



Accounting Ethics Education on Ethical Behaviour of Accounting Graduates in Malaysia

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ABSTRACT - The rising corporate scandals caused by unethical accountants have concerned various parties, especially the stakeholders. These scandals, whether in public or private sectors, have impacted the economy and reputation of a country. Therefore, the role of ethical accountants in providing reliable information for decision-making is crucial and should be addressed seriously. Thus, the education sector is believed to be one of the ways to produce graduates with good technical skills, knowledge, and high morality to make the best judgement for society. The research is conducted to assess the influence of accounting ethics education (Ethics Courses (EC) and Teaching Styles (TS)) on the Ethical Behaviour (EB) of accounting graduates in Malaysia. This study uses a questionnaire distributed to accounting graduates from Malaysian Institute of Accountants (MIA)-accredited universities. Seventy usable responses were received, and Partial Least Squares - Structural Equation Modelling (PLS-SEM) was used to analyse the data. This study discovered that TS used in teaching EC has a positive and significant relationship with the EB of accounting graduates in Malaysia. However, EC offered in the accounting programme at the university was discovered not to be significant. Thus, it is suggested that lecturers need to use various methods of teaching in delivering EC to enhance the EB of accounting graduates in Malaysia.

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INTRODUCTION

The 1 Malaysia Development Berhad scandal, famously known as 1MDB in 2015, the Immigration Department Migrant scandal in 2016, Tabung Haji's RM9 Billion Shortfall in 2017, the Serba Dinamik's scandal in 2021 (The Edge Malaysia, 2022), and the list goes on (Nair, 2020). Corporate scandals in Malaysia have a destructive impact on Malaysia's economy and taint the reputation and impression of others in Malaysia in general (Jones, 2020). The 1MDB has been described as "one of the world's greatest financial scandals" (Chen, Ponniah, & Mayuri, 2019; Ronkin, 2020). Due to this scandal, the auditor, Deloitte Malaysia, has been charged a total of RM2.2 million (US\$536,000) fine by Malaysia's Securities Commission due to the failure to report right away on the irregularities of the RM2.4 billion transaction in the Islamic bond issuance that may have a

significant impact on the 1MDB scandals (CFO Innovation Editors, 2019). In Serba Dinamik's scandal (Barrock, 2021; Staff, 2021), the company's financial reports furnished to Bursa Malaysia were manipulated by the executives and accountants of the company (Ho, 2022).

Every time these scandals occur, the integrity and capability of the accounting profession will be questioned (Sooi, 2021). In order to avoid that, accountants need to have excellent ethical judgment skills (Plummer, 2005). Islam also has taught its believers to be honest and truthful in every action (Alani & Alani, 2012). To this end, accountants are responsible for upholding the public interest by ensuring that public and private funds are managed effectively (Mohamed Saat et al., 2012). In this context, ethics in accounting education is believed to be one of the methods to achieve a high moral standard for the individual (McPhail, 2001; Mohamed Saat et al., 2012). Integrating ethics education into the accounting curriculum is the most effective Teaching Style (TS). This includes who should teach ethics are some of the hot topics when it comes to providing the most comprehensive education model to teach ethics to accounting students (Blanthorne et al., 2007; Ryan & Bisson, 1978; Sahin et al., 2019).

However, previous studies have suggested that accounting education has failed to produce balanced accounting graduates in intellectual skills and morals to make the best decisions in the interest of society and its environment (Fritzsche & Oz, 2007; McPhail, 2001). Practitioners, academics, and professional organisations have been concerned about the declining quality of accounting education in academic and non-academic sources for many years (Madsen, 2015). Hence, the call for strengthening ethics education in the accounting profession is tremendous (Mohamed Saat et al., 2012). The role of academicians in instilling ethical values and enhancing Ethical Behaviour (EB) through education is significant in producing accounting graduates who will be the future leaders of the country (Abdul Rahman, 2003; Mishra, 2017).

In conclusion, accounting scandals will negatively affect the organisation, society, and the country. The public will also have a poor opinion of the accounting profession, which is in charge of managing the financial matters of the organisation. Therefore, ethical accountants with excellent technical capabilities and high moral values are the key to solving these challenges. The main problem that needs to be addressed, though, is that existing accounting education has failed to produce accountants with high integrity. Thus, this paper aims to examine whether Ethics Courses (EC) and the TS used in Malaysian universities will influence the EB of accounting graduates.

LITERATURE REVIEW

Ethics in the Accounting Profession

Ethics originated from the Greek word *èthos*, defining the moral nature that characterises a person or a group and is the science of morals (Baud et al., 2019). Ethics refers to a philosophical reflection on moral beliefs and practices. People can be ethical by thinking about ethics and reflecting on their moral beliefs and practices (Abdul Rahman, 2003). In Islam, numerous verses in the Quran are related to "those who believe" and "those who do good actions," demonstrating the close connection between religion and morality or ethics in Islam. For example, in Surah Al-Baqarah, v. 25, "Give good news to those who believe and do good that they will have Gardens under which rivers flow..." (The Quran, 2:25) and also in Surah Al- 'Asr, v. 3, "except those who have faith, do good, and urge each other to the truth, and urge each other to perseverance" (The Quran, 103:3). It suggests that ethics is fundamental to becoming a good Muslim.

The dedication to ethics in accounting has long been a source of pride (Mintz, 2021). According to Abdul Rahman (2003), acting ethically is an expected trait of an accountant. The virtues of ethics are ideal since they emphasise "a capacity to judge and do the right thing in the right place at the time in the right way" (Mintz, 2021). Ethical accountants can make the best judgement whenever facing any ethical dilemma. These ethical accountants can be produced through accounting ethics education (Abdul Rahman, 2003; Taylor, 2013). As a result, unethical or corporate scandal cases in accounting, especially in Malaysia, can be reduced.

From the Islamic perspective, an accountant, as a person, is the caliph of Allah SWT and plays a significant role in implementing the thrust of Allah SWT (Latif & Misbah, 2016). The role of the caliph of Allah SWT is not only limited to a person in professional fields but also as a human being in general. The objective of *Muslims* in their daily routines and activities is to achieve the *falab* in the world and then lead to the *falab* in the Hereafter (Nik Abdul Ghani et al., 2012). As inheritors of God, it is an obligation for men/women to inhabit and protect this earth as best as they can based on the verses of Allah SWT in Surah Sad, v. 26; “O Dawud! Verily, we have placed you as a successor on the earth; so, judge you between men in truth (and justice) and follow not your desire, for it will mislead you from the path of Allah SWT” (The Quran, 38:26).

Ethics in the Malaysian Accounting Education

Ethics education has been inculcated since pre-school (MOE, 2013). The Minister of Education (MOE) aimed to ensure that every school can produce students with core, universal values and a robust Malaysian identity when they leave the school (MOE, 2013). In order to do so, MOE has introduced general ethics and moral courses that are mandatory to all students, called “*Pendidikan Sivik*,” or Civic Education (MOE, 2023; 2018). There is also a specific accounting subject called “*Prinsip Perakaunan*,” or Principle of Accounting, taken by accounting students in secondary school. This subject focuses on technical skills and knowledge, especially preparing financial reports. Ethics and values were also included in this subject (MOE, 2009).

One of the functions of the tertiary educational institution is to produce graduates with integrity as future leaders (Haron et al., 2022). In accounting, tertiary education plays a critical role in the development of the moral competency of accounting students, which will translate into the development of morally competent accountants in the future (Zubairu, 2016). In Malaysia, one specific stand-alone EC with three (3) credit hours are offered to accounting students (Mohamed Saat et al., 2010). Conversely, it can also be embedded in other accounting courses like audit, taxation, and others (MOHE, 2015; 2006). Students are first exposed to professional principles and behaviour in college, and the accounting profession’s socialisation process starts (Ponemon, 1990). Previous research has discovered inconsistent evidence on the best method to integrate ethics into accounting (Christensen et al., 2018; Robinson et al., 2020). Extensive studies have discussed whether ethics should be a stand-alone subject or embedded in other courses (Davis & Welton, 1991; Sahin et al., 2019).

