International Journal of Research in Finance and Management

P-ISSN: 2617-5754
E-ISSN: 2617-5762
IJRFM 2021; 4(1): 71-77
Received: 04-01-2021
Accepted: 07-02-2021

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Effect of debt literacy on debt behaviour: A narrative review

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DOI: https://doi.org/10.33545/26175754.2021.v4.i1a.229

Abstract
Although there is a growing body of research on financial literacy, we have a limited understanding about the connections between its essential elements. It is commonly known that consumer financial market behavior and financial attitudes are related. However, little is known about how debt literacy—the core tenets of the financial literacy construct—affects attitudes towards debt. Debt literacy is a component of overall financial awareness that assesses both one's own financial literacy and one's knowledge of debt. Instead of a lack of highly precise financial knowledge, the debt-related financial misery that an individual experiences are mostly the result of their failure to comprehend and apply basic economic ideas to debt decisions. This idea provides a possible justification for why current financial literacy initiatives, which often concentrate on the latter part, are viewed as largely ineffective. The current study is also coming up with information about various ways debt literacy affects debt behavior. The findings suggest that consumer views are closely correlated with either debt understanding, debt management expertise, or both. Consumer debt attitudes were found to be particularly well predicted by debt skills. Women are more likely to be financially illiterate, and this illiteracy tends to worsen as people become older.

Keywords: Debt Literacy, debt behavior, financial literacy, debt skills, financial knowledge

Introduction

The foundation for a healthy relationship with money can be laid by getting educated about finances, which is a process that continues throughout your life. Because knowledge is the key to monetary success, getting a head start on it early will serve you well in the long run. As financial markets provide increasingly complicated options and as the burden of saving for the future transfers from the government and businesses to the individual, financial literacy has become more important than ever. Financial crises in recent memory demonstrate how important consumer borrowing choices are. The recent financial crisis' relation to the rapid increase in household debt raises the possibility that people's lack of financial literacy drove them to take out mortgages and run up credit card debt they couldn't pay.

Approximately between the years 2000 and 2020, there has been a widespread expansion of the availability of financial goods and services. It's possible that the majorities of purchases made by previous generations were carried out with cash, but these days a variety of credit instruments, including credit and debit cards, as well as electronic transfers, are being used extensively. According to a Federal Reserve Bank of San Francisco poll from 2020, only 19% of all payments were made in cash and 27% were made with a credit card.

Given the pervasive role that money plays in today's society if a person is not financially literate, their long-term financial performance may be severely hindered, which is especially problematic. This is a problem that affects a large number of people. Ignorance of personal finance can lead to a variety of risks, one of which is an increased likelihood of accumulating unmanageable amounts of debt as a result of poor spending decisions or a lack of preparation for the long term. This can then lead to undesirable outcomes such as poor credit, bankruptcy, and the loss of one's home, amongst others. Several earlier studies have drawn attention to the enormous debt accumulation by American households. Prior to the financial crisis, total household debt increased rapidly, more than tripling between 2000 and 2008 and reaching a peak of $12.68 trillion in the third quarter of that year (Federal Reserve Bank of New York, 2016) [15]. Yet, as of the end of 2016, total household debt was at $12.58 trillion, or 0.8 percent below the high. In the final three months of 2016, mortgage originations, which also include mortgages that were refinanced, reached their highest level since the beginning of the Great Recession.

In addition, Gottschalck et al. (2011) [21] used data from the Census Bureau to demonstrate that individuals over the age of 65 and those aged 55 to 64 saw the greatest relative increases in household debt. In particular, between the years 2000 and 2011, the median household debt of people aged 55 to 64 increased by 64%, while the debt of people aged 65 and older increased by more than four times as much.

According to Festinger (1957) [16], Krugman (1965) [28], Fishbein and Ajzen (1975) [18], and Goedde-Menke *et al.* (2017) [20] attitudes, particularly financial attitudes, are a necessary condition for human behavior that can result in either desired or undesirable long-term financial results. Saving itself is largely the same regardless of the fact that over-savings is occasionally considered in the economic literature as a sub-optimal financial behavior seen as a desirable and healthy financial action. Decisions about borrowing are more debatable.

