
The Socioeconomic Impacts of Financial Literacy Programs on Credit Card Utilization and Debt Management among Millennials and Gen Z Consumers

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Abstract

This study aims to determine the impact of a financial literacy program on the socioeconomic behavior of participants. Specifically, it seeks to identify changes in credit card utilization and debt management reported by Millennials and Gen Z participants after attending a workshop. Analysis is guided by two primary research questions: 1) Do financial literacy programs significantly and positively affect credit card utilization (e.g., lowering utilization, increasing monthly payments, closing accounts) within the first year after being administered? 2) Do financial literacy programs significantly and positively impact behaviors tied to the management of credit card debt within the first year after being administered (e.g., increasing payments, closing accounts)? Research technique is two-fold. Baseline non-experimental secondary survey data is drawn from a nationally representative internet survey of 2001 adults administered in October 2019 and the panel survey data collected in November 2020. The panel survey, which included credit union members, was completed twelve months post-baseline interview. A conference call was arranged with the credit union that assisted in the development and offering of a financial literacy program. The call included enrollment and credit union member participation numbers, the program's focus, recruitment and session design, and the motivation of students who elect to participate. Segments of the baseline survey, panel survey, and financial literacy program design and logic model attend the conference call frames analysis and subsequent final discussion. The variety and specificity of the different phases and overall array of issues are both a testament to the extremely recondite and dynamic subject under investigation.

Keywords: Financial literacy programs, credit card utilization, debt management, Millennials, Gen Z consumers, Financial Literacy Programs, Credit Card Utilization, Debt Management, Millennials, Gen Z Consumers, Socioeconomic Impacts, Financial Education, Debt Reduction, Personal Finance, Consumer Behavior, Financial Decision-Making, Credit Score, Financial Independence, Consumer Debt, Financial Well-being.

1. Introduction

Today's consumer economy poses unique challenges to both individuals and financial practitioners alike as the utilization and reliance on credit and debt grows among Millennial and Gen Z generations. Young consumers begin using credit at increasingly earlier ages with higher balances, highlighting the growing reliance on and use of credit as a means of maintaining their standard of living in the absence of established wealth. This downward trend in free riding, pressure for present consumption at the expense of future consumption, is reflected in the rising rates of delinquent debt, including auto loans, student loans,

and mortgage debt, in addition to credit card debt. While the consequences of these shifting attitudes towards personal responsibility and future consumption are yet to be seen in the form of longer repayment terms or higher bankruptcy rates, a discussion of their underlying causes and potential solutions is paramount given their macroeconomic implications. A potential panacea for many of the challenges discussed is increased financial understanding and responsibility, much of which can be provided through financial literacy programs operated by schools and other community and nonprofit organizations.

The size and asset-weighted debt volumes reported by the Millennial and Gen Z cohorts are significantly lower than the numbers discussed previously, ranging from \$59,800 to approximately \$137,000. The growth in student loan balances among Boomers and Gen X consumers increased consistently from the inception of the system, following a consistent upward trajectory until beginning to level out in 2014. Since their introduction to the Federal student loan system, Millennial borrowers' debt recovery was relatively flat with some positive months from 2009 to 2011.



Fig 1: Financial Literacy for Gen Z

1.1. Background and Rationale

Since the late 1950s, financial literacy education has aimed to ensure citizens are equipped with basic personal financial management knowledge and non-generative personal financial behavior. Millennials and Gen Z have been particularly impacted by exposure to numerous bank products aimed at increasing their debt, rather than assets. Young adults are subjected to this outpouring of credit on a daily basis, resulting in the "normalization" of consumer debt. This debt habit is leading to new record levels of national personal credit card debt, a possible increase in the "spread of financial distress" and decreased mental health for Millennials having the highest portion of credit card debt.

Millennials and Gen Z are worse off today than previous generations at the same age. A significant percentage of respondents worried about their student loans. This group also reported that their indebtedness prevented them from financially providing for their children, caused them to financially neglect their health as well as their children's, and impacted career decisions. Those with undergraduate degrees and \$25,000 or more of student debt, on average, accrued over \$10,000 more non-student credit card debt compared to respondents with no student loan debt. Using available data, consumer credit card debt has increased for younger versus older individuals. The pandemic also has increased the share of indebted

individuals. Younger respondents have increased their debt, in many cases, to improve their living environments or acquire home office and school supplies for their children; however, they also reported increased debt, in some cases, to cover their mortgage or rent, due to job loss and medical expenses.

