The Influence of Financial Literacy, Age, and Gender on Sustainable Investment Preferences Among Millennial Students

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Abstract: This research investigates the relationship between financial literacy, gender, and age on sustainable investment preferences among millennial students. The variables examined include financial education (X1), age (X2), gender (X3), and sustainable investment preferences (Y1), which constitute a literature review in the field of financial management. The aim of this article is to provide an understanding of how financial literacy, age, and gender influence sustainable investment preferences in the millennial generation. The research method employs a quantitative method to analyze survey data collected from millennial students. The study's findings are anticipated to offer an insight into the factors influencing sustainable financial decisions and social responsibility among millennial students. The findings of this article are as follows: 1) Financial education influences Sustainable Investment Preferences; 2) age affects Sustainable Investment Preferences; 3) gender has an impact on Sustainable Investment Preferences.


INTRODUCTION

Financial progress and technological developments during this period have brought significant changes in the world of finance. Financial literacy is very important, especially among millennial students, to understand the concepts of finance, investment and sustainability. This is because financial investment is part of the change towards a sustainable economy. Theoretically, this sustainable financial investment can be direct for example the sustainable bonds or known as green bonds which indirect from buying company shares form sustainbilitycompany or sustainable funds (Varmaz et al., 2022).

In research Gonzalez-Igual et al., (2021) a significant correlation was observed betweenage and the extent of knowledge in this domain, with younger investors displaying a greater inclination toward behavioral finance. All practitioners aged under 40 acknowledged the significance of behavioral finance, in contrast to their older counterparts. In research (MohamedAbdeldayem, 2019) shows that the investment decisions of Bahraini investors are
very dependent on the level of financial literacy. They also conclude that the financial literacy level affected the investors’ investment preferences in the Kingdom of Bahrain for various financial products.

Drawing from empirical evidence, it is evident that numerous students and authors encounter challenges when searching for pertinent articles to support their scientific endeavors, whether in terms of prior or pertinent research. Articles that are of such relevance include essential to fortify the underpinning theory of the research, to discern the interplay or impact among variables, and to formulate hypotheses. This article delves into the impact of Financial Education, age, and gender on Sustainable Investment Preferences.

Based on the background, the aim of this article is to build a hypothesis for the further research, namely, to formulate: 1) The Influence of Financial Education on Sustainable Investment Preferences; 2) The influence of age on Sustainable Investment Preferences; 3) The influence of gender on Sustainable Investment Preferences.

METHOD

The approach for writing this Literature Review paper is using a quantitative survey methodology with a research population of millennial students using a simple random sampling method. Questionnaires will also be used to collect data on financial education, age, sustainable investment preferences, and level of social involvement. Data can also be obtained from secondary sources if necessary. Statistical methods, like multiple linear regression, will be used to analyze the data and test the hypotheses. In addition, descriptive statistical analysis will be used to describe sample characteristics.

In qualitative research, it is essential to align literature reviews with methodological assumptions. This implies that they should be employed in an inductive manner, without imposing predetermined questions on the researcher. A primary motivation for engaging in qualitative research is its exploratory nature, (Ali, H., & Limakrisna, 2013).

RESULTS AND DISCUSSION

Results

Based on the background, objectives and methods, the results of this article are as follows:

Sustainable Investment Preferences

Sustainable Investment Preference is the tendency of investors to allocate their funds into investments that prioritize environmental, social, and corporate governance (ESG) factors to achieve positive impact while achieving their financial goals (Delsen & Lehr, 2019).

Sustainable Investment Preference involves an investment approach that considers factors related to social, environmental, and corporate governance. (ESG), as well as global trends. This trend is fueled by private investors wanting to evaluate how companies handle ESG issues. (Varmaz et al., 2022)

The dimensions, indicators, synthesis or factors that influence Sustainable Investment Preferences are environmental, social and good corporate governance dimensions with performance indicators in the form of ESG scores provided by independent rating agencies or evaluation of ESG risks and opportunities relevant to investment. An influencing factor could be the investor's personal values or ethics or the social or environmental goals to be achieved with the investment.

Numerous earlier researchers have examined this concept of Sustainable Investment Preference, including: (Delsen & Lehr, 2019; KOLEK et al., 2022; Putu et al., 2023; Varmaz et al., 2022).
Financial Education

Financial Education or also known as financial literacy is the understanding of how money functions in our everyday existence, including how individuals handle it, invest it, and exchange it. To be more specific, it encompasses a collection of Understanding and abilities that empower people to make informed decisions regarding their financial assets (Mohamed Abdeldayem, 2019).

