

# Strategies for Implementing Green Business in Indonesian Small and Medium-sized Enterprises

Heri Yanto<sup>a\*</sup>, Anik Susanti<sup>b</sup>, Kiswanto<sup>c</sup>, Niswah Baroroh<sup>d</sup>, Agus Wibowo<sup>e</sup>, <sup>a,b,c,d</sup>Faculty of Economics, Universitas Negeri Semarang, Semarang, Indonesia, <sup>e</sup>Faculty of Economics, Universitas Negeri Jakarta, Jakarta, Indonesia, Email: <sup>a\*</sup>[heri.yanto@mail.unnes.ac.id](mailto:heri.yanto@mail.unnes.ac.id)

Environmental problems are not only the responsibility of government, but the responsibility of everyone. In the Indonesian business context, large-sized enterprises (LSEs) are required to control and manage environmental impacts caused by their operations. Small and medium-sized enterprises (SMEs), which have reached 59.2 million in number, have potential to contribute to environmental impacts around the area of their operation. Green business is a relatively new concept that is not widely understood by SME entrepreneurs. The purpose of this study is to identify the antecedent variables of intention to implement green business by SMEs. By using extended TAM, this study covered six variables, four internal variables and two external variables. The results show that the intention to adopt green business (IGB) was affected by the attitude (ATT) of SME entrepreneurs. Furthermore, ATT is only influenced by the perceived ease of use green business (PEU). Trust as an external variable does not affect the perception of usefulness (PU), but affects the PEU. Risk negatively affects PU and positively affects PEU. Mastery of knowledge about green business becomes an obstacle in implementing green business. The government, universities, and NGOs need to work together to set standards, socialise, control, and evaluate the implementation of green business among SMEs.

**Key words:** *Green business, SMEs, Risk, Trust, TAM.*

## Introduction

Nowadays environmental issues are a major concern for entrepreneurs in developed countries (Anderson & Bateman, 2000). Nevertheless, environmental disasters have occurred several times both in developed and developing countries. At present various environmental problems are also faced including the problems of deforestation (Busch et al., 2012), air pollution (Hayasaka, Noguchi, Putra, Yulianti, & Vadrevu, 2014), and water pollution (Resosudarmo, 2003). Responsibility to the environment and society is not only limited to large companies but also small and medium scale companies (SMEs). In this regard, the Government of Indonesia (GoI) has issued Law Number 32 of 2009 concerning Environmental Protection and Management. Article 68 of this law requires that every individual conducting business must provide information about protection and environmental management.

In addition to the larger number of companies, SMEs also contribute to a very significant GDP (Yanto, Yulianto, Sebayang, & Mulyaga, 2017). In 2019 the contribution of SMEs to Indonesia's GDP reached 60.34% with a workforce absorption of 97.22% (Kemenperin, 2019). Therefore, the environmental impacts caused by SMEs' operations may also be quite significant. Purnamawati (2013) reported that SMEs contributed quite high pollution. To control pollution, several developed countries have implemented green business for SMEs, although the results of these initiatives are not promising (Revell, Stokes, & Chen, 2010).

Environmental problems are increasingly interesting to study along with the economic developments causing environmental degradation. At this time, Indonesia is facing several environmental problems such as deforestation, air pollution, water pollution and industrial waste (Hays, 2015). These problems have to be solved by all parties concerned by controlling the environmental impacts caused by the industries. The GoI through the Ministry of Environment and Forestry (MEF) has good practices to implement PROPER as an effort to control the environmental impacts caused by company operations (KEMENLHK, 2015). However, the implementation of the program for SMEs still faces many obstacles including: (1) the problem of the knowledge of SME entrepreneurs towards environmental sustainability; (2) the weakness of SMEs management, and (3) the limitation of environmentally-friendly financing (BI, 2012).

At present, the number of SMEs has reached 59.2 million (Yuliani, 2019) which means that SMEs contribute significantly to environmental pollution (Purnamawati, 2013). To address this, all companies should implement green business. Nowadays, there is an evolution of paradigm shift from conventional companies to environmental-friendly companies (Natsu, 2007; Strauss, 2018). The industry is not only demanded by consumers to process industry

waste, but is also required to implement an environmentally-friendly production process (Idris, 2012).

