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## **FINANCIAL LITERACY: LITERATURE REVIEW AND RESEARCH DIRECTIONS**

### **Abstract:**

In contemporary world, the ability of knowing and understanding financial concepts and matter are important for individual economic well-being. Policymakers have embraced financial literacy as antidote for global financial crisis and increase bankruptcies. This has resulted in a growing interest among academic and industrial researchers, industrialists and policy makers to explore the link between financial literacy and financial behaviour. This paper provides a critical review of literature on financial literacy, with an emphasis on the link between financial literacy and financial behaviour. A systematic review of the relationship of financial literacy and financial behaviour from 2005-2015 has been conducted. The similarities and discrepancies among studies are evaluated and discussed in length. Future research directions are outlined.

### **Keywords:**

Financial Literacy, Financial Behavior, Systematic Review, Behavioral Finance

**JEL Classification:** D10, D14, G02

## **Introduction**

Financial literacy relates to the ability of knowing and understanding financial concepts and matters (Remund 2010). It has been identified as an important factor in determining financial behaviour (Klapper et al. 2012). Decision making of individuals are highly shaped by their financial literacy regarding understanding financial concepts and recognizing of financial instruments. Financially literate individuals make better financial decisions and hold greater wellbeing in term of financial condition than financial illiterate individuals (i.e., Mori et al. 2017). This has resulted in a growing interest in the development of financial literacy programs (Freedman & Dursi 2016) to encourage and enhance responsible financial behaviour, and a recognition that much research needs to be carried out (De Bruin 2015) into what shapes financial behaviour and how these characteristics may best be imparted.

The objective of this paper is to survey literature from 2005 – 2015 and to assess the progress that has been made over that period and offers some recommendations for further efforts. In preparing this survey, articles were first categorised as being empirical or descriptive. They were then further grouped by target audience (students, adult learners, women, and others) and by financial behaviour (retirement planning, investment choice decisions, economic well-being, and articles about financial literacy process and structure). Our underlying assumption for using audience segmentation was that financial literacy program objectives, subject matter and pedagogical approach might be expected to vary depending on the nature of the target audience. Further support of this assumption can be found in Fernandes, Daniel, John G. Lynch Jr (2014).

Succeeding sections of the paper will be in following way. The first section describes a variety of ways in which financial literacy has been defined. Issues related to financial literacy measurement with objective-subjective measures are discussed. The second section provides a critical review of previous research about financial literacy and financial behaviour. The third section describes the research methodology of this study. The fourth section discuss the limitations of this study. Finally, future directions for research are addressed.

## **Review of Literature**

### **Defining Financial Literacy**

Despite the extant research of financial literacy, there has been a lack of standardized definition of financial literacy (Schmeiser & Seligman 2013) and available measures lack consistency concerning the definition of financial literacy (Selim & Aydemir 2014). Meanwhile, a plethora of definitions for financial literacy has resulted in the term 'financial educations' and 'financial knowledge' being used ubiquitously to identify financial literacy (i.e., AL-Tamimi, Hussein A. Hassan, Bin Kalli Anood 2009; Smith et al. 2011; Yoong et al. 2012).

In order to begin identify financial literacy, it is first important to review the various definitions provided in previous study. Servon and Kaestner (2008, p.273) defines financial literacy as *“a person’s ability to understand and make use of financial concepts”*. Huston(2010, p.306) described financial literacy as *“measuring how well an individual can understand and use personal finance-related information”*. While Remund (2010, p293) conceptualize financial literacy as *“ a measure of the degree to which one understands key financial concepts and possesses the ability and confidence to manage personal finances through appropriate short-term decision-making and sound, long-range financial planning, while mindful of life events and changing economic conditions”*.

The definition of financial literacy can be categorized into two sections: conceptual definition (i.e., Servon & Kaestner 2008) and operational definition (i.e., Lusardi et al. 2010). Conceptual definitions explain abstract financial concepts in concrete terms while operational definitions convert conceptual definitions into measurable criteria (Remund 2010).

Most of the conceptual definitions provided in previous study can fall into five categories: *“1) knowledge of financial concepts, (2) ability to communicate about financial concepts, (3) aptitude in managing personal finances, (4) skill in making appropriate financial decisions and (5) confidence in planning effectively for future financial needs.”* (Remund 2010, p.278). This description is coherent with both the other literacy concepts and definitions in the extant financial literature. Nevertheless, due to the amount of definitions in the literature, there is no universally accepted conceptual definitions for financial literacy (Huston, 2010).

Previous studies have shown that measuring the financial literacy level is crucial in identify the effect of financial literacy on individual financial behaviour (i.e., Lusardi et al. 2010) as well as identify potential needs and gaps (i.e., Schmeiser & Seligman 2013). However, different studies have defined and measured financial literacy in many different way (Huston, 2010). Indeed, the used of measures are not comprehensive (i.e., Lusardi et al. 2010), lack of construct clarification (i.e., Lusardi & Mitchell 2014) and lack of consistency in instrument interpretation (Servon & Kaestner 2008).