Financial education holds significant importance because it goes beyond assessing people's knowledge and emphasizes the enduring significance of financial literacy throughout one's life. Economic models considering intertemporal choices propose that individuals make consumption decisions based on their lifetime resources and expectations rather than solely on their present income. A forward-looking approach is essential for individuals to save and manage their finances in a way that evens out consumption over their entire lifetime. (Lusardi et al., 2011)

Dimensions, indicators, synthesis or factors that influence Financial Education are understanding of knowledge, skills, behavior and attitudes with indicators of ability to achieve personal financial goals or increasing knowledge, financial understanding and also skills in managing money. Influencing factors could be environmental factors such as access to financial educational resources, such as courses, training and literature. Influences from family, friends, and the social environment related to finance, as well as regulatory and policy factors that support financial education in society.

Many prior researchers have conducted studies on financial education, including: (Lusardi et al., 2011; Maulida & Permata Sari, 2023; Mccormick, 2009; Rosa & Listiadi, 2020)

Age

Age is a limitation or level of life size that influences a person's physical condition (Puspitasari, 2014). Age is a metric used to quantify the duration of existence for a specific entity, whether it be a living organism or an inanimate object. It is a unit of time that gauges the span of existence for entities, whether they are currently alive or no longer in existence. (Lina Ani Safitri & Yanuar Rachmansyah D, 2018)

The dimensions, indicators, synthesis or factors that influence age are the chronological dimensions which are calculated based on the year, month and day of a person's birth, but age can not only be assessed using the chronological dimension, but it can also be assessed using the biological and psychological dimensions, namely biological aging, or from emotional, social and individual perceptions of their own age. This concept of age has been investigated by numerous prior researchers, including: (Gonzalez-Igual et al., 2021) and (Siratan & Setiawan, 2021).

Gender

Gender is sex or gender which are men or women (Tandio & AAGP Widanaputra, 2016). Coleman, (2003) discovered that women exhibited greater tendencies toward risk aversion in comparison to men. This made researchers interested in observing Variations in students' interest in investing in stocks and female students of the Extension Program at the Faculty of Economics and Business, Udayana University.

This aspect of gender has been explored by numerous another researcher, including: (Gonzalez-Igual et al., 2021; Siratan & Setiawan, 2021; Tandio & A. A. G. P. Widanaputra, 2016)

Results of Review of Relevant Articles

Reviewing pertinent articles serves as a foundation for formulating research
hypotheses. This involves elucidating the outcomes of prior studies, elucidating commonalities and disparities with the research strategy, drawing from relevant previous research, as presented in Table 1 below.

**Table 1: Hasil Penelitian Relevan**

<table>
<thead>
<tr>
<th>No</th>
<th>Author &amp; year</th>
<th>Research Findings</th>
<th>Similarities with this research</th>
<th>The difference from this research</th>
<th>Basic Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Varmaz et al., 2022</td>
<td>X1 has an effect on Y1</td>
<td>X1 has an effect on Y1</td>
<td>there are no variables X2</td>
<td>H1</td>
</tr>
<tr>
<td>2</td>
<td>Chaurasia, 2017</td>
<td>X2 has an effect on Y1</td>
<td>X2 has an effect on Y1</td>
<td>there are no variables X1</td>
<td>H2</td>
</tr>
<tr>
<td>3</td>
<td>DAT, Kumari 2020</td>
<td>X1 has a positive and significant effect on Y1</td>
<td>X1 has an effect on Y1</td>
<td>there are no variables X2</td>
<td>H1</td>
</tr>
<tr>
<td>4</td>
<td>Mohamed Abdeldayem, 2019</td>
<td>X1 has a positive effect on Y1</td>
<td>X1 has an effect on Y1</td>
<td>there are no variables X2</td>
<td>H1</td>
</tr>
<tr>
<td>5</td>
<td>Gonzalez-Igual et al., 2021</td>
<td>X1 and X2 have an effect on Y1</td>
<td>X1 and X2 have an effect on Y1</td>
<td>there is no X3 variable</td>
<td>H2</td>
</tr>
<tr>
<td>6</td>
<td>Aprayuda &amp; Misra, 2020</td>
<td>X3 has an effect on Y1</td>
<td>X3 has an effect on Y1</td>
<td>there are no variables X1</td>
<td>H3</td>
</tr>
<tr>
<td>7</td>
<td>Hamizar, 2023</td>
<td>X1 has an effect on Y1</td>
<td>X1 has an effect on Y1</td>
<td>there are no variables X2 and X3</td>
<td>H3</td>
</tr>
<tr>
<td>8</td>
<td>Suprasta &amp; Mn, 2020</td>
<td>X1 has a positive effect on Y1</td>
<td>X1 has a positive effect on Y1</td>
<td>there is no X3 variable</td>
<td>H1</td>
</tr>
<tr>
<td>9</td>
<td>Siratan &amp; Setiawan, 2021</td>
<td>X1 and X2 have an effect on Y1</td>
<td>X1 and X2 have an effect on Y1</td>
<td>there is no X3 variable</td>
<td>H2</td>
</tr>
<tr>
<td>10</td>
<td>Lara, 2022</td>
<td>X1 has an effect on Y1</td>
<td>X1 has an effect on Y1</td>
<td>there is no X3 variable</td>
<td>H1</td>
</tr>
</tbody>
</table>

**Discussion**

Based on theoretical studies, the discussion within this literature review article is to review relevant articles, analyze the interplay among variables and create a conceptual research plan for critical thinking.