In conclusion, ethics, in general, has been inculcated since pre-school. Early exposure to ethics in accounting education is crucial to teach students the importance of the role of accountants in any business transaction. The accountant has always been portrayed as “introverted, cautious, analytical, systematic, antisocial, and, above all, boring” (Parker, 2000). However, without proper bookkeeping, it will increase the likelihood of early failure and decrease the likelihood that the business will survive. This makes it more challenging to plan and manage its operations, lowers the possibility of being profitable, and contributes to keeping the business in an unhealthy and unsound state to compete (Aruwa, 2005; Clausteir & Underdown, 2002; Reed, 2005). Moreover, the importance of keeping all business transactions’ documentation was also mentioned in the Quran Surah Al-Baqarah, v. 282; “Hi believers, when you contract a debt for a specified term, write it down. And let a scribe write [it] between you in justice” (The Quran, 2:282).

Accounting Teaching Styles

How ethics education is conducted or the chosen teaching method will influence its deliverables (Ponemon, 1993). According to the International Education Standard (IES) 4, Initial Professional Development – Professional Values, Ethics, and Attitude (2019), there are various TS that educators can use to teach ethics, for example, role-play, discussion, case studies, seminars, and forums (IESB, 2019). Accounting educators can use any TS that suits the class discussion. The educators are expected to constantly update with current practices in the industry and give early exposure to the students. A variation of TS used in accounting ethics education that suits current

practices will help students better understand (Okougbo & Okike, 2021; O’Leary & Stewart, 2013). According to Okougbo and Okike (2021), Kerr and Smith (1995) and Loeb (1994) listed seven (7) teaching delivery styles of EC, which are (i) case study, (ii) game, (iii) role-play, (iv) film, (v) digital video, (vi) group learning, and (vii) lecture notes.

Malaysian employers demand that graduates possess strong communication, organisational, analytical, research, problem-solving, and technological skills (Accountants’ Today, 2008). In response, the Ministry of Higher Education (MOHE) also advocates a student-centred learning approach, emphasising “independent learning, active learning processes, analytical thinking, effective writing ability and effective oral communication” (MOHE, 2006). It is also parallel with the IES 4, where accounting educators are suggested to use multiple TS to teach ethics to accounting students (IESB, 2014). Students prefer active teaching methods like role-play to passive teaching methods like standard note delivery (Okougbo & Okike, 2021). The educators are free to use whatever ways to teach ethics to the accounting students. According to O’Leary and Stewart (2013), instructors or educators must deliver ethical material most appropriate to achieve the desired outcomes for accounting graduates (O’Leary & Stewart, 2013).

Ethical Behaviour

Extensive research has been conducted on individual behaviour and numerous factors that influence an individual’s behaviour. Some researchers believe that the foundation for deciding what is right and what is not is formed early, and what comes later will not significantly change the foundation (Abuznaid, 2009). However, this opinion contradicts the study conducted by Hunt and Vitell (1986). Accountants must have sound ethical judgements when facing ethical dilemmas to avoid accounting scandals (Fritzsche & Oz, 2007). Good ethical judgment skills will enhance the EB of an individual (Douglas et al., 2001).

Islam also highlights EB as Islam itself is a way of life; therefore, it applies to every aspect of life, including administration (Abuznaid, 2009). In Islam, there are two dimensions of ethics: (i) ethics toward Allah SWT, where a Muslim must believe in Allah SWT and worship Him, and (ii) ethics towards other living creature in the world, which a Muslim need to maintain a good relationship with other living creature, incredibly human (Abdul Aziz & Ahmad, 2019; Abuznaid, 2009). When Muslims face any ethical dilemma, any decision must be guided by faith or *Iman*. *Iman* is the religious feeling that results from obeying what Allah SWT asks every Muslim to do (Al-Banna, 1940). Any decision must be ethical towards Allah SWT, and other living creatures achieve the highest blessing and mercy, *mardhatillah* (Abdul Aziz & Ahmad, 2019).

Muslims are required to abide by the Shariah law, practising what is halal, permitted and refraining from what is haram, prohibited (Alawneh, 1998). Any unethical practices by Muslims are considered haram and need to be avoided. Therefore, Muslims must be able to distinguish what is halal and what is haram according to the Quran and Sunnah, especially in the accounting profession. Muslim accountants are free to make any decision. However, they must abide by religious principles and exercise appropriately (Ali & Gibs, 1998). Muslims are expected to conduct a proper method in any business dealing taught in Islam (Arham, 2010). It is also stated in Surah An-Nisaa’, v. 29; “Believers! Do not devour one another’s possessions wrongfully; rather than that, let there be trading by mutual consent. You shall not kill yourselves. Surely Allah is ever compassionate to you” (The Quran, 4:29).

In conclusion, accountants must uphold ethics not just in the course of providing their professional services but also in everyday life as members of society. Muslims must maintain a good relationship with Allah SWT, the Creator, and all living things.

Theory

According to Deep Learning theory, individuals will stimulate deep learning depending on the environment or the learning spaces (Kolb & Kolb, 2009; Lawter et al., 2014). In order to stimulate the deep learning environment or the deep learning process of accounting students, how ethics are taught and the TS used need to be effective (Kolb & Kolb, 2009). The Deep Learning theory has

explained that the formal learning spaces in the classroom can stimulate the deep learning process of the students (Lawter et al., 2014). It is crucial to use the most effective teaching methods to deliver the most effective ethics education to the students to achieve all of the objectives of ethics education.

Other than the spaces of the learning process, the method of teaching used is also significant in delivering the teaching module. Matching the teaching method with the TS used by the educator to teach the learner has been proven to significantly influence academic success (Kolb, 1984). Furthermore, each learner is discovered to have different preferences for learning methods (Kolb & Kolb, 2005), especially accounting students. There are different types of teaching methods, including role-play, case study discussion, and movies or videos that can be used in formal learning spaces. Hence, various teaching methods should be used to deliver ethics education modules to accounting students.

Islam also has different learning spaces with different learning styles to stimulate the learning process in teaching ethics. In the past, various types of educational institutions used both active and passive teaching methods, including the *madrasah* (education institution of public instruction), the *maktab* (writing education institution), the *balaqah* (circle education institution), and the *masjid* (mosque education institution). Each educational institution has a different structure for teaching and learning moral values (Halstead, 2004). Teaching methods vary in learning styles, use of punishment, dependence on memorisation, use of visual aids, computers, and other resources, the inclusion of discussion of contemporary moral issues, and others. Consequently, there will be various methods to teach ethics and morality to individuals by providing learning spaces to stimulate the deep learning process.

Hypothesis Development

i) Accounting Ethics Course

Accounting ethics education at the university has been taught to accounting graduates in two types of courses: (i) stand-alone EC and (ii) embedded in other courses (MOHE, 2006). Previous studies discovered that ethics should be across the entire qualification (Sims, 2000). However, there is a need for a separate course that teaches more common core ethics to all students (Bowden & Smythe, 2008). According to Weber (2007), ethics education should raise ethical consciousness and promote the organisation's moral principles to extend the standards managers apply when making morally charged decisions. The intervention of ethics has demonstrated significant improvements in ethical sensitivity, strengthened the ability to be open-minded and reconsider their past action and beliefs, and increased the ability to face ethical dilemmas in the students' workplace (Walker, 2013; Wu, 2003).

On the contrary, previous studies also discovered that courses in educational institutions do not have an impact on ethical reasoning and are not significant in influencing the ethical development of students (Early & Kelly, 2004; Ponemon, 1993). In Malaysia, ethics education is important to satisfy the profession's needs. However, different opinions exist among educators on the adequacy of the ethics education scope that has been practised (Win et al., 2014). Nevertheless, more previous studies postulate a positive and significant relationship between EC and EB.

Deep learning theory teaches that formal learning spaces, such as the university's EC, stimulate the deep learning process of the students. The formal learning spaces will influence the effectiveness of the EC to enhance the EB of accounting graduates. Hence, this study develops the following hypothesis.

