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BEHAVIORAL FACTORS OF INTERNAL AUDITORS AND ENTERPRISE RISK MANAGEMENT EFFECTIVENESS ASSESSMENT OF MALAYSIAN STATUTORY BODIES

¹Norman Mohd Saleh & ²Mohd Nurfirdaus Wan Chik

Center for Governance Resilience and Accountability
Faculty of Economics and Management,
Universiti Kebangsaan Malaysia

¹*Corresponding author: norman@ukm.edu.my*

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ABSTRACT

This study used the theory of planned behavior to examine the relationship between internal auditors' behavioral factors and intention to evaluate enterprise risk management (ERM) effectiveness of Malaysian statutory bodies. Unlike prior literature, this study also included a test on individual attitude towards risk in addition to attitude towards behavior, subjective norms, and perceived behavioral control. Analysis on 108 received responses showed that subjective norms and perceived behavioral control had positive relationships with the intention to assess ERM effectiveness. Nevertheless, the influence of attitude was not substantiated. The results imply that attitude is not an important factor when individuals do not have total process ownership.

Managers of statutory bodies and heads of internal audit departments need to shape internal auditor behavior by instituting social and administrative norms and instilling a positive perception about the ability to perform tasks within the organization. This study also shows that individuals have no total ownership in a process, thus focusing efforts on shaping individual attitude is not practical. This issue is critical because successful ERM implementation depends on internal auditors' intention to evaluate its effectiveness. An effective ERM can reduce the risks of waste, inefficiencies, corruption, malpractices, and public-private partnerships associated with the public sector.

Keywords: Theory of planned behavior, effectiveness assessment, enterprise risk management, statutory bodies, internal auditors.

INTRODUCTION

In an increasingly complex and dynamic era, the ability of organizations to be competitive and sustainable in their respective industries depends on the governance structure that can identify and manage risks. Risk can be defined as a condition that affects the achievement of an objective (ISO 31000, 2009). Waste, inefficiencies, corruption, malpractices, and public-private partnerships are risks associated with the public sector (Committee on Oversight and Government Reform, 2017; Rybníček et al., 2020), including statutory bodies. Recently, there has been an increasing threat of pandemic risks that affect the whole business operations and markets. These risks need to be addressed using an integrated risk management approach, such as enterprise risk management (ERM). ERM can be defined as a systematic risk assessment on the probability of possible risks and their influence on the achievement of organizational objectives (COSO, 2004). The benefits of ERM to the organization are, among others, achievement of objectives, increase in firm value (Hoyt & Liebenberg, 2011), and driving efficiency that can improve performance (Duho et al., 2020). ERM includes: (1) establishment of context, (2) risk identification, (3) risk analysis, (4) risk evaluation, (5) risk treatment, (6) communication and consultation, and (7) monitoring and review (ISO 31000, 2009). Internal auditors play an important role in risk management. One of the functions of internal auditing is to implement a disciplined and systematic approach to evaluate and improve governance, internal

controls, and risk management. Specifically, the role of internal auditors is essential in assessing ERM effectiveness.

Md Ludin (2014) states that ERM implementation remains low at approximately 32 percent among statutory bodies, while Md Sum and Abdul Khalik (2020) find an average ERM implementation of 79 percent in non-financial listed companies. The level of ERM execution in statutory bodies has remained low despite numerous awareness courses, campaigns, and promotions from the Institute of Internal Auditors, Malaysia. Given the importance of internal auditors in the ERM framework, the effectiveness of their role in this process requires study. However, when most organizations establish their risk management committee at the board level, most ERM processes are carried out by a separate risk management office. Internal audit should be independent and only be responsible for the evaluation of risk management effectiveness. As such, considered as a “secondary party” to ERM, internal auditors may not possess the inner motivation to carry out the evaluation unless expected by norms or their superiors. To date, few studies focus on the role of internal audit in ERM (Chowdhury & Shil, 2019; Kiral & Karabacak, 2020). Unlike prior research, this study provides evidence on the behavioral factors that affect internal auditor intentions to evaluate ERM effectiveness. This study uses the theory of planned behavior to examine whether attitude, subjective norms, and perceived behavioral control can shape individual intentions, that is, the intention to evaluate ERM effectiveness. To this extent, this study contributes to the body of knowledge on behavioral factors that shape intention to carry out a specific action when an individual does not have total process ownership. Second, this study determines whether risk attitude, that is, risk-taking or risk-aversion, is vital in shaping the intention to assess ERM effectiveness. This issue is critical because successful ERM implementation depends on internal auditors’ intention to evaluate its effectiveness.

This study was carried out in the public sector, where ERM implementation has been relatively behind that of the private sectors. Although the nature of risks between the two sectors differs, the importance of ERM is undeniable. However, most prior studies mainly examined issues surrounding ERM implementation in the private sector. This study attempts to fill the void in the public sector by investigating ERM implementation in a sample of statutory bodies.

In contrast to government ministries or departments, statutory bodies have autonomous status and a government mandate in its operational management and are subject to regulations and laws under Section 11(2) of the Statutory Bodies Act (Accounts and Annual Report) 1980 (Act 240). A statutory body is an entity between the government department and the private sector (Omar, 2001) governed by its Board of Directors as determined by the General Circular Letter No. 3/1998. Given these facts, statutory bodies need to have effective ERM. The lack of such emphasis has motivated this study. The objectives of the study was to examine the relationship between internal auditors' behavioral factors, attitude, risk attitude and subjective norms on the intention to evaluate enterprise risk management (ERM) effectiveness of Malaysian statutory bodies.

LITERATURE REVIEW

Several complex organizational issues and challenges need to be addressed in the public sector. Financial and non-financial risks such as reduced government funds, corruption and malpractices, and investments require consideration. Risk management can provide organizations with benefits, such as increasing value (Kraus & Lehner, 2012), providing stakeholder confidence, increasing compliance with regulations, controlling costs, forming understanding and acceptance of risks within the organization, increasing organizational income, and reducing capital costs (Berry-Stölzle & Xu, 2018; Choi et al., 2016).

In the private sector, risk management implementation is frequently related to issues with the quality of the corporate board (Malik et al., 2020), corporate governance and ownership (Khan et al., 2016; Sekerci & Pagach, 2020), quality of chief risk officer (Karanja, 2018), organization size and complexity, and support of the chief executive officer (Beasley et al., 2005; Gordon et al., 2009). Other factors related to ERM implementation have been reviewed by Viscelli et al. (2016). However, ERM implementation has been viewed as an entire process and no study has focused on a specific stage, that is, to assess its effectiveness. Such focus on assessment can shed more light on the unique and prominent role of actors in particular, the internal auditor involved in the ERM.

