

## THE DIRECT EFFECT OF CLIMATE EMERGENCY AND SAFETY CLIMATE ON INTENTION TO SAFETY BEHAVIOR: A STUDY

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### Abstract

**Purpose of the study:** The main objective of this study was to examine the effect of climate emergence (i.e., work ownership, Islamic work ethic, and employee safety climate) on the intention of safety behavior.

**Methodology:** The research framework was developed based on the Theory of Planned Behavior and Social Exchange Theory. Stratified random sampling was used to collect data from 400 first-line operators and supervisors within the Small Medium Enterprise. A total of 250 useable questionnaires with a response rate of 75% were used for data analysis. The five proposed hypotheses were tested using Structural Equation Modeling (SEM) in IBM-SPSS-AMOS.

**Main Findings:** The results indicate that climate emergence factors have a positive and significant effect on employee intention to safety behavior. Furthermore, employee safety climate found to be the strongest predictor of employee intention to safety behavior, while other climate emergence factors do not have a direct effect on the intention of safety behavior. The model accounted for 76% of the variance in climate emergence in the context of intention to safety behavior.

**Applications of this study:** The results obtained from this study contribute to the improvement of proactive safety performance measures in the small-medium enterprise. However, further efforts are required to achieve the enhanced safety performance level

**Novelty/Originality of this study:** This study adds to the existing psychological literature on climate and employee safety behavior. This present study enhanced the climate-based construct by improving the safety performance measurement for small-medium enterprises.

**Keywords:** *Behavior-Based Safety, Intention to Safety, Safety Climate, Structural Equation Modeling (SEM), Small Medium Enterprise (SME), Work Ownership.*

### INTRODUCTION

Safety research has repeatedly demonstrated that people's unsafe behavior is a major contributor to accidents ([Cagno, Micheli, Masi, & Jacinto, 2013](#); [Floyde, Lawson, Shalloe, Eastgate, & D'Cruz, 2013](#); [Guo, Goh, & Wong, 2018](#); [Ma & Yuan, 2009](#)). Several numbers of theoretical models and metaphors have been disseminated in the past studies to clarify people's unsafe acts and behaviors ([Choudhry, 2012, 2014](#); [Choudhry & Fang, 2008](#); [Choudhry, Fang, & Mohamed, 2007](#)). Some notable researchers (e.g.: [Awang, Rahlin, & Afthanorhan, 2019](#); [Chen & Tian, 2012](#); [Choudhry, 2014](#); [Cui, Fan, Fu, & Zhu, 2013](#); [DeJoy, 2005](#); [Fang, Love, Luo, & Ding, 2020](#); [Griffin & Neal, 2000](#); [Huang et al., 2014](#)) have combined safety and behavior concepts into one systematic approach which is known as a behavior-based safety (BBS).

According to key researchers in a safety study, safety in the workplace has been defined in safety behavior ([Griffin & Neal, 2000](#)). On the other hand, many researchers agreed that safety behavior is essential to promote safety at work and it does not have a direct effect on employees, however, it helps to promote safety in the workplace ([Mahmud & Yusof, 2018](#)). BBS can be defined as a systematic assessment of specific behavior ([Glendon, McNally, Jarvis, Chalmers, & Salisbury, 2014](#)) and comprehensive study modification of critical safety behavior by using management commitment (ESC) as a medium that enabled successive refinements of the safety problem ([Guo et al., 2018](#); [Guo, Yiu, & González, 2018](#); [Li, Lu, Hsu, Gray, & Huang, 2015](#)). Besides that, many scholars aim to show that behavior-based safety is a function of consequences such as employee safety climate (ESC) and its antecedents ([Daniels, 2000](#); [Guo et al., 2018](#)). However, a recent study specified that the lack of a study on the proactive approach of safety performance assessment tools focused on small-medium enterprises ([Tremblay & Badri, 2018a](#)).

SMEs contributed a significant impact on Malaysian economics. According to [SME Corporation Malaysia \(2017a, 2017b\)](#), 60% of the employment provided by SMEs and 97% of the total company establishment are SMEs and contribute a significant percentage on the overall national GDP ([SME Corporation Malaysia, 2017a, 2017b](#)). Nevertheless, [Tremblay and Badri \(2018b\)](#) demonstrated that SMEs contributed the highest number of fatal accidents which are eight times more fatal accidents than large firms. Additionally, some researchers indicated that above 50% of non-fatal injuries recorded by SMEs ([Guo et al., 2018](#)). Many studies, revealed that SMEs recorded a higher number of occupational-related accidents

(Cagno et al., 2013; Floyd, Lawson, Shalloe, Eastgate, et al., 2013; Ma & Yuan, 2009) due to several weaknesses lead to the high number of accidents (Masi & Cagno, 2015; Masi, Cagno, Micheli, Cagno, & Micheli, 2015). The above discussion shows that a key function of SME in economics attached to numerous weaknesses which lead to a decrease in safety performance in this particular industry.