H1: There is a positive and significant relationship between Ethics Courses (EC) and the Ethical Behaviour (EB) of accounting graduates.

ii) Teaching Style

There are multiple ways to teach ethics to accounting graduates. Actual case studies (McWilliams & Nahavandi, 2006) and role-play (Okougbo & Okike, 2021; Sanyal, 2000) are some of the delivery methods in ethics education. According to Bowden and Smythe (2008), students' ability to analyse moral dilemmas is enhanced through EC, which includes case studies and lectures on ethical theory. Collaboration with industry players as guest lecturers is also one of the ways to teach ethics that can enhance students' EB, as ethics educators need to be well-versed in two disciplines: (i) philosophical ethics and (ii) subject matter (Frederick, 1998).

According to deep learning theory, students will stimulate a deep learning process in ethics education through their preferred learning styles. Hence, the pedagogies or methods of delivery in the learning spaces, specifically in ethics education, will help to stimulate the accounting students' deep learning process. Therefore, this study develops the following hypothesis.

H2: There is a positive and significant relationship between various Teaching Styles (TS) and the Ethical Behaviour (EB) of accounting graduates.

Conceptual Framework

The constructs of the conceptual framework for this study are adapted from the Deep Learning Theory (Kolb & Kolb, 2009; Lawter et al., 2014). The Deep Learning Theory will explain the relationship between accounting EC as formal learning spaces and the TS used in the formal learning spaces to stimulate the deep learning process of accounting graduates. Accounting ethics education is taught to accounting students to enhance the EB of future accountants in Malaysia. The conceptual framework for the proposed study is presented in Figure 1.

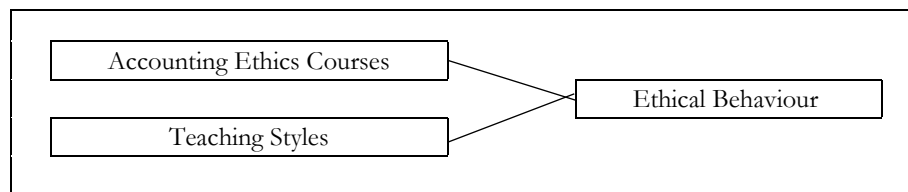


Figure 1: Conceptual framework of the study

METHODOLOGY

This study uses a quantitative, cross-sectional research design. The unit of analysis is accounting graduates.

Population and Sample Size

The population comprised accounting graduates from 17 MIA-accredited universities offering Bachelor's Degree accounting programmes. The accounting graduates must fulfil the following criteria: they must work in finance, accounting/audit, or related fields and have less than three (3) years of working experience. The reason why accounting graduates with less than three (3) years of working experience in accounting or related fields are needed is that during this period, they would not yet be eligible to become an accountant. However, they are already on the pathway to becoming one. This is attributed to the fact that one of the criteria to become an accountant is that the accounting graduates must fulfil three (3) years of working experience in accounting or related fields.

The minimum sample size for factor analysis is 50 samples (Sapnas & Zeller, 2002; Williams et al., 2010). Hair et al. (2018) also stated that exploratory factor analysis cannot be done if the sample has less than 50 observations. On the contrary, according to Roscoe (1975), the minimum number of respondents is to be at least ten times the total number of variables to be analysed (Hair et al., 2017; Hair et al., 2014). Since this study has two (2) variables, the sufficient

sample size would be $2 \times 10 = 20$ samples. However, according to the G*Power, the minimum sample size is 68. This study has used G*Power to determine the minimum sample size of the study. Since the usable responses are 70, it has met the minimum sample size for the study.

Data Collection Method

This study uses an online questionnaire as a method of data collection. There are three sections in the questionnaire. Section A consists of the demographic profile of the respondents, while Section B consists of questions on EC and TS. Section C requires the respondents to rate the EB of accounting graduates. The questionnaire was validated by panel experts.

Using a purposive sampling method, the online questionnaire was distributed to 70 accounting graduates who graduated from 17 MIA-accredited universities offering Bachelor's Degree accounting programmes. The respondents must be accounting graduates currently working in finance, accounting/audit, or related fields, with less than three (3) years of working experience, and who have graduated in 2019, 2020, and 2021. The questionnaire was administered and collected within four (4) weeks.

Measurement of Variables

Accounting EC refers to the coverage of ethics education, whether in stand-alone courses or whether a topic on ethics is discussed in other courses in the accounting programme. Three (3) stand-alone courses and 23 courses in the accounting programme were listed for the respondents to choose from. This measurement is adapted from Sahin et al. (2019), whose study examined the coverage of accounting EC in accounting curricula in universities around Turkey. Assuming a respondent ticked only one (1) stand-alone course, a score of 100% will be given. If the same respondent ticked other courses in the accounting programme that discussed the topic of ethics, a score of $1/23$ (4.35%) would be given. Thus, to obtain the percentage score of the coverage of ethics education that a respondent has taken in his accounting degree programme, these two scores will be added and will be multiplied by 100%. A score of 52.17% [$(100\% + 4.35\%) / 2 \times 100$] will be given. The method of scoring is based on Sritharan and Salawati (2019).

Next, TS refers to the number of TS used in ethics education. Seven (7) TS were listed for the respondents to choose from. The more TS are ticked by the respondents, the greater the score that will be assigned to TS. This is adapted from a previous study conducted by Okougbo and Okike (2020), where accounting students are asked to tick the types of teaching delivery preferred in teaching ethics in accounting programmes.

There are nine statements that measure the EB of accounting graduates. The respondents are required to rate their agreement with the statements based on a 5-point Likert scale, (1) representing strongly disagree, (2) representing disagree, (3) representing neutral, (4) representing agree, and (5) representing strongly agree. This measurement was adopted from a previous study, and these statements describe the do's and don'ts of formal codes of ethics (Davis & Walton, 1991).

ANALYSIS AND FINDINGS

The data was analysed using SmartPLS version 4.0. This study is a reflective measurement model. In PLS-SEM, measurement model assessment is used to evaluate the validity and reliability of the construct measurement. This study surveys the opinions of 70 accounting graduates from different universities who graduated in 2019, 2020, and 2021 and are currently working in accounting/auditing-related fields. This study conducted two assessments: (i) measurement model assessment and (ii) structural model assessment.

Expert Validity: Content and Face Validity

Researchers employ content and face validity to ascertain that the measures represent the measured concept. Thus, pre-testing will be conducted on a group or panel of experts who will pass judgment on the appropriateness of the measures to the construct being measured (Sekaran & Bougie, 2016). The item in the survey instrument was selected after an extensive literature review. It was evaluated by a research expert comprising three academicians from local universities in Malaysia and two accounting graduates for layman's opinion before conducting the pilot survey. Consequently, some of the items were reworded and deleted based on the comments and feedback from the validator. The item was modified to suit the targeted sample group.

Preliminary Analysis

A preliminary analysis was conducted to capture the demographic profiles of the participants. 87% of the participants were female, and 62% graduated from local public universities with bachelor's degrees in accounting. The majority of 46% of the participants were auditors, and 69% worked at small and medium firms. The demographic profile of the participants in Table 1 reflects the general characteristics of the targeted population of accounting graduates.