The Institute of Internal Auditors (2011) outlines the three prominent roles of internal auditors in risk management. First, an internal auditor is a consultant. This role includes the following activities: 1) ensure the effectiveness of risk management implementation; 2) ensure that risks are well assessed; 3) assess risk management; 4) assess risk reporting; and 5) review risk management implementation. Second, from a legitimization perspective, the internal auditor can: 1) help identify and evaluate risks; 2) provide training to risk-related organization management; 3) coordinate risk management activities; 4) aggregate reports on risk management; 5) develop risk management approaches; and 6) drive efforts in developing risk management strategies for board approval. Third, the role of the internal auditor that can affect the principles of independence of internal audit is to: 1) establish risk appetite; 2) directly involve in risk management implementation; 3) make decisions on actions to address risks; 4) implement risk-response actions on behalf of management; and 5) assume responsibility for the successful implementation of risk management.

Overall, this study focuses on the internal auditor's role as a consultant in ERM implementation. This process occurs near to the final stage of ERM implementation. According to COSO 2004 framework, the principles of ERM include: set the governance and culture, set the strategy and objective, identify risks that can impact strategy and objectives achievement, review performance and revise ERM implementation, communicate and report information regarding ERM implementation. It appears that the role of internal auditors is pretty much at the review performance and revise ERM implementation stage. Most studies focus on the effect of the behavioral factors of actors in a multitude of contexts (Ajzen, 2020), such as green purchase intention (Yadav & Pathak, 2017), pro-environment (Yuriev et al., 2020), and energy-saving (Gao, 2017).

However, not much is understood on whether the importance of behavioral factors (attitude, subjective norms, and perceived behavioral control) is determined by the level of control on actions. Investigating a context where internal auditors only act as a consultant can shed light on whether all behavioral factors are essential to the intention to perform an action. This view is consistent with Ajzen (2020) that the effect of behavioral factors on an action should be analyzed in terms of its target, nature, context, and time frame. The

internal motivation factors represented by the auditors' attitude may not have a significant role in shaping the intention to evaluate ERM effectiveness. This expectation is based on the fact that attitude toward a behavior is a function of the actor's beliefs about the likely consequences of the action. Once the actor does not fully control an action, the intention may be reduced as the consequences of inaction are not directly related to him or her. A literature review also suggests a lack of study on ERM implementation using Theory of Planned Behaviors (TPB) framework.

Studies on ERM initiatives focused on actors involved in the public sector, such as the chief risk officer. Moloi (2018) found that inadequate risk management investment in the public sector led to ineffective processes, weak control environment, inadequate staffing, and inadequate academic qualifications and staff experience responsible for ERM function. Staff inadequacy in implementing risk management in the public sector was also highlighted by Md Ali et al. (2012). While Chowdhury and Shil (2019) provided a narrative about risk management systems and the role of internal auditors in public sector entities by applying the new public management concept; however, the behavioral factors of internal auditors towards ERM were not included in the narrative. Kiral and Karabacak (2020) described the conflicts of internal auditors' role in ERM implementation using Bayesian Nash equilibriums. The results confirmed that the assurance and consulting roles of internal auditors in accordance with the risk maturity level of an organization are important elements of ERM implementation that can create value.

However, not much is understood on the role and behavioral factors of those involved in assessing risk management implementation, such as internal auditors (except for Md Ludin, 2014; Sarens & Beelde, 2006), particularly in the public sector.

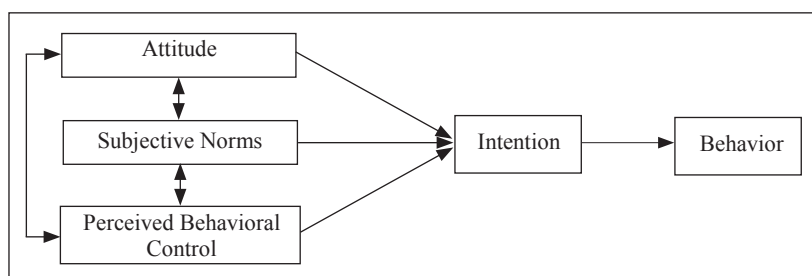
THEORY AND HYPOTHESES

Md Ludin (2014), Beasley et al. (2005), and Sarens and Beelde (2006) examined internal audits in the public sector. The present study is an extension of the Md Ludin's (2014) survey using samples from Malaysian statutory bodies. Investigations of ERM implementation

have adopted several theories, such as Contingency Theory and Agency Theory. However, in contrast to previous studies, the present study focuses on the behavioral aspects of internal auditors, particularly towards the ERM implementation intention based on the Theory of Planned Behavior (Ajzen 1991). This theory suggests that individual intention for a specific action can be analyzed using three critical factors, namely: attitude, subjective norms, and perceived behavioral control. The original model is shown in Figure 1.

Figure 1

Theory of Planned Behavior



Source. Ajzen (1991)

In the literature, the original model has been commonly modified by additional explanatory, mediating, or moderating factors. As an extension of the attitude factor, an additional element, that is, individual risk-taking attitude (risk-taking or risk-aversion), is introduced because the context is about ERM, that is, an action that manages the risk itself. In a seminal paper by Sitkin and Pablo (1992), a conceptual model was introduced on the determinants of risk behavior. The model linked risk perception to risk behavior. Risk perception of an individual depends on risk orientation—a risk-taker or risk-averse. Therefore, risk-taking/aversion orientation is predicted to affect risk behavior significantly, in this case, the intention to evaluate ERM effectiveness. Next, each factor is discussed.

Attitude is a person's judgment regarding acceptance or rejection of certain behaviors (Alleyne & Lavine, 2013). Attitude toward behavior is the sum of individual beliefs rather than judgment on conduct (Alleyne & Lavine, 2013). In previous studies, attitude factors were

significant predictors of intentions in actions (Ajzen, 2020; Gao et al., 2017; Yadav & Pathak, 2017; Yuriev et al., 2020). As contained in the standards (Institute of Internal Auditors, 2013), this attitude is a subset in the competency component of the Code of Internal Audit Ethics. This fact is in line with the competency of internal auditors in ensuring the effectiveness of the internal audit function (Jamil, 2014; Kassim et al., 2011). Winsen et al. (2016) reported that individual attitude was associated with the adoption of risk management strategies. Overall, the majority of studies found a significant effect of attitude on an individual's intention when the processes or decisions were owned by the respondent or the unit where the respondent functioned (Johan et al., 2020; Charton-Vachet et al., 2020; Chetioui et al., 2020; Maslakci et al., 2021; Tenkasi & Zhang, 2018). In contrast, evidence also showed an insignificant relationship between attitude and intention (Leung & Jiang, 2018), which might therefore be contextual.

