



Research Article

Factors Influencing Investor's Intention to Invest in Environmentally Friendly Shares in the Philippines

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ABSTRACT

There are numerous studies on intention to invest on equities, bonds and shares, however, little is known on environmentally friendly shares. In the Philippines, only less than half of 1% of the population are actively participating in the stock market, according to a report done by the Philippine Stock Exchange (PSE) in 2017. Because the country is thought to be among the most vulnerable to the effects of climate change, increasing these green investments may possibly help in the protection of the environment. Knowing such, this study examined the influence of behavioral traits namely dispositional innovativeness, stakeholders' orientation, perceived consumers' effectiveness, and market mavenism on investors' intention to invest in environmentally friendly shares. Further, moderating effect of environmental proclivities on the relationship between behavioral traits and investors' intention to invest were explored. Results of the regression analyses revealed that perceived consumers' effectiveness has a significant influence on intention to invest. However, dispositional innovativeness, stakeholders' orientation and market mavenism do not have significant influence on intention to invest. Further, the findings posit that environmental locus of control, environmentally friendly buying behavior, environmental activism, environmental knowledge, environmental concern, recycling and skepticism towards environmental claims do not significantly moderate the relationship of the factors namely, market mavenism, dispositional innovativeness, perceived consumers' effectiveness and stakeholders' orientation on the intention to invest in environmentally-friendly shares. To improve perceived consumers' effectiveness, companies are encouraged to make efforts to increase consumers' green purchase intentions by offering good information about green products, advocating the green lifestyle, and guiding the establishment of green consumption social norms.

INTRODUCTION

A. Background of the Study

Climate change and its impacts across the globe will endanger the bottom line of businesses in a variety of ways. The frequency and severity of extreme weather can cause damage to factories, supply chain operations, and other infrastructure. Certain products may become obsolete or lose market share. Investors and stakeholders are becoming increasingly concerned about the possibility for "stranded assets" — those that become prematurely obsolete or out of favor early and must be reported as a loss. When de-

terminating where to spend and invest their money, individuals must consider the ramifications of climate change (Cho, 2019). The Philippines is among the most exposed to the consequences of climate change. Filipinos have witnessed how increasingly extreme weather conditions impose a growing cost on the economy (Go, 2019).

As more people become conscious of the need to safeguard the environment, the demand for goods and services that cater to such inclinations will definitely rise. People will then invest in these goods and ser-





VICES. The Global Impact Investing Network (GIIN) defines impact investing as investing in companies, organizations, and funds with the purpose of generating social and environmental impact in addition to a financial return (Go, 2019). Socially responsible investing reflects the value judgment of the investor. For example, an investor may avoid companies or industries that provide products or services that the investor believes are detrimental, such as cigarettes, alcohol, and defense industries. Another is considering a performance ranking in terms of how well a firm performs, not just in terms of financial metrics but also regarding social, environmental, governance, and ethical concerns (Ross, 2020).

Environmentally friendly shares or green shares (Huey Ming, 2016) are shares of companies whose primary business is beneficial to the environment (Kenton, 2019; Huey Ming, 2016). Green investments, often associated with socially responsible investments (SRI), are essentially investments that focus on companies or projects that are committed to the conservation of natural resources, the production and discovery of alternative energy sources, the implementation of clean air and water projects, and/or other environmentally conscious business practices (Chen, 2019).

A typical green chip may have profitability challenges and a financial structure that is less stable than that of a blue chip. A blue chip is defined as a stock of an industry leader and which is consistently profitable. But despite the issues of profitability and stability, green chip stocks may attract significant interest from investors who care about environmentally

friendly market leaders (Kenton, 2019). As more people realize the social and financial benefits of impact investing, more companies and individuals will put their money in socially responsible investments (Go, 2019). According to a study undertaken by Amundi's investing specialists, the companies most committed to ESG and corporate social responsibility outperformed the stock market over the last decade. Their stock price has increased. According to Robeco, an asset management organization, ESG employs environmental, social, and governance aspects to assess how far along enterprises and countries are in terms of sustainability (Goncalves, 2019). Sustainable investing falls into various categories, including environmental, social, and governance (ESG), socially responsible investing (SRI), and impact investing. These terms are frequently used interchangeably. (Youmatter, 2019).

Impact Investment Exchange Asia ("IIX") began its Impact Accelerator program in the Philippines in November 2014, an intensive in-country program aimed to accelerate early-stage social entrepreneurs with significant potential to produce positive social and environmental impact at scale. Fifty-five applications were received from businesses in a variety of geographical areas and sectors, including agriculture, energy, water, livelihoods, education, and healthcare (Lugtu Jr., 2019).

The reason for the investor to invest is known as investment intention that depends on motivational factors and efforts being exercised by the investor (Sashikala & Chitramani, 2018). When it comes to money and investing, people are not always as rational as they think they are. There's a whole field of study



that explains those strange behaviors and those can be explained by behavioral finance (Pareto, 2019).

Many behavioral finance studies in recent years have revealed that investors do not behave logically and are influenced by various behavioral characteristics that influence their investment intentions (Sashikala & Chitramani, 2018). The closest determinant of a person's behavior, according to the Theory of Planned Behavior (TPB), is his or her intention to engage in the behavior. Based on this model, decision making is done by a person's rational evaluation of behavioral cost. The TPB model divides predictors into three categories: attitudes toward the behavior, subjective norms, and perceived behavioral control (Huey Ming, 2016).

The study of Abdullah Salim (2015) used TPB as a core theory in examining the factors that influence intention and SRI behavior. The study found that attitude, perceived behavioral control, caring ethical climate, and moral intensity all had a substantial influence on the intention to engage in SRI behavior. In another study, Drnovsek, et al. (2018) included entrepreneurial awareness, regulatory focus, planning cognitive style, and risk inclination as factors influencing business angels' intention to invest. Business angels are entrepreneurially savvy individuals who have a higher proclivity to establish an investment intention. Furthermore, business angels who focus on promotion appear to be more likely to have an investment intention. Meanwhile, K. N. and Kawshala (2016) determined the factors that influence Sri Lankan consumers' purchase intentions for environmentally friendly vehicles. The study found that vehicle

users' purchase intentions are highly influenced by their awareness of environmentally friendly vehicles. Furthermore, it was discovered that knowledge of the environment has a substantial impact on the purchase intention of environmentally friendly vehicles. The subjective norm was also found to be a significant predictor of purchase intention of environmental-friendly vehicles.