Table 1: Demographic profile of participants

Questions	Details	Frequency	Percentage (%)
Gender	Male	9	13%
	Female	61	87%
University	Universiti Sains Islam Malaysia	23	33%
	Universiti Teknologi MARA	15	21%
	Others (Below 10)	32	46%
Job Designation	Accountant	24	34%
	Auditor	32	46%
	Tax Agent	8	12%
	Others (Finance/Banking)	6	8%
Type of Company	Big 4 Audit Firm	2	3%
	Non-Big 4 Audit Firm	48	69%
	Commercial Company	20	28%

Measurement Model Assessment

PLS-SEM was used to measure the reliability and validity of the survey instrument used for this study. The reliability test is conducted to assess the combination of construct variables to the objectives of the measurement (Urbach & Ahlemann, 2010). Meanwhile, a validity test is conducted to test the accuracy of how a construct will be reflected in what has been measured (Omer et al., 2019).

i) Internal Consistency Reliability

Internal consistency reliability is the degree to which the items in the constructed model that make up the scale are all measuring the same underlying attribute (Pallant, 2016). Cronbach's alpha (α) and Composite Reliability (ρ_c) was used as the parameter to measure the consistency of constructed variables (Memon & Abdul Rahman, 2014). However, a previous study has standardised loadings of the variables by only using the ρ_c to measure the internal consistency (Fornell & Larcker, 1981). In order to get a sufficient level of internal consistency reliability, the cut-off values for each of the construct's ρ_c must be more than 0.7 (Hair et al., 2019).

In this study, only EB will be tested in this analysis, and the result reveals that the ρ_c value is 0.881, which exceeds the minimum benchmarking. The result indicates that the reliability of the variables is of a high standard. Table 2 provides the result of the internal reliability analysis.

Table 2: Reliability and validity analysis

Constructs	Items	Loadings	α	ρ_c	AVE
Accounting Ethics Course	EC	1.000	-	-	-
Teaching Styles	TS	1.000	-	-	-
Ethical Behaviour	EB1	0.736	0.865	0.881	0.518
	EB2	0.773			
	EB3	0.636			
	EB4	0.748			
	EB5	0.708			
	EB6	0.767			
	EB8	0.505			
	EB9	0.837			

ii) Indicator Reliability

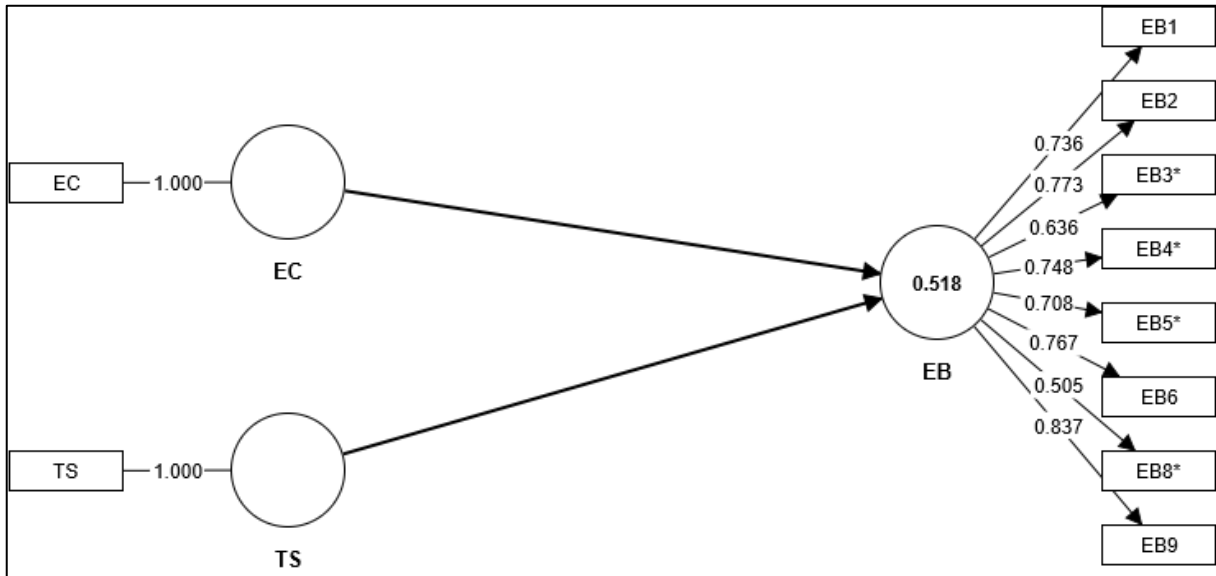
Indicator reliability allows researchers to detect measurement errors in the constructed model. This error exists when there are inaccurate responses (i.e., participants give unsure answers or the interpretation of the questions provided is different from the researcher's intention) and a natural degree of inconsistency when using multiple items to measure the same concept (Šiška, 2018). The parameter used to assess the indicator reliability is the item loadings, and the suggested factor loading of the items is higher than 0.708 (Hair et al., 2019). It is also agreed by other researchers that manifest variables with outer loading that is 0.7 or higher are considered highly satisfactory (Gotz et al., 2010; Henseler et al., 2009). However, items with a loading of higher than 0.5 are also acceptable, and if it is lower than that, they should be dropped from the study (Chin, 1998; Hair et al., 2010). The other minimum level of loading suggested is 0.4 (Hulland, 1999). In a nutshell, the variables with outer loading between 0.4 and 0.7 are sufficient and need to be reviewed before dropping out of the study (Henseler et al., 2009).

This study reveals that only one of the items (EB7) has a factor loading value lower than 0.5. Hence, this item is deleted from the constructed model. Table 2 provides the result of the indicator reliability analysis.

iii) Convergent Validity

The validity of the instruments used in this study is demonstrated by the Average Variance Extracted (AVE) (Al-Okaily et al., 2020). The AVE of the manifest constructed variables will determine the latent variables' variance from its relative variables due to measurement errors (Memon & Abdul Rahman, 2014). When constructs have an AVE value near to or higher than 0.5, convergent validity is considered to be sufficient (Hair et al., 2019).

In this study, the AVE of the constructed model is 0.518. Thus, it reveals that the measurement model has sufficient convergent validity. Figure 2 displays the measurement model of the study.



Note. The measurement used for item EB combines positive and negative statements where EB3*, EB4*, EB5*, and EB8* are negative statements, and the others are positive statements. This method is used to prevent response bias that will affect the validity of the finding.

Figure 2: Measurement model

iv) Discriminant Validity

The determinant to which extent a research latent variable presented is different from other variables, the discriminant validity test was performed (Al-Okaily et al., 2020). According to Memon and Abdul Rahman (2014), discriminant validity is conducted to confirm that the construction variables are relevant to the latent variables, and it can be measured by analysing the cross-loading values. The cross-loading value of its variable should be higher than any other construct (Hair et al., 2019; Memon & Abdul Rahman, 2014). According to Hair et al. (2014), heterotrait-monotrait ratio (HTMT) can be defined as the mean of the item correlations across constructs relative to the (geometric) mean of the average correlations for the items measuring the same construct. If the HTMT value is higher than 0.85 or 0.90, it can be considered that a discriminant validity problem exists (Henseler et al., 2015).

In this study, the HTMT value is lower than 0.90. The result indicates that the constructed model has no discriminant validity problem. Table 3 provides the HTMT analysis results.

Table 3: HTMT analysis

Constructs	EC	TS	EB
EC			
TS	0.591		
EB	0.544	0.874	

Structural Model Assessment

The second step of the analysis is to assess the structural model. The analysis for structural model assessment is based on the standard assessment criteria, including the coefficient of determination, blindfolding-based cross-validated redundancy measure, statistical significance, and path coefficient (Hair et al., 2019). In PLS-SEM, the researchers were also allowed to assess the model's out-of-sample predictive power using the PLSpredict (Shmueli et al., 2019). In addition, the importance-performance analysis was also presented at the end of the section. Hence, there will be four analyses conducted: (i) Variance Explained / Explanatory Power and Effect Size Analysis, (ii) Significance Testing, (iii) Model's Predictive Power, and (iv) Importance-Performance Matrix Analysis (IPMA).

i) Variance explained / Explanatory power and Effect size Analysis

Before assessing the explanatory power and effect size analysis, the collinearity test must be conducted. The collinearity test, using the Variance Inflation Factor (VIF), will ensure that the result from the regression is not biased (Hair et al., 2019). The collinearity issues will exist if the VIF values exceed five (5) (Hair et al., 2016).

