

Measuring Ethical Behavior of Accounting Graduates in Malaysia: Comparison between Perceptual Statements and Vignettes

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Abstract: - The failure of accountants/auditors to uphold positive values and maintain ethical behavior while performing professional services has been widely discussed. Most future accountants in Malaysia are accounting graduates from Malaysian Institute of Accountants (MIA) accredited universities. Previous studies have found that ethical culture at the workplace will influence the ethical behavior of an individual. Previous studies have measured ethical behavior using vignettes scenarios and perceptual statements. Thus, the study has two objectives, and they are firstly to empirically assess the impact of an ethical workplace culture on the ethical behavior of these graduates and secondly to compare the statistical results of two different measurements of ethical behavior using perceptual statements and vignettes. To achieve both objectives, SmartPLS 4 was utilized to examine the impact of ethical culture at workplace on the ethical behavior of accounting graduates using vignette scenarios and perceptual statements. This study involved 344 samples of accounting graduates from MIA-accredited universities, and path analysis was performed to test the hypotheses. The findings demonstrate a positive relationship between the ethical workplace culture and ethical behavior among accounting graduates, regardless of whether the ethical behavior was measured using vignette scenarios or perceptual statements. However, it was found that the relationship of ethical culture at the workplace and ethical behavior measured by perceptual statements provides a better explanation of the relationship between ethical behavior and workplace culture, as evidenced by its higher path coefficient, larger effect size, and more explanatory power. as opposed to the relationship of ethical culture at workplace and ethical behavior measured by perceptual statements. Taking these results into account, researchers are advised to choose the measurement of ethical behavior carefully and to ensure that the research instruments used are appropriate for the complexity of the phenomenon being studied, which improves the precision and dependability of research results.

Key-Words: - Ethical culture at the workplace, Ethical behavior, Perceptual statements, Vignette scenarios, Accounting graduates, SmartPLS 4, Malaysian Institute of Accountants

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1 Introduction

The role of accountants is crucial, serving as the heart of organizations. Any misleading information provided by accountants can have far-reaching consequences, affecting the entire organization and, indirectly, impacting the economy of a country. Instances of fraudulent behavior or unethical scandals can lead to severe repercussions for the organization as a whole, as seen in the Enron and

Malaysia Airlines Berhad (MAS) cases in 2001, which ultimately resulted in the bankruptcy of these businesses, [1], [2]. Accounting is a valuable knowledge base influencing the market economy. Accountants are responsible for monitoring every business transaction, profit generated, and the financial situation of an organization. Therefore, the financial information reported to decision-makers must be precise and transparent to avoid any

inconvenient consequences. Every accountant in an organization must possess technical skills and uphold high moral values to be competent and ethical, ensuring the integrity of the organization.

The Corruption Perception Index (CPI) 2022 reveals that almost 70% of countries worldwide scored below 50, indicating a high level of corruption, [3]. Conversely, the Global Integrity Report 2022 by Ernst & Young (EY) indicates that 42% of respondents agree that unethical behavior in organizations is frequently tolerated, particularly for senior or high-performing individuals. Data from 4,762 surveys conducted across 54 countries indicate a concerning trend, with 55% of respondents feeling that the integrity standard has either improved or worsened over time, [4]. Even though statistics have shown a negative trend, efforts in maintaining integrity by accountants remain quite the same over the years.

Previous studies on ethics have examined ethical behavior, especially in the area of psychology and organizational behavior. Corporate scandals have raised concerns for the accounting profession in particular, highlighting the potential harm that unethical behavior may impose on an organization's performance and reputation, ultimately impacting a nation's economy. According to [5], individual behavior is influenced by the cultural and professional environment, and thus this study would like to empirically test the applicability of this theory by assessing the influence of ethical culture at the workplace on the ethical behavior of accounting graduates.