There are numerous studies on intention to invest on equities (Sashikala & Chitramani, 2018), bonds (Wendo, 2015; Kibegwa, Barbara & Nzioki, 2017; Octarina, Hartoyo & Beik, 2019) and shares (Phung, 2017; Njuguna, 2018), however little is known on environmentally friendly shares (Huey Ming, 2016). In the Philippines, only less than half of 1% of the population are actively participating in the stock market according to a report done by the Philippine Stock Exchange (PSE) in 2017 (Adrian, 2018). Because the country is thought to be among the most vulnerable to the effects of climate change (Go, 2019) increasing these green investments may possibly help in the protection of the environment. Knowing such, this study examined the factors that influence investors' intention to invest in environmentally friendly shares, which is a relatively, an underexplored field of study (Huey Ming, 2016). This research may contribute to the theme of sustainable development, more precisely, sustainable finance. Sustainable finance has become the attention of investors around the globe. This study analyzed the investors' interest in green companies. Having a broader knowledge about sustainable finance may help investors consider investing in green companies. Green companies can use the research discoveries in guiding them to attract and encourage



investments. Securities firms can also use the findings of this study to determine the different ways in approaching different investors. The study may help investors to be more familiar about environmentally friendly shares with the aim of encouraging them to choose adding these kinds of shares in their portfolio. The more people investing in environmentally friendly shares, more companies may then strive to be attractive to these type of investors by being considered as green companies. Having more of these green companies may possibly help in the protection of the environment which may be beneficial not only for our country but for our one and only planet, Earth.

B. Research Framework

Huey Ming (2016) conducted a study examining the factors influencing investors' intention to invest in environmentally friendly shares. The dependent variable in his study was the intention to invest. Intention is defined as how much determination someone is planning to use towards performing a behavior (Muhammed & Abu Bakar, 2016). It also refers to the deliberate and planned state of mind that steers and guides someone toward specified behaviors. (Drnovšek, et al., 2018). The reason for the investor to invest is known as investment intention that depends on motivational factors and efforts being exercised by the investor (Sashikala & Chitramani, 2018).

Several behavioral traits such as prosocial attitudes, dispositional innovativeness, susceptibility to normative influence, stakeholder's orientation, perceived consumer's effectiveness, anxiety, and market mavenism served as the independent variables.

Pro-social attitude is a behavior performed to have an advantage on others, rather than for the benefit of oneself. Engaging in socially responsible investments (SRI) is a prosocial act. Prosocial personality traits are related to both the 'interest' investors' report in investing with SRI and the likelihood that investors' have invested in SRI in the past (Wiesel, 2017). Dispositional innovativeness is the tendency to purchase new brands and products in the early stage, instead of remaining previous choices and preferences towards products and services (Huey Ming, 2016). Consumer susceptibility to normative influence is defined as one's willingness to support others' assumptions about purchase decisions or intentions, as well as a proclivity to seek knowledge about products and services from others. Furthermore, it discusses the factors that underpin purchase intention, as well as the methods through which customers make decisions based on information obtained from the linked group (Anthony, et al., 2016). Stakeholder orientation is the behavior and culture of an organization that stimulates members of the organization to be aware and act proactively on the issues of stakeholder. Perceived consumer's effectiveness (PCE) is a consumer's estimation of his or her potential to contribute to specified sustainable development-related outcomes through specific behaviors (Hanss & Doran, 2019). PCE has a significant effect on consumers' behavior for socially responsible investment. Stakeholders are individuals or groups of individuals who are influenced or that can influence the goal of a firm's objectives. Financial anxiety is defined as a psychosocial syndrome characterized by an undesirable attitude toward thinking about, participating with, or effectively managing one's own financial status (Grable, et al., 2015). Market mavenism is a



unique aspect of consumer behavior characterized by high levels of marketplace interest and involvement. Market mavenism act as intermediaries between marketers and consumers, conveying knowledge and influence to the latter (Goldsmith & Flynn, 2015).

Further, Huey Ming (2016) used environmental proclivities namely environmental locus of control, environmental-friendly buying behavior, environmental activism, environmental knowledge, environmental concern, recycling and skepticism towards environmental claims to act as the moderating variables. Locus of control (LOC) is divided into internal and external control of reinforcement. Internal LOC is a person's expectation that reinforcement or an effect of their behavior is subject to their own behavior or personality. External LOC is described as a person's expectation that reinforcement or outcome is due to opportunity, luck, or fate, is out of their own control, or is merely unpredictable. The use of environmental LOC term is to capture the extent to which individuals believe that through their own actions, they have the capability to have an effect on pro-environment outcomes. Environmentally friendly buying behavior is the actual buying behavior. Consumers' experiences related to environmental issues are among the determinants influencing environmental-friendly buying behavior. Further, environmental buying behavior is influenced by environmental consciousness. Environmental activism is an action, carried out by a person that has the ability to put pressure on management or policy decisions. Some shareholder activists may aim at specific environmental practices done by a firm; other activists may target at achieving the more general concept of green management; some may be

globally directed; while others may target specific local environmental concerns (Huey Ming, 2016). Environmental knowledge is associated to "a general" knowledge of facts, ideas, and relationships concerning the natural environment and ecosystems (Sashikala & Chitramani, 2018). This moderating variable takes account of how much a person knows concerning the environment, responsibilities towards sustainable development, and the determinants leading to the aspects and impacts of environmental issues (Huey Ming, 2016). There is a foremost relationship between environmental knowledge and green customer behavior. Environmental concern is described as an assessment or a person's stance and behavior towards the environment (Huey Ming, 2016). Individuals who care about the environment are more likely to exhibit environmentally sensitive behavior and purchase intention (Sashikala & Chitramani, 2018). Recycling is one of the ways to minimize waste. Furthermore, it reduces the demand for new resources, saves on production and transportation, and reuse waste. Recycling effort is positively related with individuals who are aware and conscious about the environment. Skepticism is described as a person's negative stance towards companies' motives. It is a person's distrust concerning the cognitive response which differs across the content and context of communications (Huey Ming, 2016). The researcher utilized the paradigm presented in Figure 1 to show the relationship of the variables.

