the mediation model, the effect of financial literacy is separated into three parts: first part represent combine or total effect on saving behavior. Second part shows the direct effect of financial literacy on saving behavior while third part demonstrate indirect effect on saving behavior through self-efficacy. The direct effect value is positive and significant (.48, p<.05) implying that the direct relationship between FL and SB is statistically significant and positive. The indirect effect in the model is also positive (.12) and significant with no zero value lying between the boot value of lower level confidence interval and upper level confidence level, which demonstrate that there exist mediation effect, therefore fourth and last Hypothesis is accepted. Whereas the total effect or combined, direct and indirect effect in the model turn out to be nearly .60 with significant p-value (0.00) implying a statistically significant relationship between financial literacy and saving behavior. The stated results thus suggest that mediating variable self-efficacy intervene the link between independent variable financial literacy and dependent variable saving behavior.

Discussion

Based on above results there is enough evidence to argue that financial literacy has a significant and positive relationship with saving behavior which is intervene by self-efficacy. The finding shows that people with higher level of financial knowledge and confidence are more likely to be certain in making financial decisions. Financial literacy boosts confidence of individual in making financial decisions and this impact varies with the age. Moreover, both cognitive ability and self-efficacy relate to financial literacy (Earl et al., 2015). First hypothesis of the study posits that financial literacy has significant and positive effect on saving behavior. Above results indicates financial literacy positively impacts saving behavior, it means financial literacy enhances positive behavior towards saving. The first hypothesis is therefore accepted. It is due to the fact that individuals saving behavior varies when he or she possess different level of financial literacy and higher financial knowledge likely to increase saving behavior. This finding is consistent with previous literature, for instance (Widjaja et al., 2020) also found that financial literacy significantly associated with saving behavior.

It is also observed in the Table 3 that financial literacy positively associated with self-efficacy and has a significant relationship. Therefore, second hypothesis, there exists a positive and significant relationship between financial literacy and self-efficacy has been accepted which is in line with the findings of Herawati et al. (2020). The findings of prior studies also suggest that financial literacy, education, knowledge and experience improve individual's cognitive ability in taking right financial decisions and help in management of financial affairs (Earl et al., 2015; Hetling & Postmus, 2014). Further findings also reveal that self-efficacy positively associated with saving behavior. Thus third hypothesis; self-efficacy positive affects saving behavior has been accepted. This is consistent with the notion of social cognitive theory (SCT). According to the social cognitive theory self-efficacy has a direct relation with saving behavior, high self-efficacy tend to increase saving level of individual as well as household despite gender difference. Additionally, Farrell et al. (2016) found that self-efficacy improves financial and saving behavior of women. Women having high self-efficacy make better financial decisions than those women who have low level of self-efficacy.

Moreover, findings also reveal that self-efficacy positively affect the relationship between financial literacy and saving behavior which proved that relationship between financial literacy and saving behavior is likely to influence by self-efficacy. Empirical results show positive and significant relationship between financial literacy, self-efficacy and saving behavior in Pakistan. It is also argue that findings of this study are similar to the views of social cognitive theory and life cycle hypothesis. Furthermore, Rothwell et al. (2015) also reported that self-efficacy plays mediating role in the financial capabilities of low income family and further stated that self-efficacy mediates the link between financial knowledge and saving outcomes. Individuals with higher level of financial literacy are likely to save more as they have more awareness and ability to make correct decisions.

Conclusion

The basic purpose of the study is to investigate the impact of financial literacy on saving behavior with mediating role of self-efficacy. Data were collected from 342 respondents by using self-administered questionnaire. Multiple regression analysis was applied to test the hypotheses while Preacher and Hayes (2008) method was used to estimate the mediation effect. Four hypotheses were tested and all of them were accepted. Findings of this study are in consonance with the previous studies as financial literacy improves self-efficacy and enhances saving behavior consequently. In accordance with the life cycle theory and social cognitive theory, financial literacy and self-efficacy beliefs positively influence saving behavior and demonstrate a positive connection among them. It is also found that self-efficacy mediates the relationship between financial literacy and saving behavior. This study concludes that there exists a positive significant relationship between financial literacy and saving behavior, and the presence of self-efficacy increases saving behavior. Financial literacy increases confidence and awareness which ultimately creates positive saving behavior. It is also worthwhile to mention that those who studies finance, normally they save more money and make right financial decisions. Increasing level of financial literacy promotes better financial decision making.

Limitations and Future Directions

Before considering implications and future research directions it is worthwhile to mention study limitations. This study is not complete free from limitations; this study has employed cross-sectional design which creates problem of casualty. Future researchers are suggested to conduct research on same model by using longitudinal study. Sample size of the study is also small therefore, it is suggested that sample should be increased in future while conducting study on this model and need to identify new determinants of saving behavior to captured more and clear picture of savings pattern in Pakistan.

Implications of the Study

Savings are important to the economic development of a developing country like Pakistan because its relation to the investments and businesses. Findings of this study revealed that financial literacy has major contribution in saving behavior therefore government should enhance financial literacy through different programs and awareness schemes. Level of self-efficacy of individuals and households should be increased by encouraging behavior toward savings. Savings are important for investment and economic growth therefore government should make policies supportive to increase both private and public savings. Findings of this study will be helpful for policy makers in taking right financial decisions and making effective polices in Pakistan. Policy makers and academicians may use the information to educate and promote positive saving behavior to improve nation's financial well-being.

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