According to a quick Google Scholar search, it can be seen that there is a lack of ethical behavior research on accountants (195,000 results) as compared to doctors (1,010,000), engineers (625,000 results), and lawyers (613,000 results). Thus, it is important to address this gap to understand further the ethical behavior of accountants. In addition, there is a variability of scales used to measure ethical behavior in previous studies. Some used perceptual statements, whilst others used vignette scenarios to measure ethical behavior. There are pros and cons in using the different measurements. Whilst [6] and [7] recommend the use of vignette scenarios to mitigate potential social desirability bias, others question its efficiency, [8], [9]. This study seeks to address this ambiguity by comparing the results of construct validity and the significance of relationships between an ethical culture at workplace and ethical behavior when utilizing both vignette scenarios and perceptual statement scales. By examining these measurement approaches, the study aims to

contribute to the methodological rigor of ethical research within the accounting profession and enhance the understanding of the nuanced factors influencing ethical behavior among accounting graduates in Malaysia. Thus, the study outlined two objectives as the following:

- i) To empirically assess the impact of an ethical workplace culture on the ethical behavior of accounting graduates
- ii) To compare the statistical results of two different measurements of ethical behavior using perceptual statements and vignettes.

2 Literature Review

2.1 Ethics in Accounting Profession

Ethics in accounting, as a branch of applied ethics, emphasizes human and business ethics, involving judgments and moral values within the accounting profession. Generally, actions aligned with accounting standards are deemed ethical behavior. Ethical guidelines vary among individuals in society, particularly within organizations, as highlighted by [10]. A significant number of businesses globally grapple with ethical issues in their accounting procedures, introducing the potential for conflicts of interest. Financial misstatements that breach ethical standards in corporate finance not only damage an organization's reputation but also impact customer satisfaction and investor confidence.

According to [11], ethics, as a philosophical branch, revolves around values inherent in human behavior, assessing the truth or falseness of actions and the good or evil outcomes stemming from them. [12], further underscores ethics as the subject examining issues related to vice and virtue, wrong and right, and good and evil. Thus, accounting standards should emphasize ethics to ensure the integrity of business transactions and to produce more ethical accountants.

Investors, managers, and senior officials assigned are dependent on accountants to produce timely and accurate financial reports. Complying with ethics will ensure compliance with internal control systems and will be able to detect unethical behaviors like manipulation and falsification of documents as noted by [11]. Furthermore, unethical behavior poses the risk of criminal activity, potentially lowering profit margins, [13]. It is imperative for accountants to strictly adhere to ethical standards within the accounting profession to uphold the integrity of financial reporting and organizational well-being.

2.2 Ethical Behavior of Accounting Graduates

Ethical behavior refers to conduct that aligns with established moral and principled standards, reflecting a sense of integrity, fairness, and responsibility in interpersonal, professional, or societal interactions, [14]. Ethical behavior refers to morally right actions, commitment to honesty, and respect for one another. Decisions are made in accordance with a set of values that are guided by ethical principles and standards, [15]. In summary, ethical behavior is a commitment to make morally sound choices based on guided values.

The ethical behavior of accountants is gauged by the ethical standards of the accounting profession. Numerous ethical standards are widely adopted by accountants worldwide. For instance, the International Federation of Accountants (IFAC) International Code of Ethics for Professional Accountants serves as a guideline and standard for professional ethics among accountants in the United States, [16]. In Malaysia, the Malaysian Institute of Accountants (MIA)-By Law (Professional Ethics, Conduct and Practice), derived from the IFAC International Code of Ethics for Professional Accountants, is regarded as the ethical framework for accountants, [17].

Within the MIA-By Law (Professional Ethics, Conduct and Practice), certified accountants are expected to uphold five principles: integrity, objectivity, professional competence and due care, confidentiality, and professional behavior, [17]. Adhering to these ethical guidelines published by accounting regulatory bodies is deemed ethical behavior. Any actions by accountants that contravene the established code of ethics in their respective countries can result in reprimand and punishment. Consequently, this study operationally defines accountants' ethical behavior as compliance with the ethical guidelines for accountants as mandated by professional accounting regulatory bodies.

2.3 Measurements of Ethical Behavior

This study will look at two measurements in measuring the ethical behavior of accountants, namely vignette scenarios and perceptual statements. Vignettes refer to scenarios on ethical behavior that the respondents are invited to react to [9]. For example, the respondent is asked to rate his/her agreement on the action taken by an accountant. An illustration of an ethical behavior vignette scenario is as follows:

“A client of an accountant refers another client to the accountant and indicates that he expects some

small compensation from the accountant for his services. The accountant takes the client out for dinner.” The respondents were asked to rate their agreement on a scale of (1) strongly disagree to (5) strongly agree whether the action taken by the accountant is unethical.

