*Journal of Business and Social Development*
*Volume 10 Number 1, March 2022: 59-74*

*eISSN: 2600-9668*


# FACTORS THAT ENCOURAGE MILLENNIALS TO INVEST IN SUSTAINABLE INVESTMENTS IN MALAYSIA

FARAH NUR SHAHIRAH KOLEK, NURASYIKIN JAMALUDIN* AND WAN ZALANI @ ZANANI WAN ABDULLAH

*Faculty of Business, Economics and Social Development, Universiti Malaysia Terengganu, 21030 Mengabang Telipot, Kuala Nerus, Terengganu, Malaysia*

**Corresponding author: asyikin@umt.edu.my*

*Submitted final draft: 25 January 2022* *Accepted: 27 February 2022* *http://doi.org/10.46754/jbsd.2022.03.005*

**Abstract:** Sustainable investment, also known as socially responsible investment, has received growing attention in recent years as a process of integrating non-financial approaches like environment, social and governance (ESG) into investment decisions. The aim of this study is to investigate factors that encourage millennials (those born between 1980 and 1996) to invest in sustainable investments. Independent variables from the Theory of Planned Behaviour (attitude, subjective norms and perceived behavioural control), together with financial knowledge and religious values, are utilised. Using a convenience sampling method, an online survey was conducted among 150 respondents aged between 21 and 40. Regression analysis showed that attitude has significant effect on the millennials' sustainable investment behaviour. Meanwhile, subjective norms, perceived behavioural control, religious values and financial knowledge are not significant in encouraging millennials to participate in sustainable investments. The study suggests that fund managers might want to embrace strategies that integrate ESG aspects to attract the younger generation in pursuing financial returns and bringing a positive impact to society.

**Keywords:** Sustainable investment, theory of planned behaviour, millennials

## Introduction

Sustainable investment may be defined as a socially responsible investment (SRI) that takes the environment, social and governance (ESG) aspects into consideration in pursuing financial returns (Utz *et al*., 2015; Seelan, 2019). It is a process of integrating ESG factors, which are non-financial in nature, and its investments are based on profit and a particular preference. The Principles for Responsible Investment (PRI) are formulated by investors and supported by the United Nations (https://www.unpri.org). They are voluntary and aspirational in nature, and the goal is to understand the implications of their money on ESG issues. The focus of this research is on millennials, defined as those who are born in the 1980s and entered the labour market in the 2000s (Pyöriä *et al*., 2017). The reason for choosing millennials is because they are a modern generation who are socially conscious and pay a lot of attention to ESG issues when deciding where to invest their money (Ho, 2018).

Sustainable investment has become important in recent years. It covers more than a quarter of "assets under management" (AUM), which has an annual growth rate of 17 % (McKinsey, 2017). Even though such investment is expected to continue rising well into the 21st century, only a few studies have been conducted on its benefits and implications in Malaysia (Unruh *et al*., 2016). Some examples include Chowdhury and Masih (2015), who explored the differences between SRI and Shariah-compliant investment performance, and Ahmad and Seet (2010), who studied SRI practices among small- and medium-sized enterprise (SME) owners. However, there is a lack of studies on the factors that influence Malaysians to invest in SRI (Lidiana, 2017).

Many researchers used independent variables, such as concern for the environment

(Bouscassea *et al*., 2018; Özsoy & Avcilar, 2016; Vyvyan *et al*., 2007) and perceived consumer effectiveness (PCE) (Nilsson, 2007; Tan, 2011), to describe sustainable investment. Therefore, an investor-focused research is needed to better understand the investing behaviour in SRI. Moreover, researchers have found that people's attitude towards social issues may play an important role in determining whether they will choose to invest in environment-friendly companies (Laroche *et al*., 2001; Williams, 2007). Adam and Shauki (2014) used attitude, perceived behavioural control and subjective norms to examine investor decision to participate in SRI, and they observed that all variables were significantly related.

Individual or retail investors in Malaysia hold around RM124 billion (22 per cent) of the total RM562.3 billion trade value in the local stock market (Bursa Malaysia Bhd, 2018). The desire to invest ethically is particularly prominent among the millennial generation, whereby they comprise about 30 per cent of investors who currently own shares in sustainable investments (TIAA, 2018).

A survey from the Morgan Stanley Institute for Sustainable Investing found that nearly 86 per cent of millennials are interested in making sustainable investments. However, according to MacMaster (2019), a large number of that generation did not have much knowledge in making sustainable investments and required help to do financial planning that provides countinous returns.

In Malaysia, the millennial generation represents more than 30 per cent of the total population. This percentage is based on 2019 statistics released by the Department of Statistics Malaysia, which showed that 36.7 per cent of the population is between 20 to 39 years old. This age group is the most productive in society as the members are in the peak phase of their lives and careers.

Although sustainable investment is still a new concept, it is gaining the interest of millennials. Nilsson *et al*. (2010) suggested a study to get a clearer picture of the factors influencing investors to invest in SRI rather than the SRI information retrieval process. Therefore, this study will look at the factors that motivate millennials to invest in sustainable investment. Millennials realize that investing can help them achieve their financial goals. But investing is not a simple process as it requires decision-making skills that may affect the investor's wellbeing and quality of life, and not just owning a big savings account (Copur & Gutter, 2019). Financial knowledge in other research also mentions the positive effects of financial literacy related to managerial behaviour (Henager & Cude, 2016; Azhar *et al*., 2017). This study applies the Theory of Planned Behaviour (TPB) to determine if subjective norms (SN), perceived behavioural control (PBC), attitude, financial knowledge and religious values can significantly influence millenials to make sustainable investments.

