

Financial Literacy: A Brief Systematic Literature Review

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Abstract

Financial literacy implies the ability of individuals to understand, manage, and plan their personal finances. By gaining financial literacy, people are likely to develop critical thinking, judgment, and other skills for making informed personal finance decisions. The current study has attempted to review the financial literacy research papers in a systematic manner incorporating the multiple facets ranging from impact of demographic factors to present state of financial literacy literature in the Indian context. Papers published by selective global publishers in the last two decades have been reviewed to trace the trend, the debates and literature gap in shaping the future studies.

Keywords: *Systematic Literature Review, Academic E-journals, Financial Literacy and Financial decisions.*

1. Introduction

Literature has concurred that 'Financial Literacy' (FL) is one's ability to make informed decisions on choosing investment avenues, ability to balance a cash book and manage funds effectively (Beverly & Burkhalter, 2005; Hung, Parker & Yoong, 2009). Standard & Poor's Global Inc. (2016) has referred the FL as the ability to understand the procedure of money management in the world. The definitions have a common approach of defining FL and have referred to it as a personal finance responsibility approach. Interestingly, studies have shown adverse impacts of lack of FL knowledge on different sections of society such as university students (Sáenz, Lu, Bukoski & Rodriguez, 2013), workers (Brown & Graf, 2013; Karunaratne & Gibson, 2014) and households (Lusardi & Mitchell, 2011). Skewed FL levels have varying consequences on multiple key financial decisions such as retirement planning (Lusardi & Mitchell, 2007), stock market investments and portfolio selections (Guiso & Jappelli, 2009; van Rooij, Lusardi & Alessie, 2011) and even in making investment mistakes (Agarwal et al., 2015). Studies have concluded that good financial habits during childhood are likely to result in better financial decisions in adulthood (Bruhn et al., 2013; Drever et al., 2015). Contradicting the individual studies, an exhaustive literature review of 168 articles on FL has revealed a mere 0.1 percent deviation in financial decisions due to improvements in FL. It has also indicated that FL levels have remained abysmal in lower income nations (Fernandes, Lynch, & Netemeyer, 2014).

The art of reviewing literature has been referred to as the core of identifying scholars within a discipline (Froese, Gantz & Henry, 1998), notwithstanding, both authors and readers have been confronting hardships in the said process (Granello, 2001; Goddard, 2003). The study has followed guidelines of a successful Literature Review (LR) i.e., it has been well planned, executed and eventually reported (Cooper, 1988; Kitchenham & Charters, 2007). A number of questions such as the central topics of interest, guiding questions of interest and goals of FL, selections of papers, methodology followed, and results have been used to create a conceptual framework of systematic LR. It has also presented a critical review (Connelly, 2014; Paré et al., 2015) against the standard findings of FL issues. The review has attempted to create a candid theoretical foundation of FL (Rocco & Plakhotnik, 2009) along with deficiencies in the literature (Torraco, 2016).

2. Methodology

LR must have a methodology which should be systematic in its approach, comprehensive and contain relevant materials it is likely to review (Fink, 2005). The current LR began by highlighting the theoretical underpinnings of FL and scholars have indicated that any LR should focus on substantive (Robinson, Lloyd & Rowe, 2008), methodological (Hallinger, 2011) and / or conceptual issues (Bossert et al., 1982) for review. The current LR is an exploratory review since the existing FL literature in the Indian context is limited in its scope and has numerous research issues yet to be addressed, as scholars have indicated (Bossert et al., 1982).

2.1 Literature Collection

Existing literature was scanned using selective keywords and visiting scholarly databases such as SAGE, Oxford University Press, Rutledge, Emerald, Springer, Elsevier, Wiley and Indian Accounting Association. The adopted approach has both deductive and inductive features as scholars suggested (Shukla & Jharkharia, 2013). The papers published in international journals in English have been referred to as 'certified knowledge' and are likely to enhance the reliability of outcomes (Torchia, Calabro & Morner, 2015).

2.2 Boundary Identification

The search included articles on FL published during the last 20 years (2000-2019) to ensure currency. Further, self-published papers and papers published in predatory journals have been excluded (Levac, Colquhoun & O'Brien, 2010). As opposed to scooping review, the current review has not considered complete article retentions (Whittemore & Knafel, 2005) and a good number of papers beyond the chosen selective variables have been excluded.