On the other hand, a perceptual statement refers to direct questions or indicators used to assess or quantify a particular construct or variable. Examples of the perceptual statements include i) questionable adjustments to financial records are unacceptable, ii) accepting a customer with questionable credit is unethical, and iii) it is unethical to allow personal situations to influence business decisions. From these statements, respondents were asked to rate their agreement on a scale of 1 (strongly disagree) to 5 (strongly agree).

Previous studies have used vignette scenarios and conducted Structural Equation Modelling (SEM) analyses and others incorporate fuzzy logic into their analysis, [18], [19]. As for perceptual statements, analyses such as the chi-square test and Kruskal-Wallis's test were used, [20], [21].

However, none of the previous studies have reported construct validity for vignette scenarios and perceptual statements, to examine which of the two measurements of ethical behavior has a better statistical property than the other one. Thus, the present study would like to address this gap and use SEM to test the impact of ethical workplace culture on accountants' ethical behavior using both vignette scenarios and perceptual statements.

Comparing the findings from vignette scenarios and perceptual statements is crucial to highlight the advantages and disadvantages of each method for evaluating the ethical behavior construct, especially in light of the various approaches noted in the literature. This comparative analysis is anticipated to enhance the methodological rigor of the study and provide valuable insights for future research in the field of ethical behavior measurement.

2.4 The Influence of Ethical Culture at Workplace on the Ethical Behavior

The workplace's organizational culture serves as the fundamental system shaping the behavior of accountants and auditors, [22]. This culture plays a crucial role in addressing external challenges and facilitating the adaptation of new employees to their surroundings, [23]. Each employee contributes their unique cultural perspective, which can either align with or influence the culture and performance of the workplace, [24]. Therefore, fostering a positive working environment becomes essential to positively impact employees.

Several studies have explored the association between workplace culture and ethical behavior. [22] and [25], found a positive and significant relationship between the workplace environment and ethical judgment, as well as the intention to engage in ethical behavior. Ethical behavior, measured through vignette questions, is influenced by independent variables such as those addressed in CEP questions. The internal control and governance of the organization can be improved through the cultural practices, and it depends on the ethical evaluation of each of the organization's members, [26].

[27], extended this exploration by examining ethical behavior within the workplace concerning interactions with various stakeholders. Their study revealed that top management's ethical decisions significantly influence employees' ethical behavior across a range of areas, from interactions with superiors, customers, and fellow employees to dealing with suppliers, competitors, government officials, taxation matters, investors, the nature of the product, and environmental concerns. Whether at the group level or agency level, the ethical culture influences the behavior of organization members, [2].

Organizational ethical culture, as highlighted by [28], communicates messages about acceptable and unacceptable behavior, particularly as set by top management. As highlighted by [23], the dominant characteristics, organizational leadership, management of employees, organization glue, strategic emphasis, and criteria of success are the key dimensions of organizational culture. Ethical training programs embedded within organizational practices, especially in industries like insurance, contribute to the formation of a collective ethical culture that shapes employee actions over time, [29]. The core ethical values and beliefs underpinning the organizational ethical culture are intricately tied to the actions, deeds, and intentions of those within that culture.

Drawing from Hunt and Vitell's theory, which emphasizes the influence of the environment on ethical behavior, it is reasonable to assume that the ethical culture within an organization positively impacts the ethical behavior of accounting graduates (Figure 1).

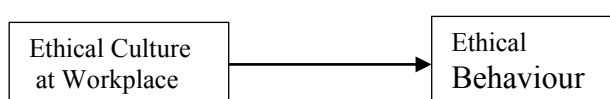


Fig. 1: Theoretical Framework

Consequently, this study proposes the hypothesis:

H1: There exists a positive and statistically significant relationship between workplace culture and ethical behavior.

3 Research Method

3.1 Target Population and Sampling Process

The research population for this study comprised accounting graduates from MIA-accredited universities in Malaysia. Unfortunately, the total population is unknown, and a complete sample frame is also absent. Due to these limitations, the required sample size could not be determined based on the population size, and probability sampling was not feasible. Instead, the sample size was determined based on the complexity of the research model, as recommended by [30], using the G*Power calculator and the minimum sample size was found to be 55.

Purposive sampling specifically targeted accounting graduates who recently completed their degrees in 2019, 2020, and 2021 was used. This is based on the assumption that recent graduates could recall and remain familiar with the accounting ethics education or ethics courses taken during their university years.