Financial Literacy

Financial literacy is the term used for the capacity to comprehend and utilize different financial abilities, such as investing, budgeting, and personal financial management. It is a person's understanding of, and facility in the application of a variety of financial skills, such as managing personal finances, creating a budget, and investing in the stock market, among other things. It enables a person to make intelligent and efficient use of all of their available financial resources. Initiatives operated by the government in many countries, including Australia, Canada, Japan, the United States of America, and the United Kingdom, are currently focusing their attention on stimulating interest in personal finance. If individuals possess even a fundamental knowledge of finance, it will be much simpler for them to navigate the complex financial system. Individuals who have obtained the appropriate training in financial literacy are better able to handle their own money and, as a result, make better financial judgements. In order to raise the bar for financial literacy and education, the Organization for Economic Co-operation and Development (OECD) launched an intergovernmental initiative in 2003. The project's goal was to establish a set of universal financial literacy principles. The International Gateway for Financial Education, which the OECD inaugurated in March 2008, seeks to act as a global clearinghouse for financial education initiatives, data, and research. The Financial Services Authority (FSA) in the UK began a national policy on financial competence in 2003. In the UK, the state and its agencies use the alternative phrase "financial capability." The Financial Literacy and Education Commission was founded by the US government in 2003. Because it has been connected to saving habits and investment portfolio decisions, financial literacy is crucial. For instance, Lusardi and Mitchell (2007) [29] discovered that those with low financial literacy are less likely to plan for retirement, Stock Market Participation (Christelis *et al.*, 2010, Van Rooij *et al.*, 2011, Yoong, 2011) [9, 36, 39], and to acquire wealth (Stango and Zinman, 2009) [34]. Fundamental components of financial literacy.

- Budgeting.
- Investing.
- Borrowing.
- Taxation.
- Personal financial management.

Debt Literacy

Debt literacy is a part of overall financial understanding that assesses both one's own financial literacy and awareness of debt Cwynar *et al*., 2019 [11]. The participants' stated experiences with conventional borrowing, alternative borrowing, and investment are referred to as financial experiences. A self-reported metric is over-indebtedness

Debt Attitudes

According to Eagly & Chaiken (1993) [14], attitudes are "a psychological tendency that is represented by rating a specific thing with either a favorable or unfavorable sentiment". This definition is used in the current investigation. Debt's intricate and perhaps multifaceted nature mindsets have prevented the creation of a standardized measurement tool for this idea various measuring scales have been proposed and implemented as a substitute. Numerous studies have posited that attitudes towards debt are unidimensional, with the distribution of such attitudes occurring along a debt tolerance axis (Davies & Lea, 1995) [13]. Some scholars (Allen *et al.*, 2007; Hayhoe *et al*., 1999, Xiao *et al*., 1995) [1, 24, 38] have made reference to a conventional typology of affective, cognitive, and behavioral attitudes that has been identified in the field of social psychology. According to Haultain *et al.* (2010) [23], there is a perception among some that the attitudes towards debt are too heterogeneous, unclear, and multifaceted to be precisely assessed by a unidimensional tool. Moreover, the majority of instruments designed to evaluate debt attitudes that have been suggested thus far, including the most commonly utilized ones, were formulated to scrutinize the attitudes of students in general and their attitudes towards credit cards and credit card debt specifically (Allen *et al*., 2007, Borden *et al*., 2008, Davies & Lea, 1995) [1, 7, 13].