Occupational safety and health issues received considerable concern from several academic scholars. For example, Liu and fellow researchers (2015) have recommended that a combination of behavior-based and safety climate-based approaches are the most effective approach to attaining industrial related accidents issues. Moreover, empirical evidence from safety-related studies has suggested that ESC as a leading indicator of behavior-based safety (Fugas, Silva, & Meliá, 2012; Zhou, Fang, & Wang, 2008; Zohar, 2010). An integrative ESC and behavior-based safety performance were found to consistently improve in safety performance, however, it missed some important factors in this linkage. Therefore, the authors examine ESC and the potential predictor construct of intention to safety behavior (ITS).

## REVIEW OF LITERATURE

Several numbers of studies in the small-medium enterprise (e.g. Floyds et al., 2013; Kongtip, Yoosook, & Chantanakul, 2008; Legg, Olsen, Laird, & Hasle, 2015; Tremblay & Badri, 2018b; Unnikrishnan, Iqbal, Singh, & Nimkar, 2015) have proved that some other constructs positively improve safety performance. Despite extensive effort toward improvement of behavior-based safety performance, researchers found that a considerable number of constructs from the climate domain were significant with the improvement of behavior-based safety performance. Besides that, Nguyen and fellow researchers (2017) indicated there is a lack of studies focusing on antecedents and determinants of employee safety. Based on the above discussion, this study aims to examine the effect of climate constructs, namely work ownership and Islamic work ethic and ESC on the intention of safety in the small and medium enterprises. Therefore, this present study, stresses answering: Do Work Ownership, Islamic Work Ethic, and ESC have a positive effect on ITS in small and medium enterprises?

The research question in this study has been addressed by examining the effect of climate construct; namely work ownership, Islamic work ethic, and employee safety climate on ITS in the small manufacturing setting. Previous studies on work ownership have been consistently demonstrated that work ownership has a positive and direct effect on behavior-based safety (Lee, Wu, & C.-W. Hong, 2007; Schneider & Barbera, 2014; Zohar, 2008; Zohar, Huang, Lee, & Robertson, 2014). Interestingly, researchers found that there is no empirical evidence supported the relationship between WO and ESC in the context of the Malaysian small-medium enterprise. Moreover, a comprehensive literature review on this particular topic revealed that WO is an important antecedent of ESC. Thus, researchers postulated that WO has a positive and direct effect on ITS. On the other hand, researchers found that the Islamic Work Ethic (IWE) from the notion of climate construct has directly affected the feeling of ESC from many empirical studies. Empirical evidence shows that Islamic work values have a positive impact toward employee behaviors such as improved organizational commitment (Yousef, 2000), increase supervision performance (Khan & Moss, 2018) and reduce knowledge hindering behavior (Khalid, Bashir, Khan, & Abbas, 2018), increase work involvement (Khan et al., 2015), enhance innovation (Kumar & Rose, 2010), and improve organizational citizenship behaviors (Alhyasat, 2012). Regarding the above evidence, it can be postulated that WO and IWE have a relationship with the employee safety climate and intention to safety behavior.

The next section will discuss the literature review specific on the model of the intention of safety behavior in the small-medium enterprise, as well as the theoretical background on the role of ESC. This study aims to examine the direct effect of climate factors; namely, work ownership, Islamic work ethic, and employee safety climate on the intention to behavior, and this study was conducted based on the Theory of Planned Behavior (TPB) and Social Exchange Theory (SET).