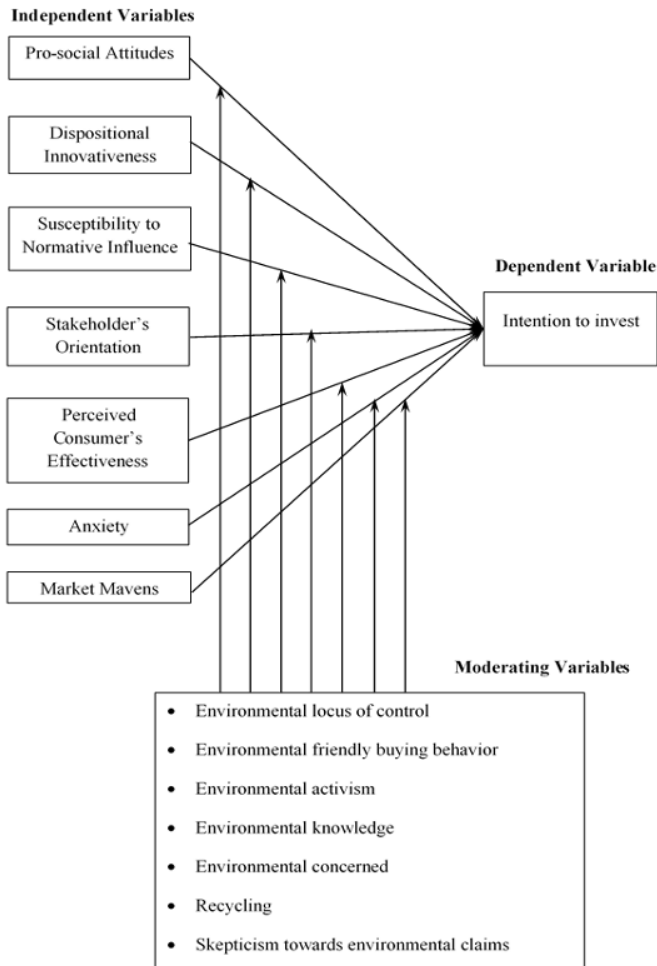


Figure 1. Conceptual framework

Source: *Intention to Invest in Environmentally Friendly Shares in Malaysia (Huey Ming, 2016)*

The research findings of Huey Ming (2016) revealed that only dispositional innovativeness, market mavenism, perceived consumers' effectiveness, and stakeholders' orientation have a significant influence on the intention to invest in environmentally friendly shares. Dispositional innovativeness significantly influence intention to invest which means investors are willing to try out new investment products. Market mavenism had also shown a significant relationship towards intention to invest in environmentally friendly shares indicating that people with high maven score tends to be knowledgeable in a wide range of products and tend to help others in the decision-making pro-

cess.

The considerable influence of perceived consumers' effectiveness on intention to invest might be viewed as investors intending to invest in environmentally friendly shares when they recognize that the product may help alleviate environmental concerns. Stakeholders' orientation had also found a significant influence towards intention to invest which implies that a satisfied and pleased customer will then consider investment possibilities and tend to be loyal with the firm. Further, the study had suggested that environmental proclivity has shown significant effects in moderating the behavioral determinants towards intention to invest in environmentally friendly shares. Environmental proclivity includes environmental locus of control, environmental-friendly buying behavior, environmental activism, environmental knowledge, environmental concern, recycling and skepticism towards environmental claims.

The study of Huey Ming (2016), examining the investors' intention to invest in environmentally friendly shares, was conducted on independent investors in securities firms from several states in Malaysia. The current research explored on individuals investing on stocks.

While there are seven independent variables in the study of Huey Ming (2016) this paper considered the four factors which showed significant influence on the intention to invest in environmentally friendly shares — dispositional innovativeness, stakeholder's orientation, perceived consumers' effectiveness, and market mavenism. Meanwhile, all seven moderating



variables from the study of Huey Ming (2016) were also considered in this paper. This study was guided by the operational framework depicted in Figure 2.

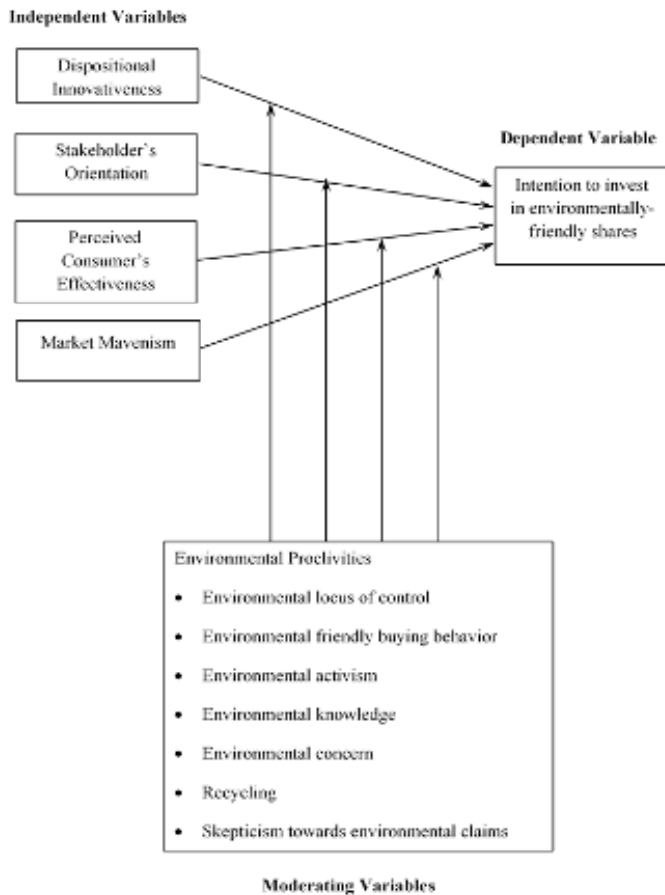


Figure 2. Operational framework

In the study of Lee and Lee (2016), locus of control, also referred to as entrepreneurial orientation (Ibrahim & Masud, 2016), was used as the moderating variable in the relationship between environmental factors and entrepreneurial intention. The moderating role of environmental friendly buying behavior or purchase situation to the intention and behavior relationship was examined in the study of Grimmer, et al. (2016). Environmental activism as the moderating variable between the factors and intention to invest was examined in the study of Huey Ming (2016). Suki

(2016) studied the moderating effect of green brand knowledge on the relationship between green brand positioning and green product purchase intention. The moderating effects of environmental concern or green consciousness was used in the study of Jang, et al. (2015). Zhang, et al. (2018) studied the moderating role of green concern to the relationship between greenwashing perceptions and green purchasing intentions. Kautish, et al. (2019) investigated the moderating influence of environmental consciousness and recycling intentions on green purchase behavior. In Aji's (2017) study, consumer skepticism was tested to moderate the relationship between product knowledge and purchase intention.

C. Research Objectives

In general, this study examined the factors influencing investors' intention to invest in environmentally friendly shares in the Philippines. Specifically, the study determined:

1. if behavioral traits namely dispositional innovativeness, stakeholders' orientation, perceived consumers' effectiveness, and market mavenism significantly influence investors' intention to invest in environmentally friendly shares; and
2. whether the environmental proclivities such as environmental locus of control, environmental friendly buying behavior, environmental activism, environmental knowledge, environmental concern, recycling and skepticism towards environmental claims significantly moderate the relationship between the factors



and investors' intention to invest in environmentally friendly shares.

To address the need of the study, the following hypotheses were tested:

H₀₁: Dispositional innovativeness has no significant influence on the intention to invest in environmentally friendly shares.