SME as a business actor that produces a variety of necessities to life, is also one of the contributors to the cause of environmental degradation. The negative impact caused by the activities of SMEs starts from the effort to obtain raw materials, the production process, and waste generated either during production or afterward. Green business implementation becomes even more important after most of the countries in the world have ratified the Sustainable Development Goals (SDGs). With a target of 169 points, the SDGs strive to save the Earth, the human population and increase the prosperity that will be achieved in 2030 (Nerini et al., 2018).

Originally, Technology Acceptance Model (TAM) was used to analyse users' acceptance of technology. This model is then used not only to analyse technology acceptance, but also to predict people's acceptance of innovations or new concepts. For example, Yanto, Handayani, Solikhah, and Mula (2016) analysed the acceptance of accounting standards by SMEs. This study analyses the acceptance of SMEs on the concept of green business. The purpose of this study is to understand the behavior of SMEs in adopting the concept of green business. By using the TAM framework, this study attempts to identify variables that determine the intention to use green business among SMEs. Moreover, the number of studies on green business or sustainable business for SMEs is still very limited in number, so this research would benefit the government, SMEs, and SME associations in implementing green business.

## **Literature Review**

The efforts to increase awareness and participation of SMEs in preserving the micro and global environment have been undertaken by encouraging and facilitating conventional SMEs to become environmentally-friendly SMEs (BI, 2012). However, to be able to implement more effective strategies to implement green business, policy makers need to know the behavior of SMEs about awareness, perceptions of environmental issues, intention, and readiness to implement green business.

To find out about the intention of SMEs in green business, this study uses the TAM. This model was originally used by researchers of information systems to determine the acceptance of new information technology (Jogiyanto, 2008). The first TAM was developed by Davis, Bagozzi, and Warshaw (1989) through using the Theory of Reasoned Action as a base model. TAM is a simple model but provides a satisfying level of validity. Moreover, TAM has five main constructs, namely: (1) Perceived usefulness, (2) Perceived ease of use, (3) Attitude toward using technology, (4) Behavioral intention to use, and (5) Actual technology use (Davis et al., 1989; Lu, Huang, & Lo, 2010).

### ***Attitude and Green Business Implementation***

Intention to implement is the level of desire of the owner or manager of SMEs to apply the concept of green business. This definition is adapted from the opinion of Davis (1989) and Teo (2011). While attitude is defined as feelings from someone both positive and negative, if he or she has to do the determined behavior (Davis et al., 1989). Positive feelings from SME owners towards green business or environmentally-friendly businesses are likely to improve their intention to adopt it. Green business for SMEs is needed, because its contribution to environmental sustainability could be significant. Previous research found that intention to implement green business by SMEs would affect environmental sustainability (Yacob, Wong, & Khor, 2019). On the other hand, the negative feelings towards the concept of green business could result in a decrease in the SMEs' intention to use it.

Research on the effect of attitude on intention to implement green business is still very limited in number. However, several studies have shown that attitude has a positive effect on intention to use technology (Al Khasawneh, 2015; Ayu KD, Mukaromah, & Kusumantara, 2018; Davis et al., 1989). Attitude also affects the intention to use information technology by teachers (Teo, 2011). Research on internet banking acceptance also found that consumer attitude had a positive effect on intention to use internet banking in India (Bashir & Madhavaiah, 2015). Therefore, the research poses the hypothesis as follows:

**H1:** Attitude (ATT) has a positive effect on intention to implement green business (ITG) by SME owners.

### ***Determinants of Green Business Attitude***

There are several determinants of individual positive perception about innovation, concepts, and new technology. According to Davis et al. (1989, p. 785) perceived usefulness (PU) and perceived ease of use (PEU) are two determinants of Attitude (ATT). If an SME entrepreneurs perceives that a green business is beneficial to both themselves and his environment, then their perception would change the attitude of entrepreneurs to implement green business. Attitude towards green business is also influenced by the ease of implementing green business (PEU). The easier it is to implement green business in daily business activities, the better the attitude about green business. However, previous research found that PU and PEU directly influence intention to use, however not through attitude variable as a mediator (Yanto et al., 2016). The results of other studies using TAM also found that PU and PEU significantly influence attitude towards using technology (Al Khasawneh, 2015; Ayu KD et al., 2018; Teo, 2011). This means that the more useful and the easier it is to use technology, the better the attitude towards technology. Therefore, this research formulates the hypotheses as follows:

**H2:** The more useful green business (PU), the better attitude (ATT) of SME entrepreneurs towards green business.

**H3:** The easier it is to use the green business concept (PEU), the better the attitude (ATT) of SME entrepreneurs about green business.

