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ANTECEDENTS AND CONSEQUENCES OF USING SOCIAL MEDIA FOR PERSONAL FINANCE AMONG INDONESIAN GEN Z

Nia Noer Wahidah[1], Ihsan Hadiansah[2]
[1]*President University, nia.wahidah@student.president.ac.id*
[2]*President University, hadiansah@president.ac.id*

ABSTRACT

As a digital tool, social media plays an increasingly important role in people's everyday life. One of the generations that depend heavily on this tool is Generation Z, often abbreviated as Gen Z. In Indonesia only, social media reached 277,7 million users with 42% users at the age of 24 or below. Among the purposes of social media usage, personal finance rose as a topic that has been gaining more attention of Gen Z, as the importance of financial management appeal to this digital native generation. Previous research in China, later on, provoked the interest of the researchers to investigate the antecedents and consequences of social media usage for personal finance among Indonesian Gen Z. Findings of this research reveals the that social media perceived usefulness, social media compatibility, and perceived risk has a positive and significant relationship with the use of social media for personal finance, while perceived ease of use did not show any significant result. Current use of social media for personal finance and personal finance outcomes also proven to encourage the future use of social media for personal finance. Thus, this study recommends individual or organizations in the field of personal finance (financial consultants, financial planning, etc.) to leverage the use of social media, considering its advantages for the consumers. This study adopted the model and variables from a previous study by Cao et al., (2020) however, to the knowledge of the researcher, this study is the first study to examine the model on Indonesian Gen Z.

Keywords: *perceived usefulness, perceived ease of use, compatibility, perceived risk, social media use for personal finance.*

1. Introduction

The number of investors has shown a significant surge, compared to the previous years. On December 2021, the Financial Services Authority of Indonesia (Otoritas Jasa Keuangan Indonesia) recorded a 92.7% year-to-date growth of Single Investor Identification (SID) (Fadillah, 2021). The growth of investors' number is no longer a surprise, since it has been significantly surging up in the past two years. This growth is dominated by Indonesian Millennial and Gen Z, where Gen Z counts for 47.4% of the new investors in 2021 (Kristianto, 2021). Generation Z (or Gen Z for short) are the people aged 25 – 16 in 2022. The survey of Statistics Center Institute (Badan Pusat Statistik), 2020 shows that Gen Z represent 27% of Indonesian population of 270 million people (*Hasil Sensus Penduduk 2020*, 2021). As the one of the youngest generations, Gen Z is expected to be the most financially savvy generation. The financial literacy level of Indonesian people in the age of 10 – 25 years old has reached 44.04% in 2019 with the financial inclusion is 82.06%. Quite high compared to the overall financial literacy of Indonesian citizen, which is only 38.03% (Ardianto, 2021). The Financial Services Authority mentioned that Gen Z can be a beneficial customer segment in the long run. However, the generation needs more socialization and education as they are more focused on spending their allowance/income for entertainment and leisure rather than other type of expenses (Dion, 2020).

Gen Z is also known as the digital natives, or a generation that lives with the internet. Gen Z utilizes social media and internet in a high frequency to the point that it creates a habit as a part of their lives. As the platform of communication, social media enables collaboration, idea exchanging, and information sharing among people, including personal finance (Cao et al., 2020). A survey by GoBankingRates found that 38.8% of 1,000 surveyed Gen Z used TikTok, YouTube and other social media platform to learn about personal finance (Csiszar, 2021). Another survey featured in an article by Skinner (2013) also shows that 34% of 4,000 surveyed investors utilize social media and company blogs for their personal finances and investment. Personal finance has become a popular topic among young people, looking at the popularity of hashtags like #personalfinance that has more than 4 billion views in TikTok and 1.7 million posts on Instagram.

Among many factors that could affects the use of social media for personal finance, there are several variables that has been examined to explain the social media adoption for personal finance purposes. A study by Chen et al. (2014) shows that the perceived usefulness of social media has a positive relation to the use of social media for personal finance. Cao et al. (2020) also hypothesized that the ease of use of social media is also related to the adoption. Furthermore, the compatibility is also suggested to have strong association to the use of social media for personal finance (Cao et al., 2020). However, the existence of risk in social media is also testified to affect the use of the tools for personal finance (X. Chen et al., 2011; Gross et al., 2005). Moreover, the use of social media also reported to have positive outcomes for the personal finance, such as advancing the ability to handle personal finance, increasing their access to financial advice, etc. (Mudholkar, 2015; Openshaw, 2014). The current use of social media is also tested to have a relation with the future use, as examined in the study of (Cao et al., 2020; Lee et al., 2003; Legris et al., 2003; Parra-López et al., 2011; Taylor & Todd, 1995). Despite its benefits, the usage of social media also sparks controversy as the platform lacks regulation and possesses openness, which can lead to misinformation by irresponsible individuals. Hence, the usage of social media for personal finance improvement are questioned (Cao et al., 2020). This lack of credibility makes young adults susceptible to the possibility of missing financial fundamental principles that usually came from school or college class (Cao et al., 2020; Csiszar, 2021).