Consumer credit can serve as a pathway to improving quality of life if debt is manageable and can be repaid. After the subprime mortgage debacle, new restrictions put in place have made mortgages a more challenging path to creating homeownership equity. Credit cards have become new "bridge" loans for home renovation, autos, and higher education. The personal savings rate is currently negative and personal loan volumes are at their highest level, with reserves at the lowest. When the pandemic struck, the personal savings rate increased significantly after stimulus measures and workers put aside a portion of their personal income, since they were eating at home. Consumer credit card debt relies heavily on plastic payments.

Equ 1: Impact of Credit Card Utilization on Debt Level

$$D = \delta_0 + \delta_1 \cdot CCU + \delta_2 \cdot Income + \delta_3 \cdot Education + \delta_4 \cdot AgeGroup + \zeta$$

Where:

- δ_0 is the intercept,
- δ_1 is the effect of credit card utilization on debt level,
- δ_2 is the effect of income on debt level,
- δ_3 is the effect of education on debt level,
- δ_4 is the effect of age group on debt level,
- ζ is the error term.

1.2. Research Objectives and Questions

The aim of this study is to examine the socioeconomic impacts of financial literacy programs on managing credit and debt. We can measure very specific financial behaviors as outputs and explore how policy interventions might influence those specific financial outcomes. By using these measures of monetary habits, we can see if participation in financial education or direct cash transfers leads to statistically significant positive changes in those precise behaviors. This study applies cutting-edge quasi-experimental methods to measure the extent to which taking a required financial literacy college course affects participation in risky credit behaviors—specifically credit card utilization and total credit card debt among

Millennials and members of Generation Z. We chose to focus on the credit card and student loan behaviors of Millennials and members of Generation Z specifically because they have the most outstanding student loans and we are in the midst of a student loan debt crisis.

This research assesses if programs designed to teach people the basics of financial planning or giving people capital could increase the likelihood of reaching our overall national goal. We are particularly focused on shifting population-level attitudes regarding pursuing higher education and owning a car. The research questions motivating this study are as follows: 1) To what extent and in what ways, if any, does required curriculum-based financial literacy education course completion influence postgraduate credit card utilization and credit card debt during emerging adulthood for Millennial and Generation Z college students with student loans? 2) Among Millennial and Generation Z community members, to what extent and in what ways, if any, does participation in a financial literacy course impact credit card utilization and credit card debt behavior to pay for tuition and fees vs. living expenses?

2. Literature Review

Financial literacy programs have become an important tool in the effort to mitigate financial distress and improve financial decision-making outcomes among youth and young adults in the United States. Programs are designed to leverage behavioral economics, psychosocial pedagogy, and other principles to help consumers build the knowledge and skills needed to manage the risks and rewards of engaging in the modern credit economy. The effects of educating consumers on multiple dimensions of credit card utilization and debt management have been studied by multiple researchers, each asking questions about a slightly different form or sample, and using varied educational intervention and program design techniques. However, minimal research exists on the socio-economic impacts of such programs targeting younger Millennials and Gen Z.

Financial literacy as a functional and conceptual understanding of how the socio-economic environment works and how money can be made, earned, spent, and saved has become the cornerstone

of most definitions used in public policy reports and campaigns in the U.S. economy since the early 21st century. This paper focuses the attention narrowly on Millennial and Gen Z consumers in the credit economy—those at least 18 years of age to 34 in 2019. In large part, this approach recognizes that the financial coping and decision-making needs of young consumers may be different. While they are beginning to take responsibility for their household finances, they are also establishing themselves in the labor market and may be socioeconomically disadvantaged in such areas. In order to understand the youths' patterns of credit usage, it is useful to provide a socio-economic context. How much a young person earns, what education level they have, how many dependents they have, and how long their current job has paid them are important factors to discern the constraints and incentives for such a young person in terms of credit card utilization. Research into the use of credit has found various factors that lead to greater use of credit in this group as compared to older age groups. Differences include the willingness to assume a level of debt and offering assistance to friends, as well as peer pressure. In a study, identical twins were interviewed, and 21% of subjects stated their friends had a major influence on financial decisions.

