

Digital Learning Pressure and Moral Disengagement toward Academic Dishonesty Intention among Islamic University Students: The Mediating Role of Ethical Decision-Making

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Abstract. The integration of artificial intelligence tools, online learning platforms, and digital academic systems has created new ethical challenges in higher education, particularly regarding plagiarism, unauthorised AI-assisted assignments, and academic misconduct. Students in Islamic universities are increasingly exposed to digital learning pressure stemming from continuous online engagement, assignment overload, technological demands, and expectations for academic performance. Under such conditions, students may rationalise unethical academic behaviour through moral disengagement mechanisms that weaken ethical self-regulation and normalise dishonest academic practices. Despite growing concerns regarding academic dishonesty in the artificial intelligence era, limited studies have examined how moral disengagement and ethical decision-making interact in explaining students' dishonest intentions within Islamic higher education settings, particularly in cross-country contexts. Drawing on Moral Disengagement Theory, Ethical Decision-Making Theory, and Self-Regulation Theory, this study investigates the effect of digital learning pressure and moral disengagement on academic dishonesty intention through ethical decision-making as a mediating mechanism. A cross-national quantitative study was conducted involving 418 students from Islamic universities in Indonesia and Malaysia. Data were collected through questionnaires and analysed using Structural Equation Modeling-Partial Least Squares (SEM-PLS). The findings indicate that digital learning pressure significantly increases moral disengagement and academic dishonesty intention. Moral disengagement negatively influences ethical decision-making, while ethical decision-making significantly reduces dishonest intention. The mediation analysis confirms that ethical decision-making partially mediates the relationship between moral disengagement and academic dishonesty intention. This study contributes to academic integrity literature by integrating digital learning pressure and moral psychological mechanisms in explaining unethical student behaviour in AI-mediated learning environments. The findings also offer practical implications for universities in designing ethics-based digital learning policies to strengthen academic integrity.

Keywords: *Digital Learning Pressure, Moral Disengagement, Ethical Decision-Making, Academic Dishonesty Intention, Islamic Higher Education*

INTRODUCTION

The global digital transformation of higher education has changed the way students learn, complete assignments, and interact with sources of knowledge. The emergence of online learning platforms, learning management systems, and generative artificial intelligence such as ChatGPT has accelerated access to information while simultaneously giving rise to a new form of pressure known as technostress or digital learning pressure [1], [2]. Recent surveys show a sharp rise in students' use of generative AI to complete academic tasks, in tandem with growing concern over academic dishonesty around the world [3]. This phenomenon is no longer confined to conventional plagiarism, but now extends to the practice of "AI-giarism", namely the unauthorised use of generative AI to produce academic work [4].

This issue becomes even more apparent at faith-based higher education institutions, including Islamic universities, where academic integrity should be firmly grounded in religious moral and ethical values. Muslim students are expected to balance intense digital academic demands with the principles of honesty and trustworthiness that underpin Islamic teaching. Excessive workload, the demand to be constantly online, the complexity of platform features, anxiety about falling behind technologically, and uncertainty over digital-learning rules together form five sources of pressure that constitute digital learning pressure [5], [1]. This pressure has the potential to drive students to rationalise dishonest behaviour through the

mechanism of moral disengagement, a cognitive process that severs the link between an individual's personal moral standards and their actions [6], [7].

The core problem addressed by this study is how digital learning pressure and moral disengagement influence Muslim students' academic dishonesty intention, and whether ethical decision-making can mediate this relationship. Ethical decision-making, following Rest's four-component model comprising moral sensitivity, moral judgment, moral motivation, and moral character, functions as a cognitive-affective filter that determines whether an unethical impulse is carried through into a behavioural intention [8], [9]. Empirical evidence shows a link between digital learning pressure and academic dishonesty via the pathway of stress and reduced self-regulatory capacity [10], [1]. Moral disengagement has also been shown to be a strong predictor of AI-based cheating behaviour across various levels of higher education [11], [12], [4].