If SME entrepreneurs find it easy to implement green business, then there is a tendency for them to perceive green business as more useful. The TAM developed by Davis (1989) also suggests that there is an effect of PEU on PU. Research by employing managers or SME owners as respondents also found that PEU has a significant influence on PU (Yanto et al., 2016). Likewise, research from Teo (2011) and Ayu KD et al. (2018) found that PEU affects PU with a very convincing path and t-values. Furthermore, using meta-analysis, Abdullah and Ward (2016) confirmed the validity of the TAM developed by Davis (1989) where PEU significantly affects PU.

**H4:** The higher the perceived ease of use (PEU) of green business, the SMEs will perceive that green business will be more beneficial (PU).

### ***Risks of Implementing Green Business***

The decision to implement green business could have both positive and negative consequences. Decision makers always try to minimise the risks arising from the application of green business. Schiffman (2008) defines risk as a situation where decision makers have the perception that their decisions will harm the organisation. Previous studies found that risk negatively influences the intention to use technology (Lai & Zainal, 2015). This finding indicates that risk is a variable that has a strong influence on the intention to adopt a technology. However, Lai and Zainal (2015) did not examine the effect of risks on PU or PEU. The higher the risk that must be borne by individuals in adopting technology, the lower their perception of usefulness. SME entrepreneurs try to minimise the risk (Falkner & Hiebl, 2015), so that risky innovation will be perceived as less useful. Furthermore, Al-Gahtani (2011) found that risk negatively affects perceived usefulness.

Risks are financial and non-financial consequences of implementing technology that should be borne by SMEs (Yanto et al., 2016). The higher the risk of innovation, the more likely it is to be carried out. This is supported by the findings of Escobar-Rodríguez, Monge-Lozano, and Romero-Alonso (2012) who found that risk positively affects PEU. However, Al-Gahtani (2011) contended that PEU is negatively affected by risk. Yanto et al. (2016) also found that risk negatively affects PEU. Thus, this study proposes two hypotheses related to risk, PU and PEU.

**H5:** Financial and non-financial risks negatively affect PU of green business adoption by SMEs

**H6:** Risk has negative effect on perceived ease of use (PEU) of green business by SMEs.

### ***Trust***

Research conducted by Abdullah and Ward (2016) has identified external variables from the TAM developed by Davis (1989). Using meta-analysis, they identified potential external variables of TAM that are often used by researchers. Trust as a variable is rarely explicitly included in the extended model of TAM. However, trust has an important role in TAM (Ooi & Tan, 2016; Yang, Pang, Liu, Yen, & Tarn, 2015). In general, trust refers to something that will be used that is good, reliable, profitable, and so on (Al Khasawneh, 2015). In this case, trust is the level SME entrepreneurs' believe in the benefits of implementing green business. The higher the trustworthiness of technology and innovation, the higher the perception of usefulness will be. Research conducted by Ooi and Tan (2016) revealed that trust positively affects intention. Other studies prove that trust affects intention to pay online (Yang et al., 2015). However, research that discusses the relationship between trust and PU is still very limited. Mou, Shin, and Cohen (2017) found that trust has a positive influence on PU. It also means that the better a person's perception of technology or innovation, the higher perception towards the technology or innovation will be.

Technology or innovation that has good reliability features means that it will also have a good level of ease. In other words, technology and innovation that are perceived to have good trust will be perceived as having a good level of convenience. This has been proven by Schnall, Higgins, Brown, Carballo-Dieguez, and Bakken (2015) who demonstrated that trust has a positive influence to PEU on the use of health technology. Likewise, Hansen, Saridakis, and Benson (2018) also found that trust has a positive effect on the ease of use of social media to conduct transactions. Based on the above literature review, the study poses the following hypotheses:

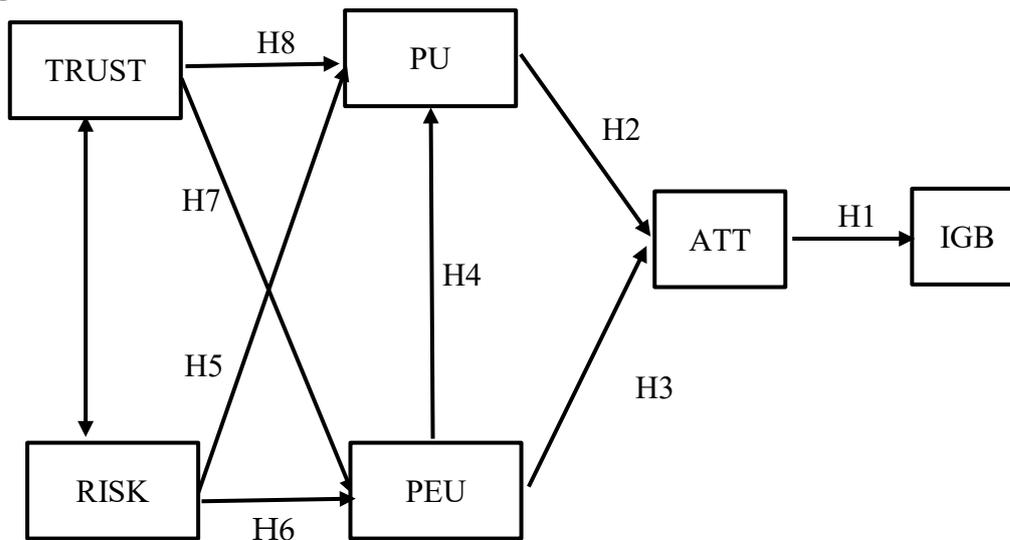
**H7:** Trust positively affects the ease of conducting green business among SMEs.

**H8:** Trust has a positive effect on the perceived usefulness (PU) of green business among SMEs.

This study includes six variables, four variables are internal variables and the remaining two are external variables of TAM. Internal variables are variables that are included in TAM, namely intention to implement green business (IGB), Attitude towards using green business

(ATT), perceived usefulness (PU), and perceived ease of use (PEU). The external variables proposed by this study are Risk and Trust. The IGB variable was hypothesised to be influenced by ATT, while the ATT variable was influenced by PU and PEU. Risk as an external variable negatively affects PU and PEU, while Trust positively affects PEU and PU. For more details, the following Figure 1 provides an overview of the proposed pattern of variables and hypotheses.

**Figure 1.** Theoretical Framework



## Methodology

### *Population and Data Collection*

The coverage of this study was Kendal Regency with a total population of 4,957 SMEs spread in seven districts. Considering the number and location of SMEs, this study distributed 200 questionnaires and returned 164 units and only 151 data could be used for further analyses. Before the questionnaire was used to collect data, this study conducted a tryout on a limited sample. The purpose of this try out is to get a valid and reliable questionnaire. This study uses the corrected-item-total correlation (CITC) analysis and Cronbach's alpha test. The threshold used is 0.3 and 0.7 for validity and reliability as suggested by De Vaus (2002). The following Table 1 presents the results of validity and reliability tests for internal TAM variables, namely Intention to implement green business (IGB), Attitude towards Green Business (ATT), Perceived Ease of Use (PEU), and Perceived Usefulness (PU).

**Table 1:** Validity and Reliability of Internal Variables

Item	CITC	Item	CITC	Item	CITC	Item	CITC
IGB-1	0.866	ATT--1	0.851	PEU-1	0.614	PU-1	0.471
IGB-2	0.847	ATT-2	0.846	PEU-2	0.745	PU-2	0.376
IGB-3	0.854	ATT-3	0.847	PEU-3	0.574	PU-3	0.550
IGB-4	0.918	ATT-4	0.875	PEU-4	0.682	PU-4	0.504
IGB-5	0.891	ATT-5	0.902	-	-	-	-
IGB-6	0.883	-	-	-	-	-	-
Cronbach's Alpha	0.961		0.951		0.818		0.689

The results of the validity analysis for internal variables show that all question items performed well with an indication that all CITCs are above the value of 0.3. The internal variable reliability test showed that three internal variables showed Cronbach's Alpha values far above 0.7, while one variable (PU) had a less satisfactory reliability performance with a value of 0.689. Since this coefficient almost meets the minimum requirement, this study includes this variable in the model.