However, tests are lacking on the attitude of internal auditors regarding their intention to assess ERM effectiveness. This issue is very important because most of the ERM processes are not owned by internal auditors but by the chief risk officer. Internal auditors are only involved in the final part of ERM implementation. In such a case, attitude may not play a significant role. Hence, the following hypothesis states that:

H₁ : Internal auditor attitude has a positive relationship with intention to assess ERM effectiveness.

Consistent with a model proposed by Sitkin and Pablo (1992), risk behavior is a function of risk perception. The higher the perception on risk, the lower risk behavior can be expected. Risk behavior that is reflected by an individual's risk-taking activities is determined by skill and information, which is related to case controllability and manageability (Weber et al., 2002). However, the level of risks taken can vary. Risk-taking attitude (risk attitude) is the extent of risk acceptance or rejection (Weber & Milliman, 1997), which depends on individual risk appetite. A person can also be classified as a risk-taker or risk-averse (Weber et al., 2002). ERM can manage risks to an acceptable level. Thus, ERM evaluation can be regarded as risk behavior (the propensity of an individual internal auditor to make decisions in a risky context).

Hence, acceptance of the task to evaluate ERM effectiveness depends on internal auditors' attitude, whether risk-taking or risk aversion. Weber et al. (2002) posited that this concept corresponded with attitude in the theory of planned behavior. In other behavioral contexts, risk-taking (aversion) can be positively (or negatively) related (Bhatti & Ur Rehman, 2019; Michels et al., 2019; Yoopetch, 2020) or not significantly related (Zhang & Cain, 2017) to the intention to perform risky behavior. Thus, the relationship between risk-taking or risk aversion and an actor's intention is still subject to further research. Drawing on this, the current study presents a theoretical contribution in this context. Not much is understood on whether an individual's risk-taking attitude influences his/her willingness and intention to evaluate ERM effectiveness.

According to the International Professional Practices Framework definition, internal auditors need to assess ERM effectiveness. Internal auditors tend to carry out risk management on consultancy services (De Zwaan et al., 2011). If a person tends to accept risks, the tendency to assess ERM effectiveness is low due to a sufficient level of existing controls in the organization. By contrast, if a person tends to avoid risks, then the tendency to assess the ERM effectiveness is high. This argument is valid because such a person attempts to reduce risks to an acceptable level, and the ERM needs to be assessed for its effectiveness. Although attitude and risk attitudes relate to the intention to assess ERM effectiveness, internal auditors may have less motivation to perform this task without a total ownership of ERM processes. Thus, as a counter argument, the relationship may not be found in this context. Hence, the following hypothesis states that:

H₂: Internal auditor risk attitude has a negative relationship with intention to assess ERM effectiveness.

Another essential behavioral factor is the subjective norm, which is the pressure from the environment to perform or not to perform a behavior. This factor is also an individual perception, social influence, or pressure based on social group expectations (Ajzen, 1988).

A positive relationship is found between the characteristics of board committees in statutory bodies and the implementation of risk

management (Md Ludin, 2014), which is consistent with Moeller (2007). Apart from governance characteristics, the social expectation factor affects the internal auditor's intention in assessing ERM effectiveness. This social expectation factor or norm can be seen in terms of expectations from top-level management on the roles of internal auditors, as follows: 1) fundamental; 2) legitimization; and 3) non-involvement in ERM. Hence, subjective norms have a direct relationship in assessing ERM effectiveness. High expectations from top management leads to high intention to evaluate ERM effectiveness.

Prior research found that subjective norms can have a significantly positive relationship (Johan et al., 2020; Kiconco et al., 2019; Sia & Jose, 2019; Tenkasi & Zhang, 2018) with an actor's intention in various contexts. In fact, subjective norm is found to be the most influential factor that shape behavior among the three factors in TPB (Farhat et al., 2019). However, Bananuka et al. (2019) found that the concept of subjective norms could be subsumed as attitude. These findings indicate that the role of subjective norms on the intention for behavior is context-specific and needs further research. Thus, the following hypothesis states that:

H₃: Subjective norms have a positive relationship with intention of assessing ERM effectiveness.

Ajzen (1991) stated that motivational factors such as the perception of ease (or difficulty) and how much effort is used to perform an action may influence behavior. This perception is collectively dependent on the availability of opportunities and resources such as time, money, competency, and cooperation of others. Based on the Code of Ethics of internal auditors, the competency factor is crucial in auditing. The competency of internal auditors is an essential factor in ERM assessment. Furthermore, this factor is also an issue of public sector auditing (Md Ali et al., 2012). However, competency is related to self-belief in the ability to carry out tasks. Perceived behavioral control is the perception of individuals having control over behavior or results (Chiu 2003). This perception involves the simplicity or difficulty to perform certain behaviors related to individual beliefs about the presence or absence of resources, opportunities, and obstacles to engage in such actions (Alleyne & Lavine, 2013). This perception

on opportunity and ability, together with the expectancy of success, are subsumed under perceived behavioral control (Ajzen, 1991). A greater belief that the task is easy or can be controlled is expected to lead to greater intention to perform the job. Perceived behavioral control is found to be a significant determinant of intention in various contexts (Olya et al., 2019; Tenkasi & Zhang, 2018; Villanueva-Flores et al., 2021). A similar relationship is expected between perceived behavioral control factor and intention to evaluate ERM effectiveness. Thus, the following hypothesis states that:

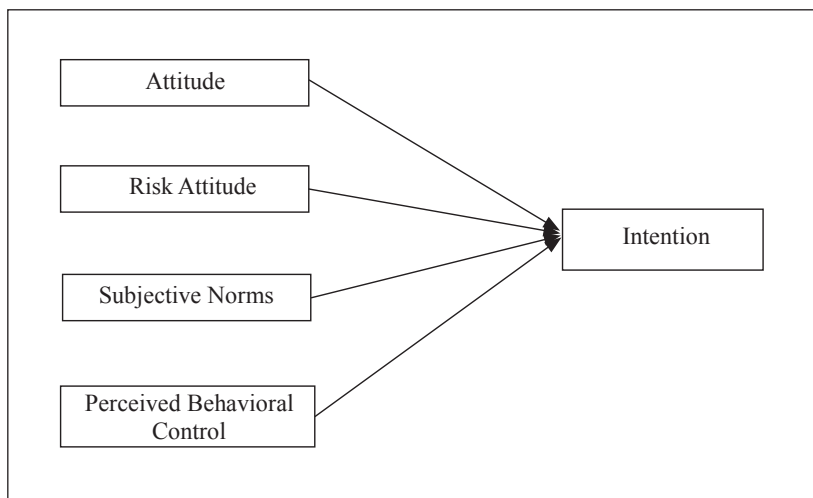
H₄: Perceived behavioral control has a positive relationship with intention of assessing ERM effectiveness.