Debt Knowledge and Skills

Despite the fact that there is a large and quickly expanding corpus of research on financial literacy in general, debt literacy - a crucial component of financial literacy - has received very little attention. Limited information is available regarding the subsequent two fundamental subcomponents of debt literacy, namely, debt proficiency and debt administration. Lyons, Rachlis, and Scherpf (2007) [32] conducted the initial empirical investigation that exclusively centered on debt literacy, which they referred to as "credit literacy." Although certain financial literacy assessments incorporate a series of inquiries regarding borrowing, such as those conducted by Allgood and Walstad (2016) [2], Chen and Volpe (2002) [8], and Danes and Hira (1987) [12], among others, the initial empirical investigation that concentrates solely on debt literacy is noteworthy. The research delved into a specific aspect of the broader topic of debt-related issues, namely, the level of comprehension among consumers regarding credit reports, credit ratings, and the process of resolving disputes. The phrase "debt literacy" originally appeared in financial literacy literature in the scholarly publication (Lusardi & Tufano, 2015) [30]. By posing the following inquiries to a representative national sample of Americans, they modified the traditional "Big Three" financial literacy questions to address debt specifically.

The first three questions are on interest compounding, credit card usage, and the time worth of money. The third question is about interest compounding. Since then, the Netherlands (van Ooijen & van Rooij, 2016) [35], Poland, and the United Kingdom (Disney & Gathergood, 2011) [19] have all used the same or a slightly modified version of the debt literacy exam (Cwynar, Cwynar & Filipek, 2018) [10]. These investigations all revealed serious deficits in debt literacy, which is in line with the findings of global examinations of financial literacy.

Review Objective and Methodology

This study focuses on conducting the narrative review about how financial literacy effect debt behavior, to find out the different variable studied related to debt behavior and to review available resources and situations and come forward with some insights that how they can be better utilized by researcher to promote debt literacy among the economy.

Search strategy

The search was designed to complement, extend, and update the recent comprehensive review of the effect of financial literacy on debt behavior.

First, we used the search terms “Debt Knowledge”, “Debt Literacy”, “Debt skills”, “Debt behavior”, “Debt Attitude”, “Financial literacy”, “Financial Knowledge”, “Debt Education”, and “Financial education”.

Second, Limited search to articles/ papers (excluding review) published in the English language.

Third, Searched through online sources - Wiley online library, Sage journal, Taylor Francis online, Elsevier, Emerald Insight, Springer, Research gate, APA Psyc. Net, JSTOR, Science Direct. Results yielded 45 studies for possible inclusion after scrutiny (Duplication, lack of full access, non-English language) concluding 12 researches at finalization stage. Selected studies are following (Bahovec *et al*., 2015, Bialowolski *et al*., 2018, Białowolski *et al*., 2020, Filipek *et al*., 2019, Gathergood & Disney, 2011, Hastings *et al*., 2013, Herispon, 2019, Huston, 2012, Wee *et al*., 2018, Lusardi & Tufano, 2015, Ottaviani & Vandone, 2018) [3, 5, 4, 6, 17, 19, 22, 25, 26, 37, 30].

Inclusion criteria

First, the study needed to either empirically or experimentally measure debt behavior and at least one other variable of interest at the between-person level or at the within-person level.

Second, the study needed to report empirical or experimental results regarding the relationship between the variables of financial literacy and debt behavior.

Third, the study had to focus on studying the debt behavior across nation and its relatedness with financial literacy and similar key terms. Differential effects of financial literacy on debt behavior are in table 1.

Conclusion

Traditional schooling may not be creating the information and abilities necessary for financial literacy in an effective manner, as only two out of every ten people who graduate from college are financially literate. Huston's research (2011) [27] suggests that having a college degree is a better indicator of creditworthiness than it is of financial savvy, and that people with a college degree have a greater chance of paying lower interest rates on the money they borrow due to financial decisions that have resulted in a financial situation that allows them to select from a number of lower cost borrowing options.

The ability to analyze the long-term repercussions of the economic crisis and identify whether or not it has had an impact on generations who are nearing retirement in terms of debt and financial fragility requires a level of financial literacy that is crucial. It is hinted that the amount of debt carried by older persons may have a larger role in deciding retirement security and lifetime financial sufficiency, in addition to its involvement in elder bankruptcy. When comparing the age groups 56-61 to those 62-66, it was shown that debt levels decreased with increasing age. A lower likelihood of falling into debt is associated with having a higher salary, a higher level of education, and other characteristics, as well as improved financial literacy beyond the age of 24. Furthermore, financial literacy is connected to participation, behavior, and performance in the financial markets, and participants in the financial markets often have greater levels of literacy than the general population.