The objective of this study is to discover the relationship between social media (perceived usefulness, perceived ease of use, compatibility, perceived risk) and personal finance, personal finance outcomes, and future use of social media for personal finance. As a contribution to the literature in personal finance, this study can be used to improve the utilization of social media for financial education purposes, hence increasing the level of financial literacy and personal finance ability. Hopefully, this study will give a contribution to the development of youth's personal finance in Indonesia.

2. Literature Review

2.1 Generation Z

Beside being classified by their birth years, generations in the world also grouped by the impactful events happened in their early years (Fromm & Read, 2018). Generation Z, or Gen Z, is generally defined as the people who are born between 1996 to 2010, people born after 1995, or even after 1997 (Szymkowiak et al., 2021). However, this study will use the period of 1996 to 2010. According to their characteristic, Gen Z has numerous nicknames such as D Generation (D represents the word 'digital'), N Generation (N for the word 'Net'), and many more as the generation is heavily enabled by technology since their early lives which makes them a tech-savvy generation (Szymkowiak et al., 2021). Being digital natives, Gen Z is defined as social media's avid users (Rue, 2018). Technology such as social media and smartphones, has been an integral part in their daily lives, which led to the important role of internet and technology in their education (Szymkowiak et al., 2021). Furthermore, Gen Z also considers financial stability to be important. They seek formal financial planning training and start saving in the age as early as 13 as an effort to achieve financial stability (Fromm & Read, 2018). Thus, the current study will investigate the antecedents and the consequences of using social media for personal finance purposes among Indonesia Gen Z.

2.2 Social media use for personal finance

Adopting the variables from a previous study by Cao et al. (2020), this research will use the integrated variables from the TAM and DOI theories which are perceived usefulness, perceived ease of use, relative advantage, complexity, and compatibility. The three last variables came from the DOI theory that has been proven to be connected to adoption of innovation consistently (Cao et al., 2020). To avoid repetitious variables, relative advantage and complexity are not used, considering that the variables are similar to TAM theories' variables, perceived usefulness and perceived ease of use (Cao et al., 2020). Thus, this study adopted these variables in a theoretical model show in Figure 1.

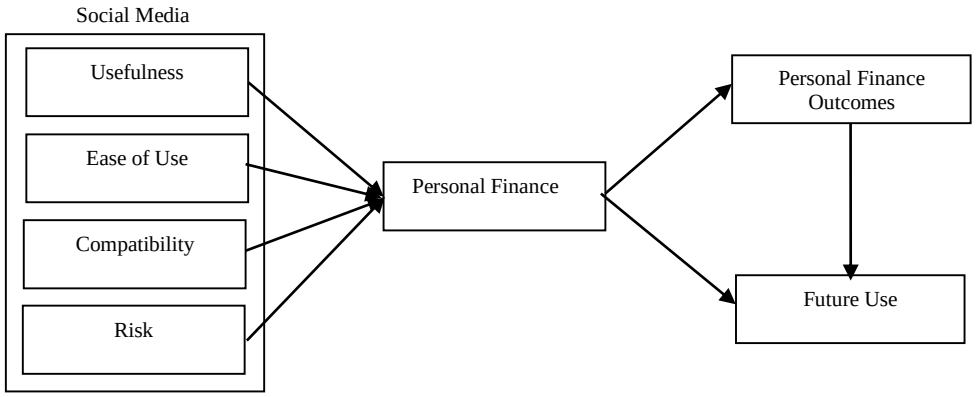


Figure 1. Theoretical Framework
(Source: Cao et al., 2020)

2.2.1. Social media perceived usefulness and social media use for personal finance

According to Davis (1989), perceived usefulness is "the degree to which a person believes a particular system would enhance his or her performance." Perceived usefulness is also defined as the social media users' degree of perception where they believe the usage of a particular social media channel will help them achieve their individual needs (Rauniar et al., 2014). Rauniar et al. (2014) stated that perceived usefulness in social media portrays the beneficial result coming from the used technology's attributes, which could come in a form of psychological, physiological, material, or even sociological in nature. Moreover, perceived usefulness has been directly linked to the consumer intention to adopt the used technology and also buying behavior (Bhuvanesh & Vimal, 2018). In using social media for personal finance, users believe social media will help them fulfill their personal finance needs such as reaching out to financial professional, obtain necessary skills, and many more (Cao et al., 2020; Openshaw, 2014). Therefore, this study proposed H1.