After ensuring the nonexistence of collinearity issues, the explanatory power assessment is conducted by assessing the R² values. The higher the R² values of the constructed model, the greater the explanatory power. If the R² value is 0.75, it can be considered substantial. Meanwhile, 0.50 and 0.25 can be considered moderate and weak, respectively (Hair et al., 2011; Henseler et al., 2009). However, the benchmark stated by Chin (1998) is lower than the previous researchers, which are 0.67, 0.33, and 0.19 will be considered substantial, moderate, and weak, respectively.

The effect size of the constructed model is assessed using the f² values. This analysis considers how removing a specific predictor construct affects an endogenous construct's R² values (Hair et al., 2019). As for the rules of thumb, if the f² values are higher than 0.02, 0.15, and 0.35, they are considered small, medium, and large (Cohen, 1988).

As illustrated in Table 4, there are no collinearity issues, as all relationships have VIF below the threshold of five (5). The constructed model with EC and TS as indicators has 31% explanatory power, considered moderate. It suggests that accounting ethics education received in the university does influence 31% of the EB of accounting graduates. The f² of EC is 0.004, lower than TS, which is 0.083. The result of explanatory power and effect size is presented in Table 4.

Table 4: Results of significance testing and main effect analysis

Relationships	VIF	β	SD	<i>t</i> -value	<i>p</i> -value	Confidence Interval (CI)		Effect Size (f ²)	Explanatory Power (R ²)	Decision (Y/N)
						LL	UL			
H1: EC - EB	4.222	0.100	0.222	0.450	0.652	0.344	0.519	0.004	0.309	N
H2: TS - EB	4.222	0.484	0.189	2.567	0.010	0.138	0.868	0.083		Y

ii) Model's Predictive Power

The PLSpredict in SmartPLS 4.0 allows the researcher to assess the model's predictive power. The accuracy of the model's predictive power is determined by the Q² (Stone, 1974). The Q² values for that construct should be greater than zero (0) in order to reflect the prediction accuracy of the structural model for a given endogenous construct (Hair et al., 2019). In general, Q² values greater than 0, 0.25, and 0.50 represent the PLS-path model's small, medium, and significant predictive importance, respectively.

The prediction statistic of the constructed model is examined by assessing the indicators' Root Means Squared Error (RMSE). The model lacks predictive power if all indicators have higher RMSE values than the naïve benchmark using a Linear Regression Model (LM). As for the rules of thumb, low predictive power will be considered if most indicators have a higher RMSE than LM. A medium predictive power existed if a minority of the indicators had a higher RMSE than LM. The model has high predictive power if all indicators have higher LM values than RMSE.

In this study, only one (1) indicator has a higher RMSE than the naïve benchmark LM. Hence, the constructed model has medium predictive power. The result of the PLSpredict assessed in SmartPLS 4.0 is presented in Table 5.

Table 5: Results of PLSpredict

Indicators	Q ² Predict	PLS-SEM (RMSE)	LM (RMSE)	PLS-SEM - LM
EB1	0.089	0.993	1.015	-0.022*
EB2	0.200	0.900	0.909	-0.009*
EB3	0.001	1.105	1.102	0.003
EB4	0.152	1.194	1.199	-0.005*
EB5	0.146	0.904	0.914	-0.010*
EB6	0.149	0.876	0.888	-0.012*
EB8	0.100	0.986	1.007	-0.021*
EB9	0.274	0.914	0.915	-0.001*

* High predictive power

iii) Significance Testing

The hypotheses testing or the statistical significance and relevance of the path coefficients (β) for the constructed model are assessed to test whether a certain relationship between two or more constructs is likely to occur by chance or not (Saunders et al., 2016). The bootstrapping process was conducted in SmartPLS 4.0 to determine the significance of the path coefficients (β) and evaluate their values, which generally range between -1 and +1. As this study has one-tailed hypotheses, it will be considered significant if the t-values are higher or equal to 1.65.

In this study, the relationship of EC exhibited a positive but insignificant association with EB. Hence, hypothesis 1 is unaccepted. On the other hand, hypothesis 2 is accepted as TS has a positive and significant relationship with the EB of accounting graduates in Malaysia. The result of the hypothesis testing is presented in Table 4. Figure 3 illustrates the structural model of the constructed model.

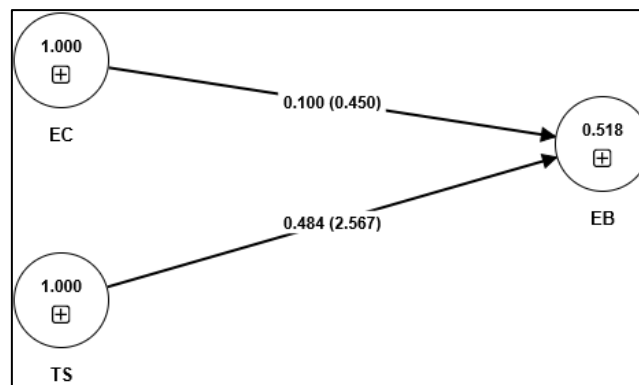


Figure 3: Structural model

iv) Importance-Performance Matrix Analysis

The IPMA, also known as importance-performance map analysis, is an added feature to enhance the results presentation of the standard PLS-SEM estimations by comparing the total effects of the latent variables on some target variables with their latent variable scores (Hair et al., 2019). More specifically, the IPMA compares the average latent variable scores of this construct's forerunners to the total effects of the structural model on a given target construct (Ringle & Sarstedt, 2016). Table 6 summarises the values of the constructed model's total effect (importance) and index values (performance).

Table 6: Result of IPMA

Predictor Variables	Importance (Total Effects)	Performances (Index Values)
Ethics Courses (EC)	0.100	32.294
Teaching Styles (TS)	0.484	33.333

According to the result of IPMA analysis, both variables can be categorised as low importance – performance. However, according to the map in Figure 4, the analysis revealed that the TS for accounting ethics education has a higher performance than EC with only slight differences. Conversely, the TS is a more important variable than EC in the constructed model.

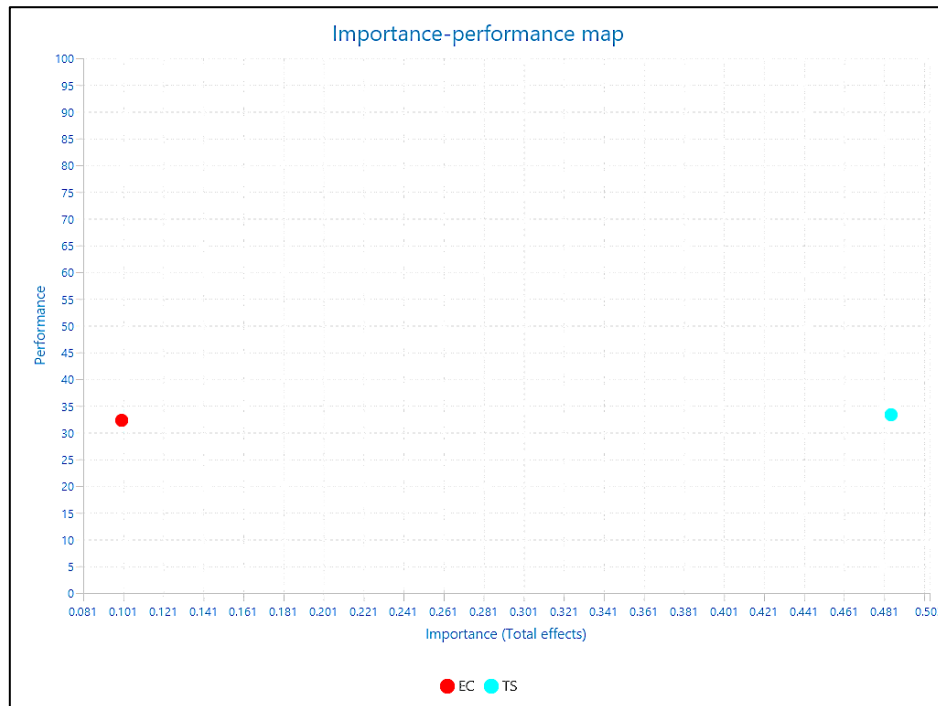


Figure 4: Importance-performance map

DISCUSSION AND CONCLUSION

Findings have demonstrated that the research model is reliable and valid. Hypothesis 1 (H1), which examines the relationship between EC and EB, was rejected. It could be that in Malaysia, the *Halatuju Perakaunan* has been used as the main reference in accounting programmes. All the courses and topics taught to accounting students have been standardised. Hence, there might be no variation with respect to the EC offered in the accounting programme. It is in line with previous studies that demonstrated that courses do not impact ethical reasoning and are not significant in influencing ethical development (Earley & Kelly, 2004; Ponemon, 1993).