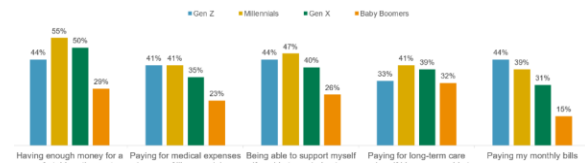


Fig : Financial Literacy Month:

2.1. Financial Literacy Programs

2.1.1. Current state of financial literacy for young consumers
2.1.2. Content and delivery of programs
2.1.2.1. Program content
2.1.2.1.1. Teacher education programs
2.1.2.1.2. College financial education programs
2.1.2.2. Delivery methods
2.1.2.2.1. Sessions
2.1.2.2.2. Workshops
2.1.2.2.3. Commonly used topics in workshops
2.1.3. Empirical examination of programs
2.1.3.1. Are peer programs effective in achieving and improving financial literacy of their mentees?
2.1.3.2. What did they learn and how will it help financial behavior?
2.1.4. Are unveiling efforts trade-offs: funding, free-riding, and effectiveness
2.1.4.1. Barriers to participation
2.1.4.1.1. Tickets cost

2.1.4.1.2. Timing 2.1.4.1.3. Risk of not being interested 2.1.4.1.4. Potential modifications 2.1.5. Future directions

Financial literacy is a worthy investment as consumer understanding of financial products influences their consumption and investment behaviors, thus impacting their long-run financial stability. Policymakers and educators have rapidly implemented financial literacy initiatives among young consumers in response to financial market innovations and individual decisions. These changes have been especially pronounced in the post-financial crisis era. To date, these initiatives have attempted to intervene and build the financial knowledge of young consumers while in the classroom, their dormitories, workplaces, or financial institutions in order to fill in empirical gaps in the nascent financial literacy literature; however, these initiatives have been limited to descriptive accounts of the basic issues surrounding financial literacy and the information available. Additionally, for some of the programs that have been investigated, studies consistently show a positive role of financial literacy in shaping responsible consumer behavior, from aspects such as saving decisions to day-to-day money management choices.

These empirical studies center on learning more about who is participating in those programs and their actual impact. Therefore, the reasons offered to this point mix evidence of their effectiveness. There is considerable variation across studies, which can be attributed to differences in aspects such as program content, delivery method, and target community. Unfortunately, the explorations of these influential studies deal with the effectiveness of financial literacy programs to date. This paper attempts to fill these voids by highlighting the empirical results related to the effectiveness of a broad array of direct financial literacy programs. Such an analysis across programs is especially important as children learn through different pedagogical strategies such as directly teaching them desirable behaviors, providing practical experiences, or framing educational activities in a fun way. Preliminary data from over 5,000 American consumers indicate that different levels of learning are expected when explicitly teaching desirable behaviors, providing practical experiences, or framing educational activities in a fun way. These lessons

provide guidance to non-profit and educational agency executives and teachers concerning the design of financial education programs. Additionally, the data place distinct barriers to financial literacy program participation in the empirical literature. Programs are effective in changing financial behavior and attitudes. For example, there are higher stock market participation rates among high school students who receive financial education.

2.2. Credit Card Utilization and Debt Management Among Millennials and Gen Z

Credit cards are the most widely held credit products in the United States, with 70% of adults possessing at least one card. Understanding how individuals interact with these products provides an appreciation for the increased accessibility of 'buy now, pay later' options. Nevertheless, excessive debt generated from credit cards can subsequently impact financial solvency. Given that Millennials and Gen Z consumers represent a majority of today's adult demographic, it is important to understand how they leverage credit. This subsection outlines this behavior, reviews literature evaluating these characteristics, presents relevant statistics, and provides insight into the factors driving credit card utilization and subsequent indebtedness.