3.2 Data Collection Procedures and Questionnaire Development

Despite the calculated minimum sample size of 55, the study aimed to obtain a more extensive sample and reach as many respondents as possible. A cover letter elucidating the study's purpose and the targeted respondents was distributed to 17 heads of accounting programs at MIA-accredited universities. These program heads were requested to facilitate the distribution of the e-survey link to 100 accounting graduates from 2019, 2020, and 2021, currently working in finance and auditing/accounting-related fields. This collaborative approach sought to enhance the diversity and representation of the sample, ensuring a robust and comprehensive data collection process. A questionnaire was prepared based on previous literature. Pilot testing was done, and ethical clearance was obtained before the distribution of the questionnaire to the respondents. For ethical work culture at the workplace, the five-item Corporate Ethics Scale by [31], was used. Respondents were asked to rate their agreement on a scale of (1)

strongly disagree, (2) disagree, (3) neutral, (4) agree, and (5) strongly agree.

For ethical behavior, two measurements were used, namely vignette scenarios and perceptual statements. Three vignette scenarios, [22], were used in this study. The scenarios are obtaining compensation for the introduction of a new client, a close relationship with the existing client, and a conflict of interest with the potential client. Respondents were asked to rate on a 5-point Likert scale, ranging from (1) strongly disagree to (5) strongly agree, to rate their agreement with the scenarios.

On the other hand, the perceptual statements were adapted from, [20]. It covers various aspects including loyalty, personal expenses, policy adherence, compliance with unethical instructions, differential treatment of employees, and company policies. Respondents were asked to rate the statements using a 5-point Likert scale, ranging from (1) strongly disagree to (5) strongly agree.

4 Analysis and Result

4.1 Returned Questionnaire and Data Screening

In this study, 344 usable responses were used for hypothesis testing. Before hypothesis testing, four steps of data screening procedures were conducted as outlined by [32], which included handling missing values, eliminating suspicious responses and significant multivariate outliers, and the test of multivariate data distribution. This study used Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS 4.0.9.6, [33], for hypothesis testing.

4.2 Demographic Profiles

Respondents of the study comprised of majority females (83%), 34% graduated from MIA accredited accounting programs and 48% of respondents reported 1 to 2 years of working experience. A summary of the respondent backgrounds can be found in Table 1.

Table 1. Background of the Respondents

Information	Frequency	%
1 Gender		
Male	60	17
Female	284	83
Total	344	100
2 Year of Graduated from Bachelor's Degree in Accounting Programs		
2019	110	32
2020	118	34
2021	116	34
Total	344	100
3 Name of University		
Universiti Sains Islam Malaysia (USIM)	77	22
Universiti Teknologi MARA (UiTM)	46	13
Universiti Islam Antarabangsa Malaysia (UIAM)	35	10
Universiti Malaysia Terengganu (UMT)	28	8
Universiti Putra Malaysia (UPM)	24	7
Universiti Utara Malaysia (UUM)	23	7
Universiti Tunku Abdul Rahman (UNITAR)	20	6
Others (Below than 20 responses)	91	27
Total	344	100
4 Job Designation		
Accountant	155	45
Auditor	133	39
Tax Agent	45	13
Others (Finance/etc)	11	3
Total	344	100
5 Type of Company		
Big 4 Firm (PwC/KPMG/Deloitte/EY)	19	6
Non-Big 4 Firm	199	58
Commercial Company	111	32
Public Sector	15	4
Total	344	100
6 Working Experience since Graduated		
Less than 1 year	118	34
1 to 2 years	165	48
More than 2 years	61	18
Total	344	100

4.3 Construct Validity Test based on Measurement Model Assessments

In Structural Equation Modelling (SEM), whether using CB-SEM or PLS-SEM, the initial step before testing hypothesized relationships is to conduct a construct validity test through measurement model assessments, [34]. In PLS-SEM, this assessment involves outer loadings, internal consistency reliability through composite reliability coefficient (ρ_c), convergent validity through the average variance extracted (AVE) statistic, and discriminant validity through the HTMT ratio, [35]. The focus of this paper is to compare the use of perceptual statements and vignette scenarios for measuring the ethical behavior construct. Accordingly, two sets of measurement model assessments were presented—one demonstrating the constructs of ethical culture at the workplace (ECW) and ethical behavior (EBS) measured through perceptual statements, and another depicting ECW and EBV measured using vignette scenarios. The findings of the analysis for both measurements are presented in the following tables.