RESEARCH FRAMEWORK

In this study, it is hypothesized that attitude, risk attitude, subjective norms, and perceived behavioral control have a significant and positive impact on intention to evaluate ERM effectiveness. The research framework of this study is depicted in Figure 2.

Figure 2

Research Framework



METHODOLOGY

The dependent variable is the intention to assess ERM effectiveness. The independent variables are the behavioral factors of internal auditors which include their attitude, risk-taking attitude, subjective norms, and perceived behavioral control. The relationship between the variables can be explained in the regression model as follows:

$$INTERM_i = \beta_1 + \beta_2 ATT1_i + \beta_3 ATT2_i + \beta_4 SN_i + \beta_5 PBC_i + \varepsilon_i \quad (1)$$

where

INTERM Intention to assess the effectiveness of ERM

ATT1 Attitude of internal auditors

ATT2 Risk attitude

SN Subjective norms

PBC Perceived behavioral control

Error

i ε_i Statutory bodies

This framework and that of Ajzen (1991) differed in the attitude factor. In the present study, another element of attitude, which was the risk-taking attitude, was included. Fishbein and Ajzen's (2010) intention, attitude, subjective norms, and perceived behavioral control were modified to comprise 17 questions that included five items to measure attitude, six items to measure subjective norms, eight items to measure perceived behavioral control, and four items to measure intention. A psychometric scale of risk attitude from Weber et al. (2002) was also adopted, that is, Domain-Specific Risk-Taking Scale (DOSPERT) that consisted of 40 questions on five domains of risk: financial, health/safety, recreational, ethics, and social.

Sample items for attitude construct include “*I will implement Enterprise Risk Management every year*” and “*I will improve the implementation of Enterprise Risk Management when I have understood it.*” For the risk attitude construct, respondents were asked to indicate the likelihood of engaging in activities, such as arguing with a friend who has a very different opinion on an issue, forging someone's signature, and illegally copying a piece of software. Sample items for subjective norm construct, include “*The audit committee agreed that I will implement enterprise risk management*” and “*The committee support that I should implement Enterprise Risk Management.*” Sample items for perceived behavioural control construct include “*I can achieve all the goals I put in myself including evaluating the effectiveness of the Enterprise Risk Management*” and “*When faced with difficult*

tasks such as in the evaluation of the effectiveness of Enterprise Risk Management, I am sure that I can solve it.” Finally, for intention construct, sample items include “I plan to evaluate the effectiveness of Enterprise Risk Management within the next 3 months” and “I am willing to carry out an assessment of the effectiveness of Enterprise Risk Management within the next 3 months”.

A pilot test of the instruments was run on a sample of 30 internal auditors to ensure that respondents had a correct understanding of the questionnaire items, were willing to answer, and had time to complete the questionnaire. The pilot test suggested excluding five items from the DOSPERT instrument, which were least relevant in the Malaysian context. These questions were related to gambling or betting on horse racing, poker game, casino, or any sporting events (four questions) including alcohol consumption (one question) were removed. All the respondents were internal auditors, who were Muslims and their religion prohibited involvement in these activities. Instead, another risk, that is, compliance with religious risks, was introduced. Several questions were also rephrased to describe cases relevant to the context. Risk cases related to ski run, cable TV connection, use of sunscreen, and tornado or hurricane were modified to more relatable local risk cases with similar levels of severity. Given these adapted instruments from prior literature, no problems were encountered in using the instrument in the Malaysian environment.

A total of 220 statutory bodies were identified at the federal and state levels, and the survey questionnaires were sent to their internal auditors. As mentioned, statutory bodies are semi-government entities with certain autonomies and operate similar to corporate entities but report to both their board of directors and the government. Given their autonomous status, the risks are more significant than any government department. Unlike government departments that rely solely on government funding, these statutory bodies also face financial sustainability risks to a certain extent. Although flexibility to operate is similar to the corporate sector, most of these entities are also regulated by guidelines (related to financial and human resources) issued by the federal or state governments. Therefore, the “in-between” position of statutory bodies makes an exciting context to investigate internal auditors’ behavior in relation to ERM implementation. The reasons include, first, while exposed to financial and non-financial risks similar to the corporate sector, internal auditors who are appointed and trained by a government department seldom regard economic survival as an important risk. Thus, these auditors may consider ERM

to be not as beneficial to the entities and may have less intention to evaluate their effectiveness. Besides that, auditors in the public sector only recently assumed their role as consultants in ERM (Sri Rahayu et al., 2020). This fact may lead to a weak attitude–intention relationship. Second, Malaysia is used as a case study because its statutory bodies are well-governed by acts. At the same time, it has a weak implementation of good governance at the organizational level, partly due to relatively incompetent board members and insufficient board monitoring (Jabatan Audit Negara Malaysia, 2018).

A total of 128 respondents provided feedback, out of which only 108 usable responses contained complete answers. Despite this, the resultant functional response rate of 49.1 percent is generally considered as high. Panel A in Table 1 shows the survey summary.