H1: social media perceived usefulness has a significant impact towards social media use for personal finance.

2.2.2. Social media perceived ease of use and social media use for personal finance

As a part of the TAM theory, perceived ease of use is defined as "the degree to which a person believes that using a particular system would be free of effort" (Davis, 1989). Oentario et al. (2017) states that clear understandable, easy to use, and less effort, can be used as measurement indicators for perceived ease of use. By assessing the easiness of social media usage and its effectiveness in assisting the users in fulfilling their needs, it is expected that the user will use and perform actions on the social media site (Rauniar et al., 2014). Previous study found a positive relation between perceived ease of use and usage intensity (Lane & Coleman, 2012). Cao et al. (2020) stated that nowadays, learning and managing personal finance can be done through a click, swipe, and tap of smartphones. They further explained that the easiness has enabled users to search for financial education via social media platforms, where users can find experts and get direct financial education. Perceived ease of use has also proven to positively influence the intensity of use (Lane & Coleman, 2012). Hence, H2 is proposed.

H2: social media perceived ease of use has a significant impact towards social media use for personal finance.

2.2.3. Social media compatibility and social media use for personal finance

Rogers et al. (1983) describes compatibility as "the degree to which the innovation is perceived as consistent with the existing values, past experiences, and needs of the potential adopter." Chatterjee & Kumar Kar, (2020) further elaborated that relationship between level of compatibility and the users' perception about a service's effectiveness has been prevailed in past studies. The higher level of compatibility, the higher likelihood of the technology to be adopted (Qalati et al., 2021). This variable has been confirmed to have a positive influence towards social media adoption in the study of Odoom et al. (2017), and Zolkepli & Kamarulzaman (2015). In this study, the application of compatibility is through the users' compatibility with social media and their personal finance. This study took 3 item statements from Cao et al. (2020) to measure this variable. Based on this relationship, it is expected that users will consider adopting social media for their personal finance needs if they feel that social media is compatible with their way of managing finance and using technology. Therefore, this study proposed H3:

H3: social media compatibility has a significant impact towards the use of social media for personal finance.

2.2.4. Perceived risk and social media use for personal finance

Bonnin (2019) refers to perceived risk as "the expectation of a loss, and the consequences of such a loss if it occurs." Perceived risk is often regarded as the prohibitive variable of adoption and innovation (Cao et al., 2018). Besides the positive factors, the usage of social media also affects the user negatively when it comes to security and privacy concerns (Cao et al., 2020). Irresponsible parties can access social media users' data easily, which can lead to data breach. One of the latest data breaches comes from LinkedIn that were breached by a hacker called Tom Liner. The third party gained access to 700 million user database and sold it for estimate $5,000 (Tidy, 2021). Users are also faced with the security issues that could lead to financial loss (X. Chen et al., 2011). These perceived risks of social media could restrict users from adopting social media for their personal finance. Thus, this study proposed H4:

H4: perceived risk has a significant impact towards the use of social media for personal finance.

2.3 Social media use for personal finance and personal finance outcomes

Cao et al. (2020) underlined that the usage of social media for personal finance gives various outcomes as social media mediated direct user interactions that gives instant feedback from the financial products, services, and business (Openshaw, 2014). Social media make personal finance approachable for its users, which leads to the increase of engagement in personal finance. Moreover, social media serves financial education more efficiently in quick and easily understood manners, despite the limitation of time and location (Cao et al., 2020). Cao et al. (2020) further emphasized that social media also gives users chances to access personal finance education and advise. Additionally, social media can enhance user's financial capabilities and influence their decision in investing (Mudholkar, 2015) and develop herding behaviour among investors (Ammann & Schaub, 2017; Heimer, 2016). A study by Evans (2014) examine the improvement of learning process using social media among students. and found out that Twitter usage is linked enhanced engagement by the students. Therefore, H5 is proposed:

H5: social media use for personal finance has a significant impact towards personal finance outcomes.