The validity test of external variables consists of Trust and Risk producing satisfactory CITC coefficients, all question items have a CITC value above 0.3. This means that all question item have a good performance of validity. Likewise, the reliability test results in a Cronbach's Alpha coefficient above 0.7 meaning that all question items for measuring variables are reliable. The two test shows that the instrument for collecting data has met the validity and reliability requirements. The following Table 2 provides more complete information about validity and reliability of external variables (Trust and Risk).

**Table 2:** Validity and Reliability of External Variables

Item	CITC	Item	CITC
Trust-1	0.838	Risk-1	0.325
Trust-2	0.832	Risk-2	0.627
Trust-3	0.756	Risk-3	0.659
Trust-4	0.839	Risk-4	0.604
Cronbach's Alpha	0.919		0.752

### *Data Analysis*

This research uses two analyses i.e. descriptive and path. Descriptive analysis aims investigating information about the status of each variable. Path analysis is used to test the effect of exogenous variables on endogenous variables simultaneously (Ghozali, 2015). This

path analysis also aims to test eight proposed causal relationships or hypotheses in this research model.

This study also tested the Goodness of Fit by using several indices to get a fit model. The Goodness of Fit indices used are Chi-Square, CMIN/df, GFI, AGFI, TLI, CFI, and RMSEA (Ghozali, 2015; Hopper, Coughlan, & Mullen, 2008). To get a fit model, Chi-Square should have a value of  $p > 0.05$  (insignificant), the coefficient values of GFI, AGFI, TLI, and CFI should be above 0.90, the maximum value of RMSEA is 0.08, while the ideal CMIN/df should be less than 2.0 (Ghozali, 2015; Hopper et al., 2008; Yanto et al., 2016).

## **Result and Discussion**

### ***Descriptive Analysis***

SMEs have a good intention to implement green business indicated by an average value of 26.93 from a maximum value of 30. This is a very good start for SMEs to be able to participate further in environmentally-friendly businesses. SME attitudes towards green business are also good with an average value of 21.81 and with a maximum value of 25 and standard deviation of 2.23.

The PEU variable has an average of 15.84 with a maximum value of 20.00 with a standard deviation of 1.41. The SMEs also argue that implementing green business is not difficult. However, there are still a few SMEs that are doubtful about the ease of using green business. SMEs have a perception that green business is beneficial for their businesses and their environment with an indication that the average value of this variable is 14.96 with a maximum value of 20 and a standard deviation of 1.55.

SMEs have good confidence in green business being applied in their businesses. However, SMEs also have a perception that the implementation of green business in their business would pose financial and non-financial risks. The average value of risk is 11.69 out of a maximum value of 16 and a standard deviation of 3.30. Most likely, the risk is one of the problems faced by SMEs in implementing green business. Table 3 provides more complete information about descriptive analysis.

**Table 3:** Descriptive Analysis

Variable	Min	Max	Mean	Std. Dev
Intention to Use Green Business (IGB)	24	30	26.93	2.80
Attitude (ATT)	20	25	21.81	2.23
Perceived Ease of Use (PEU)	12	20	15.84	1.41
Perceived Usefulness (PU)	10	20	14.96	1.55
Trust	12	20	16.52	1.54
Risk	4	16	11.69	3.30

### Path Analysis

Attitude (ATT) as a mediating variable significantly influence intention to implement green business (IGB) with a  $\beta$  value of 0.543 ( $p < 0.01$ ). This influence is considered a moderate magnitude. As an intervening variable, ATT is also influenced by PEU variable with a  $\beta$  coefficient of 0.354 ( $p < 0.01$ ). However, ATT was insignificantly influenced by PU variable with  $\beta = 0.028$  ( $p > 0.05$ ). As an internal variable, PEU significantly affects PU with a  $\beta$  value of 0.450 ( $p < 0.05$ ). Thus, the results of the analysis show that there is one effect that exists in TAM (the effect of PU on ATT) which cannot be proven by this study.