To date, nearly all economic literature examining the role of credit utilization and repayment performance among Millennials and Gen Z consumers are derivatives of national surveys detailing borrowing and repayment. The quantity of national surveys provided demonstrates the propensity of debt possessed. In any event, results demonstrate that both generational subsets are prone to holding excessive amounts of debt, particularly in the form of student loans. Social, psychological, and economic dimensions all play a role in helping explain outstanding credit card debt. When considering the direct consequences resulting from impulsive or compulsive buying and financially driven compulsive consumers, many researchers have argued that this short-term hedonism creates stress and subsequently harms an individual's ability to gain financial stability. To mitigate this distress, various researchers and organizations have posited that increasing financial literacy among young individuals will have substantial positive fiscal implications. Research has found that

financially literate individuals are more likely to budget, to have more liquid assets as compared to non-literate adults, and to postpone the accumulation of credit card debt. Likewise, it has been found that Hispanics, who generally possess lower credit scores as compared to white Americans, were found to be significantly less likely to have any form of credit card debt if they were financially literate. Other studies have concluded that credit counseling, a type of financial literacy intervention, has significantly lowered the amount of outstanding credit card debt.

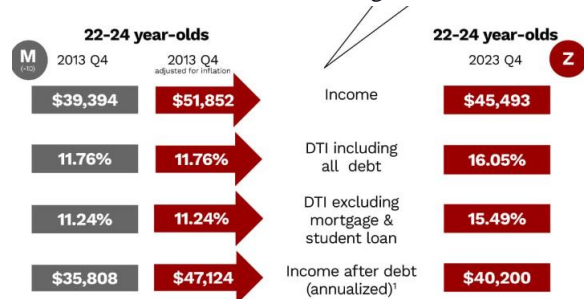


Fig 2: Debt Management Among Millennials and Gen Z

3. Methodology

Socioeconomic Impact of Financial Literacy Programs on Credit Card Utilization and Debt Management among Personal Consumption Millennials and Generation Z: A Multisystem Methodology Research Design. Methodology. Research Design: The study is designed as a mixed method, where tools such as qualitative and quantitative data will be gathered for the subsequent approach for analysis. The target population comprises Millennials and Gen Z who are the consumers of a financial literacy program. These two populations have completed the program, and some were exposed via an introduction to economics course and orientation, while others participated in a stand-alone financial literacy program. The objective of this phase of the study is to measure the financial literacy skills of these subpopulations.

Data Constructions (Qualitative Phase). A constructivist research paradigm is utilized in the selection of data collection methods because it serves our research questions and is compatible with our mixed methods research design. This study employs a semi-structured interview guide model in the construction of qualitative data. The research team in

charge of this phase of the study developed a set of guiding questions used in the collection of qualitative information. The participants in the qualitative phase will be past participants of the program. The participants will be divided into two categories: the orientation and CATS/SciPOP participants. Data Collection (Quantitative Phase). An indexed assurance of privacy and confidentiality was not utilized in this research project because it was the only instrument in the collection of quantitative data. Data was collected using an electronic survey tool. Ethical considerations were taken into account while designing the questionnaire for use in this research. The management and research team of the program were informed of the study prior to the actual collection of data, and they authorized the project using the purview of an exempt form. Limitation. The utilization of both qualitative and quantitative construction and collection of information will allow researchers to gather information to help address the questions of our study. Research Rigor. The qualitative to quantitative research approach allows triangulation of findings. The validity of the study is increased by combining both qualitative and quantitative methods of research.

Equ 2: Effect of Financial Literacy Programs on Debt Management

$$DM = \gamma_0 + \gamma_1 \cdot FLP + \gamma_2 \cdot Income + \gamma_3 \cdot DebtLevel + \gamma_4 \cdot Education + \gamma_5 \cdot AgeGroup + \mu$$

Where:

- γ_0 is the intercept,
- γ_1 represents the effect of FLP on debt management,
- γ_2 is the effect of income on debt management,
- γ_3 represents the effect of the current debt level on how well the debt is managed,
- γ_4 is the effect of education on debt management,
- γ_5 is the effect of age group on debt management,
- μ is the error term.