Table 1

Sample

| Panel A: Response | Number | Percentage (%) |
|------------------------------------|--------|----------------|
| Questionnaire sent | (220) | 100 |
| Response | 128 | 58 |
| Incomplete answers | (20) | (9) |
| Appropriate responses for analysis | 108 | 49 |
| Panel B: Demography | | |
| Gender | | |
| Male | 52 | 48.1 |
| Female | 56 | 51.9 |
| Type of statutory body | | |
| Federal statutory body | 106 | 98.1 |
| State statutory body | 2 | 1.9 |
| Level of education | | |
| Masters/PhD | 20 | 18.5 |
| Bachelor | 86 | 79.6 |
| Diploma/certificate | 2 | 1.9 |
| Experience as internal auditor | | |
| 0–5 years | 40 | 37.0 |
| 6–10 years | 39 | 36.1 |
| 11–15 years | 20 | 18.5 |
| > 15 years | 9 | 8.4 |

Panel B shows the sample demographic data. Gender distribution was quite balanced among the respondents, and most were from federal

statutory bodies. Based on the data, the majority of the statutory bodies were established under the federal government. The majority of the respondents had a minimum qualification of a bachelor's degree. Notably, 37 percent of the respondents had five years of experience or less in internal audit function, while approximately 26.8 percent had more than ten years of experience.

Variable reliability was tested using Cronbach's alpha (Hair et al., 2007). Table 2 shows the reliability analysis for each variable, that is, internal auditor attitude, risk attitude, subjective norms, perceived behavioral control, and intention to assess ERM effectiveness. Analysis of the results revealed that these variables exceeded the 0.90 value.

Table 2

Reliability Analysis (N = 108)

| Variable | Cronbach's alpha | No. of items |
|------------------------------------------|------------------|--------------|
| Attitude | 0.946 | 5 |
| Risk attitude | 0.919 | 35 |
| Subjective norms | 0.946 | 6 |
| Perceived behavior control | 0.935 | 8 |
| Intention to assess effectiveness of ERM | 0.843 | 4 |

Table 3

Pearson Correlation

| | Attitude | Risk attitude | Subjective norms | Perceived behavioral control | Intention |
|------------------------------|----------|---------------|------------------|------------------------------|-----------|
| Attitude | 1.000 | | | | |
| Risk attitude | 0.027 | 1.000 | | | |
| Subjective norms | 0.415** | -0.037 | 1.000 | | |
| Perceived behavioral control | 0.477** | 0.071 | 0.385** | 1.000 | |
| Intention | 0.221* | 0.054 | 0.210* | 0.449** | 1.000 |

FINDINGS

Pearson's correlation showed a significant positive correlation between internal auditor intention and attitude, subjective norms, and perceived behavioral control in Table 3. Positive correlations were also found between subjective norms and other behavioral variables, except risk attitude. The correlations between independent variables did not exceed 0.500, which might not introduce significant multicollinearity problems.

Table 4

Regression Results (N=108)

| Variable | Standardized coefficient | t-statistics | p-value |
|------------------------------|--------------------------|--------------|---------|
| Constant | | -0.162 | 0.872 |
| Attitude | 0.077 | 0.852 | 0.393 |
| Risk attitude | 0.011 | 0.125 | 0.900 |
| Subjective norms | 0.180 | 1.990 | 0.049 |
| Perceived behavioral control | 0.374 | 4.143 | 0.000 |
| R-squared | | 17.9 % | |
| Adjusted R-squared | | 14.6 % | |
| F-statistics | | 5.499*** | |
| Df | | 4 | |

Note. ***, **, * Significant at $p<0.01$, $p<0.05$, $p<0.10$, respectively. The dependent variable is the internal auditors' intention to assess ERM effectiveness.

Table 4 shows the regression analysis results. The adjusted R-squared value was 0.146 with an F value of 5.499, significant at $p<0.01$ level. The relationship between internal auditors' attitude and intention of assessing ERM effectiveness was not substantial ($t=0.852$, $p=0.393$). Hence, the first hypothesis (H_1) was not supported.

The second hypothesis anticipated that risk attitude affected the internal auditors' intention in assessing ERM effectiveness. The regression showed an insignificant relationship ($t=0.125$, $p=0.900$). In this regard, the findings showed that attitude towards taking risks among internal auditors did not affect intention of assessing ERM effectiveness. Hence, the second hypothesis (H_2) was not supported.

The results showed a positive and significant coefficient for subjective norms at $p < 0.05$ level. In this regard, subjective norms influenced the intention of assessing ERM effectiveness; therefore, a significant predictor of intention. Hence, the third hypothesis (H_3) was supported. Finally, the results showed that perceived behavioral control was positive and significant at $p < 0.01$ level. Hence, the fourth hypothesis (H_4) was supported. These two results were consistent with the majority of the literature. Therefore, subjective norms and perceived behavioral control were essential determinants of internal auditor intention to assess ERM effectiveness in Malaysian statutory bodies.

DISCUSSIONS

The results show that the first and second hypotheses are not supported. Thus it is not consistent with most of the literature that shows the importance of individual attitude towards the intention to perform specific actions (Charton-Vachet et al., 2020; Chetioui et al., 2020; Gao et al., 2017; Johan et al., 2020; Maslakçı et al., 2021; Michels et al., 2019; Tenkasi & Zhang, 2018; Yadav & Pathak, 2017; Yoopecth, 2020; Yuriev et al., 2020;). However, several studies have shown a gap in this relationship, attributable to individual demographic factors (Jung et al., 2020; Leung & Jiang, 2018; Zhang & Cain, 2017). A more detailed investigation is needed to see whether this gap exists due to individual demographic factors. Another possible reason is that ERM implementation is spearheaded by an entity separate from the internal audit function. This perspective is vital to ensure an independent assessment on the adequacy of risk mitigation measures undertaken by the management, that is, to accept, reduce, manage, or avoid risks. As such, the willingness of internal auditors to participate as a secondary party to the entire ERM process may be lacking. This requirement of process ownership for the attitude–intention relationship is still subject to tests in other contexts. Why is this process ownership important? From the expectancy–value model, attitude toward a behavior is shaped by the belief or evaluation of the outcomes’ probability. When the link between effort and outcomes dissolves, the connection between attitude and intention also fades.

The results also show that consistent with most of the literature that uses the theory of planned behavior, subjective norms and perceived behavioral control are important determinants for internal auditors’

intention to assess ERM effectiveness. Subjective norms refer to group expectations that represent external influences on an individual (Jainal & Basnan, 2018). Subjective norms also ensure actions to evaluate ERM effectiveness would meet individual or group perceptions. This conclusion is consistent with Ram Al-Jaffri et al. (2010) and Jainal and Basnan (2018) that external influences on individual perceptions significantly influence action.