These three bodies of evidence reveal several research gaps. Empirically: first, most studies test technostress against academic dishonesty among general student populations without considering a psychological-moral mediator such as ethical decision-making [1], [10]. Second, research on moral disengagement and AI-based cheating has largely been conducted among business or general student populations in Western countries, with limited attention to cross-national Muslim student populations [12], [4]. Third, no study has yet simultaneously tested digital learning pressure and moral disengagement as twin antecedents of academic dishonesty intention, mediated by ethical decision-making, within a single integrated model.

Methodologically: first, the predominance of single-country cross-sectional designs limits cross-cultural generalisability [1]. Second, many studies use an academic dishonesty measure that combines various forms of cheating into a single general dimension, thereby failing to capture the diversity of specific behaviours such as unauthorised AI use, data manipulation, and contract cheating [13], [14]. Third, available moral disengagement instruments have rarely been adapted specifically for the academic setting of the generative AI era [6], [4].

Conceptually: first, the integration of Moral Disengagement Theory, Ethical Decision-Making Theory, and Self-Regulation Theory has rarely been combined into a single explanatory framework for academic dishonesty in the digital era. Second, the role of Islamic values as an ethical lens underlying students' ethical decision-making processes remains largely unexplored conceptually. Third, ethical decision-making is more often positioned as a dependent variable than as a mediator between digital pressure-moral disengagement and cheating intention [8].

This study builds on and extends the findings of Saleem et al. [1] on technostress and the quality of online learning, as well as Waqas et al. [4] and Zhang et al. [12] on moral disengagement and AI-based cheating, by positioning ethical decision-making as a mediator among a cross-national population of Muslim students in Indonesia and Malaysia. This development is grounded in the need to understand the psychological-moral mechanisms that bridge technological pressure and cheating intention, while also testing whether ethical decision-making capacity can serve as a preventive point of intervention. The aim of this study is to examine the effect of digital learning pressure and moral disengagement on academic dishonesty intention, as well as the mediating role of ethical decision-making.

The novelty of this research lies in integrating Moral Disengagement Theory, Ethical Decision-Making Theory, and Self-Regulation Theory within a single model that has not previously been tested together among cross-national Muslim students in the generative AI era. The theoretical contribution enriches the academic integrity literature by positioning ethical decision-making as a mediating mechanism, rather than merely as an outcome variable. The practical contribution provides a foundation for Islamic universities to design ethics-based digital learning policies, including strengthening moral-reasoning programmes and responsible AI literacy, in order to curb academic dishonesty intention from an early stage.

THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

Theoretical Foundation

This study draws on three main theories. First, Moral Disengagement Theory [15], [6] explains eight cognitive mechanisms that allow individuals to detach from their personal moral standards without experiencing psychological distress, comprising moral justification, euphemistic labelling, advantageous comparison, displacement of responsibility, diffusion of responsibility, distortion of consequences, attribution of blame, and dehumanisation of the victim. This mechanism explains how students rationalise unauthorised AI use or plagiarism as acceptable behaviour [7].

Second, Ethical Decision-Making Theory, through Rest's [8] four-component model, explains that ethical behaviour is formed through moral sensitivity, moral judgment, moral motivation, and moral

character, which operate interactively rather than linearly [9]. This model positions ethical decision-making as a cognitive-affective process that can either weaken or strengthen the impulse towards dishonest behaviour.

Third, Self-Regulation Theory [16] explains individuals' capacity to monitor, evaluate, and control their own behaviour against internal standards. High digital learning pressure erodes students' self-regulatory capacity, making their personal ethical standards easier to compromise. The three theories complement one another: digital pressure erodes self-regulation, weakened self-regulation opens the door to moral disengagement, and moral disengagement weakens ethical decision-making, which ultimately increases academic dishonesty intention.

Hypothesis Development

Digital learning pressure on moral disengagement

High digital learning pressure drives students to develop moral disengagement mechanisms as a psychological strategy to reduce the dissonance caused by an unbalanced academic workload [10]. Saleem et al. [1] found that technostress increases students' psychological pressure to the point of reducing the quality of their academic engagement. Torales et al. [2] demonstrated a link between technostress and increased anxiety that has the potential to weaken individuals' moral control. Waqas et al. [4] confirm that pressure from technology use also shapes a permissive attitude towards AI-assisted cheating. Based on the above, the first hypothesis of this study is formulated as follows.