H₀₂: Stakeholders' orientation has no significant influence on the intention to invest in environmentally friendly shares.

H₀₃: Perceived consumers' effectiveness has no significant influence on the intention to invest in environmentally friendly shares.

H₀₄: Market mavenism has no significant influence on the intention to invest in environmentally friendly shares.

H₀₅: Environmental locus of control does not significantly moderate the relationship of the factors on the intention to invest in environmentally friendly shares.

H₀₆: Environmental-friendly buying behavior does not significantly moderate the relationship of the factors on the intention to invest in environmentally friendly shares.

H₀₇: Environmental activism does not significantly moderate the relationship of the factors on the intention to invest in environmentally friendly shares.

H₀₈: Environmental knowledge does not significantly moderate the relationship of the factors on the intention to invest in environmentally friendly shares.

H₀₉: Environmental concern does not significantly moderate the relationship of the factors on the

intention to invest in environmentally friendly shares.

H₀₁₀: Recycling does not significantly moderate the relationship of the factors on the intention to invest in environmentally friendly shares.

H₀₁₁: Skepticism towards environmental claims does not significantly moderate the relationship of the factors on the intention to invest in environmentally friendly shares.

MATERIALS AND METHODS

This study employed the descriptive research design to examine the factors influencing investors' intention to invest in environmentally friendly shares. Respondents for this study were individuals investing in the Philippine Stock Market. Using G-Power Analysis, with effect size 0.15, α 0.05, power 0.95, total sample size was 129. Purposive sampling was used in collecting data. This study was limited to individuals investing in the Philippine Stock Market, majority of which are considered in the early years of investing. This is indicated by the 89.1% of the respondents whose investing experience is from 0-9 years. The number of sample size used was not as many as the number of representatives of the undetermined population thus the results are only applied to the respondents considered in this study.

The survey questions were posted on COL Financial Group, Inc. Facebook Group and Traders Apprentice Pilipinas. COL is formerly known as Citisee Online (Adrian, 2018). It is one of the Philippines' biggest and most popular online stockbrokers. Through its online trading platform, the company has been providing an easy and affordable option for Fili-



pinos to invest in the stock market for around 20 years (Zoleta, 2019). Traders Apprentice Pilipinas is a group in Facebook whose mission is to guide those interested in online trading in achieving their dreams, thru mentoring system, by the group's proven wealth creators. Survey questions were also sent to friends investing in stocks in the Philippines thru online messaging and email and asked these friends to send it to their friends who are also investing in stocks.

This study also adopted the survey questionnaire from the study of Huey Ming (2016). The questionnaire was divided into 12 parts. All the question items were evaluated using a five-point scale, ranging from 1 = strongly disagree to 5 = strongly agree. Further, the survey questionnaire was composed of 68 items. Question items 1 to 4 were used to measure the dependent variable – intention to invest. To assess the influence of behavioral factors on the intention to invest, question items 5 to 23 were used (market mavenism – items 5 to 8, dispositional innovativeness – items 9 to 13, perceived consumers' effectiveness – items 14 to 17 and stakeholders' orientation – items 18 to 23). Question items 24 to 68 were utilized to determine the moderation of environmental proclivities on the relationship between factors and intention to invest, (environmental locus of control – items 24 to 35, environmental friendly buying behavior – items 36 to 48, environmental activism – items 49 to 52, environmental knowledge – items 53 to 57, environmental concern – items 58 to 61, recycling – items 62 to 65 and skepticism towards environmental claims – items 66 to 68).

By means of the informed consent letter, respon-

dents were requested to answer the survey with an option not to disclose their name. Further, the informed consent letter stated that answering the survey is not required to prevent any pressure that they might feel. Also, it guaranteed the respondents that the study is to be conducted as ethically and thoroughly as possible. Subsequently, the consent letter further informed the respondents that their answers will be kept confidential and only general responses will be included that all of it will be used for academic purposes only.

Instrument passed reliability test resulting in significant loadings in Cronbach's alpha. Cronbach's alpha reliability coefficient normally ranges between 0-1. The closer Cronbach's alpha coefficient is to 1.00 the greater the internal consistency of the items in the scale. The Cronbach Alpha of the dependent variable, intention to invest is 0.919. For the independent variables namely dispositional innovativeness, perceived consumers' effectiveness, stakeholders' orientation and market mavenism, Cronbach Alpha coefficients are 0.830, 0.889, 0.736 and 0.759, respectively. For the moderating variables such as environmental locus of control, environmental-friendly buying behavior, environmental activism, environmental knowledge, environmental concern, recycling and skepticism towards environmental claims, the Cronbach Alpha coefficients are 0.721, 0.831, 0.846, 0.842, 0.855, 0.760 and 0.729 respectively.

Multiple linear regression analysis was used to determine if behavioral traits significantly influence investors' intention to invest in environmentally friendly shares. Meanwhile, simple and multiple linear regression analyses were used to determine whether



the environmental proclivities significantly moderate the relationship between factors and investors' intention to invest in environmentally friendly shares.

The ρ value, R^2 and β coefficients were determined to explain the relationship of variables. If $\rho < .05$, the null hypothesis will be rejected. The coefficient of determination or R^2 is the percentage of the response variable variation (Minitab, LLC., 2019). Further, it is the proportion of variance in the dependent variable that can be explained by the independent variables. Technically, it is the proportion of variation accounted for by the regression model (Lund Research Ltd., 2018). After the evaluation of the ρ value and R^2 , the next coefficient to be considered is the regression beta coefficient. Regression coefficient β shows the rate of change in dependent variable brought about by the independent variable. To analyze the moderation effect, add the interaction term by multiplying the independent variable and the moderating variable and check for a significant R^2 change as well as a significant effect by the new interaction term.

RESULTS AND DISCUSSION

Table 1 presents the profile of the respondents in terms of gender, age and years of investing in stocks. Out of 129 respondents, female respondents outnumbered male respondents by 41%. According to the article, Profile of the Filipino Stock Market Investor (PinoyMoneyTalk.com, 2020), the number of female stock traders in the Philippine Stock Market is slightly growing through the years.

		Frequency	Percent
Gender	Male	38	29.5
	Female	91	70.5
Age	21 - 25	6	4.7
	26 - 30	15	11.6
	31 - 35	12	9.3
	36 - 40	55	42.6
	41 - 45	30	23.3
	46 - 50	6	4.7
	51 - 55	4	3.1
	56 - 60	1	0.8
Years	0 - 4	59	45.7
Investing	5 - 9	56	43.4
	10 - 14	12	9.3
	20 - 24	2	1.6

Table 1. Respondents' Profile

Data gathered revealed that most of those who are investing in stocks are in the age range of 36-40 comprising 46% of the total respondents. This is consistent with the Philippine Stock Exchange's (PSE) 2018 Stock Market Investor Profile Report, which states that most Filipino stock investors are 30 to 44 years old. (PinoyMoneyTalk.com, 2020).