The results also imply that perceived behavioral control is a significant predictor of intent (Bryce et al., 2019; Flannery & May 2000; Park & Blenkinsoppe 2009). Bryce et al. (2019) stated that perceived behavioural control affects intent on reports of risks and financial services. In their study, Flannery and May (2000) also stated that perceived behavioral control is a significant predicting factor for ethical intentions. Hence, previous studies have supported perceived behavioral control factors to be a significant factor on intent in assessing ERM effectiveness.

Overall, the results imply that important behavioral factors can influence internal auditors' intention to assess ERM implementation effectiveness. These factors, such as subjective norms (Johan et al., 2020; Kiconco et al., 2019; Sia & Jose, 2019; Tenkasi & Zhang, 2018) and perceived behavioral control (Olya et al., 2019; Tenkasi & Zhang, 2018; Villanueva-Flores et al., 2021), can be shaped by management to increase the effectiveness of monitoring activities by internal auditors in the public sector. Pressure from peers' or superiors' (social) expectations to perform or not perform a behavior is an important determinant for the evaluation of ERM effectiveness. The results also suggest that motivational factors such as the perception of ease (or difficulty) is important for the intention to evaluate ERM effectiveness. In fact, perceived behavioral control is the most significant factor determining the intention.

Overall, the results demonstrate that social perception is important in individual intention related to ERM effectiveness evaluation. The implication is the importance to shape pressure from the perception that evaluation of ERM effectiveness is needed and is expected as a norm. This norm can be expected to rise in dominance as organizations move toward risk culture. Furthermore, as more complete ERM processes are adopted, the perceived ease of its implementation can change.

CONCLUSION AND IMPLICATIONS

According to the National Integrity Plan (Institut Integriti Malaysia, 2007), risk management is highly emphasized especially in the public sector. Risks such as abuse of power, inefficiency, and corruption require proper attention. Apart from implementing ERM at the organizational level, the evaluation of ERM effectiveness is an essential action by internal auditors as set out in the standards. This assessment of effectiveness is necessary to ensure that all ERM framework processes are implemented correctly and risks are managed appropriately. This study has examined internal auditor behavioral factors to assess ERM implementation effectiveness. The findings contribute to the body of knowledge on internal auditors' intentions and behavior, covering elements of attitude, risk attitude, subjective norms, and perceived behavioral control using the theory of planned behavior.

This study found that internal auditor attitude and risk attitude do not affect the intention to assess ERM effectiveness. This result is explained by the fact that ERM processes are not totally owned by internal auditors, who serve as an independent party to ensure implementation effectiveness. This result also shows that subjective norms and perceived behavioral control factors are significant in influencing assessment of ERM effectiveness, which is consistent with the literature.

This study provides several significant contributions to the literature. First, this study examines behavioral factors that shape the intention to perform a particular action in a context where the individual has no total process ownership. The individual, that is, the internal auditor, acts as an independent party that assesses or validates the effectiveness of ERM implementation by another party, such as the management or risk management office. The results have shown that individual attitude may not be crucial in determining intention in this context.

Second, this study introduces another factor, that is, the risk attitude (i.e., risk-taker or risk-averse character) of an individual as a determinant in the ERM framework. The context of risk management provides an opportunity to test this attitude against intention. Thus far, there is little insight from the literature including this concept as part of an individual character that can influence intention. The present study anticipates that a higher risk avoidance of the internal auditor

leads to greater intention to assess ERM effectiveness. While variable reliability is high, no significant relationship has been found between risk attitude and the intention to assess ERM effectiveness. This insignificance is attributed to the secondary role of internal auditors in the entire ERM process. Without a sense of process ownership, individual attitude can have little impact on intention. Third, this study has selected a unique statutory body as its context where not many have ventured to investigate its ERM implementation. Statutory bodies are highly significant entities, especially in developing economies such as Malaysia, where economic growth is critically dependent on the government and its entities.

This study has several implications. First, behavioral factors require consideration to improve the acceptance of a new initiative in statutory bodies. With specific reference to the assessment of ERM effectiveness, managers of statutory bodies and the head of the internal audit department need to shape internal auditor behavior by instituting social and administrative norms and instilling a positive perception about the ability to perform the task within the organization. Second, in a process where individuals have no total ownership, focusing efforts on shaping individual attitude is not productive in other processes, a favorable evaluation of action is shown to possibly affect intention.

A limitation of this study is that the theory assumes that an individual has sufficient opportunities and resources to evaluate ERM effectiveness. The opportunities and resources available to internal auditors have yet to be explored and included in future models. Second, given that the relationship between attitude and intention is not significant, individual behavioral factors outside of the theory of planned behavior that could affect individual motivation are also worth exploring. The results also imply that attitude is not a critical behavioral factor in the public sector context. The mandatory organizational culture in the public sector may be the main reason. An order is considered compulsory, to be complied on a *top-down* basis. Such instructions are usually in the form of superior orders, compliance with government circulars and regulations that need to be implemented responsibly (Jainal & Basnan, 2018). Besides that, this opinion is also supported by Rawstorne et al. (1998), who found that intention factors are challenging to measure in a mandatory environment. An investigation to explore this argument is beyond the scope of this study as it requires a specific theory and research framework. Therefore, the effect of 'obedience' culture on attitude and intention relationship has not been directly tested and thus can be a subject for future research.

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REFERENCES

- Ajzen, I. (1988). *Attitudes, personality, and behavior*. Dorsey Press.
- Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human Behavior and Emerging Technologies*, 2(4), 314–324.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior on Human Decision Processes*. 50(2), 179–211.
- Alleyne, P., & Lavine, M. (2013). Factors influencing accountants' behavioural intentions to use and actual usage of enterprise resource planning systems in a global development agency. *Journal of Financial Reporting and Accounting*, 11(2), 179–200.
- Bananuka, J., Kaawaase, T. K., Kasera, M., & Nalukenge, I. (2019). Determinants of the intention to adopt Islamic banking in a non-Islamic developing country. *ISRA International Journal of Islamic Finance*, 11(2), 166–186.
- Beasley, M. S., Clune R., & Hermanson, D. R. (2005). Enterprise risk management: An empirical analysis of factors associated with the extent of implementation. *Journal of Accounting and Public Policy*, 24(6), 521–531.
- Berry-Stölzle, T. R., & Xu, J. (2018). Enterprise risk management and the cost of capital. *Journal of Risk & Insurance*, 85(1), 159–201.
- Bhatti, A., & Ur Rehman, S. (2019). Perceived benefits and perceived risks effect on online shopping behavior with the mediating role of consumer purchase intention in Pakistan. *International Journal of Management Studies*, 26(1), 33–54.
- Bryce, C., Chmura, T., Webb, R., Stiebale J., & Cheevers C. (2019). Internally reporting risk in financial services: An empirical analysis. *Journal Business Ethics* 156, 493–512.
- Charton-Vachet, F., Lombart, C., & Louis, D. (2020). Impact of attitude towards a region on purchase intention of regional products: The mediating effects of perceived value and preference. *International Journal of Retail & Distribution Management*, 48(7), 707–725.
- Chetioui, Y., Benlafqih, H., & Lebdaoui, H. (2020). How fashion influencers contribute to consumers' purchase intention, *Journal of Fashion Marketing and Management*, 24(3), 361–380.