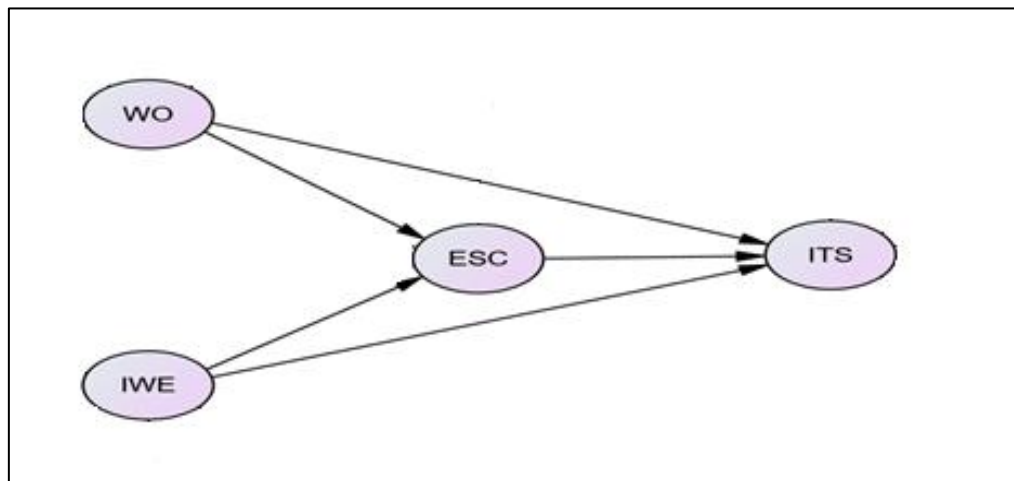
## UNDERPINNING THEORIES OF THE STUDY

In the past, many scholars have shown that several behavioral theories, namely social exchange theory, the theory of planned behavior, the theory of reasoned action, goal-setting theory, and reinforcement theory are usable to study intention to specific behavior likely intention to safety behavior. Zohar et al., (2014) indicated that the way employees perceive safety in their workplace and emergence climate factors are affected employee safety performance. Additionally, Fogarty and Shaw (2010) and Zhang, Fang, Wei, and Chen, (2010) have revealed that a lack of study on safety behavior has been conducted under the notion of psychology and absent from presenting some important factors.

TPB was found to be the most frequently used in the field of safety-related studies. Empirical evidence has demonstrated that a strong relationship between attitudes based perception on management commitment toward safety and intention to safety behavior has supported the Theory of Planned Behavior (TPB) (Fogarty & Shaw, 2010). One safety study specified that TPB has been used to guided specific behavior studies including traffic violations, unsafe behavior (Champahom, Jomnonkwo, Satiennam, Suesat, & Ratanavaraha, 2019) and several types of food safety intention (see Rezaei, Mianaji, & Ganjloo, 2018). Azjen (2001) indicated that intention to behavior in TPB is determined by three factors, which are; attitudes, subjective norms, and perceived behavioral control. Adding to this array of knowledge, many researchers supported that attitudes

toward safety were the most crucial determinant factor of ESC and behavior-based safety (Chee, Ramayah, & Subramaniam, 2018; Choudhry, 2014; Fogarty & Shaw, 2010). This is in line with prominent researcher Zohar (1980) in a safe climate study, who also indicated that ESC was the most higher-order factor of behavior-based safety performance. Additionally, a recent study has confirmed that reciprocity of the good relationship between management and employees has a positive employee safety behavior (McLain, 2014; Mullen, Kelloway, & Teed, 2017) and it was confirmed by Guo et al. (2018) point out that behavior is a function of its consequences.

Several researchers claimed that TPB explained about reciprocity between many parties in the relationship from psychological aspect (Mullen et al., 2017; Smith, 2017), lead to improvement on employee motivation (Champahom et al., 2019) and increase individual safety behavior (Huyghebaert, Gillet, Lahiani, Dubois-Fleury, & Fouquereau, 2018). Besides that, the previous study indicated that factors from society and organization influence employee perception and belief (Burt, Williams, & Wallis, 2012). However, researchers found that very few studies emphasized the effect of climate emergence factors on employee safety climate and behavior-based safety (Mearns, Whitaker, & Flin, 2003; Nguyen et al., 2017; Smith, 2017; Zhang et al., 2010). Previous discussions have been considered into this present study framework, therefore this study will extend the linkage between employee safety climate and intention to safety from TPB by adding WO and IWE as motivational factors of ESC and predictor of intention to safety.



**Figure 1:** Theoretical Framework of the study

The hypothesis statements for this study are stated as follows:

- H1:** Work Ownership (WO) has a significant effect on Employee Safety Climate (ESC).
- H2:** Work Ownership (WO) has a significant effect on Intention to Safety behavior (ITS).
- H3:** Islamic Work Ethic (IWE) has a significant effect on Employee Safety Climate (ESC).
- H4:** Islamic Work Ethic (IWE) has a significant effect on Intention to Safety behavior (ITS).
- H5:** Employee Safety Climate (ESC) has a significant effect on Intention to Safety (ITS) behavior.