Academic work has concluded that financial literacy can be measured both objectively (performance tests) and subjectively (self-reported methods) (Xiao et al. 2014). Nevertheless, existing measures of financial literacy are dominated by measures of objective knowledge (i.e., Lusardi et al. 2010; Fernandes et al. 2014). There is ample evidence in past literature of large disparities between the objectively (performance tests) and subjectively (self-reported methods) measures (Xiao et al. 2014). Thus, some recent studies (i.e., Lusardi & Mitchell 2014) combined both objective measure and subjective evaluation of financial literacy to offers *“robust and nuanced insights about how the two different dimensions of financial literacy work together to influence financial outcomes”*.(Lusardi & Mitchell 2014, p.7).

## Financial Literacy and Financial Behaviour

It is well known that there are strong correlation link between financial literacy and financial behaviour (Lusardi & Mitchell 2014). Mounting evidence suggests that financial literacy is an antecedent to various financial behaviour. The literature shows that financial literacy is tied to more efficient behaviour such as retirement planning (i.e., Rooij et al. 2012), investment choice decisions (i.e., AL-Tamimi, Hussein A. Hassan, Bin Kalli Anood 2009), accumulating wealth (Yoong et al. 2012) and responsible financial behaviour (Grable et al. 2009).

Rooij et al. (2012) explore the link between specific financial behaviour and financial literacy. They note that individual who are more financially literate are more likely to engage in recommended financial practices such as retirement planning and having emergency fund. They conclude that financial literacy can be linked to financial practice. Moreover, individuals' propensity to invest and save are found to be partly dependent on their perceived control over outcomes and financial resources (AL-Tamimi, Hussein A. Hassan, Bin Kalli Anood 2009). Financial literacy has also been found to influence individual evaluations and intentions related to wealth accumulation (Lusardi & Mitchell 2009) and retirement planning (Yoong et al. 2012).

Nonetheless, Some recent studies that linked financial literacy and financial behaviour have shown that the effects between financial literacy and financial behaviour is inconsistent (Fernandes et al. 2014). In Robb & Sharpe (2009), it is documented that college students with higher level of financial literacy have display low financial responsible behaviour. The authors conclude that college student might found it hard to apply the knowledge they learnt in real life circumstances. Moreover, they may lack the experience in order to make favourable financial decision. A study conducted by Mandell & Klein (2009) have found that there is no different between individuals' financial behaviour between those who have attended financial management course and who have not attended financial management course.

## Methodology

A census-type sampling procedure was employed. A panel of three reviewers was employed to select and classify the articles. In this study, the reviewers are the authors. Three levels of decision making were utilised to first select and subsequently classify articles according to empirical and descriptive. They were then further grouped by target audience (students, adult learners, women, and others) and by financial behaviour (retirement planning, investment choice decisions, economic well-being, and articles about financial literacy process and structure). First, each journal issue was examined independently by two reviewers in order to select articles for inclusion in the study. In instances of disagreement between reviewers, the decision of the third reviewer was used to break the tie.

Papers selected for inclusion in this review were restricted to those published in scholarly and peer-reviewed publication specialising in financial Management. The collection of 95 selected articles was subsequently divided approximately equally among the three reviewers. Each reviewer then read the assigned articles independently and wrote a summary abstract of each. These abstracts served as the basis for the classification process which followed. Articles were catalogued, first according to focus (descriptive versus empirical) and subsequently according to target audience (students, adult learners, women, and others) and by financial behaviour (retirement planning, investment choice decisions, economic well-being, and articles about financial literacy process and structure). Although articles were classified as either descriptive or empirical, categories occurring within each of these perspectives were not considered mutually exclusive; it was therefore possible for one article to be assigned to multiple categories. The classification process was carried out with all three reviewers present and a consensus-based decision approach was adopted; discussion concerning the appropriate classification of each article typically lasted for ten to twenty minutes.

## **Limitations**

The limitations of this study revolve around the scope of the articles being review. Firstly, due to the proliferation of studies in recent years and the pre-existence of several excellent earlier literature reviews, research covered herein is limited to the published between 2005-2015. Secondly, the emphasis is placed on scholarly and peer-reviewed publications. Practitioner reports were sought but found to be in short supply. Finally, the focus is on financial literacy and financial behaviour only. Other determinants and consequences of financial literacy are not review.

## **Future Research Opportunities**

The objective of this study is to profoundly review the extant research and deduces various insights into financial literacy. Examination of previous study review that there is a need to clearly defined conceptual and operational definitions. New studies have to be conducted to validate the merits of universally accepted conceptual definitions for financial literacy.

Our systematic review found that financial literacy significantly predicted financial behaviour (i.e., Rooij, CJ, Lusardi, & Alessie, 2012). Nevertheless, financial illiteracy is a prevailing issue around the world (i.e., Selim & Aydemir, 2014). Policy makers and researchers should conduct future studies on the implementation and evaluation of strategies to improve the financial literacy levels of certain cohorts of populations where a lack of financial knowledge and skill has been identified by previous research.

The impact of financial literacy on financial behavior is larger when financial literacy is measured rather than manipulated (i.e., Selim & Aydemir, 2014). We surmise that this may reflect omitted variables bias in studies of measured financial literacy. Future

research could focus on these omitted variables, such as time preference, financial experience and financial sustainability. Limited financial literacy has explicitly linked these variables with financial literacy and financial behaviour.

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