- Chiu, R. K. (2003). Ethical judgment and whistle-blowing intention: Examining the moderating role of locus of control. *Journal of Business Ethics*, 43, 65–74.
- Choi, Y., Ye, X., Zhao, L., & Luo, A. (2016). Optimizing enterprise risk management: A literature review and critical analysis of the work of Wu and Olson. *Annals of Operations Research*. 237(1/2), 281–300.
- Chowdhury, A., & Shil, N. C. (2019). Influence of new public management philosophy on risk management, fraud and corruption control and internal audit: Evidence from an Australian public sector organization. *Accounting and Management Information Systems*, 18(4), 486–508.
- Committee on Oversight and Government Reform. (2017). Waste and inefficiency in the federal government: GAO's 2016 duplication report: Hearing before the Committee on Government Reform, House of Representatives, One Hundred Fourteenth Congress, second session, April 13, 2016. United States. Congress. House. {<https://www.govinfo.gov/content/pkg/CHRG-114hhrg22314/pdf/CHRG-114hhrg22314.pdf#?>} <Accessed 9 November 2020>
- COSO. (2004). *Enterprise Risk Management — Integrated Framework: Executive Summary Framework*. Committee of Sponsoring Organizations of the Treadway Commission.
- De Zwaan, L., Stewart, J., & Subramaniam, N. (2011). Internal audit involvement in enterprise risk management. *Managerial Auditing Journal*, 26(7), 586–604.
- Duho, K. C. T., Onumah, J. M., Owodo, R. A., Asare, E. T., & Onumah, R. M. (2020). Bank risk, profit efficiency and profitability in a frontier market, *Journal of Economic and Administrative Sciences*, 36(4), 381–402.
- Farhat, K., Aslam, W., & Sany Sanuri, B. M. M. (2019). Predicting the intention of generation M to choose family takaful and the role of halal certification. *Journal of Islamic Marketing*, 10(3), 724–742.
- Fishbein, M., & Ajzen, I. (2010). *Predicting and changing behavior: The reasoned action approach*. Psychology Press.
- Flannery B. L., & May, D. R. (2000). Environmental ethical decision making in the U.S. metal-finishing industry. *Academy of Management Journal*, 43(4), 642–662.
- Gao, L., Wang, S., Li, J., & Li, H. (2017). Application of the extended theory of planned behavior to understand individual's energy

- saving behavior in workplaces. *Resources, Conservation and Recycling*, 127, 107–113.
- Gordon, L. A., Loeb, M. P., & Tseng, C. Y. (2009). Enterprise risk management and firm performance: A contingency perspective. *Journal of Accounting and Public Policy*, 28, 301–327.
- Hair, J. F., Money, A. H., Samouel, P., & Page, M. (2007). *Research Methods for Business*. John Wiley and Sons.
- Hoyt, R. E., & Liebenberg, A. P. (2011). The value of enterprise risk management. *The Journal of Risk and Insurance*, 78(4), 795–822.
- Institut Integriti Malaysia. (2007). *Pelan Integriti Nasional*. <https://integriti.my>
- Institute of Internal Auditors. (2011). *Internal auditing's role in risk management*. The IIA RF White Paper. Institute of Internal Auditors Research Foundation.
- Institute of Internal Auditors. (2013). *International Professional Practices Framework (IPPF)*. Institute of Internal Auditors.
- International Standard ISO 31000. (2009). *Risk Management Guidelines*. (1st ed.). ISO Standard.
- Jabatan Audit Negara Malaysia. (2018). *Laporan Ketua Audit Negara: Pengurusan Syarikat Kerajaan Persekutuan Tahun 2018*. <https://www.audit.gov.my/>
- Jainal, J., & Basnan, N. (2018). Penggunaan maklumat perakaunan akruan pihak berkuasa tempatan di Malaysia. *International Journal of Business, Economics and Law*, 15(1), 1–12.
- Jamil, A. (2014). *Successful factors for risk management implementation: The role of internal audit* (Master's thesis). Faculty of Economics and Management, Universiti Kebangsaan Malaysia, Malaysia.
- Johan, Z. J., Hussain, M. Z., Mohd, R., & Kamaruddin, B. H. (2020). Muslims and non-Muslims intention to hold Shariah-compliant credit cards: A SmartPLS approach, *Journal of Islamic Marketing*. Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/JIMA-12-2019-0270>
- Jung, H. J., Choi, Y. J., & Oh, K. W. (2020). Influencing factors of Chinese consumers' purchase intention to sustainable apparel products: Exploring consumer "attitude-behavioral intention" gap. *Sustainability*, 12(5), 1770.
- Karanja, E. (2018). Does the hiring of chief risk officers align with the COSO/ISO enterprise risk management frameworks? *International Journal of Accounting & Information Management*, 25(3), 274–295.