### *Research Questions*

The research questions are:

Q1: What is the relationship between SN and sustainable investment among millennials?

Q2: What is the relationship between PBC and sustainable investment among millennials?

Q3: What is the relationship between attitude and sustainable investment among millennials?

Q4: What is the relationship between financial knowledge and sustainable investment among millennials?

Q5: What is the relationship between religious values and sustainable investment among millennials?

### *Research Objectives*

The objectives of the study are:

RO1: To determine the relationship between SN and sustainable investment among millennials.

RO2: To determine the relationship between PBC and sustainable investment among millennials.

RO3: To determine the relationship between attitude and sustainable investment among millennials.

RO4: To determine the relationship between financial knowledge and sustainable investment among millennials.

RO5: To determine the relationship between religious values and sustainable investment among millennials.

## Literature Review

### *Theory of Planned Behaviour (TPB)*

There are various theoretical developments and approaches to describe different human behaviours. Fishbein and Ajzen (1975) proposed a framework for overcoming the issue of attitude-behavioural relationships, known as the Theory of Reasoned Action (TRA), which was further developed into TPB by Ajzen (1985).

Many research, such as Agyapong and Ewusi (2017), Chitral and Pawan (2015), Dagher and Itani (2014) and Ng *et al*. (2017) were based on TPB. The researchers applied the theory in studying human behaviour towards sustainable investment and their results proved that TPB has strong impact on consumer support for sustainable investment.

### *Sustainable Investment*

Sustainable investment is related to environmental, social (corporate) and corporate governance (GSIA, 2018). The sustainable investment framework may be a way for investors to justify the sustainability and responsibility of companies through their ESG performance. According to Whitelock (2019), this framework is employed by investors and academics to proxy for a company's sustainability and CSR activities.

Alsayegh *et al*. (2020), Aouadi and Marsat (2018), Buallay (2019) and Filbeck *et al*. (2019) stated that many companies have realized that ESG is important in giving a competitive advantage, increased efficiency and reputation establishment. According to Deng and Cheng (2019), ESG is a development from the green economy theory, corporate social responsibility (CSR) and responsible investment. Apart from sustainable investment, Cortese (2003) stated that a sustainable campus is also recommended to focus on three key components (Energy & Environmental Education Resources, Inc., 2006), namely improving economic efficiency; protecting and conserving ecological systems, and improving the well-being of all humans.

### *Subjective Norms (SN)*

Moon (2012) stated that many researchers are investigating the norms in human behaviour. SN may come from referrals like friends, university trainers and peers (Valtonen *et al.,* 2015), where the value of investors' perception is combined with their behavioural intentions (Wang & Wu, 2014). It may be said that the actions of customers are determined by the banking products that are meaningful to them (Utami, 2017). It may also be viewed as the form of perceived social pressure to implement a specific behaviour (Mahmoud, 2014).

Waidanti and Giantari (2016) defined SN as the view of talented persons for the client as to whether he should behave along with his inclinations to do or refrain from such actions (Sanchez-Prieto *et al*., 2017). It also refers to a person's belief about how important people think he should do or refrain from doing a specific behaviour. According to Gopi and Ramayah (2007), attitude, subjective norm and perceived behavioral control have positive influence on investors in their intention to trade stocks online. Hence, the first hypothesis is as below:

H1: There is a positive relationship between subjective norms and sustainable investment among millennials.

### *Perceived Behavioural Control (PBC)*

PBC is the degree of a person's control over a certain behaviour, and his or her ability to conform with that behaviour based on resources and opportunities (Ajzen, 2012). If there is confidence in adopting the behaviour, then the stronger the intention will be to follow the behaviour. PBC is a personal assessment of a person's ability to do something, whether there are direct or indirect constraints in the physical form that can be perceived as a facilitator or inhibitor of a behaviour (Zhang *et al*., 2016).

Some research have proven that PBC is the largest contributor in intention and behaviour to invest (Botetzagias *et al*., 2015; Greaves *et al*., 2013; Knussen *et al*., 2004; Mannetti *et al*., 2004). PBC is determined by an individual's past experience. According to Warsame and Ireri (2016), there is positive and significant influence on behavioural intention when TPB is applied in sukuk investment. Hence, the second hypothesis is as below:

H2: There is a positive relationship between perceived behavioural control and sustainable investment among millennials.

***Attitude***

Mas'ud (2012) stated that studying a person's attitude is the best way to understand why consumers take certain actions. Munandar (2014) defined attitude as feelings or affection towards a particular object that involves the evaluative side of the object (either positive or negative) caused by various stimuli. According to Adam and Shauki (2014), attitude and SN are influencing factors on the decision to invest in SRI, but PBC is insignificant.

Jansson and Biel (2014) stated that attitude and norms are significantly related with the intention to participate in SRI. According to Nilsson (2007), William (2007), and Wins and Zwergel (2016), there is positive relationship between attitude with SRI and investors' intention to participate in SRI. This attitude will lead to the behaviour that encourages an individual to deepen his knowledge on sustainable investment and therefore, the cycle will continuously occur. The third hypothesis is then stated as below:

H3: There is a positive relationship between attitude and sustainable investment among millennials.