On the other hand, Hypothesis 2 (H2), which examines the relationship between TS and the EB of accounting graduates, was accepted. It is in line with Bowden and Smythe (2008), who discovered that EC enhanced students' ability to analyse moral dilemmas through case studies and lectures on ethical theory. Thus, ethics educators should apply different teaching methods to discuss ethics and moral behaviour in class to enhance the EB of accounting graduates. With the current development in technology, usage of social media and short films or movies that convey the message of ethics to accounting students could prove to be more effective than traditional delivery methods. Additionally, guest lectures invited by practitioners from the industry who could

share real-life ethical issues at the workplace would also assist in enhancing the student's understanding of ethics.

Like any other study, this study has some limitations. It uses a questionnaire as the method of measurement of accounting graduates' perception of EB. Future studies may use interview methods with accounting graduates to get a more in-depth view of the ethical issues. The variables examined in this study can explain 31% of the EB of accounting graduates. Future studies can examine other factors to explain the EB of accounting graduates. However, caution should be taken when generalising the result as this study only looks at accounting graduates from MIA-accredited universities in Malaysia. Future studies can use the model to examine accounting students from both accredited and non-accredited universities in Malaysia. Comparisons can also be made with accounting graduates from other countries.

In summary, the study has suggested that the TS used in teaching EC is crucial to enhancing the EB of accounting graduates in Malaysia. Educators, accounting regulatory and professional bodies, and accounting practitioners should work together to create the most effective teaching methods for accounting ethics education. This includes the use of role-play, case studies, and the usage of information technology to educate accounting students on ethics. The reputation of accountants will be secured if the accounting graduates are equipped with good ethics. This, in turn, will help to reduce corporate scandals in Malaysia, in both the private and public sectors.

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REFERENCES

- Abdul Aziz, N. M., & Ahmad, F. A. (2019). The Islamic moral responsibility and sustainable social engagement in Islamic institution. *International Journal of Islamic Economics and Finance Research*, 2(2), 45-61. <https://doi.org/10.53840/ijiefer17>
- Abdul Rahman, A. R. (2003). Ethics in accounting education: Contribution of the Islamic principle of Ma'âlaâh. *Journal of Economics and Management*, 11(1), 1-18. Retrieved from <https://journals.iium.edu.my/enmjournals/index.php/enmj/article/view/85>
- Abuznaid, S. A. (2009). Business ethics in Islam: The glaring gap in practice. *International Journal of Islamic and Middle Eastern Finance and Management*, 2(4), 278-288. <https://doi.org/10.1108/17538390911006340>
- Alani, S. F., & Alani, H. K. (2012). The Role of Islamic Ethics in Accounting Environment. *Journal of Business and Management*, 2(1), 26-30. <http://dx.doi.org/10.9790/487X-0212630>
- Alawneh, S. (1998). Human motivation: an Islamic perspective. *American Journal of Islamic Social Sciences*, 15(4), 19-39. <https://doi.org/10.35632/ajis.v15i4.2153>
- Al-Banna. (1940). *Messages' Group of Imam Hasan al-Banna a (1st ed.)*. Alexandria: Darul Al-D'aoah Publication.
- Ali, A., & Gibs, M. (1998). Foundation of business ethics in contemporary religions thought: The ten commandment perspective. *International Journal of Social Economics*, 25, 1552-1564. <https://doi.org/10.1108/03068299810214089>
- Al-Okaily, M., Alqudah, H., Matar, A., Lutfi, A., & Taamneh, A. (2020). Dataset on the acceptance of e-learning system among universities students' under the COVID-19 pandemic conditions. *Data in Brief*, 32, 1-5. <https://doi.org/10.1016/j.dib.2020.106176>
- Arham, M. (2010). Islamic perspectives on marketing. *Journal of Islamic Marketing*, 1(2), 149-164. Retrieved from <https://doi.org/10.1108/17590831011055888>
- Aruwa, S. A. (2005). *The Business Entrepreneur*. Kaduna, Nigeria: Academy Publication.

- Barrock, J. (5 July, 2021). *The rrama at serba dinamik continues*. Retrieved from The Edge Markets: <https://www.theedgemarkets.com/article/drama-serba-dinamik-continues>
- Baud, C., Brivot, M., & Himick, D. (2019). Accounting ethics and the fragmentation of value. *Journal of Business Ethics*, 168. <https://doi.org/10.1007/s10551-019-04186-9>
- Blanthorne, C., Kovar, S. E., & Fisher, D. G. (2007). Accounting educators' opinions about ethics in the curriculum: an extensive view. *Issue in Accounting Education*, 29(4), 355-390. <https://doi.org/10.2308/iace.2007.22.3.355>
- Bowden, P., & Smythe, V. (2008). Theories on teaching & training in ethics. *Electronic Journal of Business Ethics and Organization Studies*, 13(2), 19-26. Retrieved from <https://psycnet.apa.org/record/2009-02388-002>
- CFO Innovation Editors. (30 January, 2019). *The World's Biggest Auditing Firm Fined for Breaches Linked to Malaysia's 1MDB*. Retrieved from <https://www.cfoinnovation.com/accounting-compliance/world-s-biggest-auditing-firm-fined-for-breaches-linked-to-malaysia-s-imdb>
- Chen, H., Ponniah, K., & Mayuri, M. L. (9 August, 2019). *1MDB: The playboys, PMs and partygoers around a global financial scandal*. Retrieved from BBC News: <https://www.bbc.com/news/world-asia-46341603>
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern Methods for Business Research*, 295–336.
- Christensen, A., Cote, J., & Latham, C. K. (2018). Developing ethical confidence: The impact of action-oriented ethics instruction in an accounting curriculum. *Journal of Business Ethics*, 153, 1157–1175. <https://doi.org/10.1007/s10551-016-3411-4>
- Claustein, M. W., & Underdown, B. (2002). *Accounting theory and practice*. (8th ed.). Harlow, England: FT Prentice Hall.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*: Lawrence Erlbaum Associates.
- Davis, J. R., & Welton, R. E. (1991). Professional ethics: Business students' perceptions. *Journal of Business Ethics*, 10(6), 451-463. <http://www.jstor.org/stable/25072173>
- Douglas, P. C., Davidson, R. A., & Schwartz, B. N. (2001). The Effect of organizational culture and ethical orientation on accountant's ethical judgments. *Journal of Business Ethics*, 34, 101-121. <https://doi.org/10.1023/A:1012261900281>
- Earley, C. E., & Kelly, P. T. (2004). A note on ethics educational interventions in an undergraduate auditing course: Is there an 'Enron' Effect? *Issues in Accounting Education*, 19(1), 53-71. <https://doi.org/10.2308/iace.2004.19.1.53>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.2307/3151312>
- Frederick, W. (1998). One Voice?, Or Many?: A Response to Ellen Klein. *Business Ethics Quarterly*, 8(3), 575-579. <https://doi.org/10.2307/3857439>
- Fritzsche, D. J., & Oz, E. (2007). Personal values' influence on the ethical dimension of decision making. *Journal of Business Ethics*, 75(4), 335-343. <https://www.jstor.org/stable/25123999>
- Gotz, O., Liehr-Gobbers, K., & Krafft, M. (2010). Evaluation of structural equation models using the Partial Least Squares (PLS) approach. In V. E. Vinzi, W. W. Chin, J. Henseler, & H. Wang, *Handbook of Partial Least Squares* (pp. 47–82). Springer Handbooks of Computational Statistics.
- Hair, J. F., Hult, G. T., Ringle, C. M., & Sarstedt, M. (2016). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. 2nd Ed. SAGE Publications.
- Hair, J. F., Hult, G. T., Ringle, C., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. 2nd Edition. Thousand Oaks, CA.: Sage Publications Inc.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24. <https://doi.org/10.1108/EBR-11-2018-0203>