Further, 89.1% of the respondents have been investing from 0-9 years indicative of belonging in the early years of investing. In 2017, the PSE registered 868,810 stock trading accounts. As a result, it may be estimated that around 868,810 Filipinos are trading stocks. This is an extremely low number when compared to the overall population, implying that only 0.8% of the Philippine population invests in stocks. The good news is that this figure already represents a 12.4% rise over 2016. Previously, just slightly more



than 500,000 Filipinos invested in stocks. In 2017, 97% of the 868,810 stock trading accounts were held by retail or individual investors, with only 3% held by institutional or corporate investors. (PinoyMoneyTalk.com, 2020).

Table 2 presents the mean and standard deviation of each of the variables included in this study. The mean of 4.02 indicates that the respondents have a high intention to invest. This implies that if they have the money or thinking of investing, they are willing to invest in environmentally friendly shares. Further, it should be noted that the respondents have a high environmental knowledge, environmental concern, appreciation for recycling, perceived customers' effectiveness, stakeholders' orientation and skepticism towards environmental claims as evidenced by the resulting mean of 4.51, 4.45, 4.22, 4.15, 4.07 and 4.03, respectively. This means that they have shown awareness of the different environmental phenomena. The high mean scores also indicate that respondents also agree that they have the ability to contribute to specific sustainable development-related outcomes through their environment-friendly actions such as recycling and investing in SRI. Registering the lowest mean of 2.87 is dispositional innovativeness indicating that the respondents are not willing to try out new investment products

Variable	Mean	Std. Deviation
Intention to Invest	4.0213	.74806
Market Mavenism	3.5814	.75206
Dispositional Innovativeness	2.8729	.79449
Perceived Customers' Effectiveness	4.1453	.61927
Stakeholders' Orientation	4.0736	.56477
Environmental Locus of Control	3.8986	.48880
Environmental Friendly Buying Behavior	3.9398	.55336
Environmental Activism	3.4845	.72534

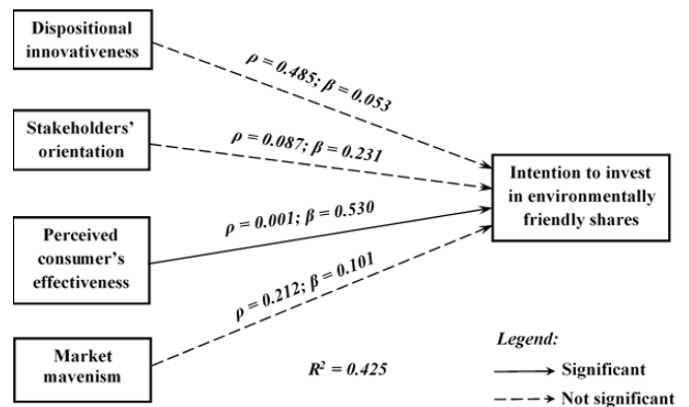
Environmental Knowledge	4.5132	.49424
Environmental Concern	4.4457	.60512
Recycling	4.2248	.60422
Skepticism Towards Environmental Claims	4.0310	.54874

Table 2. Mean and Standard Deviation of Variables

A. Influence of Behavioral Traits on Intention to Invest

Figure 3 presents the multiple linear regression results, indicating the influences of dispositional innovativeness, stakeholders' orientation, perceived consumers' effectiveness, and market mavenism on intention to invest. Results revealed that perceived consumer's effectiveness (PCE) among the four factors has significant influence ($p < 0.05$) on intention to invest. This means that the consumer's estimate of his or her ability to contribute to specific sustainable development-related outcomes through specific behaviors (Hanss & Doran, 2019) positively contributes ($\beta = 0.530$) to the investment intention of that person. Further, the R^2 value shows that 42.5% of the intention of an investor to invest in environmentally friendly shares is accounted for by the four behavioral traits.

Figure 3. Influence of dispositional innovativeness, stakeholders' orientation, perceived customers' effectiveness, and market mavenism on



Numerous studies suggest that PCE plays an important role in explaining variability in responsible consumer behavior. Hanss and Doran (2019) men-



tioned that the more individual consumers believe they could be effective in abating pollution, the more likely they are to express concern for ecology and to show corresponding purchasing behavior. Further, perceived consumers' effectiveness and perceived personal relevance significantly affect young consumers' attitudes, subjective norms and perceived behavioral control, thereby affecting purchase intentions for environmentally sustainable textiles and apparel (Kang & Kim, 2013). Moreover, stable beliefs of perceived consumers' effectiveness lead to sustainable consumption choices. Consumers who believe that their decisions can significantly affect environmental and social issues are more likely to behave sustainably (Antonetti & Maklan, 2014).

Perceived consumers' effectiveness can be associated with consumer behaviors that are in line with SDG 12 (Sustainable Development Goal (SDG) 12 - Responsible Consumption and Production). It follows that initiatives to strengthen PCE may be vital to attaining SDG 12. In order to support environmental organizations, campaign agencies, or activists in developing such initiatives, evidence on what strategies to strengthen PCE are effective. Achieving SDG 12 requires enormous efforts from policy makers, industry decision makers, and private consumers (Hanss & Doran, 2019).

B. Moderating Effects of Environmental Proclivities on the Relationship of Behavioral Traits on Intention to Invest

Before performing moderation analysis using multiple regression, there needs to be a linear relationship

between the dependent variable and the independent variable (Lund Research Ltd, 2018). Table 3 presents the results of simple linear regression analysis of the individual behavioral traits in relation to intention to invest. The findings revealed that each individual behavioral trait namely dispositional innovativeness, stakeholders' orientation, perceived consumers' effectiveness and market mavenism has a linear relationship with intention to invest as indicated by the values of R which are 32.5%, 54.7%, 62.7% and 35.4% respectively.

Model	R	R ²	Unstandardized Coefficients (Beta)	t-value	p-value	Interpretation
Constant			3.141	13.343	0.001	
Dispositional Innovativeness	0.325	0.106	0.306	3.877	0.001	Significant
Constant			1.068	2.638	0.009	
Stakeholders' Orientation	0.547	0.299	0.725	7.365	0.001	Significant
Constant			0.883	2.522	0.013	
Perceived Consumer Effectiveness	0.627	0.393	0.757	9.064	0.001	Significant
Constant			2.759	9.135	0.001	
Market Mavenism	0.354	0.126	0.353	4.272	0.001	Significant

Dependent Variable: Intention to Invest

Table 3. Simple Regression of Dispositional Innovativeness, Stakeholders' Orientation, Perceived Customers' Effectiveness, and Market Mavenism on Intention to Invest

Figures 4-10 present the moderating effects of environmental proclivities on the relationship of behavioral traits on intention to invest. R values are indicated to show the degree of the relationship of the moderating variables to intention to invest.