***Financial Knowledge***

Financial knowledge or financial literacy is positively related to behaviour (Azhar *et al*., 2017; Henager & Cude, 2016). According to Azmi and Chong (2014), the words "financial knowledge", "financial literacy" and "financial education" are always used interchangeably.

Njoroge (2013) found that financial literacy is closely related to an individual's education level. There are studies showing that individuals with financial knowledge are financially literate as well (Ali *et al*., 2013). According to Thapa (2015), many students have a basic level of financial knowledge, but they are slow in understanding the concepts of credit, tax, stock market, financial statements and even insurance.

According to Lusardi *et al*. (2008) low financial knowledge affects future financial planning, while ignorance of the basic concepts of finance can be associated with poor investment planning. Hilgert *et al*. (2003) stated that knowing how to utilize credit, savings and investments may be classified as having financial knowledge and experience. So, knowledge has a role in increasing investment interest (Amhalmad & Irianto, 2019). Thus, financial literacy has attracted the attention of many researchers to explore its impact on the lifestyle of various components of society, including individuals, youth, entrepreneurs and so on (Falahati & Sabri, 2015; Isomidinova & Kartar Singh, 2017; Jorgensen, 2007; Lusardi *et al*., 2008; Mahdzan & Tabiani, 2013). The fourth hypothesis is stated as below:

H4: There is a positive relationship between financial knowledge and sustainable investment among millennials.

***Religious Values***

Religiousness and spirituality are interchangeably used by researchers. According to Rulindo *et al*. (2007), religiousness is easier to describe and understand compared with spiritual techniques. Investment strategies linked to religious groups are usually not the same. Interpretations of investment styles are also different and are based on the religion of the investor. Although religious values may share a common view in society, but the way of thinking is different and this is a source of lifestyle variations.

Williams and Zinkin (2010) stated that the CSR values of Islamic trusts have surpassed the objectives of the United Nations Global Union. Although the values exceed international standards, but there are Muslim businessmen who do not see investing in these trusts as their obligation (Ali & Al-Aali, 2012). For example, Ibrahim *et al*. (2008) stated that the conclusion of previous studies on the influence of religion on business ethics are quite difficult to interpret. Agle and Van Buren's (1999) studied on the influence of religious education, practices and beliefs on attitude towards CSR or sustainability investment. They found that religious practice and Christian beliefs had a weak relationship to attitudes towards corporate social responsibility.

From the Islamic point of view, religion is derived from the expression of "spirit", which means *ruh* in Arabic, and it is given by Allah to every human being (Rulindo *et al*., 2007). In view of the wide acceptance of religion among millenmial investors, religiousness is henceforth an important variable in this research. Generally, religiosity refers to values proscribed by the religion that investors believe in and it affects their business decisions. So, this study will use religious values to investigate whether it affects millennials or not in sustainable investment, as stated in the hypothesis below:

H5: There is a positive relationship between religious values and sustainable investment among millennials.

## Research Methodology

The study used a quantitative approach with a framework illustrated in Figure 1. According to Creswell (2014), quantitative studies could test whether he data might ot might not support the hypotheses.

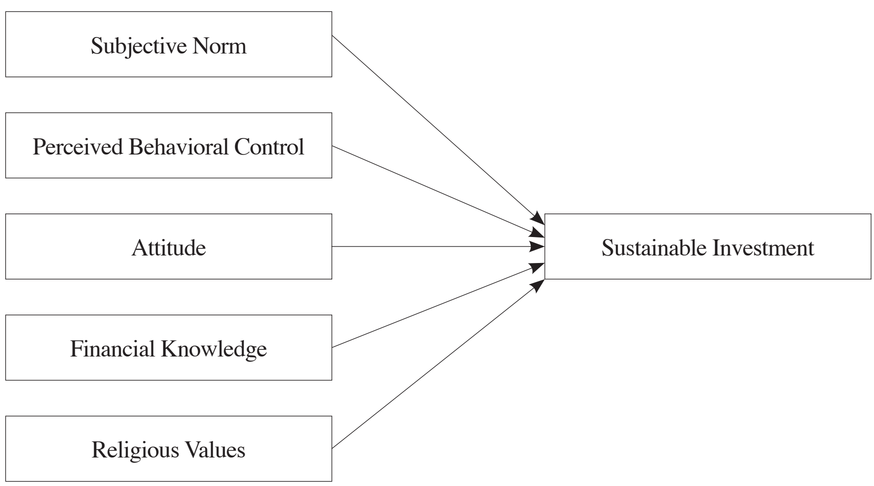


Figure 1: Conceptual framework

Sekaran and Bougie (2016) stated that the sample was a subset or subgroup of a population. This study referred to the statistical table from Hair *et al*. (2010) to determine the sample size. Hair *et al*. (2010) suggested that the minimum sample size depended on the complexity of the model and characteristics of the construct measurement model. In this study, the sample was around 150 millennials.

The study used the convenience sampling method. Convenience sampling or accessibility sampling is a non-probability method that targeted community participants who are readily accessible to engage in the analysis (Dudovskiy, 2018).

All instruments in the questionaire were adopted from past research. Sustainable investment items were adopted from Yew *et al*. (2019) and Shih and Fang (2004), while SN was from Jaiswal and Kant (2018); Taylor and Todd (1995); Gopi and Ramayah (2007); and, Shih and Fang (2004). PBC was adopted from Armitage and Conner (1999); Kim (2010); Gopi and Ramayah, 2007; and, Shih and Fang (2004). Attitude was adopted from Yew *et al*. (2019) and Jaiswal and Kant (2018), financial knowledge was from Lusardi and Olivia (2014) and questions on religious values were from Worthington *et al*. (2003).