## METHODOLOGY

### Sample and population

The sample of this present study comprises selected employees from the small manufacturing enterprise on the east coast of peninsular Malaysia. 400 self-administrative questionnaires have been distributed to selected samples using simple random sampling. 250 completed self-administrative questionnaires have been returned to researchers for data analysis. Data has gone through several procedures such as screening and cleaning to ensure only usable and quality data are used for further analysis.

### Instrument

A set of the self-administrative questionnaire consists of three sections which are 1) respondent's general information, 2) exogenous constructs: WO, IWE, and ESC, and 3) endogenous construct: ITS. In Section 1, the nominal scale has been used to measure the respondent's general information. Section 2 and Section 3 used interval scale ranging from 1 = strongly disagree to 10 = strongly agree to measure exogenous construct and endogenous construct. The first exogenous construct is work ownership has been adopted from Van Dyne and Pierce, (2004) comprises 6 items. The second exogenous construct is

the Islamic Work Ethic adopted from [Yousef, \(2001\)](#) comprises 10 items and the third exogenous construct is employee safety climate adopted from [Zohar et al. \(2014\)](#) involving 12 items. While the endogenous construct of Intention to Safety behavior adapted from [Uryan \(2010\)](#) comprises 5 items.

### Analysis

Data has gone through several procedures such as screening and cleaning, pretest, and pilot test to ensure only usable and quality data are used for further analysis ([Bahkia et al., 2019](#); [Rahlin et al., 2019](#)). Exploratory Factor Analysis (EFA) procedures have been applied using IBM-SPSS 25.0. for pilot study data to explore, filter, and determine the factorial structure of the items as recommended by [Mahfouz et al., \(2019\)](#) and [Shkeer and Awang\(2019\)](#). Based on the EFA results, no item was removed due to good factor loading, and all the retained items were rearranged for the field study questionnaire.

The Confirmatory Factor Analysis (CFA) and SEM were carried out using IBM SPSS AMOS 24.0 for fieldwork data. Several researchers consistently agreed that CFA was conducted to assess three types of validity, namely construct validity, convergent validity, and discriminant validity together with composite reliability ([Rahlin et al., 2019a](#); [Shkeer & Awang, 2019a](#); [Afthanorhan et al., 2019](#); [Asnawi et al., 2019](#)). After that, data analysis continues to develop the structural model by performing Structural Equation Modeling (SEM) procedures to estimate the inter-relationships among the constructs in the MODEL.