Women are more likely to be financially illiterate, and this illiteracy tends to worsen as people become older. There is a considerable connection between the opinions that respondents have about debt and the views of their parents, which is a component of debt attitudes that is cultural in nature. Respondents who were born outside of the United States are more likely to report feeling uncomfortable with debt. Recent studies have demonstrated that some behavioral traits, such as impulsivity, may be too responsible for making decisions that result in excessive amounts of debt. It was discovered that lack of financial literacy as well as difficulty in exercising self-control is positively connected with over indebtedness, despite the fact that the latter factor plays a more statistically significant role.

Table 1: Differential effects of financial literacy on debt behavior

S. No	Title	Objective	Dependent	Independent	Method	Result
1	Financial Literacy, Financial Education, and Economic Outcomes	To investigate the current methods utilised in measuring financial literacy in scholarly literature and evaluate the extent to which the existing literature effectively addresses the relationship between financial education, financial literacy, and personal financial outcomes.	Financial literacy	Financial Decision		A considerable number of individuals exhibit suboptimal performance on assessments that evaluate their financial literacy. The aforementioned discoveries, in conjunction with an expanding body of literature that highlights the financial errors made by consumers and the favourable associations between financial literacy and suboptimal financial results, have stimulated policy attention towards endeavours aimed at enhancing financial literacy via financial education.
2	Testing the effects of financial literacy on debt behavior of financial consumers using multivariate analysis methods	To detect and categorize Croatian financial consumers' financial literacy and analyze in terms of socio- demographic characteristics. To determine whether a respondent's debt behavior differs based on their financial literacy	Debt behavior	Financial literacy, Socio-demographic characteristics.	Cluster analysis, nonparametric chi-square test, e Kruskal Wallis H test, Dunnett's C test	The findings indicate that participants demonstrate varying patterns of indebtedness as a result of their distinct levels of financial literacy. Furthermore, the statistical analysis revealed that the level of disposable household income per household member exhibited no significant correlation with varying degrees of financial literacy. However, a statistically significant difference was observed in relation to the gender of the respondent.
3	The Effect of Bank Behavior, Financial Literacy on Financial Inclusion and Debt Behavior in Household Consumption	To analyzes the influence of Bank Behavior, Financial Literacy on Financial Inclusion, Debt Behavior in Household Consumption.	1. Banking behavior 2. Financial literacy 3. Financial inclusion 4. Debt behavior	financial inclusion, debt behavior, household consumption, debt behavior, household consumption, household consumption	sampling method with 303 households, e SEM-Warp PLS	It was discovered that the behaviour of banks has a substantial effect on household consumption, a significant influence on the behaviour of debtors, and a significant influence on the behaviour of debtor households.
4	Financial Literacy, Debt Burden and Impulsivity: A Mediation Analysis	To examine the role of impulsivity and financial literacy as predictors of debt burden in a sample of 445 individuals.	debt service to income ratio, a proxy of debt burden	Financial Literacy score, Barratt Impulsiveness Scale, Family size, Financial wealth	Hierarchical Regression Analysis	It was found a positive correlation between debt and both poor financial literacy and impulsivity. When considering these two attributes separately, it becomes evident that each one exerts a noteworthy influence on the determination of debt burden.
5	Financial literacy and the cost of borrowing	To investigate the relation between financial literacy and the cost of borrowing via credit cards and mortgage loans among US consumers.	Financial literacy	Education, Experience, Finances, Mortgage	Descriptive statistics	Results from this study provide evidence that human capital specific to personal finance, financial literacy, is an important predictor of paying less to borrow with respect to credit cards and mortgage loans. Those who are financially literate are about twice as likely to pay below average interest rates to transfer resources from future periods into the present for consumption compared with those who are not financially literate.
6	Financial Literacy And Indebtedness: New Evidence For UK Consumers	To examine the relationship between individual responses to debt literacy questions and household net worth, consumer credit use and over-indebtedness	Over-Indebtness	Debt literacy, consumer credit		The research indicates that households with a lack of financial literacy exhibit a decreased net worth, employ credit with higher associated costs, and demonstrate a greater likelihood of reporting credit delinquencies or experiencing challenges in meeting their debt obligations. Households that possess financial literacy are inclined towards co-holding liquid savings and revolving consumer credit, indicating that