As an external variable, Trust influences the PEU with a  $\beta$  coefficient of 0.225 ( $p < 0.01$ ), but it does not affect PU (0.009,  $p > 0.05$ ). The second external variable included in this model, Risk variable negatively affects PU with  $\beta$  of  $-0.203$  ( $p < 0.01$ ), but risk variable has a positive effect on PEU with a  $\beta$  coefficient of 0.225 ( $p < 0.01$ ). The covariance value between Trust and Risk variables is considered very good as it has very small magnitude and is insignificant. To get more complete information, the following Table 4 provides more complete information on beta values and their probabilities (p) of each hypothesis.

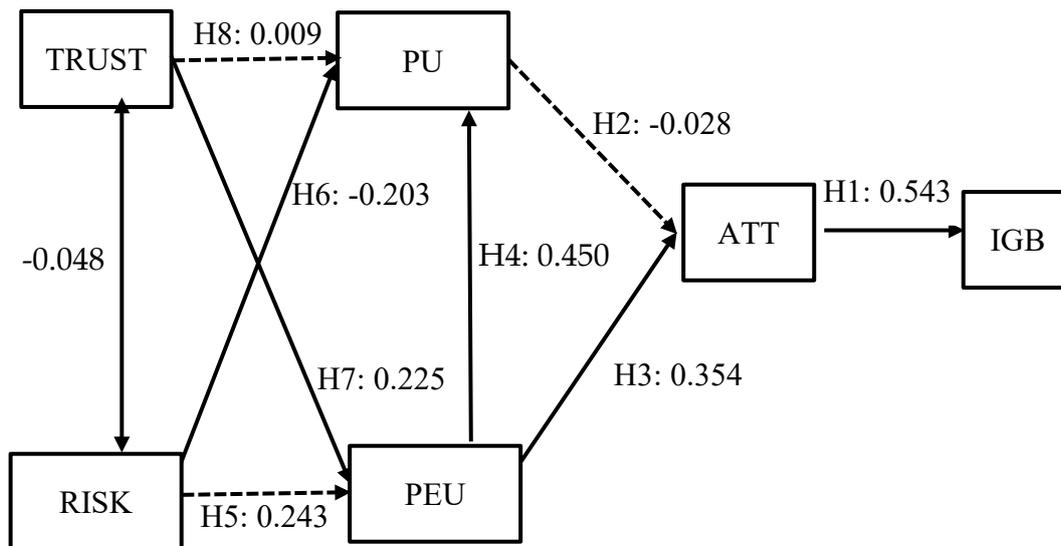
**Table 4:** Summary of Path Analysis

Hypothesis	Variable		Estimate	P	Remark	
H1	IGB	<---	Attitude	0.543	***	Accepted
H2	Attitude	<---	PU	-0.028	0.738	Rejected
H3	Attitude	<---	PEU	0.354	***	Accepted
H4	PU	<---	PEU	0.450	***	Accepted
H5	PU	<---	Risk	-0.203	0.007	Accepted
H6	PEU	<---	Risk	0.243	0.002	Rejected
H7	PEU	<---	Trust	0.225	0.004	Accepted
H8	PU	<---	Trust	0.009	0.906	Rejected

This study proposes eight hypotheses, five of which (H1, H3, H4, H5, and H7) are accepted, while the other three hypotheses (H2, H6, and H8) are rejected. H2 and H6 were rejected

because of the estimated probability values above 0.05, while H6 was rejected because this hypothesis was tested using a one-tailed test. The effect of risk on PEU was 0.243 ( $p < 0.05$ ). However, the direction of this beta value is not the same as the direction of H6 where the risk of being hypothesised negatively affects PEU. Figure 2 provides a more complete picture of the causal relationships of all the variables studied.

**Figure 2.** Empirical Model



The Goodness of Fit test results show a Chi-Square value of 11,416 with a  $p$  value of 0.076 which means that this value meets the threshold of 0.05. CMIN/df value of 1.903 with a maximum value of this index of 2.00. The GFI and AGFI values are 0.916 and 0.976 respectively with a minimum value of 0.90. Likewise, the NFI and CFI values are 0.915 and 0.954 with a threshold value of 0.90. However, the Tucker-Lewis Index (TLI) only has a coefficient of 0.886 with a cut-off value of 0.9. Lastly, RMSEA value of 0.078 with a cut off value of this index should be below 0.08. Thus, from eight goodness of fit tests conducted, seven of them had a very satisfying performance and only TLI has an unsatisfactory index value.