H1: Digital learning pressure has a positive effect on moral disengagement.

Digital learning pressure on academic dishonesty intention

In addition to triggering moral disengagement, digital learning pressure directly drives academic dishonesty intention when students feel that their workload exceeds their available time and technological skills [10]. Anitha and Sundaram [17] explain that academic stress affects students' decision-making process to the point of encouraging pragmatic, unethical choices. Amigud and Lancaster [18] show that procrastination caused by digital time pressure reinforces the cycle towards cheating. Valente et al. [19] emphasise the importance of time management and academic support in breaking the chain between pressure and dishonesty. Accordingly, the second hypothesis of this study is formulated as follows:

H2: Digital learning pressure has a positive effect on academic dishonesty intention.

Moral disengagement on ethical decision-making

An active moral disengagement mechanism weakens the components of ethical decision-making because individuals lose sensitivity to the moral dimensions of an action [6]. Moore [7] confirms that moral disengagement systematically reduces individuals' capacity for moral evaluation and judgement. Greitemeyer and Kastenmüller [11] found a close relationship between moral disengagement and low ethical orientation, as reflected in low honesty-humility. Zhang et al. [12] showed that moral rationalisation contributes to a decline in the quality of students' moral judgment when using ChatGPT for academic tasks. Based on this evidence, the third hypothesis of this study is formulated as follows.

H3: Moral disengagement has a negative effect on ethical decision-making.

Ethical decision-making on academic dishonesty intention

Mature ethical decision-making capacity reduces students' tendency to form academic dishonesty intention, because the four components of Rest's model function as a moral filter before a behavioural intention is formed [8]. Rest and Narvaez [9] explain that moral motivation and moral character are the final determinants of whether an individual chooses to act honestly even under situational pressure. El Khoury [14] found that weak ethical-reflective processes contribute to a high incidence of academic dishonesty. Hill [13] showed that strengthening generative AI ethical awareness effectively reduces students' intention to violate academic integrity. Accordingly, the fourth hypothesis of this study is formulated as follows.

H4: Ethical decision-making has a negative effect on academic dishonesty intention.

mediation relationship

Ethical decision-making is positioned as the mechanism that bridges the effect of moral disengagement on academic dishonesty intention, consistent with the logic of Ethical Decision-Making Theory that an unethical impulse must pass through a cognitive-affective stage before it manifests as a behavioural intention [8]. Studies on moral disengagement and unethical generative AI use confirm the importance of an intermediate cognitive mechanism in explaining this relationship [12], [4]. Ethical failure can occur at a different point within the four-component process, which points to a mediating role for ethical decision-making [9]. Based on all of the above arguments, the fifth hypothesis of this study is formulated as follows.

H5: Ethical decision-making mediates the effect of moral disengagement on academic dishonesty intention.

METHODS

This study employs a cross-national quantitative design with an explanatory survey approach to test the causal relationships among variables. The study population comprises active students at Islamic universities in Indonesia and Malaysia who have used digital learning platforms and/or generative AI in academic activities. The sample was determined using purposive sampling, with the criterion being active students in at least their third semester, so that they would already have adequate experience interacting with campus digital learning systems. A total of 418 students were successfully recruited as respondents, meeting the minimum ratio of ten times the largest number of indicators in this study's model.

Data were collected through both online and offline questionnaires using a five-point Likert scale, ranging from strongly disagree (1) to strongly agree (5). The instrument for each variable was adapted from scales previously tested for validity and reliability, then adjusted to the academic setting of digital learning in the generative AI era and to Islamic values. Prior to full distribution, the instrument underwent a pilot test with 30 respondents to ensure clarity of language and face validity.