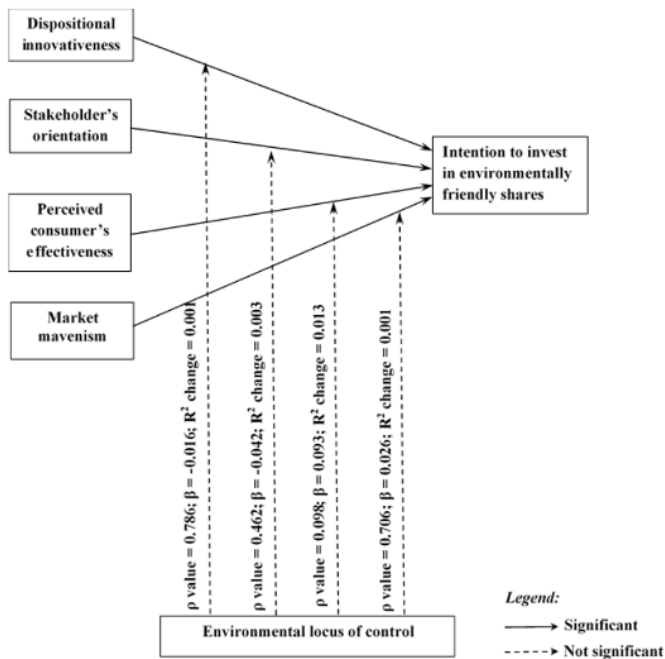
1. Environmental Locus of Control: The findings depicted in Figure 4 indicate that environmental locus of control does not significantly moderate the relationship of the factors on the intention to invest in environmentally friendly shares ($p > 0.05$). The results posit that the individuals' belief that the outcome of an action resulting from their own accomplishment (Chiang, et al., 2019) does not affect the relationship of behavioral traits and intention





to invest. Similarly, the study of Huey Ming (2016), concluded that environmental locus of control did not have a significant moderating effect on the relationship of dispositional innovativeness, stakeholders' orientation and market mavenism to intention to invest. Further, in the study of Ibrahim and Masud (2016) entrepreneurial orientation, also referred to as locus of control by Lee and Lee (2016) failed to moderate the relationship between environmental factors and entrepreneurial intention.

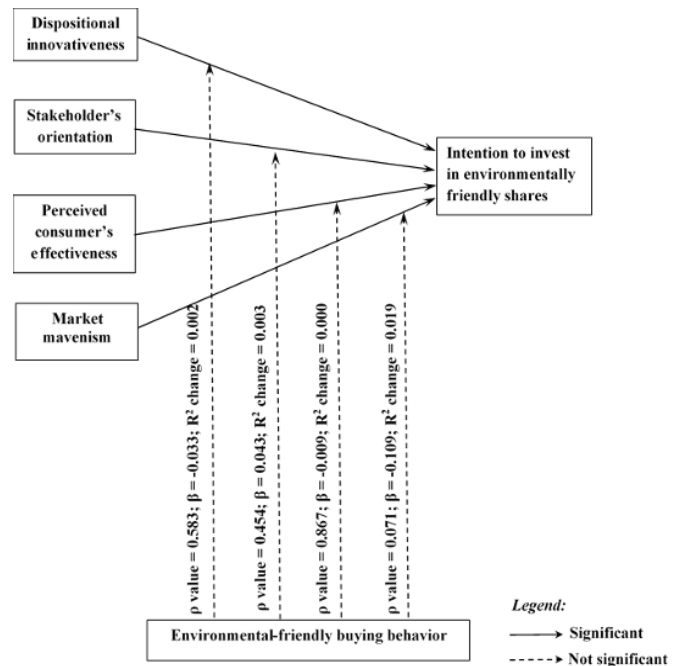
Figure 4. Moderating effect of environmental locus of control on the relationship of the factors on intention to invest



2. Environmental-Friendly Buying Behavior: The results depicted in Figure 5 indicate that whether a person is purchasing less- polluting products (Chen & Deng, 2016) or not, it will not increase nor decrease the effect of the relationship of the factors on the intention to invest. The findings indicate that environmen-

tal-friendly buying behavior does not significantly moderate the relationship of the factors on the intention to invest in environmentally friendly shares ($\rho > 0.05$). In the study of Huey Ming (2016), it was also revealed that environmental-friendly buying behavior did not significantly moderate the effects of the relationship of the factors on the intention to invest. Further, the study of He, et al. (2019) indicate that the capabilities that consumers possess to buy eco-friendly food products had no influence on the purchase intention of consumers.

Figure 5. Moderating effect of environmental-friendly buying behavior on the relationship of the factors on the intention to invest

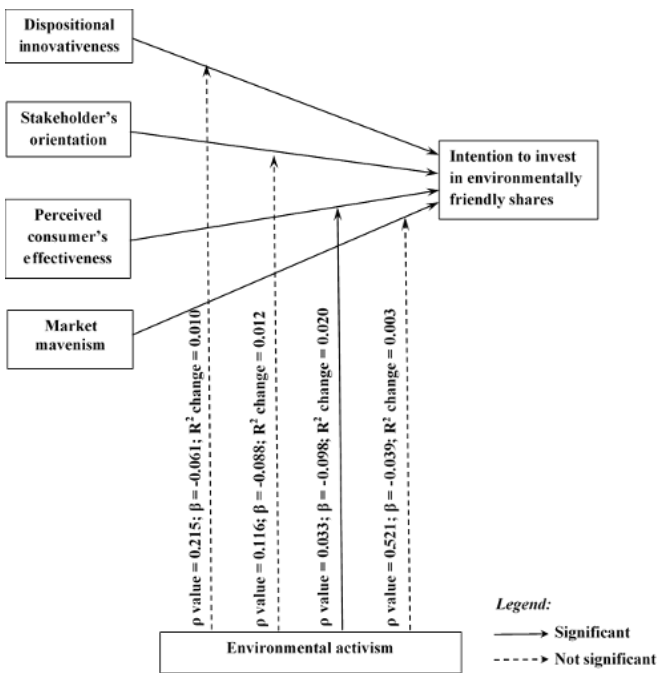


3. Environmental Activism: The findings depicted in Figure 6 indicate that environmental activism does not significantly moderate the relationship of dispositional innovativeness, stakeholders' orientation and market mavenism on the intention to invest in environmentally friendly shares ($\rho > 0.05$). Interestingly,



it significantly moderates the relationship of perceived consumers' effectiveness on the intention to invest in environmentally friendly shares ($p < 0.05$). The results in Figure 6 attest that environmental activism enhances the effect of perceived customers' effectiveness on the intention to invest in environmentally friendly shares (R^2 change = 0.020). The $\beta = -0.098$ of the interaction term means, as the effect of environmental activism to intention to invest decreases, the effect of PCE to intention to invest increases.