The demographic data was collected using the nominal and ordinal scale. A five-point Likert scale was used to record the level of agreement (1 = strongly disagree; 5 = strongly agree) on factors that encouraged millennials to invest in sustainable investment, While for religious values, the scale was from not at all true (1) to totally true (5). A sample of the questionaire ia attached in Appendix (A).

The questionnaire was prepared using the Google Forms. It distributed to respondents aged between 21 and 40 via a link on WhatsApp and Telegram. The study used an online survey to gather data because of the pandemic restrictions.

T) Statistical analysis was performed using IBM SPSS Version 25. Besides presenting the descriptive statistics, reliability analysis, Pearson correlation and regression analysis were also carried out to analyse the relationship between dependent and the independent variables ($P < 0.01$).

## Results and Discussion

### *Descriptive Analysis*

Table 1 presents the demographic details of the study. A total of 150 respondents replied to the questionnaires and more than half (59.3%) had no investment experience, 40.0% had less than five years' investment experience and 0.7% had been investing for more than five years. Majority of the respondents were males (55.3%). Most of the respondents were aged between 26 and 30 years old (43.3%), followed by those aged between 21 and 25 (27.3%), 31 and 35 (16.7%), and 36 and 40 (12.7%). The table also shows that 30.7% of them earned less than RM1,000 per month, followed by 19.3% earning from RM1000 to RM2000 a month, 28% earning from RM2,001 to RM3,000 per month and 18% earning RM3,001 to RM4,000 per month. Those earning RM4,001 and above every month only comprised 4% of the whole study. Majority were regular wage-eaerners (55.3%), followed students (23.3%) and the self-employed (12.7%), while the remaining were not employed (8.7%). Majority of the respondents are single (64.7%). In terms of race, majority are Malays (64%), followed by Chinese (22.7s%), Indian (12%) and others (1.3%).

Table 1: Sample characteristics (N =150)

| Demographic | Categories | Frequency | Percentage (%) |
|---|---|---|---|
| Investment experience | No investment experience | 89 | 59.3 |
| | Less than 5 years | 60 | 40 |
| | More than 5 years | 1 | 0.7 |
| Gender | Male | 83 | 55.3 |
| | Female | 67 | 44.7 |
| Age | 21 -25 years | 41 | 27.3 |
| | 26-30 years | 65 | 43.3 |
| | 31-35 years | 25 | 16.7 |
| | 36-40 years | 19 | 12.7 |

| | | | |
|---|---|---|---|
| Income per month | Less than RM1000 | 46 | 30.7 |
| | RM1001-RM2000 | 29 | 19.3 |
| | RM2001-RM3000 | 42 | 28.0 |
| | RM3001-RM4000 | 27 | 18.0 |
| | RM4001 and above | 6 | 4.0 |
| Employment status | Student | 35 | 23.3 |
| | Self-employed | 19 | 12.7 |
| | Employed | 83 | 55.3 |
| | Retired | 0 | 0 |
| | Not employed | 13 | 8.7 |
| Marital status | Single | 97 | 64.7 |
| | Married | 44 | 29.3 |
| | Other | 9 | 6.0 |
| Races | Malay | 96 | 64.0 |
| | Chinese | 34 | 22.7 |
| | Indian | 18 | 12.0 |
| | Other | 2 | 1.3 |

***Reliability Analysis***

Table 2 shows the instrument reliability and validity results. For the dependent variable, the value of Cronbach's Alpha was 0.810 with five items. For independent variables, religious values had the highest Cronbach's Alpha value of 0.901, followed by attitude (0.863), SN (0.851) and PBC (0.781),

Table 2: Reliability results

| Variable | Cronbach's Alpha | Mean | Standard Deviation |
|---|---|---|---|
| Sustainable Investment | 0.810 | 19.6400 | 2.66037 |
| SN | 0.851 | 15.0200 | 3.60363 |
| PBC | 0.781 | 17.3267 | 2.82248 |
| Attitude | 0.863 | 29.0600 | 3.67876 |
| Religious Values | 0.901 | 23.0067 | 4.36351 |

***Pearson Correlation Analysis***

To determine the relationship between dependent and independent variables, the bivariate correlation test was performed. As shown in Table 3, sustainable investment had the strongest significantly positive correlation with attitude (r = 0.658). This was followed by PBC (r = 0.544), SN (r = 0.506) and religious values (r = 0.484). These results concurred with several studies. In Adam and Shauki (2014), SN, PBC and attitude were found to be significantly correlated with investors' participation in SRI in a positive manner. Warsame and Ireri (2016) found a significantly positive influence on behaviour intention when TPB was used in sukuk investment. A positive relationship between attitude and investor's intention to participate in SRI was supported by Nilsson (2007), William (2007) and Wins and Zwergel, (2016). The studies by Bialkowski *et al*. (2013), Klein *et al.* (2017) and Seyyed *et al*. (2005) had observed that religious values could influence investing behaviour, especially during Ramadan.

However, for financial knowledge, the relationship was not significant This result was similar to a study by Malik (2017), who found that knowledge had no effect on investment choice and preferences.