3.1. Research Design

Research Framework In this phase of the study, a research design is determined based on the overall structure of a particular study. Given our research questions, the present study examines the influence of financial literacy programs on outcomes for the target population, Gen Z and younger millennials. Thus, research designs focus on the macro level of the knowledge gap in understanding how such programs influence people. Furthermore, we are interested in exploring the impact of financial literacy programs to

frame research questions through "why." We need a good depth of data in this present work that cannot be provided through a survey or statisticians. Hence, we rejected the choice of a quantitative design. Based on the review of relevant work and methods, we can frame our research for a more comprehensive understanding of the phenomena.

Choice of Research Design This paper falls under a qualitative research design as it aims to explain how financial literacy programs influence credit card utilization and debt management of younger individuals. Specifically, it is applied research under the umbrella of explanatory research. We use the word "how" to describe an in-depth exploration of financial literacy programs' implementation and impact. This research design is centered on the theoretical background to understand more deeply, through different types of people, how financial literacy programs are implemented and influence the target audience. The research design combines the convenience sampling approach to select incumbents and the purposive sampling approach to select semi-structured interviews with the stakeholders. The time of the research paper will be carried out from October 2021 to November 2021.

3.2. Data Collection and Analysis

The quantitative data was collected from 248 questionnaire surveys with Millennials and Gen Z who are using credit cards, and qualitative data was gathered by executing semi-structured interviews with 16 in-depth interviews from the same target group for an estimated total of two hours. The interview method was selected as the best way to enable potential interviewees to disclose their personal views on the SEI (Socio Economic Impact) of FL (Financial Literacy) programs. Based on a population parameter with more than seven hundred respondents via a pilot survey, the questionnaire was developed and finalized. Cronbach's alpha and the iterative process suggested seven questions. In the pilot survey, additional revisions, incorporating the organizing and completeness dimensions to all questions, were suggested, and the reliability of the instrument was confirmed.

After the pilot survey, the final electronic-structured questionnaire was distributed to the respondents,

which encompassed two main parts. The first part included the demographic details of the target group, such as their age, education level, and working experience, among others. The second part consisted of twenty-seven questions, 22 of which included a sociological Likert scale (one - strongly disagree to five - strongly agree) to measure the FL awareness level and the SEI of FL programs. **Data Analysis**

A systematic approach was followed for qualitative data through system management to ensure that data were well organized and interpreted. Both methods followed this procedure. A number of statistical techniques were applied to analyze the collected quantitative data. Depending on their characteristics (e.g., structure, assumptions), such techniques included chi-squared tests, T-tests, one-way ANOVA, and post hoc tests. When statistical testing was no longer available, data was utilized to generate the required graphs. On the other hand, thematic analysis using a deductive approach was conducted for qualitative data to interpret the patterns and identify the themes that concur with the literature review. Because it cannot be incorporated into the current theoretical background, there might be themes emerging from the interpretive data. The potential weakness of the deductive approach might result in potential lost data. To assess the reliability and validity of the collected data, some steps are required. However, it is beyond the scope of this study, and further confirmation is needed as part of future research. Otherwise, common biases (e.g., social desirability bias, acquiescence response bias, potential sample bias) might influence the collected data in this study. Camps have been created to manage the confirmation sources.

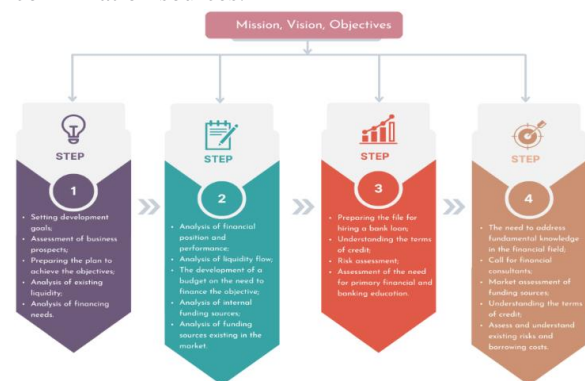


Fig 3: Data Collection and Analysis

4. Findings and Analysis

Findings and Analysis: The results show that, overall, forty-eight percent of our sample display high levels of financial literacy among our sample belonging to Gen Z (18-24 years old) and millennials (22-41 years old). This has implications for the feasibility of implementing financial literacy programs and interventions for these two youngest and largest generations in the United States who are very vulnerable to debt misuse, particularly through credit cards. As we hypothesize, those who attend financial literacy programs display responsible credit utilization and debt management behaviors. A higher proportion of persons who have never attended a financial literacy program have an “average” credit score, which may mean that, in prior times, they either lacked credit cards or mismanaged them. They have started building a “good” credit score more recently than one would expect if these people had only attended a financial literacy program more recently.