### Discussion

In the Indonesian economy, SMEs make a very significant contribution to GDP and employment (Kemenperin, 2019; Yanto et al., 2017). In the Indonesian business context, SMEs outnumber large-scaled enterprises (LSEs), such as large companies (Yuliani, 2019). This is an indication that SMEs contribute to significant environment degradation (Purnamawati, 2013). The application of the green business concept is feasible to curb

negative impacts of SME operations on the environment. GoI has implemented PROPER to mitigate environmental and societal impacts of LSEs' operation (KEMENLHK, 2015). Considering green business is a relatively new paradigm for SMEs in doing business, this research explores SMEs intention to implement green business in a developing country where SMEs become a backbone of economy growth.

The findings of this study show that intention to implement green business is determined by the attitude of SME entrepreneurs towards green business. This is in line with the previous findings that attitude positively affected intention to use technology (Al Khasawneh, 2015; Ayu KD et al., 2018; Davis, 1989; Vuorio, Puumalainen, & Fellnhofer, 2018). Other studies have found that attitude significantly contribute to intention to use information technology (Teo, 2011) and attitude also influences the intention to use internet banking in India (Bashir & Madhavaiah, 2015). These studies focus on analysing technology acceptance, not the application of new concepts or innovations. Research conducted by Yanto et al. (2016) focuses on applying innovation about accounting standards for SMEs, while this study is focusing on implementing the green business concept in SMEs. Thus, the finding is that attitude influences intention to use. This was supported the TAM developed by Davis (1989).

Although the perception of green business value (PU) is considered good enough, this perception does not affect attitude. This finding is not in line with the TAM developed by Davis (1989) and it is not following the findings of Al Khasawneh (2015), Teo (2011) as well as Ayu KD et al. (2018). The insignificant influence of PU on Attitude may be caused by two reasons. *First*, green business is a new concept for both large companies (LSEs) and small companies (SMEs). Therefore, the overall understanding of SMEs about the use of green business is still limited. The standards of doing green business for SMEs seems to be non-existent, although the initiation of this program has long been carried out by BI (2012). *Second*, the number of respondents from this study was only 151. This number could be insufficient to represent the perceptions of the population. This research was also only conducted in Kendal Regency that might not be able to describe the perception of SMEs in Indonesia.

The next finding of this research is the influence of PEU on the Attitude variable. The TAM developed by Davis (1989) also stated that PEU influences Attitude. Applications of TAM in education also provided the same results (Teo, 2011) and the utilisation of online transactions (Al Khasawneh, 2015). Information about the ease of using green business has changed the attitude of SME entrepreneurs towards green business.

In line with the original TAM, the PEU of technology affects the perception of technological usefulness. In other words, the easier it is for technology, concept, or innovation to be used, the technology will be perceived as more useful by potential users. The influence of PEU on

the perception of technological usefulness (PU) has also been revealed by previous research (Ayu KD et al., 2018; Davis, 1989; Teo, 2011; Yanto et al., 2016). Meanwhile, SME entrepreneurs' knowledge and human resources are still not well established (BI, 2012). The government, through the Ministry of Environment and Forestry, needs to establish green business standards and manuals for SMEs. This concept should be compact and easy to understand, since the SMEs' human resources and financial resources are still limited.

Trust and risk as external variables have different effects on internal variables, in this case, PEU and PU. Studies focusing on Trust as an external variable of TAM is still limited (Abdullah & Ward, 2016). The study found that the influence of trust on perceived usefulness is not significant. It also means that trust in green business does not affect perceived usefulness. Respondents likely thought that implementing green business would have negative consequences (risks) that had to be borne by SMEs. For comparison, Mou et al. (2017) found that Trust has a significant influence on PU. Ooi and Tan (2016) and Yang et al. (2015) suggested that the influence of Trust is not on PU or PEU but directly influences intention to use. Nevertheless, the study shows that trust does not correlate with intention to implement green business (IGB).

This study found that Trust has a positive influence on PEU as found by Schnall et al. (2015) and Hansen et al. (2018). The more trust in technology or innovation, the individual will try to learn it. By studying technology and innovation, they will perceive that technology and innovation are easy to use. After having sufficient knowledge of technology and innovation, they perceive that technology and innovation are beneficial. Thus, the influence of the Trust on PU is an indirect effect, meaning that the influence of Trust on PU has to go through the PEU as a mediating variable. Likely, the insignificant influence of Trust on PU is caused by the limited knowledge, management, and HR of SMEs as conveyed by BI (2012).