2.3 Data Extraction

The current review has downloaded around 261 full text papers published in multiple journals of eight databases in the aforesaid timelines. Thereafter, the papers have been scanned into six understated criteria and 36 papers beyond the scope of the criteria have been dropped. Adopting the Boolean searches technique using truncated combinations of FL and other relevant aspects of FL of search strings, the papers have been downloaded (Torchia, Calabro & Morner, 2015).

3. Results

The study has reviewed the strand of FL studies on the multi-dimensional aspects in a systematic manner and the results have been synthesized in the following parameters.

3.1 Impacts of Demographic Factors

Prior studies have documented demographic factors having a significant impact on FL in varying degrees globally.

3.1.1 Gender

Literature has shown that women have lower levels of FL in most of the countries (Lusardi, Mitchell & Curto, 2010; Sekita, 2011; Atkinson & Messy, 2012; Klapper, Lusardi & van Oudheusden, 2015; Erner, Goedde-Menke & Oberste, 2016) and in a few countries, FL has remained low especially among older women (Lusardi & Mitchell, 2012). Interestingly, few studies could not find any gender differences in levels of FL (Goldsmith & Goldsmith, 2006).

3.1.2 Age

The association between age and having FL has indicated that aged people have lower levels of FL (Lusardi & Tufano, 2009; Lusardi, Mitchell & Curto, 2010) while few studies have concluded that even youth have lower levels of FL (Totenhagen et al., 2015). Interestingly, few researchers have documented people in the age groups of 25-65 years have performed significantly well in the FL assessment tests (Research, 2003; Agarwal et al., 2009) while others could not find any significant impact of age on the participants' levels of FL (Wagland & Taylor, 2009; Stanculescu, 2010).

3.1.3 Education Levels

Educators likely have played significant positive roles in shaping financial education and FL amongst people, mostly among the youth (Chen-Yu, Hong & Seock, 2010; Ashby, Schoon & Webley, 2011; Friedline, Elliott & Nam, 2011) and such education has resulted in wealth accumulation and making disciplined and rational financial decisions.

3.1.4 Income Levels

Researchers have revealed that exposure to FL has a significant positive impact on incomes for specialized jobs (Research, 2003; Calamato, 2010; Altintas, 2011) and lack of such knowledge is likely to have an adverse impact (Kim & Garman, 2004).

3.1.5 Marital Status

Contemporary literature has validated that married women have lower levels of FL (Hung, Yoong & Brown, 2012) even though they have unique financial needs (Hira & Loibl, 2007) and have been facing difficulties in managing their personal finances (Anthes & Most, 2000). Contradicting the findings, a few researchers have shown no impact of marital status on FL (Cole, Sampson & Zia, 2011).

3.1.6 Family Income Levels

Related literature has concurred that family incomes have been positively impacted due to FL, especially for the youth which, in turn, has assisted them in accumulating wealth in their professional careers (Herd, Holden & Su, 2012; OECD, 2013; Karger, 2015; Loibl, 2017).

3.1.7 Family Types

Scholars have documented that children from nuclear families are likely to have better levels of FL and have performed significantly better than those who belonged to joint families (Duranton, Rodríguez-Pose & Sandall, 2007; Shim, et al., 2009; Bertocchi & Bozzano, 2015).

3.1.8 Role of Parents

Contemporary literature has validated that financial education imparted by parents has a significant positive impact on children's level of FL as well as in shaping their financial careers (Jorgensen, 2007; Shim, et al., 2009; Shim, et al., 2010; Altintas, 2011; Bucciol & Veronesi, 2014). Moreover, educated parents have better access to economic resources and are likely to impart better FL to their children (Engin-Demir, 2009; Yesilada & Ucel, 2009; Chu et al., 2017).

3.2 Financial Education Programs

Financial education has a positive impact on FL (Mandell, 2009; Bruhn, de Souza Leão & Legovini, 2013; Batty, Collins & Odders-White, 2015); however, few scholars have contested this contention (Becchetti, Caiazza & Coviello, 2013; Lührmann, Serra-Garcia & Winter, 2015). Others have shown a mixed outcome such as behavioural changes post participation in FL education programs (Forté, 2012); outcomes have remained tough to measure (Lyons, 2005) and have been contradicted (Loibl & Hira, 2006). Interestingly, literature has indicated that lack of accepted FL programs has posed a challenge for the youth (McCormick, 2009; Wolfe-Hayes, 2010) and a significant number of schools need to incorporate FL in their curriculum (Montanaro & Romagnoli, 2016).