						this behaviour may stem from rational financial decision-making.
7	Financial Knowledge, Debt Literacy and Over- Indebtedness	To investigate the causes of over-indebtedness, specifically among the young generations	Over-Indebtness	Financial knowledge, debt literacy		The results indicate that low in financial knowledge and debt illiteracy are not the causes of over- indebtedness for the sampling frame. An individual with a good financial knowledge and debt literate, also associate with a high debt and over indebtedness.

8	Does social capital influence debt literacy? The case of facebook users in poland	To examine relational factors (resources) behind the debt literacy of Facebook users in Poland.	debt literacy	Social capital, personal	purposive sampling method, Descriptive statistics, OLS Regression	Research indicates that individuals possessing higher levels of social capital, which refers to their enhanced accessibility to resources, exhibit superior performance in assessments measuring debt literacy. Furthermore, it has been observed that weak ties, or individuals with whom one has a casual acquaintance, can serve as valuable resources for information and knowledge pertaining to debt, ultimately leading to higher levels of debt literacy scores.
9	Decomposition of the financial literacy construct: A structural model of debt knowledge, skills, confidence, attitudes, and behavior	To examine the relationships between financial knowledge, skills, confidence (i.e., self- assessed knowledge), attitudes, and behaviours in debt-domain.	Debt Behavior	debt knowledge, debt skills, confidence in area of debt, debt attitude, demographic- gender, income, age, eco teacher, financial decision	structural equation model	The findings suggest a significant correlation between financial confidence related to debt and debt attitudes and behaviours. Additionally, research revealed that there was no statistically significant correlation between knowledge and confidence. Research has demonstrated that a relationship exists between aptitudes and conduct, particularly attitudes, which diverges from that of cognition.
10	Consumer debt attitudes: The role of gender, debt knowledge and skills	This study focuses on consumer debt literacy and debt attitudes.	Debt Attitudes	trust, care, positive, emotions, troublesome, a last resort, risk	Latent class analysis, Descriptive	The present investigation did not observe noteworthy gender disparities in either the formulation of debt attitudes or their determinants. The findings revealed that, with the exception of a single category, consumer attitudes are closely associated with either debt proficiency or debt expertise, or both. The study found that proficiency in managing debt was a robust indicator of individuals' attitudes towards consumer debt.

11	Debt literacy, financial experiences, and over indebtedness	To analyze debt literacy, financial experience and extent of indebtedness.	Debt Literacy	Assessed knowledge about the power of interest compounding and the workings of credit card debt and their preference for means of payment	Multinomial logit analyses, Descriptive	A correlation has been observed between debt literacy and financial experiences as well as debt loads. Individuals possessing limited knowledge regarding debt management tend to engage in transactions that involve higher costs, resulting in the accrual of elevated fees and the utilisation of high-cost borrowing. Individuals with lower levels of financial literacy also express that their debt burdens are disproportionate or that they lack the ability to accurately assess their debt status.
12	Debt attitudes in gender perspective: is there an effect of debt knowledge and skills?	This study focuses on debt literacy and debt attitudes. The link between financial attitudes and financial market behavior is well- documented	Debt Attitudes	debt knowledge and skills	Latent class analysis, Descriptive, multinomial logistic regression	The findings indicate a robust association between attitudes and debt knowledge or skills, or both, in all but one category. The study demonstrated that proficiency in managing debt is a highly significant determinant of one's attitudes towards debt.

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