4.3.1 Construct Validity of ECW and EB (Perceptual Statements)

The initial step involves assessing the loading of the indicators, specifically the outer loadings. An acceptable threshold for outer loadings is 0.5, provided that the construct meets the convergent validity requirement of an AVE of 0.5 and above, [36]. In this case, the AVE for both ECW and EBS constructs exceeded the 0.5 threshold after excluding three items from EBS (refer to Table 2). Additionally, the internal consistency reliability for both constructs meets the ρ_c threshold at 0.708, with readings for ECW at 0.833 and EBS at 0.870, respectively. Simultaneously, the HTMT ratio is assessed to determine the discriminant validity between the constructs under study. The divergence and correlation between different constructs must be minimally correlated, with an HTMT ratio below 0.85, [37] or at least below 0.90 [38]. The result showed the discriminant validity requirement is met.

Table 2. Result of the Measurement Model Assessment for ECW and EBS (Perceptual Statements)

Constructs	Items	Loadings	Rho c	AVE	HTMT Ratio
Ethical Culture at the Workplace (ECW)	ECW1	0.644	0.833	0.503	0.837
	ECW2	0.576			
	ECW3	0.777			
	ECW4	0.801			
	ECW5	0.723			
Ethical Behavior (EBS)	EBS1	0.783	0.870	0.527	0.837
	EBS2	0.728			
	EBS4	0.663			
	EBS5	0.694			
	EBS6	0.723			
	EBS9	0.758			

**Note: Items EBS3, EBS7, and EBS8 were removed to satisfy the convergent validity requirement.*

4.3.2 Construct Validity of ECW and EBV (Vignette Scenarios)

The ECW and EBV (vignette scenarios) used the same construct validity tests as the ECW and EBS measurement models. Unlike the ECW-EBS measurement model, the ECW construct's convergent validity required the removal of items ECW4 and ECW5. The ρ_c coefficient displayed satisfactory values, proving that ECW and EBV both met the requirements for internal consistency reliability. The HTMT ratio which is used to evaluate the construct's discriminant validity shows no problems between the investigated constructs, according to results in Table 3.

Table 3. Result of the Measurement Model Assessment for ECW and EBV (Vignette Scenarios)

Constructs	Items	Loadings	Rho c	AVE	HTMT Ratio
Ethical Culture at the Workplace (ECW)	ECW1	0.784	0.779	0.550	0.488
	ECW2	0.872			
	ECW3	0.525			
Ethical Behavior (EBS)	EBV1	0.737	0.784	0.548	0.488
	EBV2	0.695			
	EBV3	0.787			

**Note: Items ECW4 and ECW5 were removed to satisfy the convergent validity requirement.*

Overall, it can be seen that the measurement model for ethical behavior measured using vignette scenario (EBV) and ethical culture at the workplace (ECW), have provided insights into the structure of

these dimensions. When the relationship of ECW and EBV (vignette scenarios) was examined, ECW4 and ECW5 had to be deleted to achieve convergent validity. However, when the relationship between ECW and EBS (perceptual statements) was examined, no items were deleted, which suggests that the original set of ECW items remained effective in capturing the ethical behavior construct adequately.

4.4 Hypothesis Testing based on Structural Model Assessment

The structural model results for both the ECW-EBS model and the ECW-EBV model show a statistically significant positive impact of ethical culture at the workplace on ethical behavior. These findings are robustly supported by several key indicators, including t-values exceeding 1.645 in a one-tailed test, p-values less than 0.05, and confidence intervals for the path coefficients not straddling 0 (Table 4).

Table 4. Results of Structural Model Assessments

Relationships	β	SD	t-value	p-value	CI		Effect Size (f^2)	Explanatory Power (R^2)	Decision
					L	U			
ECW → EBS	0.66	0.03	19.43	<0.00	0.62	0.73	0.809	0.446	Supported
ECW → EBV	0.32	0.05	6.04	<0.00	0.02	0.42	0.244	0.105	Supported

The findings of this study emphasize that ethical workplace culture positively and significantly influences ethical behavior. This conclusion aligns with previous studies that have demonstrated the impact of organizational culture on employee behavior, [20], [25], [27]. Drawing on deep learning theory, informal learning spaces, such as the workplace, are identified as catalysts for the deep learning process. Hunt and Vitell's theory further elucidates that the professional environment plays a crucial role in shaping the ethical judgment and behavior of individuals. Thus, these two theories collectively provide insights into the relationship among these variables. Establishing an ethical environment becomes imperative to foster positive values and enhance the ethical behavior of accounting graduates.