3.3 Participant Categories

3.3.1 University Students

Literature has confirmed poor levels of FL amongst university students, especially amongst the first-year students (Beal & Delpachitra, 2003; Wagland & Taylor, 2009). A number of studies have taken university students as respondents, but no study has attempted to compare discipline-wise comparisons (Marcolin & Abraham, 2006). Most of the studies have concluded that lack of FL has adverse consequences on personal finances and impacts academics due to high debt stresses (Hira, 2002; Lyons, 2004; Kezar & Yang, 2010).

3.3.2 College Students

Researchers have studied the influencing factors of FL and have indicated that US college students were exposed to higher amount of credit card debts (Lyons, 2004). Role of formal financial education programs along with parental roles have been significantly associated with better FL performance (Furtuna, 2007; Jorgensen, 2007; Selcuk & Yilmaz, 2014) while the role of general education has an insignificant impact on FL levels of Malaysian college students (Sabri, Cook & Gudmunson, 2012). Further, male students have superseded female students in FL level assessment tests (Chen & Volpe, 2002; Murphy, 2005; Barboza, Smith & Pesek, 2014).

3.3.3 School Students

FL studies for school students have been conducted globally and have produced mixed results such as significant positive impact of multiple factors on FL (Chatzky 2002; Worthington, 2006; Erner et al., 2016) and poor levels of FL of students of New Zealand, Australia and Japan (Cameron, et al., 2013; Zhu, Yu & Chou, 2019).

3.3.4 Households

Studies assessing personality traits and FL levels have produced mixed outcomes; intellectual and dominating personality people of households are likely to have higher levels of FL (Pinjisakikool, 2017). In contrast, researchers have revealed lack of FL is apparent in terms of poor retirement planning (Lusardi & Mitchell, 2007), high debt burden (Lusardi & Tufano, 2015) and portfolio management (Calvet, Campbell & Sodino, 2007, Van Rooij, Lusardi & Alessie, 2011). Studies in European countries have shown that FL has significantly influenced multiple financial decisions such as stock market participation and better portfolio selections (Gathergood, 2012; Disney & Gathergood, 2013).

3.4 Role of Financial Experts

Literature has concurred that the role of financial experts has been significant for those with lower levels of FL (Fischer & Gerhardt, 2007). The experts have assisted in household saving decisions and portfolio selections besides improving FL levels (Haslem, 2010; Winchester, Huston & Finke, 2011) and in complex financial instruments selections (Marsden, Zick & Mayer, 2011).

3.5 FL and Wealth Accumulation

Researchers have shown a positive association between FL and wealth accumulation (Behrman et al., 2010; van Rooij et al., 2012). FL is likely to reduce old age anxiety by accumulating wealth (Kadoya, Saidur & Khan, 2017). The levels of FL have been reflected in multiple wealth accumulation decisions such as rational choices of portfolios (Chu et al., 2017; van Rooij, Lusardi & Alessie, 2011), interest computations (Stango & Zinman, 2009) and in achieving financial satisfaction (Xiao, Chen & Chen, 2013).

3.6 Indian Studies

Literature has validated that Indian women have been lagging behind in terms of managing day-to-day finances as well as long term financial planning (Jariwala & Sharma, 2011; Narula, 2015; Singh & Kumar, 2017). Contrasting developed countries, a recent study has shown that girls among high school students have outperformed boys (Jayaraman & Jambunathan, 2018). Commerce and management university students have higher levels of FL without any significant demographic influences in FL levels (Kaur, Vora & Arora, 2015). In contrast, studies on college students have shown that factors like socio-demographic characters, financial planning and parental influence have shaped their levels of FL (Mahapatra, Alak & Raveendran, 2016; Kiliyanni & Sivaraman, 2016). The importance of FL in earning a livelihood has been acknowledged by majority of the participants of urban and rural India (Bihari, 2012). There have been in-depth studies on the insignificant use of multiple financial products by Indian savers and efforts to convert them into investors (Sinha, 2007). Studies have concurred that a number of contextual variables contribute to the levels of FL beside general education levels (Aggarwala et al., 2013; Aggarwal & Gupta, 2014) and students have lower levels of FL (Altaf, 2014). Literature has indicated insignificant impact of education levels on FL levels (Koshal et al., 2008) notwithstanding that levels of FL are likely to play a pivotal role in stock market investment decisions (Arora & Marwaha, 2013). In line with the global strands of studies, researchers have shown a positive association between FL and personal finance decisions (Deb, 2016). The multiple challenges for success of FL programs have also been indicated in the literature (Sinha, Maheshwari & Kedia, 2013). A close positive association between FL and financial inclusion has also been shown (Banerjee, Kumar & Philip, 2017).