2.4 Social media use for personal finance and future use of social media for personal finance

User's experience in using IT tools enables them to gain extensive knowledge and skills in technology. This will later form the future intention to use IT tools (Lee et al., 2003; Legris et al., 2003; Taylor & Todd, 1995). User's experience also plays a role in stabilizing the intention and behaviour relationship (Taylor & Todd, 1995). Later, these experiences will help the user accept the IT tools and keep on using them in the future (Parra-López et al., 2011). Cao et al. (2020) argued that the users are more likely to use social media for personal finance after they had positive outcomes from it. Therefore, when social media has been used for personal finance by the users, the

experience will also facilitate the continuous and progressive usage of social media for personal finance. Thus, H6 and H7 is proposed.

H6: social media use for personal finance has a significant impact towards the future use of social media for personal finance

H7: personal finance outcomes has a significant impact towatds the future use of social media for personal finance.

3. Research Method

3.1 Research design

This study uses quantitative method. According to Heimer (2016), quantitative research is a form of study that provides results that can be quantified using statistical procedures or other means of quantification. He further explained that the quantitative method concentrates on symptoms with specific characteristics in human life, which are referred to as variables. The variable of this study consists of 4 independent variables and 2 dependent variables. The dependent variables are social media usefulness, social media ease of use, social media compatibility, and social media perceived risk. The dependent variables are personal finance outcomes and personal finance future. Questionnaires are used to collect data in this research.

3.2 Sampling plan

Sujarweni (2015) defined population as "total number consisting of objects or subjects that have certain characteristics and qualities determined by the researcher to be studied and then drawn conclusions." The population of this study are Indonesian Gen Z, which consists of pupils as the youngest members and undergraduate students as oldest generation. However, age range used in this study are 15 – 24 years old individuals who are actively using social media for financial education. Sample for this study will be taken using purposive sampling method to ensure that the data collected will be coming only from Indonesian Gen Z who has previously used social media for personal finance. According to Kyriazos (2018), purposive sampling considers the researcher's judgement in sourcing the best information to reach the research objectives. Hence, by using purposive sampling method, the study is expected to understand the antecedents and consequences of social media use for personal finance better. Therefore, the sample size for this study is 10 x 23 or 230 samples.

3.3 Instrument/operational definitions

This study collects data through online questionnaire that contains 4 (four) sections namely: research and study objectives' introduction and screening questions to determine whether the participants possess the quality needed for the study, which are: (a) "Are you willing to participate in this study?" (b) "Are you Gen Z aged 15 – 24 years old?" and (c) "Do you often use social media (Facebook, Instagram, YouTube, Twitter, etc.) for personal finance?". When the participants passed the screening process, demographic details of respondents (age, gender, income, education, occupation, monthly spending, social media channels, and financial assets if available) are also collected. After filling the details, the participants can proceed to fill 23 items statements measuring the 6 constructs (perceived usefulness, perceived ease of use, compatibility, perceived risk, social media use for personal finance outcomes, future use of social media for personal finance) using 7-points Likert scale.

This study adopts the item statements from previous study of Cao et al. (2020) with 23 item statements that consist of 4 items statements for social media usefulness, 3 items statements for ease of use, 3 items statements for compatibility, 2 items statements for risk, 5 items statements for personal finance, 4 items statements for personal finance outcomes, and 2 items statements for future personal finance.

3.4 Data collection design

Purposive sampling method is utilized in this study. Online questionnaire was chosen due to its effectiveness in data collection which able the researcher to gather data quicker and more comfortable, with lower cost (Debois, 2022). The survey was conducted through Google Form from December 19th until December 31st, 2021. The researcher reached out to the respondents through Instagram Direct Message, WhatsApp, and Telegram to gain

their approval before giving the online survey. Out of two weeks period, 313 responses were collected with 258 responses passed the screening questions. The number of responses therefore satisfied the required minimum sample size.

4. Results nd Discussion

4.1 Data analysis

4.1.1 Reflective model

The indicator loadings were examined to see how much of the variance of a variable can be explained by the construct. Hair et al. (2018) recommends the indicator loadings above 0.708 to indicate that a construct is able to explain the variance of the indicator for more than 50%. To further analyze the reliability and validity of the model, Cronbach's alpha, composite reliability, and the Average Variance Extracted (AVE) is measured. Table 1 presents the result for the construct reliability and validity. Finally, discriminant validity of the model is checked to evaluate the ability of a construct in explaining its items' variances. Thus, proving the discriminant validity of the constructs.