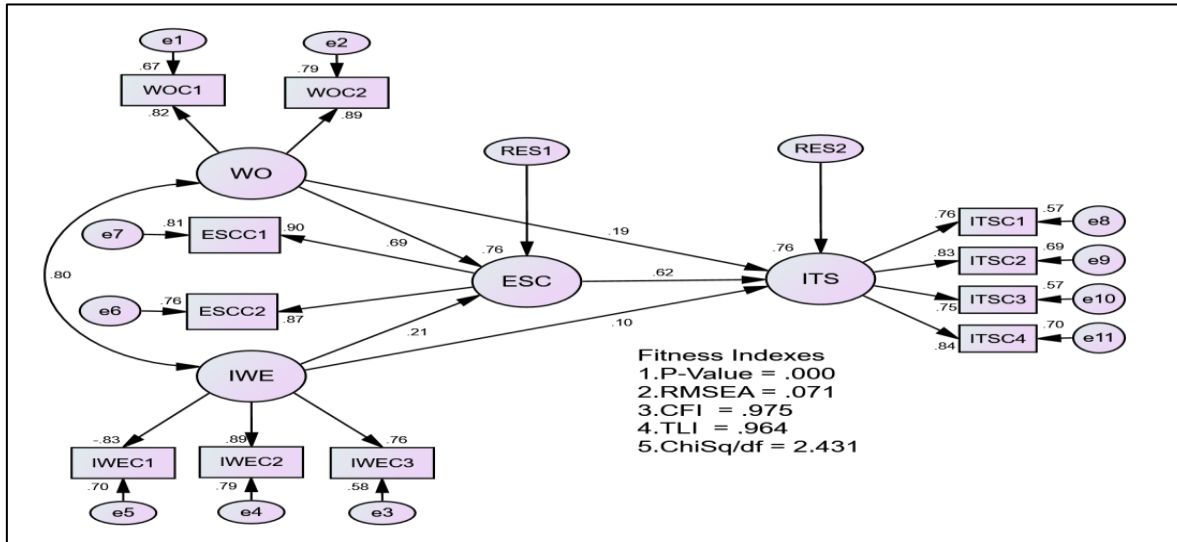
## RESULT AND DISCUSSION

**Table 1:** General Information of the Respondent (N=250)

|                      | Classification                                     | Frequency | Percentage (%) |
|----------------------|----------------------------------------------------|-----------|----------------|
| Gender               | Male                                               | 164       | 65.6           |
|                      | female                                             | 86        | 34.4           |
| Age (years old)      | 25 and less                                        | 79        | 31.6           |
|                      | 26-30                                              | 58        | 23.2           |
|                      | 31-35                                              | 28        | 11.2           |
|                      | 36-40                                              | 22        | 8.8            |
|                      | 41-45                                              | 27        | 10.8           |
|                      | 46-50                                              | 23        | 9.2            |
|                      | 51-60                                              | 12        | 4.8            |
|                      | Above 60                                           | 1         | 0.4            |
| Education background | PMR (below O level)                                | 34        | 13.6           |
|                      | SPM (O level)                                      | 117       | 46.8           |
|                      | DIP/STPM/Matriculation                             | 61        | 24.4           |
|                      | Degree                                             | 34        | 13.6           |
|                      | Higher than Degree                                 | 4         | 1.6            |
| Length of services   | 0-5 years                                          | 137       | 54.8           |
|                      | 6-10 years                                         | 50        | 20             |
|                      | 11-15 years                                        | 38        | 15.2           |
|                      | 16-20 years                                        | 17        | 6.8            |
|                      | 21-30 years                                        | 6         | 2.4            |
|                      | more than 30 years                                 | 2         | 0.8            |
| Job design           | Operator and equivalence                           | 178       | 71.2           |
|                      | Above than operator and supervisor and equivalence | 72        | 28.8           |
| Accident experience  | Yes                                                | 48        | 19.2           |
|                      | No                                                 | 202       | 80.8           |

That is an appropriate number of participants (i.e., 250 out of 400 participants, or 62.5 % of response rate). Table 5 is the general information of the study sample, shows that the sample was predominantly male (65.6%). Most of the respondents are operators at a young age below than 25 years old, whereas most of them are SPM or an O level holder with 5 years and less length of services. The small number of respondents indicated that they have accident experience compared to those who have never had an accident experience.

**Structural Equation Modeling (SEM) and Results**



**Figure 2:** The standardized regression path coefficient among constructs

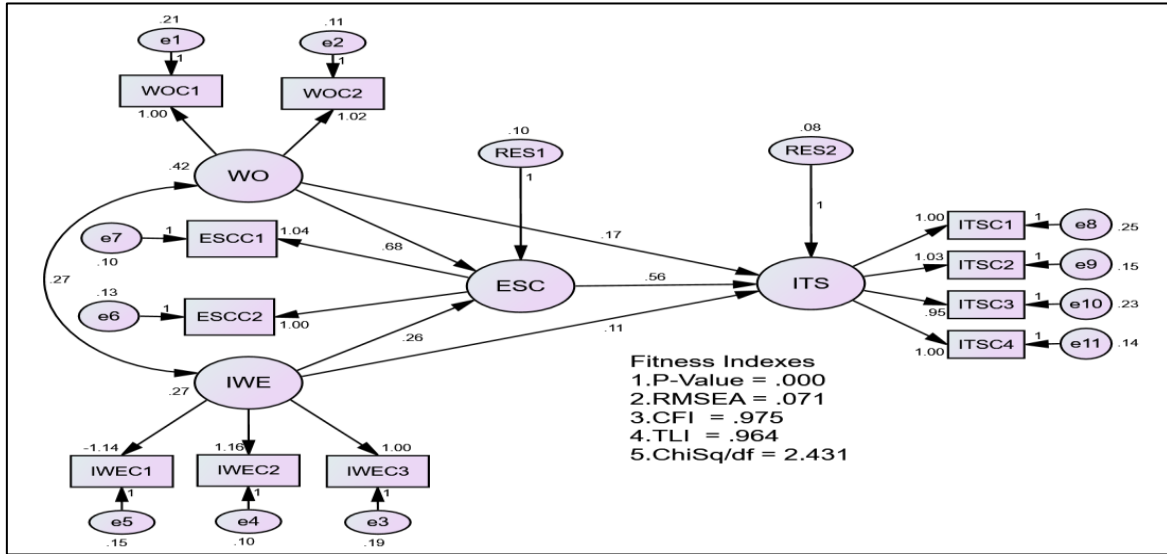
The construct validity was assessed based on the fitness index of the model (Rahlin et al., 2019a). The results in Figure 2 indicated the structure of the ITS model present a satisfactory fit for all three model fit categories (Yusof et al., 2017; Awang et al., 2018; Shkeer & Awang, 2019). The absolute fit index (RMSEA= 0.071) was less than 0.08 and incremental fit index of CFI = 0.975 and TLC = 0.964 was satisfactory, while the parsimony fit index of chisq/df = 2.431 achieved the required level. Moreover, the intention to safety model was significant at p=0.00. The good Fitness index is reflected from the low modification index (MI) (MI <15) of every item (Awang, 2015; Awang et al., 2018), and it also specified that data is free from multi-colinearity problem. This model fit indicators must be achieved before data are qualified for further covariance-based analysis likely convergent and discriminant validity. Overall, all constructs from climate emergence construct in the study model contributed 76% of the variance of intention to safety behavior.