**The Influence of Financial Education on Sustainable Investment Preferences.**

Financial Education is an education and training process that aims to increase individuals' understanding of financial concepts and skill in handling their personal financial matters. The primary goal of financial education is to provide the understanding and capabilities necessary for individuals to make better financial choices, handle personal budgets, manage debt, invest wisely, and achieve their financial goals. Financial education can also include an understanding of topics such as investments, retirement planning, taxes, insurance, and estate planning. It is an effort to improve individuals' financial literacy and help them achieve long-term financial stability and prosperity.

Financial Education principles or concepts involve financial awareness, understanding basic financial concepts, financial planning, rational decision making, investment literacy, risk and security awareness, financial ethics and responsibility, lifelong education as well as access and affordability to financial education.
Financial Education influences Sustainable Investment Preferences, if Financial Education is perceived well then Sustainable Investment Preferences will also be perceived well and vice versa.

Factors that influence Financial Education are public policy, the surrounding environment, access to resources, technology, educational curriculum, the financial industry and the need for individuals who are aware of the importance of financial literacy in their lives. To increase Sustainable Investment Preferences through a focus on Financial Education, what management needs to do is Integrate Financial Education, provide ESG information, motivate through awareness, inclusion in employee policies and collaboration with experts. Through the integration of financial education which includes sustainable investment, management can ensure that employees have sufficient knowledge and understanding of sustainable investment options and their impacts. This will help increase sustainable investment preferences across the organization.

Financial Education influences Sustainable Investment Preferences, this aligns with research conducted by: (Varmaz et al., 2022), (D.A.T, 2020), and (Suprasta & Mn, 2020).

**The Effect of Age on Sustainable Investment Preferences.**

Age is a limitation or level of life size that influences a person's physical condition (Puspitasari, 2014). The principles or concepts of age include the principle of continuous development where this process takes place throughout life and does not happen suddenly, this age will also cause changes in the body, thought processes, understanding and social emotional development. With older ages being perceived to have different values, preferences and views on sustainable investing compared to younger ages, millennial students may be more likely to be interested in investments that have a positive impact on their lives.

Factors that influence age are genetic factors, environmental factors, healthy living behavior, stress management, quality of health care, social factors and emotional well-being, work environment factors, exposure to radiation and dangerous substances, hormonal and gender changes.

Age plays a role in Sustainable Investment Preferences, this aligns with research carried out by: (Chaurasia, 2017), (Gonzalez-Igual et al., 2021), And (Siratan & Setiawan, 2021)

**The Influence of Gender on Sustainable Investment Preferences.**

Gender refers to the societal and cultural roles, behaviors, and expectations linked to being male, female, or a different gender identity.

Gender principles or concepts refer to sex, namely the biological differences between men and women, with recognition of self-identity, namely the way individuals identify themselves as men and women or other gender variations. Where we previously knew that gender, namely men, tends to pay more attention to investment compared to women, so here gender can influence sustainable investment preferences.

Gender influences Sustainable Investment Preferences, if Gender is perceived well then Sustainable Investment Preferences will be perceived well too, and vice versa.

The factors that influence gender are of course the biological factor of male or female sex which is determined by physical and genetic factors, this is the main factor in determining gender, then there are socio-cultural factors, personal gender identity, life experiences and conditions, media influence, and education as well as social and policy change.

Gender plays a role in Sustainable Investment Preferences, this aligns with research conducted by (Siratan & Setiawan, 2021), (Aryan, 2018), And (Gonzalez-Igual et al., 2021).
Research conceptual framework

A conceptual framework for this article has been established based on the problem statement, discussions, and relevant research, as depicted in Figure 1 below.

![Figure 1: Conceptual Framework](image)

Derived from the provided conceptual framework, financial education, age and gender influence Sustainable Investment Preferences. Besides the three external variables that impact Sustainable Investment Preferences, there are many other variables, including:
1) Psychological:(Puspitasari, 2014),(Wahyuni A & Nugroho H, 2021), and (Ali et al., 2016),
2) Income:(Putu et al., 2023),(Landang et al., 2021) and (Kartini, Dra, 2018),
3) Demographics:(Siratan & Setiawan, 2021),(Hanifah et al., 2022), and (Permata sari, Indah,2021)

CONCLUSION

Considering the objectives, findings, and discussions, the conclusion of this article is to create a hypothesis for subsequent research, which is: 1) Financial Education influences Sustainable Investment Preferences; 2) age influences Sustainable Investment Preferences, and 3) gender influences Sustainable Investment Preferences.

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