Table 1. Construct reliability and validity

	Cronbach's alpha	Composite Reliability	Average Variance Extracted (AVE)
C	0,889	0,895	0,818
EU	0,759	0,768	0,677
FU	0,868	0,868	0,883
PF	0,885	0,889	0,685
PO	0,887	0,889	0,747
PR	0,859	0,859	0,877
PU	0,880	0,881	0,736

Source: Primary data

4.1.2 Structural model

After confirming the reliability and validity of the constructs, the structural model will be assessed to examine the model's capability to predict and to test the relationship among the variables. Metrics used to assess the structural model are the significance of the path coefficient, the R^2 value, the size of f^2 effect, the Q^2 value, and the size of q^2 effect.

R^2 or known as the coefficient of determination is commonly used as the measurement of the predictive capability of a model. The value of this measure ranges between 0 and 1, where higher value indicates higher accuracy in the prediction. As displayed in Table 2, the R^2 of personal finance, personal finance outcomes, and future use of social media for personal finance are categorized as moderate with the value of 0.460, 0.609, and 0.638 respectively. Table 6 also presents the Q^2 value to further analyze the robustness of the model. The result shows that all of the dependent variables have values above 0, which clearly supported the predictive relevance of the model and indicates the observed values are well reproduced.

Table 2. R^2 and Q^2 value

	R Square	Q2 value
FU	0,638 (moderate)	0,556
PF	0,460 (moderate)	0,307
PO	0,609 (moderate)	0,449

Source: Primary data

The f^2 effect size then examined to observe the impact of the specified constructs to the change in the value of R^2 of the endogenous construct when it is omitted (Hair et al., 2016). The f^2 value of the three constructs (social media perceived usefulness, social media compatibility, and perceived risk) are considered small, while social media perceived ease of use has no impact to the change of R^2 value of the use of social media for personal finance. Moreover, for the use of personal finance to personal finance outcomes and future use of social media for personal finance, the values yielded are 1.556 and 0.090, respectively. Lastly, personal finance outcomes produce 0.329. The summary of the f^2 effect size can be seen in Table 3.

Table 3. f^2 effect size

	C	EU	FU	PF	PO	PR	PU	Interpretation
C				0,120				Medium effect
EU				0,000				Small effect
FU								
PF			0,090		1,556			Large effect (PO)
								Medium effect (FU)
PO			0,329					Large effect
PR				0,041				Medium effect
PU				0,063				Medium effect

Source: Primary data

4.1.3 Hypothesis testing

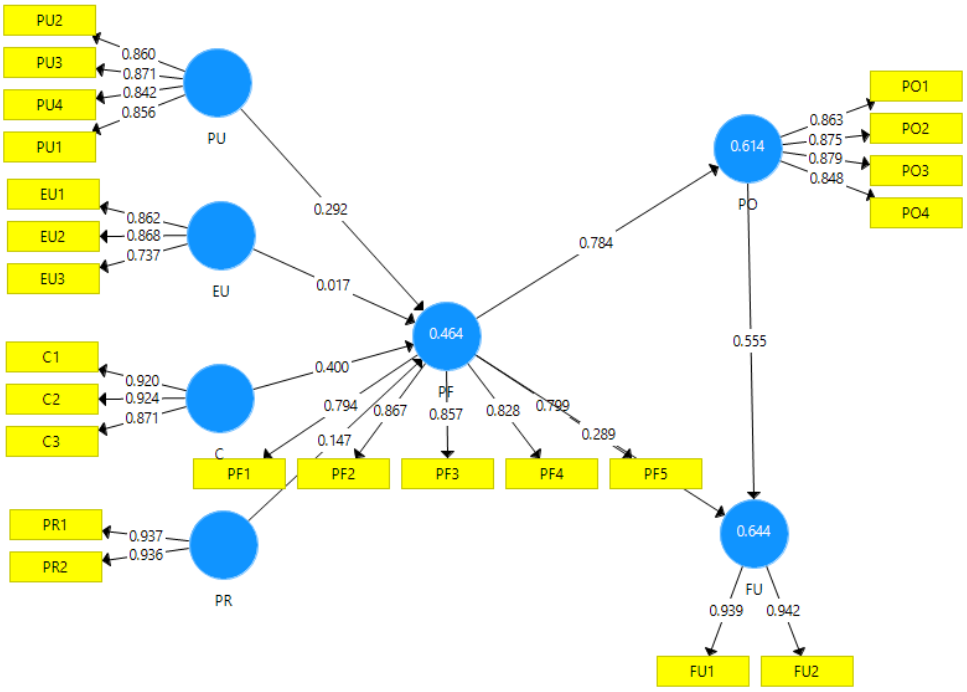
After assessing both inner and outer model, the hypothesis testing then conducted. The hypothesis testing for PLS-SEM using SmartPLS is done by assessing the path coefficients, t value, and p-value using the Bootstrapping procedure. Figure 2 exhibits the model of the study during the assessment. The analysis shows a positive and significant relationship between social media perceived usefulness with the use of social media (path coefficient = 0.303, t value = 3.393, and p-value <0.05), thus H1 is supported. Perceived ease of use, however, only yields 0.010 for the path coefficient, which indicates positive but weak relationship between the constructs. 0.127 and 0.899 are also retrieved as the t value and p-values. Hence the second hypothesis is rejected. Social compatibility has a path coefficient of 0.390, t value of 5.579, and p-value of 0.000. Therefore, the third hypothesis is accepted with excellent values for the hypothesis testing. The relationship of perceived risk and use of social media for personal finance also exhibits good values for its path coefficients, t value, and p-value. It scores 0.151, 3.115, and 0.002 for each metrics respectively, indicating support for the fourth hypothesis. The relationship of use of social media for personal finance and personal finance outcome produce a path coefficient of 0.780, t value of 32.051 and a significant p-value. Therefore, the fifth hypothesis is also supported. The sixth hypothesis between use of social media for personal finance and the future use of social media for personal finance shows a significant result (path coefficient = 0.289, p value <0.05) indicates the support for this hypothesis. Lastly, the seventh hypothesis shows an output of 0.552 for the path coefficient, 7.090 for the t value, and 0.000 for the p-values, which support the significant relationship between personal finance outcomes and the future use of social media for personal finance. The result of the hypothesis testing is presented on Table 4.