**Table 2:** Discriminant Validity Index Summary

| Construct | WO          | IWE         | ESC         | ITS         |
|-----------|-------------|-------------|-------------|-------------|
| WO        | <b>0.83</b> |             |             |             |
| IWE       | 0.8         | <b>0.82</b> |             |             |
| ESC       | 0.69        | 0.21        | <b>0.88</b> |             |
| ITS       | 0.19        | 0.1         | 0.62        | <b>0.71</b> |
| Component | 0.82        | 0.86        | 0.83        | 0.89        |
| AVE       | 0.71        | 0.68        | 0.78        | 0.51        |
| CR        | 0.63        | 0.71        | 0.64        | 0.7         |

Note: The square root of AVE value in bold

The square root of AVE (in bold) must be higher than the values in the respective line and column. The above results show that the square root of AVE discriminant the value in the respective column and line, thus these results revealed that the measurement model of this study fulfills the discriminant validity index test. These results are according to the discriminant validity index guideline recommended by several researchers (Awang, 2015; Aziz et al., 2016; Awang et al., 2018; Asnawi et al., 2019).



**Figure 3:** The regression path coefficient of intention to safety model

### The results of hypothesis testing

The results of hypothesis testing for hypotheses 1, 2, 3, 4, and 5 are present in Table 3. The results of the first hypothesis revealed that WO and ESC were positively linked (0.69) and significant at  $p < 0.05$  (Hypothesis 1). The results indicated that the standard error and C.R deviation of WO and ESC are 0.099 and 6.884, respectively. The P-value of 0.01 is significant at the 0.05 level, which indicated that WO has a positive and significant effect on ESC. This result supports hypothesis 1 that is a positive and significant effect of WO on ESC.

**Table 3:** The Regression Path Coefficient and its Significance

| Relationship | WO → ESC    | IWE→ESC     | ESC→ITS     | IWE→ITS         | □ WO→ITS        |
|--------------|-------------|-------------|-------------|-----------------|-----------------|
| Estimate     | 0.681       | 0.262       | 0.559       | 0.114           | 0.166           |
| S.E.         | 0.099       | 0.116       | 0.11        | 0.096           | 0.114           |
| C.R.         | 6.884       | 2.26        | 5.095       | 1.188           | 1.455           |
| P            | 0.001       | 0.024       | 0.001       | 0.235           | 0.146           |
| Result       | Significant | Significant | Significant | Not Significant | Not Significant |
| Hypothesis   | Supported   | Supported   | Supported   | Not Supported   | Not Supported   |

Returning to hypothesis one, it can be therefore concluded that employee with a high level of WO has a positive attitude toward ESC practices. This result is in line with several researchers indicated that WO enhances the likelihood to protect an object or defend the work environment leading to object protective behavior and encouraging the emergence of ESC (Schneider & Barbera, 2014; Zohar et al., 2014).

Additionally, some scholars have been clarified that WO has been shown to positively encourage ESC in many studies (e.g: Lee, Wu, & Hong, 2007; Zohar, 2008). Moreover, key researchers from psychological ownership have suggested that could initiate great attitudes to targeted behavior such as job satisfaction, organizational commitment, and organizational identification, and consequently, it will help to reduce the tendency of involving with a particular behavior (Pierce, Rubenfeld, & Morgan, 1991; Van Dyne & Pierce, 2004). Many researchers from this field of study have advised that psychological ownership can stimulate positive attitudes toward the job and the organization (Hsu, 2013; Lu, Liu, & Zhao, 2017; Pierce, Kostova, & Dirks, 2001). These results show that the above-mentioned relationships have been described and supported TPB which shows that WO plays a significant role in enhancing ESC.