- Hair, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2018). *Advanced Issues in Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Thousand Oaks, CA: Sage.
- Hair, J. F., William, C. B., Barry, J. B., & Anderson, R. E. (2010). *Multivariate Data Analysis*. Englewood Cliffs, NJ, USA.
- Hair, J., Ringle, C., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-151. <https://www.jstor.org/stable/23033534>
- Hair, J., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2), 106-121. <https://doi.org/10.1108/EBR-10-2013-0128>
- Halstead, J. M. (2004). An Islamic concept of education. *Comparative Education*, 40(4), 517-529. <https://doi.org/10.1080/0305006042000284510>
- Haron, H., Ramli, N. M., Jamil, N. N., & Abdul Rahim, A. R. (2022). Values in an Islamic University in Malaysia: Analysis from western and Islamic perspectives. *Journal of Muamalat and Islamic Finance Research*, 19(1), 86-105. Retrieved from <https://doi.org/10.33102/jmifr.v19i1.415>
- Henseler, J., Ringle, C., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43, 115-135. <https://doi.org/10.1007/s11747-014-0403-8>
- Henseler, J., Ringle, C., & Sinkovics, R. (2009). The use of partial least squares path modeling in international marketing. *Sinkovics, R.R. and Ghauri, P.N. (Eds) Advances in International Marketing*, 20, 277-320. [https://doi.org/10.1108/S1474-7979\(2009\)0000020014](https://doi.org/10.1108/S1474-7979(2009)0000020014)
- Ho, K. Y. (13 May, 2022). *Court frees Serba Dinamik, execs after RM16mil compound payment*. Retrieved from Free Malaysia Today (FMT): <https://www.freemalaysiatoday.com/category/nation/2022/05/13/court-frees-serba-dinamik-execs-after-rm16mil-compound-payment/>
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20(2), 195–204. <https://www.jstor.org/stable/3094025>
- Hunt, S. D., & Vitell, S. (1986). A general theory of marketing ethics. *Journal of Macromarketing*, 6(1), 5-16. <http://dx.doi.org/10.1177/027614678600600103>
- IESB. (17 January, 2014). *IES 4, Initial Professional Development - Professional Values, Ethics and Attitude*. Retrieved from International Federation of Accountants: <https://www.iaesb.org/publications/ies-4-initial-professional-development-professional-values-ethics-and-attitudes-revised-0>
- IESB. (2019). *Handbook of International Education Pronouncement*. New York: International Federation of Accountants.
- Jones, D. S. (2020). 1MDB corruption scandal in Malaysia: A study of failings in control and accountability. *Public Administration and Policy*, 23(1), 59-72. <https://doi.org/10.1108/PAP-11-2019-0032>
- Kerr, D. S., & Smith, M. L. (1995). Importance of and approaches to incorporating ethics into the accounting classroom. *Journal of Business Ethics*, 14(12), 987–995. <https://doi.org/10.1007/BF00872114>
- Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education*, 4(2), 193-212. <https://doi.org/10.5465/amle.2005.17268566>
- Kolb, A. Y., & Kolb, D. A. (2009). Experiential learning theory: A dynamic, holistic approach to management learning, education and development. *Handbook of Management Learning, Education and Development*, 42-68. <https://doi.org/10.4135/9780857021038.n3>
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.

- Latif, L. F., & Misbah, H. (2016). Exploring the Element of People from Islamic Perspective. *Journal of Muamalat and Islamic Finance Research*, 13(1), 83-95. <https://jmifr.usim.edu.my/index.php/jmifr/article/view/49>
- Lawter, L., Rual, T., & Guo, C. (2014). The Interaction Between Learning Styles, Ethics Education, and Ethical Climate. *Journal of Management Development*. 33(6), 580-59. <https://doi.org/10.1108/JMD-04-2014-0030>
- Loeb, S. E. (1994). Ethics and Accounting doctoral education. *Journal of Business Ethics*, 13(10), 817–828. <https://doi.org/10.1007/BF00876262>
- Madsen, P. E. (2015). Has the quality of accounting education declined? *The Accounting Review*, 90(3), 1115-1147. <https://doi.org/10.2308/accr-50947>
- McPhail, K. (2001). The other objective of ethics education: re-humanising the accounting profession-a study of ethics education in law, engineering, medicine and accountancy. *Journal of Business Ethics*, 34(3/4), 279-299. <https://doi.org/10.1023/A:1012576631990>
- McWilliams, V., & Nahavandi, A. (2006). Using live cases to teach ethics. *Journal of Business Ethics*, 67, 421-433. <https://doi.org/10.1007/s10551-006-9035-3>
- Memon, A. H., & Abdul Rahman, I. (2014). SEM-PLS analysis of inhibiting factors of cost performance for large construction projects in Malaysia: Perspective of Clients and Consultants. *The Scientific World Journal*, 1-9. <https://doi.org/10.1155/2014/165158>
- Mintz, S. (October, 2021). *Accounting Ethics Education: A 43-Year Retrospective*. Retrieved from <https://www.cpajournal.com/2021/10/19/accounting-ethics-education/>
- Mishra, S. K. (2017). Management Accountant : Role & Future Challenges. *CPA Journal*, 42-49. <https://dx.doi.org/10.2139/ssrn.1788032>
- MOE. (2009). *Sukatan Pelajaran Kurikulum Bersepadu Sekolah Menengah Prinsip Perakaunan*. Kementerian Pelajaran Malaysia.
- MOE. (2013). *Malaysian Educational Blueprint 2013-2025*. Putrajaya: Kementerian Pendidikan Malaysia.
- MOE. (2018). *Manual Pendidikan Sivik KPM: Pendidikan Sivik di Prasekolah, Sekolah Rendah dan Sekolah Menengah*. Bahagian Pembangunan Kurikulum, MOE.
- MOE. (16 March, 2023). *Implementation of Civic Education by the Malaysian Ministry of Education*. Retrieved from <https://www.moe.gov.my/soalan-lazim-menu/kurikulum/pelaksanaan-pendidikan-sivik-oleh-kementerian-pendidikan-malaysia>
- Mohamed Saat, M., Porter, S., & Woodbine, G. (2010). The effect of ethics courses on the ethical judgement-making ability of Malaysian accounting students. *Journal of Financial Reporting and Accounting*, 8(2), 92 - 109. <https://doi.org/10.1108/19852511011088361>
- Mohamed Saat, M., Porter, S., & Woodbine, G. (2012). A Longitudinal Study of Accounting Students' Ethical Judgement Making Ability. *Accounting Education: International Journal*, 21(3), 215-229. <https://doi.org/10.1080/09639284.2011.562012>
- MOHE. (2006). *Hala Tuju 2. Laporan Penilaian Semula Program Perakaunan Institusi Pengajian Tinggi Awam Malaysia*. Shah Alam: Pusat Penerbitan Universiti (UPENA), UiTM.
- MOHE. (2015). *Hala Tuju 3 Laporan Penilaian Semula Program Sarjana Muda Perakaunan Institusi Pendidikan Tinggi Malaysia*. Putrajaya.
- Nair, D. S. (5 March, 2020). *5 Infamous Corruption Scandals in Malaysia*. Retrieved from <https://www.therocket.com.my/en/5-infamous-corruption-scandals-in-malaysia/>
- Nik Abdul Ghani, N. A., Laluddin, H., Mat Zain, M. N., & Zakaria, Z. (2012). A new breed of Islamic accountants and their role in Islamic institutions. *Advances in Natural and Applied Sciences*, 6(8), 1287-1295. https://www.academia.edu/65494890/A_New_Breed_Of_Islamic_Accountants_And_Their_Role_In_Islamic_Institutions
- O'Leary, C., & Stewart, J. (2013). The interaction of learning styles and teaching methodologies in accounting ethical instruction. *Journal of Business Ethics*, 113(2), 225-241. <https://www.jstor.org/stable/23433696>

