

# THE MODERATOR EFFECT OF FINANCIAL APPS ON THE RELATIONSHIP BETWEEN FINANCIAL EDUCATION AND FINANCIAL CAPABILITY

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## ABSTRACT

This study aims to determine the effect of Socio-Demographic and Financial Education on Financial Capability with Financial Apps as the moderator variable. The research population is Generation Z aged 19-26 years. The research sample amounted to 100 respondents and data collection was done through the distribution of questionnaires via google form. The data analysis method used is Partial Least Square (PLS). In the industrial era 4.0, which is growing rapidly at this time, financial applications that are designed to help people manage finances have begun to appear. Digital financial management applications make people manage personal finances easily and practically. Financial management applications encourage people to further upgrade their knowledge about financial management to achieve financial goals in the future. The results showed that gender had a significant effect on financial capability and financial apps played a role in moderating the influence of gender on financial capability.

**Keywords:** Financial Capability, Financial Education, Socio-Demographic, Digitalization.

## INTRODUCTION

The purpose of this study was to determine the role of Financial Apps in moderating the influence of Socio-demographic and Financial Education factors on Financial Capability in Generation Z, so that it can be seen how Generation Z uses technology to help manage their personal finances.

Financial management is a routine activity that everyone must carry out (Dion, 2020). The good of financial management requires knowledge from the learning process. Financial management is related to meeting the necessities of life in terms of food, clothing, and housing (Kotler, 2012). The fulfillment of these three things requires the ability to manage finances appropriately and adequately. Financial management involves a record of cash inflows and cash outflows, which can help someone control and supervise daily spending.

The OJK survey (2020) shows that the Indonesian people with financial literacy have only reached 38% of the total Indonesian population of more than 270 million people. Although the financial literacy of the Indonesian people has increased over the last three years, financial literacy in Indonesia is still relatively low (Gosal et al., 2022; Jessica et al., 2022). The OECD (2011) found a gap in the understanding and the skills in managing finances. Financial capability is a combination of awareness, knowledge, abilities, attitudes, and behaviors needed to make the best financial decisions. It will make a person have the capability in financial management (OECD, 2011).

Several factors influence a person's Financial Capability, namely Socio-Demographic (Shaari & Hasan 2013; Gabriel & Linawati, 2020). Socio-Demographic is a combination of the word 'socio' and 'demographics. Social is related to society, and demographics are aspects of population, including gender, age, and occupation (Hartina, 2020). Therefore, this research focuses on Socio-Demographic, which emphasizes gender and income. Besides Socio-Demographic, another factor that influences Financial Capability is Financial Education.

On the other hand, in the era of technology 4.0, which is developing rapidly today, financial applications that are designed to help people manage finances are starting to appear (Rizkinaswara, 2020). Digital financial management applications can make people manage their personal finances easily and practically (Jessica et al., 2022; Basana & Tarigan, 2021).

The development of digital financial management applications is intended to assist users in managing personal finances. Various financial management applications are available in Indonesia, including Mint, Money Lover, Monefy, Expense Track, Finansialku, PayOK (Walter, 2020), Acorns, You Need a Budget HomeBudget, FamZoo (Dion, 2020). Most users who use financial applications that are developing in Indonesia include UangKu – My Money Management, *Monefy*, *Money Lover*, *TemanBisnis*, *Mint*, *Goodbudget: budget & finance*, *Wallet*, *Spendee*, *Buku Warung*, and other financial applications (Annisa, 2021).

The research questions are does Socio-Demographic and *Financial Education* affect Financial Capability? Do Financial Apps moderate the influence of Socio-Demographic and Financial Education on Financial Capability?

## LITERATURE REVIEW

Financial capability is a combination of awareness, knowledge, ability, attitudes, and behaviors needed to make the best financial decisions that will make a person have the capability in financial management (OECD, 2011; Gosal et al., 2022). Vitt (2000) suggests Financial Capability is the ability to understand, analyze, manage, and communicate about personal economic conditions that will affect financial well-being. Financial capability shows a person's financial ability to make decisions in the use of finances to be managed effectively (Gabriel & Linawati, 2020; Basana & Tarigan, 2021).

Socio-Demographic is a combination of the word 'socio/social' and 'demographics'. Social is defined as everything related to society and demographics related to population studies, including gender, age, and occupation (Hartina, 2020). Socio-Demographic as a factor is needed because of the interaction between residents and the environment, where humans can act as objects and subjects. (Rohma, 2016). Therefore, Socio-Demographic is represented by gender and income in this research.