Table 4. Hypothesis testing

Construct	Path Coeffificent	T value	P value	Interpretation
Social media usefulness --> Social media use for personal finance	0.303	3.393	0.001	**Accepted**
Social media ease of use --> Social media use for personal finance	0.010	0.127	0.899	Rejected
Social compatibility --> Social media use for personal finance	0.390	5.378	0.000	**Accepted**
Perceived risk --> Social media use for personal finance	0.151	3.115	0.002	**Accepted**
Social media use for personal finance --> Personal finance outcomes	0.780	32.051	0.000	**Accepted**
Social media use for personal finance --> Future use of social media for personal finance	0.289	3.967	0.000	**Accepted**
Personal finance outcomes --> Future use of social media for personal finance	0.552	7.090	0.000	**Accepted**

Source: Primary data

Figure 2. PLS-SEM analysis result



Source: Primary data

4.2 Discussion

The findings on the testing suggest that the model of this study is well grounded. The model accounted 46% of the variance of the social media use for personal finance came from the personal understanding of people towards social media. Moreover, the model also able to explain 60.9% of the construct of personal finance outcomes, and 63.8% of the future use of social media for personal finance. The first variable, perceived usefulness of social media is proven to have significant impact to the use of social media for personal finance with the coefficient of 0.303 and p-value <0.05. Result of this hypothesis supports the findings on the previous study by Cao et al. (2020) and H. Chen et al. (2014). Similar to the study of Cao et al. (2020), the current study also found that social media compatibility shows the strongest positive relation to social media use for personal finance (coefficient = 0.390, p-value < 0.05).

5. Conclusion and Implications

This study provides the antecedents and the consequences of social media use for personal finance can be useful for both individuals, organizations, and businesses who are engaged in the personal finance fields, such as financial consultants, financial company, financial organizations, etc. The study suggests that the usage of social media must be leveraged, considering its helpfulness for the consumers, especially in the present day where consumers prefer to look for information online. Similar to other studies, the current study still has limitations which can provide opportunities for future research. The first limitation is the time and effort of the researcher. Longer research period will probably help the future research to obtain more data which gives more interesting insights about the topic. Secondly, this study only employed purposive sampling, hence the result of the study can only be generalized to Gen Z who has used social media for personal finance purposes. Lastly, the study focuses on testing the model from the previous study to Indonesian Gen Z. Therefore, it does not provide any investigation other perspectives. Future studies on this field could go several other directions. First, the future study could add more mediating variables such as demographic, financial literacy, financial inclusion, etc. Second, the revision of the survey instrument is also possible since some of the variables only have 2 indicators. Third, future studies could also add depth into the research by investigating the influence of each variables' dimensions and adds more fruitful insights to the practice of social media use for personal finance in the future.

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