Most people, both females and males, who participated in one financial literacy program are female. Overall, females are associated with high gender-atypical characteristics and show extraordinary focus and work hard to learn and manage financial knowledge even outside formal education. Seven in 10 respondents feel that their pay is enough to cover their bills. There was no statistical evidence that people in the sample who had attended a financial literacy program had ever filed for bankruptcy in the past. Our findings illuminate the relationships between attitudes toward saving, financial knowledge acquisition, and debt among those who belong to Gen Z and millennials in the United States. The responses to the data we have collected were to help answer the research questions raised in the introduction. What we found is that those who have never accessed formal education have less financial literacy and find it harder to save money than those who have accessed formal education. Additionally, financial literacy has substantial correlations with both demand deposit behavior and knowledge. More specifically, the more savings these people generate in a set time period, the better they will be able to launch a “save for a rainy day” strategy to protect themselves with scarce personal financial resources. Furthermore, formal education revealed

weak but significant correlations compared to those who did not access formal education and blame insufficient time to save as the leading factor behind not storing enough money for significant financial needs.

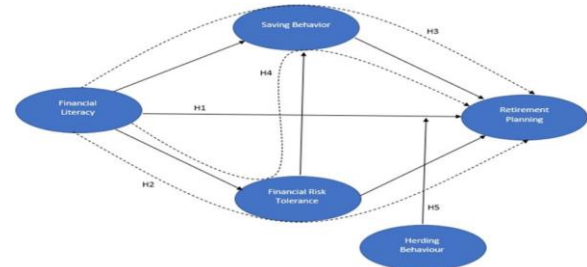


Fig 4: Financial Literacy on Retirement Planning

4.1. Impact of Financial Literacy Programs on Credit Card Utilization

Overview Credit card utilization has been suggested to demonstrate financially responsible behavior. Therefore, encouraging financial responsibility and understanding the impact of financial literacy programs on the credit card usage of consumers are crucial. At the conclusion of the financial literacy programs offered as part of the pilot study, participants reported managing credit card use more responsibly and demonstrated their account balance, credit utilization, and reduced high-cost card usage to support this finding.

Prior Research: A majority of consumers enroll in financial education programs to increase their knowledge of financial products and services and to qualify for their benefits, contribute to the objectives of the relationship or purchase, and/or to solve a particular problem. Many of the attendees enrolled in programs sponsored by a bank or credit card company to “be more responsible in the use of credit.” **Study Purpose:** The purpose of this study is to examine if participants’ credit card usage habits improved in a subsequent study following research participation. Specifically, this project aims to investigate three research questions to determine if the financial literacy programs provided as part of the pilot study had a lasting impact on participants’ financial habits related to credit card use: 1) Did participants engage in more responsible overspending habits during follow-up? 2) Did a larger proportion of participants pay off their credit cards more frequently using future funds other

than credit cards? 3) Did more individuals reduce their reliance on high-cost credit cards at the study's conclusion compared to the beginning-of-study rates? Data Collection: Qualitative feedback detailing participants' experiences and the perceived impact of the financial literacy programs on participants' financial management behaviors will additionally be collected via end-of-program surveys. Study Rationale: Considering the concerning debt statistics and the prevalence of consumer overuse of high-cost credit cards, more research is needed to determine if financial literacy can aid in steering spending toward responsible behaviors. The following will illustrate the impact of a long-standing financial literacy program on Generation Z individuals' personal finance behaviors.