Table 3: Correlation result

| | Sustainable Investment | SN | PBC | Attitude | Financial Knowledge | Religious Values |
|---|---|---|---|---|---|---|
| Sustainable Investment | 1 | | | | | |
| SN | .506** | 1 | | | | |
| PBC | .544** | .647** | 1 | | | |
| Attitude | .658** | .576** | .695** | 1 | | |
| Financial Knowledge | -0.141 | -0.156 | -.317** | -.327** | 1 | |
| Religious Values | .484** | .443** | .509** | .579** | -.345** | 1 |

**Correlation is significant at the 0.01 level (2-tailed)

***Regression Analysis***

Table 4 shows the findings of multiple regression analysis in identifying the influence of independent variables, namely SN, PCB, attitude, financial knowledge and religious values, on sustainable investment behaviour. The adjusted $R^2$ value was 0.463 and this implied that the independent variables only explained 46.3 % of the variation in sustainable investment behaviour, which was the dependent variable.

Table 4: Regression analysis

| Model | Beta | t | p-value | Durbin-Watson | Statistic VIF |
|---|---|---|---|---|---|
| (Constant) | 0.611 | 1.557 | 0.122 | 1.384 | |
| Subjective norms | 0.092 | 1.527 | 0.129 | | 1.863 |
| Perceived behavioural control | 0.092 | 1.040 | 0.300 | | 2.434 |
| Attitude | 0.478 | 5.149 | 0.000 | | 2.332 |
| Financial knowledge | 0.222 | 1.727 | 0.086 | | 1.199 |
| Religious values | 0.106 | 1.887 | 0.061 | | 1.635 |

**Sig at $p< 0.01$, $R^2$=0.481, Adjusted $R^2$=0.463

In this study, the multiple regression equation is formed as the following:

$Y=\beta_0 + \beta_1$ SUBJECTIVE NORM + $\beta_2$ PERCEIVED BEHAVIOURAL CONTROL + $\beta_3$ ATTITUDE + $\beta_4$ FINANCIAL KNOWLEDGE + $\beta_5$RELIGIOUS VALUES

Y=0.611 + 0.092 SUBJECTIVE NORM + 0.092 PERCEIVED BEHAVIOURAL CONTROL + 0.478 ATTITUDE + 0.222 FINANCIAL KNOWLEDGE + 0.106 RELIGIOUS VALUES

Whereby:

Y = Sustainable Investment

SUBJECTIVE NORM = Subjective Norm

PERCEIVED BEHAVIOURAL CONTROL = Perceived Behavioural Control

ATTITUDE = Attitude

Based on this analysis, only attitude could affect sustainable investment behaviour. Meanwhile, other variables, such as SN, PCB, financial knowledge and religious values had no significant effect on sustainable investment behaviour. The results implied that millennials who were more concerned with the environment and wished to carry out their responsibility in society would invest in companies that pursued such vision, apart from financial incentives.

From the above regression analysis, the hypothesis results are compiled in Table 5.

Table 5: Hypothesis results

| Hypothesis | Result |
|---|---|
| H1: There is a positive relationship between subjective norms and sustainable investment among millennials. | Not Supported |
| H2: There is a positive relationship between perceived behavioural control and sustainable investment among millennials. | Not Supported |
| H3: There is a positive relationship between attitude and sustainable investment among millennials. | Supported |
| H4: There is a positive relationship between financial knowledge and sustainable investment among millennials. | Not Supported |
| H5: There is a positive relationship between religious values and sustainable investment among millennials. | Not Supported |

## Conclusion

The purpose of this study is to examine the factors that encouraged Malaysian millennials to invest in sustainable investments, namely SN, PCB, attitude, financial knowledge and religious values. Although the Pearson correlation results showed that four out of five variables had a significant relationship with the intention to invest in sustainable investments, further testing with regression analysis found that only attitude had significant influence on the millenials' intention to participate in sustainable investment.

This study suggests that fund managers should embrace strategies that integrate ESG aspects in pursuing financial returns and positive impact to society. In addition, the regulatory bodies in Malaysia, such as the Securities Commission, might enhance their ESG practices, especially with the recent disruptions brought on by the Covid-19 pandemic and climate change.

There are several limitations in this study. First, it used only a small sample number, thereby limiting the analysis method that could be performed. Secondly, due to the small sample, the results might not be generalised to all millenials in Malaysia. Thirdly, it utilised only a few variables and, therefore, future studies might need to take more related variables into consideration. Nevertheless, this study could contribute to the existing knowledge that supported TPD as the overarching theory in this exploratory study.

## Acknowledgements

The authors would like to thank reviewers at SABF 2021 for their constructive comments and suggestions.

## References

Adam, A. A., & Shauki, E. R. (2014). Socially responsible investment in Malaysia: Behavioral framework in evaluating investors' decision-making process. *Journal of Cleaner Production*, *80*, 224-240.

Agyapong, D., & Ewusi, M. (2017). Perceptions about social responsible investing among academic staff: Evidence from the university of cape coast, Ghana. *AIR*, *10*(2), 1-17.

Ahmad, N. H., & Seet, P. S. (2010). Gender variations in ethical & socially responsible considerations among SME entrepreneurs in Malaysia. *International Journal of Business and Society, 11*, 77-88.

Ajzen, I. (2012). The theory of planned behaviour. In Lange, Kruglanski, & Higgins (Eds.), *Handbook of theories of social psychology* (Vol. 1, pp. 438–439). London, UK: Sage.