- Okougbo, P. O., & Okike, E. N. (2021). Teaching strategies in accounting ethics: A students' assessment of preferred teaching styles. *Cogent Social Sciences*, 7(1), <https://doi.org/10.1080/23311886.2021.1950306>
- Omer, M. S., Adeleke, A., & Lee, C. K. (2019). A pre-test via partial least square structural equation modeling with the influence of organisational structures and organisational internal factors on construction risk management among Malaysian construction industries. *International Journal of Innovative Technology and Exploring Engineering*, 8(6S4), 402-406. <https://www.ijitee.org/wp-content/uploads/papers/v8i6s4/F10810486S419.pdf>
- Pallant, J. (2016). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS (6th ed.)*. Maidenhead, United Kingdom: McGraw-Hill Education.
- Parker, L. (2000). Goodbye, number cruncher! *Australian CPA*, 50-52.
- Plummer, K. (2005). Improving ethical judgment through deep learning. In T. Campbell, & K. Houghton, *Ethics and Auditing* (pp. 239-263). Adelaide, Australia: ANU E Press.
- Ponemon, L. A. (1990). Ethical judgments in accounting: A cognitive-developmental perspective. *Critical Perspectives on Accounting*, 1(2), 191–215. [https://doi.org/10.1016/1045-2354\(90\)02019-1](https://doi.org/10.1016/1045-2354(90)02019-1)
- Ponemon, L. A. (1993). Can ethics be taught in accounting. *Journal of Accounting Education*, 11(2), 185-209. [https://doi.org/10.1016/0748-5751\(93\)90002-Z](https://doi.org/10.1016/0748-5751(93)90002-Z)
- Reed, R. (2005). *Good Small Business Guide; How to Start and Grow Your Own Business 2nd Edition*. London: A & C Black Publishers Ltd.
- Ringle, C., & Sarstedt, M. (2016). Gain more insight from your PLS-SEM results: the Importance-Performance map analysis. *Industrial Management and Data Systems*, 116(9), 1865-1886. <https://doi.org/10.1108/IMDS-10-2015-0449>
- Robinson, C., Elson, R. J., & Williams, J. L. (2020). The current state of ethics education in accounting programs. *Global Journal of Accounting and Finance*, 4(1), 111. Retrieved from https://www.igbr.org/wp-content/uploads/2020/04/GJAF_Vol_4_No_1_2020.pdf
- Ronkin, N. (27 October, 2020). *Shorenstein journalism award winner Tom Wright recounts story of global financial scandal*. Retrieved from <https://fsi.stanford.edu/news/shorenstein-journalism-award-winner-tom-wright-recounts-story-global-financial-scandal>
- Roscoe, J. T. (1975). *Fundamental research statistics for the behavioral sciences*. New York: Holt Rinehart and Winston.
- Ryan, T. G., & Bisson, J. (1978). Can ethics be taught? *International Journal of Business and Social Science*, 2(12), 579-579. https://ijbssnet.com/journals/Vol._2_No._12;_July_2011/6.pdf
- Sahin, H., Tekin, M. S., & Angay Kutluk, F. (2019). Inclusion of ethics in undergraduate accounting programs and a discussion about its teaching ways. <https://dx.doi.org/10.2139/ssrn.3643817>
- Sanyal, R. (2000). An experiential approach to teaching ethics in international business. *Teaching Business Ethics*, 4, 137-149. <https://doi.org/10.1023/A:1009826909760>
- Sapnas, K. G., & Zeller, R. A. (2002). Minimizing sample size when using exploratory factor analysis for measurement. *Journal of Nursing Measurement*, 10(2), 135-154. <https://doi.org/10.1891/jnum.10.2.135.52552>
- Saunders, M., Lewis, P., & Thornhill, A. (2016). *Research methods for business students (7th ed.)*. Harlow, United Kingdom: Pearson Education Ltd.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill-building approach*. 7th Edition.
- Shmueli, G., Sarstedt, M., Hair, J., Cheah, J. H., Vaithilingam, S., & Ringle, C. (2019). Predictive model assessment in PLS-SEM: guidelines for using PLSpredict. *Working Paper*, 53(11). Retrieved from <https://doi.org/10.1108/EJM-02-2019-0189>
- Sims, R. (2000). Teaching business ethics: A case study of ethics across the curriculum. *Teaching Business Ethics*, 4. Retrieved from <https://doi.org/10.1023/A:1009858719205>
- Šiška, L. (2018). The first and the second generation of statistical methods in management accounting research. *The Impact of Globalization on International Finance and Accounting: 18th*

- Annual Conference on Finance and Accounting (ACFA)* (pp. 440-447). Cham, Switzerland: Springer.
- Sooi, C. C. (31 May, 2021). *Serba Dinamik: Bracing for near-term hiccup from accounting concerns*. Retrieved from <https://focusmalaysia.my/serba-dinamik-bracing-for-near-term-hiccup-from-accounting-concerns/>
- Sritharan, N., & Salawati, S. (2019). Economic factors impact on individual taxpayers' tax compliance behaviour in Malaysia. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 9(2), 172-182.
- Staff, R. (2021, May 29). *CORRECTED-UPDATE 1-Malaysia's Serba Dinamik rejects concerns raised by auditor*. Retrieved from <https://www.reuters.com/article/malaysia-serbadinamikhldg-idUSL2N2NG069>
- Stone, M. (1974). Cross-validators choice and assessment of statistical predictions. *Journal of the Royal Statistical Society*, 36(2), 111-147. <https://www.jstor.org/stable/2984809>
- Taylor, A. (2013). Ethics training for accountants: Does it add up? *Meditari Accountancy Research*, 21(2), 161-177. <https://doi.org/10.1108/MEDAR-06-2012-0020>
- The Edge Malaysia. (07 April, 2022). *Cover story: what Serba Dinamik didn't want you to know*. Retrieved from <https://www.theedgemarkets.com/article/cover-story-what-serba-dinamik-didnt-want-you-know>
- The Quran. <https://quran.com/>
- Urbach, N., & Ahlemann, F. (2010). Structural Equation Modeling in Information Systems Research using Partial Least Squares. *Journal of Information Technology Theory and Application*, 11(2), 5-40.
- Walker, M. (2013). Evaluating the intervention of an ethics' class in students' ethical decision-making: A summative review. *International Education Studies*, 6(1), 10-25. <http://dx.doi.org/10.5539/ies.v6n1p10>
- Weber, J. (2007). Business Ethics Training: Insights from Learning Theory. *Journal of Business Ethics*, 61-85. <http://dx.doi.org/10.1007/s10551-006-9083-8>
- Williams, B., Onsmann, A., & Brown, T. (2010). Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine*, 8(3), 1-13. <http://dx.doi.org/10.33151/ajp.8.3.93>
- Win, Y. Y., Ismail, S., & Abdul Hamid, F. (2014). Malaysian Accounting Educators' Perceptions on Ethics Education in the Accounting Curriculum. *Malaysian Accounting Review*, 13(1), 1-25. Retrieved from <https://mar.uitm.edu.my/images/Vol-13-1/01.pdf>
- Wu, C. F. (2003). A study of the adjustment of ethical recognition and ethical decision-making of managers-to-be across the taiwan strait before and after receiving a business ethics education. *Journal of Business Ethics*, 45, 291 - 307. <https://doi.org/10.1023/A:1024167503455>
- Zubairu, U. M. (2016). Developing morally competent accountants: Institutionalising the moral grade point average (MGPA). *Journal of Muamalat and Islamic Finance Research*, 13(1), 67-82. <https://jmifr.usim.edu.my/index.php/jmifr/article/view/48>