Risk negatively affects PU, which means that the higher the risk of technology and innovation will result in decreased benefits. Other studies also found the risk of a negative effect on PU (Al-Gahtani, 2011). However, other findings reveal that risk influences more of intention to use technology (Lai & Zainal, 2015). SMEs always try to minimise their business risk (Falkner & Hiebl, 2015) which means that the higher the risk of technology or innovation, the more potentials for SMEs to reduce their perception of usefulness of the technology and innovation.

This research found that risk positively influences the ease of using green business. This influence is not in line with the hypothesis that has been formulated that the risk has a negative effect on PEU. This means that the riskier the implementation of green business, the easier it will be perceived by SMEs. The pattern of the relationship between risk and PEU is not consistent; this relationship can be positive or negative. A group of researchers found that

the effect of risk on PEU was positive (Escobar-Rodríguez et al., 2012), while other researchers found that the effect of risk on PEU was negative (Al-Gahtani, 2011; Yanto et al., 2016). The discrepancy between these findings and the proposed hypothesis might be due to the inadequate knowledge of SMEs about green business (BI, 2012).

SMEs have a good intention to implement green business, meaning that this company already has the large capital to apply it. For the government and other related organisations, this is also a good start for SMEs to do their business more sustainably. The attitude and perceived usefulness (PU) of SME entrepreneurs towards green businesses is considered high enough. The problem lies in the knowledge to implement a green business that is still not well established. The government needs to continue to develop green business program as initiated by BI (2012). Besides, the government through the Ministry of Environment and Forestry (KEMENKLHK) is also obliged to implement law number 32 of 2009 especially article 18, where every individual who has a business must provide information on protection and environmental management. The development of manuals, implementation, supervision, and assessment programs should be carried out by KEMENKLH in collaboration with universities, NGOs, governments from provinces to villages. This needs to be done because the number of SMEs has reached 59.2 million (Yuliani, 2019).

The next research needs to identify indicators of green business assessment for SMEs. Active participation of SMEs in reducing air pollution (Hayasaka et al., 2014), water pollution (Resosudarmo, 2003), industrial waste (Hays, 2015), etc. is highly expected. Thus, SMEs should actively participate in conducting sustainable businesses while still contributing significantly to GDP and employment.

## **Conclusion**

The intention to use and the attitude of SMEs towards the concept of green business has been classified as good. Likewise, SMEs also have a good perception of the usefulness and ease of using green business. They also believe that the concept of green business will decrease negative effects of their business operations on the environment. The intention to implement green business is positively affected by the attitude of SME entrepreneurs. In turn, the attitudes (ATT) of SME entrepreneurs are influenced by PEU, but not by PU. Like other TAM models, PEU has a significant role in increasing PU green business.

As an external variable, Trust does not affect PU, but it contributes significantly to PEU. SME entrepreneurs have the perception that higher risk of implementing green business would lead to the lower perceived usefulness of green business. Risk has a positive effect on PEU which means that SMEs perceive that the higher the risk of green business, the easier it

is to implement it. The non-significance of the effect of PU on attitudes might be caused by insufficient knowledge of green business and the insufficient number of respondents.

The non-significance of the influence of the Trust on PU may be due to the limited knowledge of SMEs' knowledge of green business, so the Trust's influence on PU has to go through PEU. In other words, trust in green business will build perceived ease of using it. The perceived usefulness of green business is built by the perception of the ease of using green business. Risk positively influences SMEs' perception towards ease of use of green business. In other words, the higher the risk of technology, innovation, and new concepts means it will be perceived that it is easier to use them.

The use of TAM analysis is not only suitable for analysing the application of hard technology and soft technology, but this model is also suitable for analysing the application of new concepts such as green business for SMEs. To educate SMEs to employ green business, the study proposes the following strategy. The government and various related parties need to play a more active role in establishing standards, facilitating implementation, and monitoring and evaluating the implementation of green business in SMEs. There should be a mechanism for the division of authority for each level of government, from the central, provincial, district, sub-district and village, to implement green business in SMEs.

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