OECD (2011) defines Financial Education as a person's increasing understanding of finance and developing skills and confidence to understand the importance of financial management and take appropriate action to improve economic well-being. Financial Education is a contributing factor to Financial Capability. Financial Education has an essential role in developing one's financial abilities (Robeyns, 2005), especially in increasing logical thinking skills in managing finances. With the latest technological developments, personal financial management activities can be assisted by one of the Financial Apps that suits your needs.

Financial Apps is an application that can be downloaded from Playstore that provides personal financial management facilities. French et al. (2020) explained that the effectiveness of personal Financial Apps could increase the level of confidence of its users regarding future economic conditions by building financial skills using personal Financial Apps.

As an alternative to tools for managing finances manually with a notebook or in several other ways, financial apps (financial apps) can be a tool for overcoming difficulties when handling finances. In the digital era, where society's relationship with gadgets is very close, the availability of financial applications (Financial Apps) is a quick and easy option to use.

The following is the relationship between concepts between research variables:

Based on gender theory, gender differences between men and women lead to different views between the two of them on financial management (England, 1993). This is also supported by Kempson et al. (2013), which stated that women tend to have the ability to manage money in the short term to satisfy consumptive desires. Meanwhile, men tend to have better financial management skills, especially in preparing for future life needs by continuously increasing savings. Women will do anything to satisfy the desires they want to fulfill, even by overspending (Vyvyan et al., 2014). The attitude of women who tend to be emotional confronts women with vulnerable situations in managing their habits of spending money.

Research findings state that someone who has lower income does budgeting and controls their spending because their lack of income causes limitations in setting aside money for savings. However, on the other hand, someone with a higher income will have greater flexibility in managing finances, budgeting, controlling spending, and setting aside savings.

Someone who has financial education can increase control over the expenses made so that it will increase a person's ability to manage finances. This is supported by research by Lyons & Hunt (2003), which argues that Financial Education has a significant effect on the level of individual ability to manage finances.

OECD (2018) states that digital technology can strengthen or weaken the ability of users spending controls and increase financial capability for the better. In this case, individuals can use Financial Apps to help improve better financial behavior, such as recording expenses and income and the availability of budgeting that can serve as reminders of spending money to be used.

In a previous study, Servon & Kaestner (2008) conducted a study on whether Financial Apps can help low and middle-income individuals become individuals who are more aware of their finances. The ease and practicality of using Financial Apps is a driving force for individuals to record finances.

Financial Apps help someone to be able to determine financial goals for the future so that they have an idea of how to implement the right financial plan and have spending limits through budgeting. In a previous study, French et al. (2020) evaluated that the effectiveness of digital finance helps improve financial capabilities and further explained that digital finance helps increase individual confidence in achieving their goals using Financial Apps.

## **METHODOLOGY**

This type of research is quantitative research. The research population is Generation Z, with respondents from the age range of 20-26 years old. The respondent is domiciled in the city of Surabaya and uses Financial Apps. The respondents were contacted by distributing Google Forms through social media such as Line, Whatsapp, and Instagram. The data analysis technique uses the Partial Least Square Structural Equation Model (PLS-SEM), which consists of several stages of analysis, namely the Outer Model, namely Convergent Validity, Discriminant Validity, and Composite Reliability. Next, the Inner Model and test the hypothesis using the t-statistic test.

The definition of variables.

Financial Capability is a combination of awareness, knowledge, ability, as well as attitudes and behaviors needed to make sound financial decisions and in the end will make someone have the capability in financial management.

Gender is a biological physical difference between women and men.

Income is the amount of money that a person receives in return for work each month.

Financial Education is a person's process of increasing understanding about finance and developing skills and confidence to be more aware of the importance of financial management, and take effective actions to improve financial well-being.

Financial Apps are applications that can be downloaded from the Playstore that provide facilities for managing and managing personal finances.

## **ANALYSIS AND DISCUSSION**

### **Analysis**

#### ***The description of the demographic aspects of the respondents***

Respondents with male gender are 36 people (60%), and women are 54 people (40%).

Respondents aged 20 years-23 years were 76 people (76%), and aged 23 years-26 years were 24 people (24%).

Most respondents work as students with a total of 66 respondents (66%).  
 Most of the respondents have income in the range of Rp. 1,000,000- Rp. 5,000,000.  
 The sources of income are mostly from their parents and others earn their income through online businesses and part time jobs.