Figure 6. Moderating effect of environmental activism on the relationship of the factors on the intention to invest

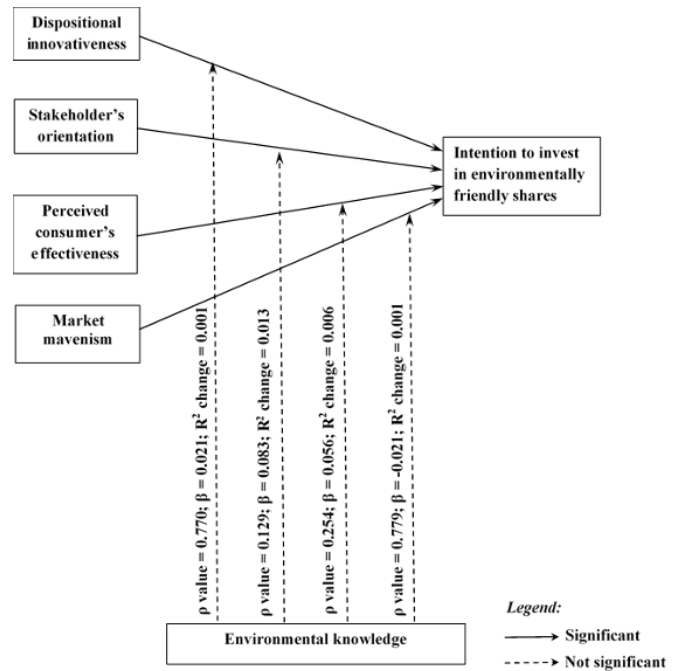


This means that an individual will complain less or will put less pressure to the government or a company if he believes he is contributing to the protection of the environment through the available green purchases. This finding is similar to the study of Huey Ming (2016) which also revealed that environmental activism significantly moderated the relationship of perceived customers' effectiveness and intention to

invest.

4. Environmental Knowledge: The results depicted in Figure 7 indicate that familiarity with the products, label information, and trust in certification organization (Chen & Deng, 2016) will not contribute to the effect of the relationship of the factors on intention to invest. Therefore, the findings revealed that environmental knowledge does not significantly moderate the relationship between behavioral traits and the intention to invest in environmentally friendly shares ($p > 0.05$).

Figure 7. Moderating effect of environmental knowledge on the relationship of the factors on the intention to invest



Similarly, the study of Huey Ming (2016) showed that environmental knowledge did not significantly moderate the effect of the relationship of dispositional innovativeness and market mavenism on intention to invest.



5. Environmental Concern: The findings depicted in Figure 8 indicate that environmental concern does not significantly moderate the relationship of behavioral traits on the intention to invest in environmentally friendly shares ($p > 0.05$). This means that whether an individual is involved in environmental issues (Goh & Balaji, 2016) or not, it will not strengthen the effect of the relationship of the factors on the intention to invest.

& Balaji, 2016).

6. Recycling: The findings in Figure 9 indicate that recycling does not significantly moderate the relationship of behavioral traits on the intention to invest in environmentally friendly shares ($p > 0.05$). This could be attributed to the complex recycling process, the difficulty of recycling, and other prerequisites that a consumer must comprehend before they can reap the benefits of recycling. (Kautish, et al., 2019).

Figure 8. Moderating effect of environmental concern on the relationship of the factors on the intention to invest

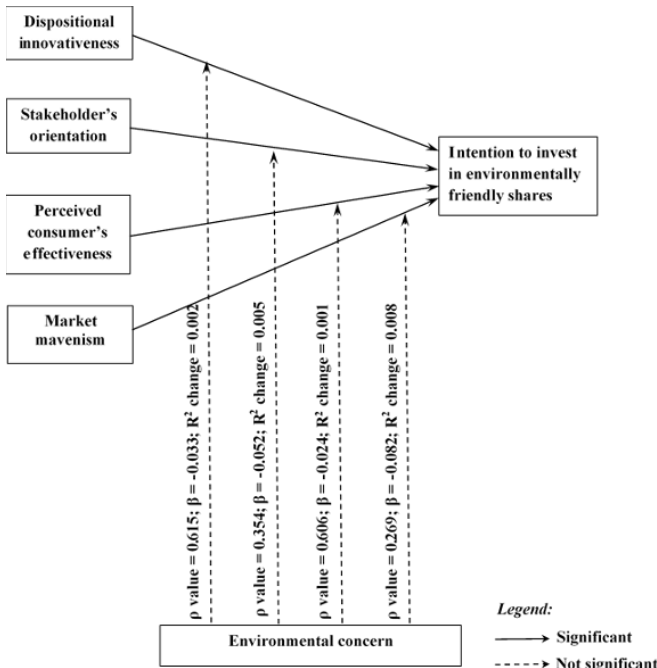
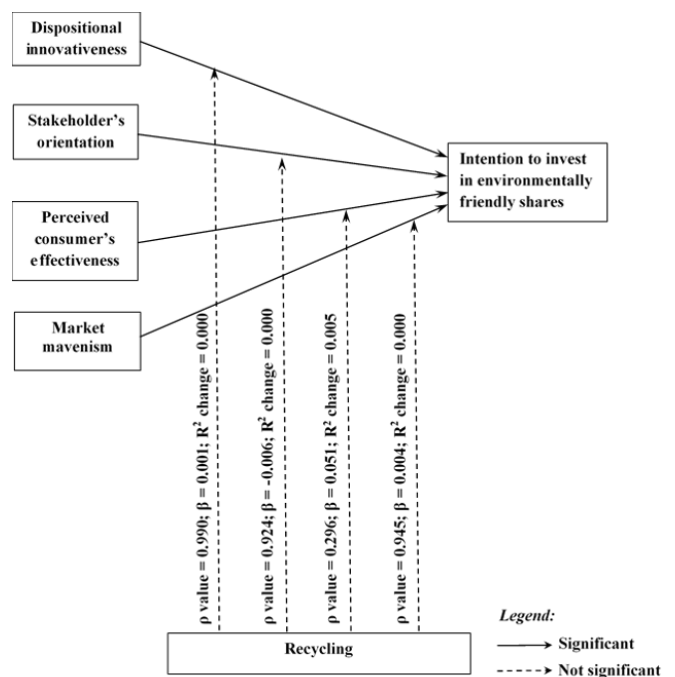


Figure 9. Moderating effect of recycling on the relationship of the factors on the intention to invest