- Kassim, M. A., Abdul Aziz, A., & Kasim, I. (2011). *Enterprise risk management (ERM) in Malaysia: A study of the status of implementation, the role of internal audit and the impact on organisational performance*. LAP LAMBERT Academy Publishing.
- Khan, M. J., Hussain, D., & Mehmood, W. (2016). Why do firms adopt enterprise risk management (ERM)? Empirical evidence from France. *Management Decision*, 54(8), 1886–1907.
- Kiconco, R. I., Gwokyalya, W., Sserwanga, A., & Balunywa, W. (2019). Tax compliance behaviour of small business enterprises in Uganda. *Journal of Financial Crime*, 26(4), 1117–1132.
- Kiral, H., & Karabacak, H. (2020). Resolution of the internal audit-based role conflicts in risk management: Evidence from signaling game analysis. *Group Decision and Negotiation*, 29(5), 823–841.
- Kraus, V., & Lehner, O. M. (2012). The nexus of enterprise risk management and value creation: A systematic literature review. *ACRN Journal of Finance and Risk Perspectives*, 1(1), 91–163.
- Leung, X. Y., & Jiang, L. (2018). How do destination Facebook pages work? An extended TPB model of fans' visit intention. *Journal of Hospitality and Tourism Technology*, 9(3), 397–416.
- Malik, M. F., Zaman, M., & Buckby, S. (2020). Enterprise risk management and firm performance: Role of the risk committee. *Journal of Contemporary Accounting & Economics*, 16(1), 100178.
- Maslakçı, A., Sesen, H., & Sürücü, L. (2021). Multiculturalism, positive psychological capital and students' entrepreneurial intentions. *Education + Training*, 63(4), 597-612.
- Md Ali, A., Saidin, S. Z., Sahdan, M. H., Harun Rasit, M. H., Rahim, M. S., & Gloeck, J. D. (2012). Internal Audit in the Federal Government Organizations of Malaysia: The Good, The Bad and The Very Ugly? *International Association of Multidisciplinary Research Journal*, 3, 18–61.
- Md Ludin, K. R. (2014). *Pengurusan risiko sektor awam Malaysia: Peranan ketua pegawai eksekutif dan audit dalaman* (Master's thesis). Faculty of Economics and Management, Universiti Kebangsaan Malaysia, Malaysia.
- Md Sum, R., & Abdul Khalik, Z. (2020). The influence of corporate governance on enterprise risk management implementation: A study on non-financial public listed companies in Malaysia. *Journal of Technology Management and Business*, 7(1), 50–64.

- Michels, M., Möllmann, J., & Musshoff, O. (2019), Understanding the intention to use commodity futures contracts. *Agricultural Finance Review*, 79(5), 582–597.
- Moeller, R. R. (2007). *COSO Enterprise risk management. understanding the new integrated ERM framework*. John Wiley & Sons.
- Moloi, T. (2018). Analysing the human capital capabilities in the enterprise risk management function of South Africa's public institutions. *Business and Economic Horizons*, 14(2), 375–388.
- Olya, H. G., Bagheri, P., & Tümer, M. (2019). Decoding behavioural responses of green hotel guests. *International Journal of Contemporary Hospitality Management*, 31(6), 2509–2525.
- Omar, O. 2001. *Perakaunan sektor awam*. Mc Graw Hill.
- Park, H., & Blenkinsopp, J. (2009). Whistleblowing as planned behavior—A survey of South Korean police officers. *Journal of Business Ethics*, 85(4), 545–556.
- Ram Al Jaffri Saad, Zainol Bidin, Kamil Md. Idris & Md. Hairi Md Hussain (2010). Faktor-faktor yang mempengaruhi gelagat kepatuhan zakat perniagaan. *Jurnal Pengurusan*, 30, 49-61.
- Rawstorne, P., Jayasuriya, R., & Caputi, P. (1998). *An integrative model of information systems use in mandatory environments*. ICIS 1998 Proceedings, 32.
- Rybníček, R., Plakolm, J., & Baumgartner, L. (2020). Risks in public–private partnerships: A systematic literature review of risk factors, their impact and risk mitigation strategies. *Public Performance & Management Review*, 43(5), 1174–1208.
- Sarens, G., & Beelde, D. I. (2006). Internal auditors' perception about their role in risk management: A comparison between US and Belgium companies. *Managerial Auditing Journal*, 21(1), 63–80.
- Sekerci, N., & Pagach, D. (2020). Firm ownership and enterprise risk management implementation: Evidence from the Nordic region. *Journal of Risk and Financial Management*, 13(9), 210.
- Sia, S. K., & Jose, A. (2019). Attitude and subjective norm as personal moral obligation mediated predictors of intention to build eco-friendly house. *Management of Environmental Quality*, 30(4), 678–694.
- Sitkin, S. B., & Pablo, A. L. (1992). Reconceptualizing the determinants of risk behavior. *Academy of Management Review*, 17(1), 9–38.
- Sri Rahayu, Yudi & Rahayu. (2020). Internal auditors role indicators and their support of good governance. *Cogent Business & Management*, 7(1). <https://doi.org/10.1080/23311975.2020.1751020>

- Tenkasi, R. V., & Zhang, L. (2018). A test of the theory of planned behavior: Influencing behavioral change to go “green”. *Research in Organizational Change and Development*, 26, 127–165.
- Villanueva-Flores, M., Diaz-Fernandez, M., Hernandez-Roque, D., & van Engen, M. (2021). Psychological capital and entrepreneurship: Gender differences. *Gender in Management: An International Journal*, 36(3), 410–429.
- Viscelli, T. R., Beasley, M. S., & Hermanson, D. R. (2016). Research insights about risk governance: Implications from a review of ERM research. *Sage Open*, 6(4), 1–17.
- Weber, E. U., Blais, A. R., & Betz, N. E. (2002). A domain-specific risk-attitude scale: Measuring risk perceptions and risk behaviors. *Journal of Behavioral Decision Making*, 15(4), 263–290.
- Weber, E. U., & Milliman, R. A. (1997). Perceived risk attitudes: Relating risk perception to risky choice. *Management Science*, 43(2), 123–144.
- Winsen V., F., de Mey, Y., Lauwers, L., Van Passel, S., Vancauteran, M., & Wauters, E. (2016). Determinants of risk behaviour: Effects of perceived risks and risk attitude on farmer’s adoption of risk management strategies. *Journal of Risk Research*, 19(1), 56–78.
- Yadav, R., & Pathak, G. S. (2017). Determinants of consumers’ green purchase behavior in a developing nation: Applying and extending the theory of planned behavior. *Ecological Economics*, 134, 114–122.
- Yoopetch, C. (2020). Women empowerment, attitude toward risk-taking and entrepreneurial intention in the hospitality industry. *International Journal of Culture, Tourism and Hospitality Research*, 15(1), 59–76.
- Yuriev, A., Dahmen, M., Paillé, P., Boiral, O., & Guillaumie, L. (2020). Pro-environmental behaviors through the lens of the theory of planned behavior: A scoping review. *Resources, Conservation and Recycling*, 155. <https://doi.org/10.1016/j.resconrec.2019.104660>
- Zhang, P., & Cain, K. W. (2017). Reassessing the link between risk aversion and entrepreneurial intention. *International Journal of Entrepreneurial Behavior & Research*, 23(5), 793–811.