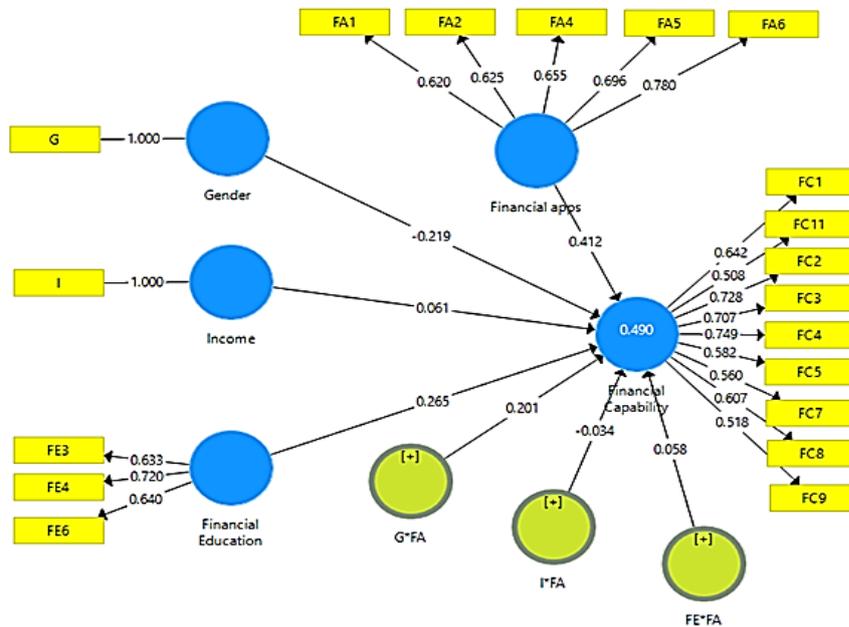


Figure 1. Research Results

Table 1. Outer Loading Value

Indicator	Outer Loading Value
FC 1	0,642
FC 11	0,508
FC 2	0,728
FC 3	0,707
FC 4	0,749
FC 5	0,582
FC 7	0,56
FC 8	0,607
FC 9	0,518
G	1
I	1
FE 3	0,633
FE 4	0,72
FE 6	0,64
FA 1	0,62
FA 2	0,625
FA 4	0,655
FA 5	0,696
FA 6	0,78
Gender*Financial Apps	0,97
Income*Financial Apps	1,12
Financial Education*Financial Apps	1,289

**Table 2.** Cross Loading Value

	<i>Financial Apps</i>	<i>Financial Capability</i>	<i>Financial Education</i>	<i>FE*FA</i>	<i>Gender</i>	<i>G*FA</i>	<i>Income</i>	<i>I*FA</i>
FA1	0,620	0,533	0,245	-0,076	-0,066	0,106	0,083	-0,326
FA2	0,625	0,300	0,469	-0,192	0,014	0,166	0,269	-0,408
FA4	0,655	0,305	0,496	-0,053	0,191	-0,024	0,010	-0,162
FA5	0,696	0,324	0,666	-0,197	0,221	-0,018	-0,012	-0,268
FA6	0,780	0,433	0,644	-0,136	0,177	-0,030	0,001	-0,333
FC1	0,337	0,642	0,412	-0,190	-0,118	0,234	0,065	-0,142
FC11	0,428	0,508	0,335	0,018	0,106	0,060	-0,120	-0,147
FC2	0,426	0,728	0,522	-0,173	-0,214	0,197	0,108	-0,245
FC3	0,419	0,707	0,435	-0,167	-0,150	0,295	0,029	-0,249
FC4	0,383	0,749	0,301	-0,041	-0,020	0,094	0,064	-0,243
FC5	0,418	0,582	0,268	-0,084	-0,133	0,139	0,243	-0,179
FC7	0,325	0,560	0,355	-0,010	-0,035	0,058	-0,136	-0,147
FC8	0,297	0,607	0,268	-0,017	-0,207	0,223	0,228	-0,227
FC9	0,290	0,518	0,215	-0,001	-0,049	0,095	0,189	0,020
FE3	0,317	0,319	0,633	-0,108	0,027	0,153	0,081	-0,113
FE4	0,283	0,400	0,720	-0,028	-0,136	0,145	0,024	-0,065
FE6	0,795	0,405	0,640	-0,177	0,235	-0,043	-0,051	-0,317
<i>FE * FA</i>	-0,185	-0,136	-0,157	1,000	0,090	-0,230	-0,221	0,398
<i>G</i>	0,137	-0,163	0,066	0,090	1,000	-0,095	-0,067	0,057
<i>G * FA</i>	0,063	0,261	0,120	-0,230	-0,095	1,000	0,066	-0,033
<i>I</i>	0,098	0,124	0,020	-0,221	-0,067	0,066	1,000	-0,162
<i>I * FA</i>	-0,450	-0,290	-0,254	0,398	0,057	-0,033	-0,162	1,000

Table 2 shows that all measurement items have met the specified requirements because the loading value is above 0.5.