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In Kuhl, J., Beckmann, J. (Eds.), *Action control: From cognition to behavior* (pp. 11-39). Berlin, Heidelberg: Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-69746-3_2.

Alsayegh, M. F., Rahman, R. A., & Homayoun, S. (2020). Corporate economic, environmental, and social sustainability performance transformation through ESG disclosure. *Sustainability*, *12*(9), 3910.

Amhalmad, I., & Irianto, A. (2019). Pengaruh pengetahuan investasi & motivasi investasi terhadap minat berinvestasi mahasiswa Pendidikan Ekonomi Fakultas Ekonomi Universitas Negeri Padang. *Jurnal EcoGen*, *2*(4), 734–746.

Aouadi, A., & Marsat, S. (2018). Do ESG controversies matter for firm value? Evidence from international data. *Journal of Business Ethics, 151*(4), 1027-1047.

Azhar, Z., Azilah, N., & Syafiq, A. (2017). Investment awareness among young generation. *Proceedings of the International Conference on Business and Management Research (ICBMR-17)*. https://doi.org/10.2991/icbmr-17.2017.12

Azmi, M., & Chong, R. (2014). Financial literacy: An exploratory review of the literature and future research. *Journal of Emerging Economies and Islamic Research, 2*(3), 1-8.

Barber, B. M., Morse, A., & Yasuda, A. (2018). *Impact investing*. Working paper.

Bouscassea, H., Jolyb, I., & Bonnela, P. (2018). How does environmental concern influence mode choice habits? A mediation analysis. *Transportation Research*, *59*, 205-222.

Buallay, A. (2019). Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector. *Management of Environmental Quality: An International Journal*, *30*(1), 98-115.

Bursa Malaysia Berhad. (2018). *Annual Report 2017*. Retrieved from Bursa Malaysia Berhad: http://bursa.listedcompany.com/misc/ar2017.pdf

Chang, M. L. (2005). With a little help from my friends (and my financial planner). *Social Forces, 83*(4), 1469– 1497.

Chen, H., Wang, Y., Yang, S., & Yuan, H. (2014). Empirical research on Shanghai residents' financial literacy. *International Journal of Financial Research*, *5*(1), 101-106. doi:10.5430/ijfr. v5n1p101.

Chitral, P. P., & Pawan, K. C. (2015). The influence of consumer perception toward green advertising on green purchase intention. *Pezzottaite Journal*, *4*(3), 1865-1871.

Copur, Z., & Gutter, M. S. (2019). Economic, sociological, and psychological factors of the saving behavior: Turkey case. *Journal of Family & Economic Issues*, *40*(2), 305-322. https://doi.org/10.1007/s10834- 018-09606-y

Cortese. (2003). *The Critical Role of Higher Education in Creating a Sustainable Future: Planning for Higher Education*. Retrieved 17 November 2014, from http://www.aashe.org/resources/pdf/Cortese_PHE.pdf.

Creswell, J. W. (2014). *Qualitative inquiry & research design: Choosing among mixed method approaches.* Sage publications.

Dagher, G. K., & Itani, O. (2014). Factors influencing green purchasing behaviour: Empirical evidence from the Lebanese consumers. *Journal of Consumer Behaviour, 13*, 188-195.

Deng, X., & Cheng, X. (2019). Can ESG indices improve the enterprises' stock market performance? - An empirical study from China. *Sustainability*, *11*(17), 4765.

Department of Statistics Malaysia. (2017). *Press Release ICT Use and Access by Individuals & Households Survey Report, Malaysia*. Retrieved from Department of Statistics Malaysia: https://www.dosm.gov.my/v1/

index.php?r=column/pdfPrev&id=bHBzbWxkWElxRDlmaU8Q3R2ckRkZz09

Energy & Environmental Education Resources, Inc. (2006). *The sustainable campus*. Retrieved 21 August 2013, from www.sustainablecampus.org.

Filbeck, A., Filbeck, G., & Zhao, X. (2019). Performance assessment of firms following sustainalytics ESG principles. *Journal of Investing*, *28*(2), 7-20.

Fishbein, M., & I. Ajzen. (1975). *Belief, attitude, intention & behavior*. Reading, MA: Addison-Wesley.

Gopi, M., & Ramayah, T. (2007). Applicability of theory of planned behavior in predicting intention to trade online; Some evidence from a developing country. *International Journal of Emerging Markets*, *2*(4), 348-360. https://doi.org/10.1108/17468800710824509

Gregory Unruh, David Kiron, Nina Kruschwitz, Martin Reeves, & Holger Rubel. (2016). Investing for a Sustainable Future. *MIT Sloan Management Review*, *32.*

GSIA. (2018). *Global Sustainable Investment Review*, *2018*.

Hair, J., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate Data Analysis: A global perspective* (7th ed.). Pearson Education.

Hartzmark, S. M., & Sussman, A. B. (2018). *Do investors value sustainability? A natural experiment examining ranking & fund flows*. Working paper.

Henager, R., & Cude, B. J. (2016). Financial literacy & long- and short-term financial behavior in different age groups. *Journal of Financial Counselling & Planning, 27*(1), 3–19. https://doi.org/10.1891/1052-3073.27.1.3

Hilgert, M. A., Hogarth, J. M., & Beverly, S. G. (2003). Household financial management: The connection between knowledge & behaviour. Household saving: Does financial education work? *Social Security Bulletin*, *72*(2), 309- 322.