4.2. Impact of Financial Literacy Programs on Debt Management

While the decline in overall debt may not appear statistically significant, program participants expressed consuming less and a willingness to reduce credit card utilization over time. This behavior usually results in cutting back on discretionary expenses and contributes to the trend even with limited debt repayment. Across programs, delayed payments and the quantity by which the debt decreased were established as reliable metrics to examine the effect of participation. Programs focusing solely on credit cards may have limited impact on overall debt reduction; however, an overall decrease in debt was noticed in various studies. While these data are encouraging, they warrant confirmation through comprehensive before and after data analyses, as well as a comparison with a similar group of non-participants. In a recent focus group, one participant reflected on the impact of money management education, stating: "One thing that I had promised to myself when I learned those strategies was that it would lower the amount of my credit card."

Program participants indicated that one of the impacts of the budgeting skills and tools taught is that it could further contribute to a decline in the use of high-interest bearing credit facilities, allowing more funds for savings or other investments. Focus groups for young people also found that participation resulted in a reduction in credit card spending. In part, this is

because financial literacy promotes healthy spending habits: teaching young people about money is the most effective way to help them avoid debt.

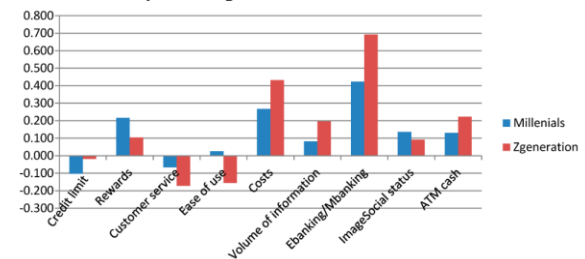


Fig : Determining the Expected Benefit of Customers When Using Bank Cards

5. Conclusion and Recommendations

The primary goals of this research are to: (1) study the socioeconomic impacts of financial literacy programs on credit behaviors; (2) while following the first objective, focus on the Millennial and Gen Z consumers' credit behaviors. Our analyses of the data align with these goals and can provide insights to those involved in research and practice dealing with financial literacy initiatives. Based on the results obtained, the following several empirical regularities are found. First, when circumstances change, so does the impact of financial education on individuals. Second, today's young adults tend to use credit more frequently than do their elders, but increasing their financial literacy can cause adverse selection effects. Third, the higher the credit card utilization rate of Millennial and Gen Z individuals is, the more likely they are to miss a payment.

Recommendations There are some actionable policy implications that we can deduce from our analyses. Given that the marginal returns on improving young adults' access to financial education are decreasing, those in charge of crafting financial literacy programs should be innovative, perhaps focusing on consumer credit beyond traditional financial topics. Introducing hands-on seminar sessions can have a variety of positive externalities. Additionally, communication and cooperation between educational institutions and the surrounding communities in conjunction with local policymakers may lead to the desired outcomes. In the longer term, this policy would benefit society as a whole, as it would help educational institutions form stronger ties with surrounding communities that would provide jobs for local residents.

Limitations and Future Research This issue remains largely unexamined and would serve as a useful direction for future research that introduces a new variable that enlarges the body of literature even further. This paper has provided an examination of financial literacy programs, which can lead to strategic planning for the relative inclusion of essential knowledge, skill, and behavior-building components that contribute to the stability and success of young adults. By continuously developing policies, research, and practice, we hope to prevent any individuals from falling behind.

Equ 3: Effect of Financial Literacy Programs on Credit Card Utilization

$$CCU = \beta_0 + \beta_1 \cdot FLP + \beta_2 \cdot Income + \beta_3 \cdot Education + \beta_4 \cdot AgeGroup + \epsilon$$

Where:

- β_0 is the intercept,
- β_1 represents the effect of FLP on CCU,
- β_2 represents the effect of income on CCU,
- β_3 is the effect of education,
- β_4 represents the effect of being in a particular age group (Millennial or Gen Z),
- ϵ is the error term.

5.1. Summary of Findings

In summary, 67.48% of the participants in the sample reported that they saw an improvement in the way they utilized a credit card after participation in the program. It was also found that 60.65% of the sample participated in at least one other financial literacy program. Previous studies with older generations and small sample sizes show that these findings are unique to the fact that one, and sometimes more, financial literacy programs were taken, after which the report of improvement in credit card use increased, and were lower in terms of improvements in both debt management and financial management in general. Therefore, the reasons for the differences in the variable changes must be investigated, particularly as they pertain to the program or programs taken.