**Table 3.** Composite Reliability Value

<b>Variable</b>	<b>Composite Reliability</b>
Financial Capability (FC)	0,852
Gender (G)	1
Income (I)	1
Financial Education (FE)	0,704
Financial Apps (FA)	0,852
G*FA	1
I*FA	1
FE*FA	1

Table 3 shows that the reliability value obtained has met, so that further processing of the research hypothesis can be carried out.

**Table 4.** R-square Value

<b>Variable</b>	<b>R Square</b>
Financial Capability (FC)	0,49

Table 4 shows that Financial Capability (FC) is determined by other variables by 49%.

**Table 5.** T-Statistic Test Value

Hypothesis	T Statistics	P Values	Conclusion
Gender -> Financial Capability	3,524	0,0005	Significant
Income -> Financial Capability	0,849	0,396	Insignificant
Financial Education -> Financial Capability	1,695	0,091	Insignificant
Financial Apps -> Financial Capability	3,169	0,002	Significant
I*FA -> Financial Capability	0,484	0,629	Insignificant
G*FA -> Financial Capability	2,599	0,01	Significant
FE*FA -> Financial Capability	0,654	0,513	Insignificant

## Discussion

Results showed that gender significantly affects Financial Capability. This finding is supported by cross-tabulation analysis, which proves that Financial Capability is male Financial Capability. This finding is reinforced by the conclusions of Azeez & Akhtar (2020). That men have higher financial literacy than women. The study results found that income has no significant effect on Financial Capability. This finding shows that in Generation Z, Financial Capability is not influenced by income. This is because income reflects the average amount of monthly money earned from working. Therefore, the amount of money is not able to form Financial Capability. This finding is supported by the results of Fessler (2007), which states that income is not correlated with one's financial management.

Financial education does not affect a person's level of Financial Capability. This is because even though someone is interested in developing insight into financial management, this has not been able to form the capability of Generation Z in financial management, such as the commitment to increase savings more than the interest in shopping.

The study results found that gender has a significant effect on Financial Capability with Financial Apps as the moderator variable. The development of technology supports the growing use of smartphone financial apps. OECD (2018) states that digital technology can influence users to strengthen spending controls and increase changes to better financial behavior, especially in the use of money for shopping. Income has no significant effect on Financial Capability with Financial Apps as a moderator variable. Financial Apps do not significantly moderate the impact of Income on Financial Capability. This is because the amount of money earned from work cannot form Financial Capability even though Financial Apps facilitate it. The research is not in line with Klapper et al. (2013), which stated that someone with a higher income level will understand and be aware of their financial problems.

Financial Education has no significant effect on Financial Capability with Financial Apps as the moderator variable. This is because the respondent's desire to develop insight into financial management cannot form Financial Capability, even though Financial Apps facilitate it. This finding is clarified by descriptive statistics illustrating that Generation Z is still inconsistent in recording expenses.

Financial Apps moderates the influence of Gender on Financial Capability. Financial Apps can influence users to strengthen spending controls and promote changes to better behavior in spending money. Financial Apps does not moderate the effect of Income on Financial Capability. Most of the respondents from Generation Z with various income categories already have high and very high Financial Capability. This is why Financial Apps is not a factor that is able to increase the Financial Capability of Generation Z in managing finances, because access to knowledge about financial management can be obtained by all Generation Z regardless of how much income they have.

## CONCLUSIONS AND RECOMMENDATIONS

The study's conclusion found that Socio-Demographic, namely gender, has a significant effect on Financial Capability, Income does not have a significant effect on Financial Capability, and Financial Education has no significant effect on Financial Capability. Furthermore, the research results related to the moderating role of Financial Apps found that Socio-Demographic, namely gender, has a significant effect on Financial Capability with Financial Apps as a moderating variable. On the other hand, income has no significant impact on Financial Capability with Financial Apps as a moderating variable, and Financial Education has no significant effect on Financial Capability with Financial Apps as the moderating variable.

Financial Apps are expected to be able to improve their service features to be able to accommodate the needs of generation Z. It is also expected to enhance the quality of service continuously so that it can be used easily and practically to attract people's attention and use Financial Apps in managing daily finances.

For further researchers, it is hoped that they will be able to conduct research with similar research topics using other research objects (outside Generation Z) to find out more about how Financial Capability can be supported using Financial Apps.

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