Ho, S. (2018). *Malaysia becoming a sustainable responsible investment hub-RAM rating*. https://www.theedgemarkets.com/article/malaysiabecoming sustainable-responsible-investment-hub-%E2%80%94-ramratings

Julian Seelan. (2019). *Investment & wealth monitor. Sustainable investment: The millennial investor.*

Klein, P., Turk, R., & Weill, L. (2017). Religiosity vs. well-being effects on investor behavior. *J. Econ. Behav. Organ*.

Kruger, P., Sautner, Z., & Starks, L. T. (2018). *The importance of climate risks for institutional investors*. Working paper.

Laroche, M., Bergeron, J., & Forleo, G. B. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing, 18*, 503-520.

Lidiana, R. (2017). *Push to become regional Islamic financial hub.* https://www.nst.com.my/business/2017/08/267670/push-become-regionalislamic-financial-hub

Lusardi, A., Mitchell, O., & Curto, V. (2008). *Financial literacy among the young*. Working Paper of Michigan Retirement Research Centre, University of Michigan.

MacMaster, K. E. (2019). Responsible investing: Access denied. *Banking & Finance Law Review*, *34*(387), 25.

Maroto, M. (2018). Saving, sharing, or spending? The wealth consequences of raising children. *Demography, 55*(6), 2257–2282.

Martin, T. K., Jr., & Finke, M. (2014). A comparison of retirement strategies and financial planner value. *Journal of Financial Planning, 27*(11), 46.

McKinsey. (2017). From 'why' to 'why not': Sustainable investing as the new normal.

Moon, SunJung. (2012). The effect of value, motivations, attitude, subjective norm on the environmental friendly product purchase intention. *Journal of School of Business Kyungpok National University, 22*(1), 131-134.

Morgan Stanley. (2015). "Sustainable Reality: Understanding the Performance of Sustainable Investment Strategies." Morgan Stanley Institute for Sustainable Investing. Accessible at: <https://www.morganstanley.com/sustainableinvesting/pdf/sustainable-reality.pdf>.

Morgan Stanley. (2017). Millennials Drive Growth in Sustainable Investing. https://www.morganstanley.com/ideas/sustainable-socially-responsible-investing- millennials-drive-growth (accessed on 31 December 2018).

Ng, L. Y., Ariffin, S. K., Goh, Y. N., & Wahid, N. A. (2017). A study of factors influencing consumer's purchase intention toward green vehicles: Evidence from Malaysia. *Global Business and Management Research: An International Journal, 9*(4), 282-292.

Nilsson, J. (2007). Investment with a conscience: Examine the impact of pro-social attitudes& perceived financial performance on socially responsible investment behavior. *Journal of Business Ethics, 83*, 307-325.

Nilsson, J., Nordvall, A., & Isberg, S. (2010). The information search process of socially responsible investors. *Journal of Financial Services Marketing, 15*(1), 5-18.

*Özsoy*, T., & Avcilar, M. Y. (2016). An investigation of the effects of consumers' environmental attitudes on perceptions of green ads & attitudes toward the brand. *Journal of Academic Research in Economics, 8*(1), 7-29.

Riedl, A., & Smeets, P. (2017). Why do investors hold socially responsible mutual funds? *The Journal of Finance, 72*(6), 2505-2550.

Securities Commission Malaysia. (2017). *Guidelines on issuance of corporate bonds & Sukuk to retail investors*. Retrieved 10 June 2019, from https://www.sc.com.my/api/documentms/download.ashx?id=dfc6c5dc-89454e40- ac56-9a8ac69bf66f

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.

Thapa, B. S. (2015). Financial literacy in Nepal: A survey analysis from College Students. *NRB Economic Review, 27*(1), 49-74.

TIAA. (2018). *Third Annual Responsible Investing Survey*. Retrieved November 1, 2019, from https://www.tiaa.org/public/pdf/investor_interest_in_responsible_investing_soars.pdf

Utz, S., Wimmer, M., & Steuer, R. E. (2015). Tri-criterion modelling for construction more-sustainable mutual funds. *European Journal of Operational Research, 246*(1), 331-338. DOI 10.1016/j.ejor.2015.04.035

Vyvyan, V., Ng, C., & Brimble, M. (2007). Socially responsible investing: The green attitudes & grey choices of Australian investors. *Journal Compilation, 12*(2), 370-381.

Warsame & Ireri. (2016). Does the Theory of Planned Behaviour (TPB) matter in Sukuk? *Journal of Behavioural & Experimental Finance.*

Whitelock, V. G. (2019). Multidimensional environmental social governance sustainability framework: Integration, using a purchasing, operations & supply chain management context. *Sustainable Development, 27*(9), 923 931.

Williams, G. (2007). Some determinants of the socially responsible investment decision: A cross-country study. *The Journal of Behavioural Finance, 8*(1), 43 57.

**Appendix A – Questionnaires Instrument**

**FACULTY OF BUSINESS, ECONOMIC AND SOCIAL DEVELOPMENT**

**FACTOR THAT ENCOURAGE MILLENNIALS TO INVEST IN SUSTAINABLE INVESTMENT IN MALAYSIA**

Dear respondents,

My name is Farah Nur Shahirah binti Kolek (P4031), and I am pursuing a Master of Business Administration (Finance). I would like to invite you to participate in this survey. The feedback from you is important and shall be used only for academic purposes. If you require additional information or have questions, please contact me at 016-9599294 or email farahkolek93@gmail.com. Your participation will greatly contribute to the success of this survey. Thank you for your time.