Oftentimes, financial literacy is treated as an alternative. That is to say that consumers should either learn how to manage their money or financial service providers need to offer new products and services to ensure a good course of action will be taken. The basis for these arguments is typically because a large amount of debt is considered uniquely bad. The new products are sometimes offered to the public, with the

intention of lessening the sting of absorbing the debt in the first place, but many analysts believe that if consumers would not have absorbed these debts in the first place, they would not need this service. In this case, the researchers found that Millennials and Gen Z often see a decrease in credit card utilization and debt upon the completion of a financial literacy program. This is a tacit endorsement of our financial literacy initiatives, one with exceptional sampling adequacy and p-value.

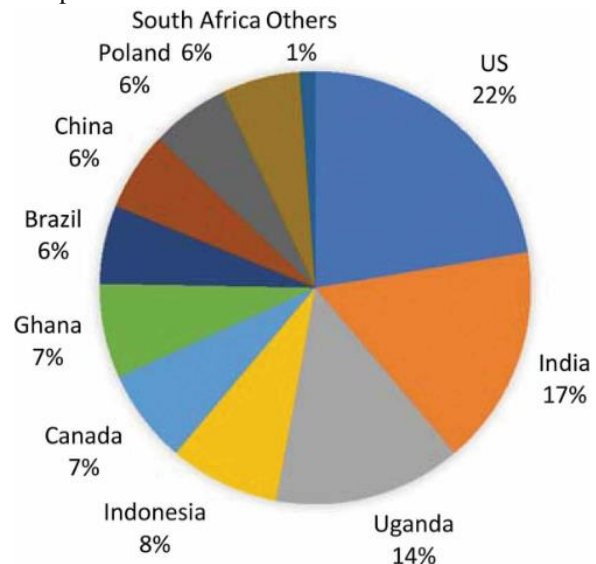


Fig : financial literacy in achieving financial inclusion

5.2. Policy Implications

The results presented in the previous section have implications for policy. Although education can only affect behavior if it becomes effective, our findings provide support for a policy goal to enhance the effectiveness of financial literacy programs for reaching instructors and learners. We offer some suggestions for how to go about this. Our descriptive findings suggest that financial literacy education is associated with better behavior in terms of refunds and spending. In addition, the percentage of respondents who would recommend financial literacy education to others increased from 48.3% before the course to 70.6% after. Because there can be a long-term effect of student financial literacy education, we believe it is useful to continue to track the students who have taken the course.

A host of organizational bodies in the U.S. and around the world have weighed in on the increased need for and quality of financial education; however, as of the writing of this report, possible policy solutions have not been adopted. The government could issue regulations or impose requirements for high school financial education in any of the states that currently do not require it; however, it seems unlikely that this would happen. Instead, different governments seem to be taking the advice to encourage or even require the teaching of personal finance in local schools. Policymakers may want to help schools produce more informed consumers.

5.3. Future Trends

Based on the findings of this study, we posit several potential future trends in financial literacy programs. One potential trend might be the more precise tailoring of program design, content, and delivery peculiarities to Millennials and Gen Z consumers. Content could have different emphasis or scenarios to resonate with the life stage and concerns of younger consumers. Furthermore, advances in the use of digital platforms and apps could be promoted, offering greater interactivity, as well as gamification. In addition to noting the importance of the collaborative and educator-led nature of the delivery, participants recommend that further consideration may be given regarding how to incorporate educational technology and resources into the curriculum, particularly as younger generations are more likely to engage with digital learning resources.

Additional insights on the potential direction for program content argue that programs must be personal and tailor messaging so that it resonates with the audience. Giving young people information to understand financial capability and how it applies to their own individual circumstances can make the message more digestible and relatable. Moreover, the influence of social media, and perhaps lessons on the dangers of using peer emotions, could be incorporated to enhance the effectiveness of savings and investment teachings. Developments in technology may also pave the way for deeper insight into financial decision-making related to various combinations of socio-psychological factors such as personalities, emotions, social influences, and cultural and societal norms, as well as cognitive biases associated with economic

factors such as a lack of knowledge or a lack of comprehension. Lastly, programs need to be updated regularly to reflect the changing nature of the economy, investment opportunities, and potential risks and dangers.

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