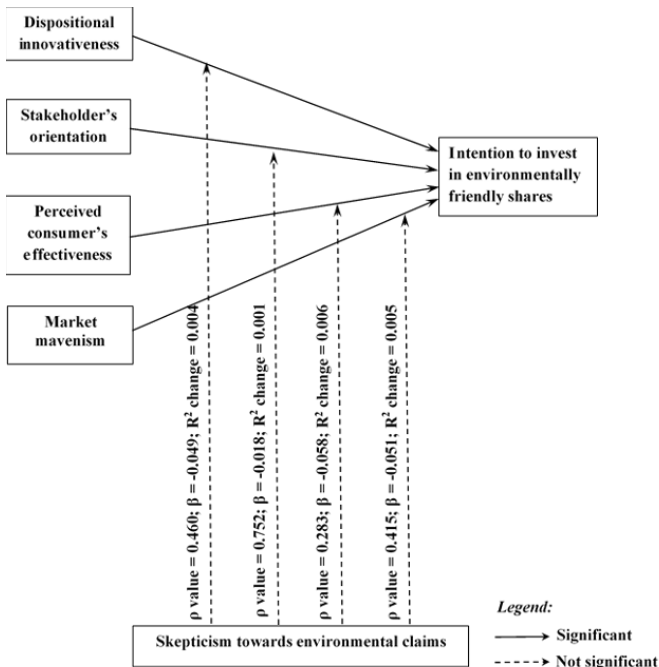
Similarly, in the study of Jang, et al. (2015), an examination of the moderating effects of green consciousness revealed that fewer green-conscious consumers reacted more negatively to green cues in businesses, demonstrating weaker store ties and less loyalty to green stores and green products. Environmental concern is largely acknowledged to have a low to moderate link with green purchase intentions (Goh

Similarly, the study of Huey Ming (2016) revealed that recycling did not significantly moderate the effect of the relationship of dispositional innovativeness, stakeholders' orientation and market mavenism on intention to invest.



7. **Skepticism Towards Environmental Claims:** The results in Figure 10 indicate that situation-specific negative attitudes of a person characterized by disbelief or doubt towards the environmental claim of green products (Goh & Balaji, 2016) will not intensify the effect of the relationship of the factors on intention to invest.

Figure 10. Moderating effect of skepticism towards environmental claims on the relationship of the factors on the intention to invest



The results indicate that skepticism towards environmental claims does not significantly moderate the relationship of behavioral traits on the intention to invest in environmentally friendly shares ($p > 0.05$). The results are in agreement with the findings in the study of Aji (2017) that consumer skepticism did not moderate the effect of product knowledge on intention to purchase. Further, the study of Patel, et al. (2017) concluded that the interaction effect between cause-related marketing offer and skepticism was

likewise shown to be not significant in terms of influencing attitude towards brand.

CONCLUSION AND RECOMMENDATIONS

The growing climate crisis has been brought up time and again over the last few years. Wildfires, heatwaves, droughts and floods are increasingly disrupting and destroying the lives of many around the world. As a result, when seeking for investment opportunities, conscientious investors are looking for more sustainable and ecologically conscious enterprises. This paper generally examined the factors influencing investors' intention to invest in environmentally friendly shares in the Philippines. Based on the results of this study, the following objectives were achieved.

First, it was revealed that perceived consumers' effectiveness has significant influence on intention to invest. However, dispositional innovativeness, stakeholders' orientation and market mavenism do not have significant influence on intention to invest. Thus, the study rejected H_{03} , while it failed to reject H_{01} , H_{02} and H_{04} . To have a better knowledge of investor investment decisions, it is vital to combine marketing and financial data. Investors would only adopt new investment products if they improved their portfolios' overall risk-return trade-off. According to marketing studies, consumers are frequently unable to accurately evaluate predicted risk and return due to insufficient financial information.

Second, it was found out that, environmental locus of control, environmental friendly buying behavior, environmental knowledge, environmental concern, recycling and skepticism towards environmental



claims does not significantly moderate the relationship of the factors namely market mavenism, dispositional innovativeness, perceived consumers' effectiveness and stakeholders' orientation on the intention to invest in environmentally-friendly shares. Therefore, the study failed to reject H_{05} , H_{06} , H_{08} , H_{09} , H_{10} , H_{11} . For H_{07} , environmental activism does not significantly moderate the relationship of market mavenism, dispositional innovativeness and stakeholders' orientation on investors' intention to invest, while it significantly moderates the relationship of perceived consumers' effectiveness on the investors' intention to invest in environmentally friendly shares. Therefore, the study also failed to reject H_{07} . This means that environmental proclivities namely, environmental locus of control, environmental-friendly buying behavior, environmental knowledge, environmental concern, recycling and skepticism towards environmental claims will not strengthen nor weaken the effect of the factors on intention to invest.

Investors are increasingly examining business sustainability efforts, both in terms of overall operations and shareholder transparency. Companies that seek to please existing investors while also attracting new ones to generate demand can often do so by acting more sustainably. To enhance investors' green purchase intentions, companies are suggested to take efforts to improve perceived consumers' effectiveness through providing positive information about green products and promoting a green lifestyle. A corporation, for example, can utilize energy analytic software (EAS) to see how its energy usage causes spikes in greenhouse gas (GHG) emissions and then take actions to control energy consumption more efficiently.

These GHG emissions analytics can then be easily incorporated into business sustainability reports for investors, allowing for greater transparency on this subject. Businesses are encouraged to give product and environmental information on their websites or through mobile devices, which can help improve consumer comprehension of green products and increasing purchase intention. It is suggested that businesses incorporate environmental protection labels on green product packaging. The labels feature precise environmental information, such as the amount of resources saved and the amount of carbon emissions reduced. This information can motivate consumers to take action in environmental protection, since they will be aware of their potential contribution to environmental protection by purchasing the product. This encourages consumers to believe that their green purchasing behavior can contribute to the resolution of environmental concerns, hence increasing perceived consumer effectiveness. Further, companies are suggested to include Sustainable Development Goal 12 (SDG 12) to become a part of their business strategy and make sure that sustainability aspects are embedded in the business model. Companies are recommended to shift into sustainable environment, social and governance (ESG) finance factors, as a component of their competitive advantage and strategy. Opportunity lies in the ESG integration and certification. ESG notion is becoming increasingly obvious to most investors. Investors now a days are making decisions based not only on financial performance but also on added value and value created.

Future researchers may consider extending the locale and are also suggested to examine other behav-



ioral factors that may influence intention to invest in environmentally friendly shares as the factors included in this study only contribute 42.5% on the intention to invest.

This study was limited to individuals investing in the Philippine Stock Market, majority of which are considered in the early years of investing. This is indicated by the 89.1% of the respondents whose investing experience is from 0-9 years. The number of sample size used was not as many as the number of representatives of the undetermined population thus the results are only applied to the respondents considered in this study.

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