The second hypothesis revealed that a significant relationship was observed between IWE and ESC was positively linked (0.262) and significant at 0.05 (Hypothesis 2). The results indicated that the standard error and C.R deviation of IWE and ESC are 0.116 and 2.260, respectively. The P-value of 0.024 is significant at 0.05. This result supports hypothesis 1 that is a positive and significant effect of WO on ESC. Furthermore, the evidence from path coefficient analysis revealed that a medium degree of the relationship was observed between exogenous constructs of IWE and ESC. Returning to hypothesis 2, it can be therefore concluded that when an employee has a high level of IWE they will have a higher ESC to engage in such practices. This finding was also reported by several researchers from the Islamic perspective study. For instance, many

studies have considered the effects of IWE on several numbers of ESC related dimensions, namely; innovation capability ([Farrukh eart al., 2015](#); [Kumar & Rose, 2010](#)) and work environment ([Abdus Satta & Aiza Hussain, 2012](#)). These results show that the above-mentioned relationships have been described and supported TPB which shows that IWE acts as a motivational factor of climate in influencing ESC.

The results of the third hypothesis show that ESC and ITS were positively linked and significant at  $p < 0.05$  (Hypothesis 3). The P-value of 0.001 is significant at 0.05, which indicated that ESC has a positive and significant effect on ITS. Furthermore, statistical results specified that the effect of ESC on Intention to Safety (ITS) is 0.559 and the P-value was significant. This result supports hypothesis 3 that is a positive and significant effect of WO on ESC. The results indicated that the standard error and C.R for both ESC and ITS are 0.110 and 0.001, respectively. Furthermore, the evidence from the regression path coefficient analysis revealed that a medium degree of the relationship was observed between the exogenous construct of ESC and ITS.

These results found to be similar to the previous research results ([Burke et al., 2002](#); [Clarke, 2010](#); [Nahrgang et al., 2011](#)) before safety-related performance studies. These results reflect one of the previous studies conducted by [Fogarty and Shaw \(2010\)](#) who also found intention and attitude are linked. Besides that, a recent empirical study shows that intention ( $b = 0.10$ ,  $p = 0.112$ ) was significantly affected by attitude ([Wong & Lee, 2016](#)). Adding to this array, two psychology and behavior researches in transportation study conducted by ([Brijs et al., 2014](#)) and ([Champahom et al., 2019](#)) found that specific types of an attitude positively have a significant influence on helmet use intention behavior. On the other hand, the most current study shows that attitude was the most higher predictor of intention to engage with safety among farmers in Iran ([Rezaei et al., 2018](#)). Indeed, [Rezaei et al., \(2018\)](#) clarified that the positive relationship between attitudes explained 41% of the variance and study model was successfully demonstrated by using TPB. Taken together, this finding provides support for Hypothesis 3, it can be therefore concluded that when employees have a satisfactory level of ESC, they will have a better intention to safety to engage in such practices.

Hypothesis 4 was to show that WO has a positive and significant relationship with intention to safety. The regression path coefficient value of WO and ITS is 0.166, found to be not significant. Additionally, p-value is 0.146, which is far from significant level  $P = 0.146$ . These results are not consistent with previous findings which show that attitude has a relationship with behavior and most of them agreed intention is a predictor of behavior. The results indicated that the standard error and C.R deviation of WO and ITS are 1.455 and 0.146, respectively. This result indicated that hypothesis 4 was not supported which has no positive and no significant effect of WO on ITS.

This finding is contrary to previous studies which have suggested that that psychological ownership could initiate great attitudes to targeted behavior such as job satisfaction, organizational commitment, and organizational identification, and consequently, it will help to reduce the tendency of involving with a particular behavior ([Pierce, Rubenfeld, & Morgan, 1991](#); [Van Dyne & Pierce, 2004](#)). Many researchers from this field of study have advised that psychological ownership can stimulate positive attitudes toward the job and the organization ([Hsu, 2013](#); [Lu, Liu, & Zhao, 2017](#); [Pierce, Kostova, & Dirks, 2001](#)). The result of this current study does not support the previous finding on relevance links conducted in Chinese and Korean manufacturing areas. A study conducted in several numbers of Chinese automobile manufacturing companies found that employees' psychological ownership is inversely correlated to their turnover intention ([Lu et al., 2017](#)).