**SECTION A: DEMOGRAPHIC**

Please tick (/) as appropriate

1. **Investment Experience**
   No investment experience ( )
   Less than 5 years ( )
   More than 5 years ( )

2. **Gender**
   Male ( )
   Female ( )

3. **Age**
   21 - 25 years ( )
   26 – 30 years ( )
   31 - 35 years ( )
   36 – 40 years ( )

4. **Income Per Month**
   Less than RM1000 ( )
   RM1001 – RM2000 ( )
   RM2001 - RM3000 ( )
   RM3001 - RM4000 ( )
   RM4001 and above ( )

**5. Employment Status**

| | |
|---|---|
| Student | (  ) |
| Self-employed | (  ) |
| Employed | (  ) |
| Retired | (  ) |
| Not employed | (  ) |

**6. Marital Status**

| | |
|---|---|
| Single | (  ) |
| Married | (  ) |
| Other | (  ) |

**7. Races**

| | |
|---|---|
| Malay | (  ) |
| Chinese | (  ) |
| Indian | (  ) |
| Other | (  ) |

## FACTOR THAT ENCOURAGE MILLENNIALS TO INVEST IN SUSTAINABLE INVESTMENT IN MALAYSIA

Listed below are series of statements to ask your opinion regarding the factor that encourage millennials to invest in sustainable investment in Malaysia. With respect to your own belief, please indicate the extent to which you agree or disagree with the following statements.

Please tick (/) at the appropriate answer.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |

## SECTION B: SUSTAINABLE INVESTMENT

**Sustainable investment** is the process of integration between environmental, social and governance (ESG). Sustainable investing lets individuals to select investments based on profit and particular preference.

| NO | SUSTAINABLE INVESTMENT | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | I have intention to switch from conventional/ traditional investment to invest in sustainable investment funds. | | | | | |
| 2 | I have intention to invest in sustainable investment because of its positive environmental contribution. | | | | | |
| 3 | When I have choices between two investment, I choose the one less harmful to people and environment. | | | | | |
| 4 | I intend to participate in sustainable investments in the near future. | | | | | |
| 5 | I will add sustainable investment into my investment portfolio. | | | | | |

## SECTION C: SUBJECTIVE NORM

| NO | SUBJECTIVE NORM | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | My society expects me to invest in sustainable investment. | | | | | |
| 2 | I value the opinion and feeling of my family on investing in sustainable investment. | | | | | |
| 3 | I value the opinion and feeling of my friends on investing in sustainable investment. | | | | | |
| 4 | Most people who are important to me would think that making sustainable investment is a wise idea. | | | | | |
| 5 | Most people who are important to me would think I should invest in sustainable investment funds. | | | | | |

## SECTION D: PERCEIVED BEHAVIOURAL CONTROL

| NO | PERCEIVED BEHAVIOURAL CONTROL | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | I can participate in the decision-making process of investing in sustainable investment. | | | | | |
| 2 | I can decide whether to invest in sustainable investment or not by myself. | | | | | |
| 3 | I am free to choose sustainable investment when investing. | | | | | |
| 4 | I have resources, time, and opportunities to invest in sustainable investment. | | | | | |
| 5 | I have the knowledge to participate in sustainable investments. | | | | | |

## SECTION E: ATTITUDE

| NO | ATTITUDE | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | I prefer invest in environmental friendly company. | | | | | |
| 2 | I think that companies should be more responsible to society. | | | | | |
| 3 | I feel good about investing in the companies that benefit to environment. | | | | | |
| 4 | As an investor, a company's social and environmental performance is as important to me as its financial performance. | | | | | |
| 5 | I will work actively with environmental issue. | | | | | |
| 6 | I do not support unethical business practice. | | | | | |
| 7 | I have a favourable attitude towards sustainable investments. | | | | | |

**SECTION F: FINANCIAL KNOWLEDGE**

Please tick (/) as appropriate

1. Suppose you had RM100 in a savings account and the interest rate was 2 percent year. After 3 years, how much do you think you would have in the account if you left the money to grow? Please choose ONE best answer

   More than RM102 ( )
   Exactly RM102 ( )
   Less than RM102 ( )

2. Imagine that the interest rate on your savings account was 1 percent year and inflation was 2 percent year. After 1 year, how much would you be able to buy with the money in the account? Please choose ONE best answer

   More than today ( )
   Exactly the same ( )
   Less than today ( )

3. An individual can reduce the risk of investing in the stock market by buying a wide range of shares. Please choose ONE best answer

   True ( )

   False ( )

Please indicate the response that best describes how true each statement is for you.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Not at All True | Somewhat True | Moderately True | Mostly True | Totally True |

**SECTION G: RELIGIOUS VALUES**

| NO | RELIGIOUS VALUES | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | I often read books and magazines about my faith. | | | | | |
| 2 | I spend time trying to grow in understanding of my faith. | | | | | |
| 3 | Religion is especially important to me because it answers many questions about the meaning of life. | | | | | |
| 4 | My religious beliefs lie behind my whole approach to life. | | | | | |
| 5 | Religious beliefs influence all my dealings in life. | | | | | |
| 6 | It is important to me to spend periods of time in private religious thought and reflection. | | | | | |