4. Discussion

The study has reviewed the FL literature of the last two decades published by eight publishers in English. It has taken five broader issues besides Indian studies. The first variable - demographic factors include eight sub-variables and the results have been critically presented indicating significant positive, negative and mixed results. Further, insignificant outcomes have also been reported in the literature. The strand of studies addressing demographic factors has shown contradicting results in varying degrees. The impact of financial education on FL has also produced positive, negative and insignificant results. Parental influence in shaping FL amongst children has been discussed in-depth abroad, but not in India. Interestingly, even though a significant number of studies on FL curriculum and its impact on FL have so far been attempted, but in the Indian context, it has remained scant. Participant-wise studies have also produced mixed trend of results. Interestingly, Indian studies have not taken school students as a sample indicating literature gap compared to global studies. The positive impact of FL on better managing personal finances in one's career has been reported. Moreover, most of the scholars have been in consensus about the significance of imparting knowledge of FL from a very young age; this is yet to be verified in the Indian context. Literature has documented the positive role of financial experts in imparting FL as well as in wealth accumulation. The significant positive impact of FL in wealth creation has also been studied abroad even though Indian literature has remained in deficit; this is likely to be addressed in future. As far as Indian literature is concerned, most of the studies have shown that women have been lagging behind their counterparts in levels of FL, except in a recent study, researchers have empirically shown that girls have outperformed boys. Multiple demographics such as education levels, gender parental roles, age and the like have been assessed by scholars in FL studies. Even though multiple challenges for success of FL programs have been studied, they need to be addressed holistically with different stakeholders.

5. Conclusion

The current LR has retrieved papers published in English in peer reviewed journals of eight international publishers during the timeline of the last twenty years, a starting point of conducting any LR (Rowley & Slack, 2004). It has carefully identified and

reviewed the multiple issues of FL having positive impact including the contradictions, the ongoing debate (Hart, 1998) and has attempted to trace out the gap in the literature (Boote & Beile, 2005). The contribution of the reviewed studies has been summarized in line with the characteristic of any systematic LR (Jonsson, 2006), LR has been reviewed in context with the recent developments in the financial literacy research (Hinchliffe, 2003) and its significance has been critically justified in closing the FL literature gap, in corollary with the related literature (Pinto, 1995).

Limitations of the study

The readers should be aware of the few **limitations** of the current study before drawing conclusions. *First*, papers published in the journals of only eight publishers have been considered. *Second*, research sources such as books, dissertations, theses, proceedings of the conferences and seminars, multiple tertiary sources and even predatory journals have been excluded. *Third*, it has drawn a time limit of twenty years for considering the peer reviewed papers, hence, papers before that have been beyond the consideration zone. *Fourth*, the review has been conducted thoroughly, but the probability of missing a few relevant articles due to errors in electronic databases or skipped pages during the manual searches cannot be ruled out. *Fifth*, only titles, abstracts and findings of the cited papers have been scanned; there may be a probability of skipping important findings. Despite these caveats, the general results of the present study are likely to hold.

Applicability and Generalizability

The current review is a brief strand of studies on FL which is likely to be useful for researchers, policy makers and all other stakeholders in shaping their study plans, policy formulations and even as a basis for extending FL studies. Academicians may use the study as an outline in writing their LR chapters. It would shed light on FL method selection and likely use in conducting integrative LR.

It would also be important to extend the study of the terms beyond their occurrence in titles, abstracts, or descriptors and future studies should incorporate the other sources (e.g. academic books and consultancy reports) for assessing FL issues. The limitations along with the shortfall in the literature as indicated should be addressed in future studies comprehensively. Future work may use the results to distil a set of patterns and best practices for different aspects of FL literature review writing practices.

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