Besides that, one study conducted in Korean manufacturing revealed that psychological ownership is the most influential factor to reduce the turnover intention of employees ([Lee, Jeon, Kim, & Jung, 2014](#)). These results also stand in contrast with many researchers who agreed that psychological ownership effectively acted as a motivational role of attitude and behavior. For example, a study from entrepreneurship argues that psychological ownership can have strong implications on business intention ([Hsu, 2013](#)). A marketing-based study by [Felix and Almaguer \(2019\)](#) found that individual-level psychological ownership is positively related to two types of intention to behavior, namely; 1) recycling the intention to purchase green products and 2) intentions to recycling. In sum, there is no similar evidence was found in this present study on the relationship between WO and ITS.

Hypothesis 5 was to show that IWE has a positive and significant effect on ITS. The results of this study show that the regression path coefficient value of IWE and ITS is 0.114, which was significant at  $p = 0.235$ . As compared to the result in hypothesis 4, the results in this hypothesis revealed that the regression path coefficient value of IWE, and it's slightly higher than the direct effect IWE on ITS. The results indicated that the standard error and C.R deviation of ESC and ITS are 0.096 and 1.188, respectively. Furthermore, the evidence from the regression path coefficient analysis is unable to demonstrate that IWE has a positive and significant effect on ITS. In contrast to earlier findings, however, no evidence of the significant effect of IWE on ITS was detected because this result has not previously been described. For this reason, researchers used themes ethic and intention to behavior as guides for further discussion. Interestingly, the results of this current study found to be closely similar to previous findings by [Nguyen and Biderman \(2008\)](#), indicated that behavioral intentions tend to have a strong relationship with the scenario factors compared to the ethical dimensions in various situations.

However, this present finding is contrary to previous studies found that ethical climate as one of the crucial factors towards employee safety behavior and intention to behave in hospital settings ([Elango, Paul, Kundu, & Paudel, 2010](#); [Tei-Tominaga & Nakanishi, 2018](#)). Additionally, these results not similar to past studies demonstrated that specific ethical climate has a significant and positive indirect effect on specific types of behavior intention ([Talha, Sallehuddin, Masoud, & Said, 2013](#)). This study also doesn't support a significant link between similar topic themes of ethical climate from the psychological mechanism and whistle-blowing intention ([Zhou, Liu, Chen, & Zhao, 2018](#)). Most of the previous findings indicated that ethical climate has a significant effect on the intention to behavior ([Lee & Beck, 2019](#)). From the above discussion, it can be concluded that there is only one similar evidence was found in this present study on the relationship between IWE and ITS. Thus, this result does not support hypothesis 5 that there is no positive and significant effect of IWE on ITS.

## CONCLUSION

This present study has proposed a model of the predictors of intention to safety behavior comprising of work ownership, Islamic work ethic, and employee safety climate. One's intention to safety behavior was found to be shaped largely by an employee safety climate. Employee safety climate is manifested through work ownership and Islamic work, implying that employee safety behavior as largely attributable to factors within their control.

This present empirical evidence study described the importance of emergency climate factors to the SMEs are not being adequately explored. A model of predictors of intention to safety including several factors that involve the low cost of implementation, SME friendly indicators, and offer high-reliability results in safety performance indicators.

Results showed that climate emergence factors, namely work ownership, Islamic work ethic, and employee safety climate measure have a positive relationship with intention to safety. However, it is problematic to examine the actual amount of effects due to the use of divergent assessment tools and various industries. Thus, this study contributes to the proactive measurement of intention to safety behavior specific for small-medium enterprises. The replication study could provide strong evidence on a reliable measurement tool.

Future study is suggested to seek other psychological constructs that might affect employee safety climate and intention to safety performance so that it could be a catalyst to the improvement of safety performance. Furthermore, a new study is encouraging to the extent the linkage between climate emergence constructs to intention to safety and safety performance.

## CO-AUTHOR CONTRIBUTION

The authors affirmed that there is no conflict of interest in this article. Nor Azma Rahlin carried out fieldwork and wrote the manuscript, Ayu Suriawati & Zulkifli Abd Rahim helped in data cleaning and refined the write-up in methodology and analysis, while Zainudin Awang carried out statistical analysis procedure, testing the required hypothesis, interpretation of the results and enhanced the analysis section.

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