5 Discussion and Implications

For the first objective of the study which is to empirically assess the impact of ethical workplace

culture on the ethical behavior of accounting graduates, it was found that ethical culture at the workplace exhibit a positive and significant relationship with the ethical behavior of accounting graduates. Interestingly, both the relationships between Ethical Culture at Work (ECW) to Ethical Behavior (EB) and ECW to Ethical Behavior Variation (EBV) yield similar results. Consequently, this supports the hypothesis, drawing from Hunt and Vitell's theory, effectively elucidating the link between the ethical culture or environment in the workplace and the behavior of accounting graduates. Thus, objective number 1 has been achieved.

However, the comparison of the structural model results between the ECW-EBS model and the ECW-EBV model reveals notable distinctions in their impact on ethical behavior. Both models demonstrate a statistically positive effect of ethical culture at the workplace on ethical behavior, as indicated by t-values above 1.645 (one-tailed test), p-values less than 0.05, and confidence intervals where the upper and lower limits do not straddle between 0, [32].

Despite the shared positive effect, the ECW-EBS model exhibits distinct advantages across various dimensions. It outperforms the ECW-EBV model in terms of a higher path coefficient, a larger effect size, and greater explanatory power. In specific terms, the ECW-EBS model displays a path coefficient of 0.669, a substantial effect size of 0.809 (classified as large according to [39]), and a moderate explanatory power of 0.446 (according to [40]). On the other hand, the ECW-EBV model, while still showcasing a statistically positive effect, presents a comparatively lower path coefficient of 0.328, a medium effect size of 0.244 (categorized as medium according to [39]), and a weaker explanatory power of 0.105 (classified as weak according to [40]). These results marked the achievement of objective number 2.

Thus, for the second objective of the study which is to compare the statistical results of two different measurements of ethical behavior using perceptual statements and vignettes, the study found that the ECW-EBS model provides a better explanation of the relationship between ethical behavior and workplace culture, as evidenced by its higher path coefficient, larger effect size, and more explanatory power as opposed to the ECW-EBV model.

The observed discrepancy in item features between the two models may be explained by the innate variations in how participants comprehend and react to hypothetical situations (vignettes

scenario) in contrast to more straightforward assertions (perpetual statements), [8], [9]. These results show the importance of taking into account the difficulties using different measurement techniques such as the measurement of ethical behavior using vignette scenarios (EBV) and perceptual statements (EBS). The ECW-EBS model's requirement that requires two items to be eliminated highlights the need to be cautious when interpreting data and choosing measurement techniques for the specifics of the construct and study setting.

6 Conclusion and Recommendation

This study has shown a significant and positive relationship between culture at the workplace and the ethical behavior of Malaysian accounting graduates using two measurements of ethical behavior, namely vignette scenarios and perceptual statements.

The ECW-EBS model was found to give a better explanation of the relationship between ethical behavior and workplace culture, as compared to the ECW-EBV model.

This could be because perceptual statements are easier to comprehend by the respondents as opposed to vignette scenarios. Statements are easier to understand because of their simplicity, but vignette scenarios may not be able to adequately capture real-life situations due to their inherent complexity.

Thus, researchers should choose their measurement instruments carefully and ensure the instrument is appropriate for the phenomenon being studied, which will help to improve the precision of the findings of the research.

Due to the scarcity of studies comparing the application of vignette scenarios and perceptual statement measurement items for measuring ethical behavior, a thorough discussion and comparison of the findings are not possible. Although direct comparisons with previous empirical studies are not feasible, the current findings provide novel empirical evidence by measuring the ethical behavior construct using two different scale properties. Furthermore, these findings support the notion that vignette scenario survey items are more commonly employed in experimental research rather than non-experimental studies, as evidenced by their prevalence in [6] and [7].

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- Hasnah Haron, a Professor in Auditing, has the role of acquiring financial support for the project leading to this publication, consolidating writing, and being a correspondence author.
- Azim Azuan Osman: Expert in statistical analysis and responsible for data processing to ensure a quality paper.
- Nurul Nazlia Jamil: Expert in Accounting and responsible for literature review
- Nathasa Mazna Ramli: Expert in Accounting and responsible for methodology
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