Data were analysed using Structural Equation Modeling-Partial Least Squares (SEM-PLS) via SmartPLS software, chosen for its ability to test complex predictive models with mediating constructs without requiring strict data-normality assumptions. Model evaluation was carried out in two stages: the measurement model, comprising tests of convergent validity, discriminant validity, and composite reliability, and the structural model, comprising tests of path significance, coefficients of determination, and mediation testing using a bootstrapping procedure with 5,000 subsamples.

Table 1. Measurement of Research Variables

Variable	Dimension/Indicator	Number of Items	Source/Adaptation
Digital Learning Pressure	Techno-overload, techno-invasion, techno-complexity, techno-insecurity, techno-uncertainty	5	Tarafdar et al. [5]
Moral Disengagement	Moral justification, euphemistic labeling, advantageous comparison, displacement of responsibility, diffusion of responsibility, distortion of consequences, attribution of blame, dehumanization	8	Bandura et al. [6]
Ethical Decision-Making	Moral sensitivity, moral judgment, moral motivation, moral character	8	Rest [8]; Rest & Narvaez [9]
Academic Dishonesty Intention	Unauthorised AI use, copying others' work, data manipulation, contract cheating, plagiarism, unauthorised collaboration	6	Items developed by the researchers

RESULTS AND DISCUSSION

Results

Respondent Characteristics

The respondents in this study comprised 418 active students at Islamic universities in Indonesia and Malaysia who met the purposive sampling criteria, namely having completed at least their third semester and having used digital learning platforms and/or generative AI in academic activities. The demographic characteristics of the respondents are presented in Table 2 to provide context on the study population prior to statistical testing in the subsequent stage.

Table 2. Respondent Characteristics

Characteristic	Category	Frequency	Percentage
Country	Indonesia	302	72,2%
Country	Malaysia	116	27,8%
Gender	Female	242	57,9%
Gender	Male	176	42,1%
Age	18–20 years	73	17,5%
Age	21–22 years	147	35,2%
Age	23–24 years	120	28,7%

Characteristic	Category	Frequency	Percentage
Age	25–26 years	60	14,4%
Age	27 years and above	18	4,3%
Semester	Semester 3	89	21,3%
Semester	Semester 4	72	17,2%
Semester	Semester 5	75	17,9%
Semester	Semester 6	73	17,5%
Semester	Semester 7	59	14,1%
Semester	Semester 8	50	12,0%
Study Programme	Management	93	22,2%
Study Programme	Economics Education	90	21,5%
Study Programme	Mathematics Education	86	20,6%
Study Programme	Islamic Religious Education	80	19,1%
Study Programme	English Language Education	69	16,5%
Frequency of Generative AI Use	Very often	62	14,8%
Frequency of Generative AI Use	Often	131	31,3%
Frequency of Generative AI Use	Sometimes	137	32,8%
Frequency of Generative AI Use	Rarely	70	16,7%
Frequency of Generative AI Use	Never	18	4,3%

Table 2 shows that the respondent composition was dominated by Indonesian students (72.2%) compared with Malaysian students (27.8%), with a slightly higher proportion of female students (57.9%) than male students (42.1%). The average respondent age was 22.5 years ($SD = 2.08$), with an age range of 19 to 28 years, and a relatively even distribution across semesters three to eight in line with the purposive sampling criteria applied. The distribution of study programmes was also relatively proportional between Islamic studies programmes and general study programmes within the Islamic university setting. Data on the frequency of generative AI use show that the majority of respondents (78.9%) had used generative AI with an intensity ranging from occasional to very frequent in academic activities, confirming the relevance of the study population to the phenomenon of AI-giarism that is the central concern of this study [4].

Measurement Model Evaluation (Outer Model)

Data collected from 418 respondents were processed using the PLS-SEM algorithm via SmartPLS software to test the fit of the measurement model prior to estimating the structural relationships. Evaluation of the measurement model proceeded through three main stages: examination of the outer loading for each indicator, testing of construct reliability via Cronbach's Alpha and Composite Reliability, and testing of convergent validity via Average Variance Extracted (AVE), following standard PLS-SEM procedures for reflective models [20]. Figure 1 presents the structural model diagram along with the outer loading and R Square values obtained from the SmartPLS estimation.

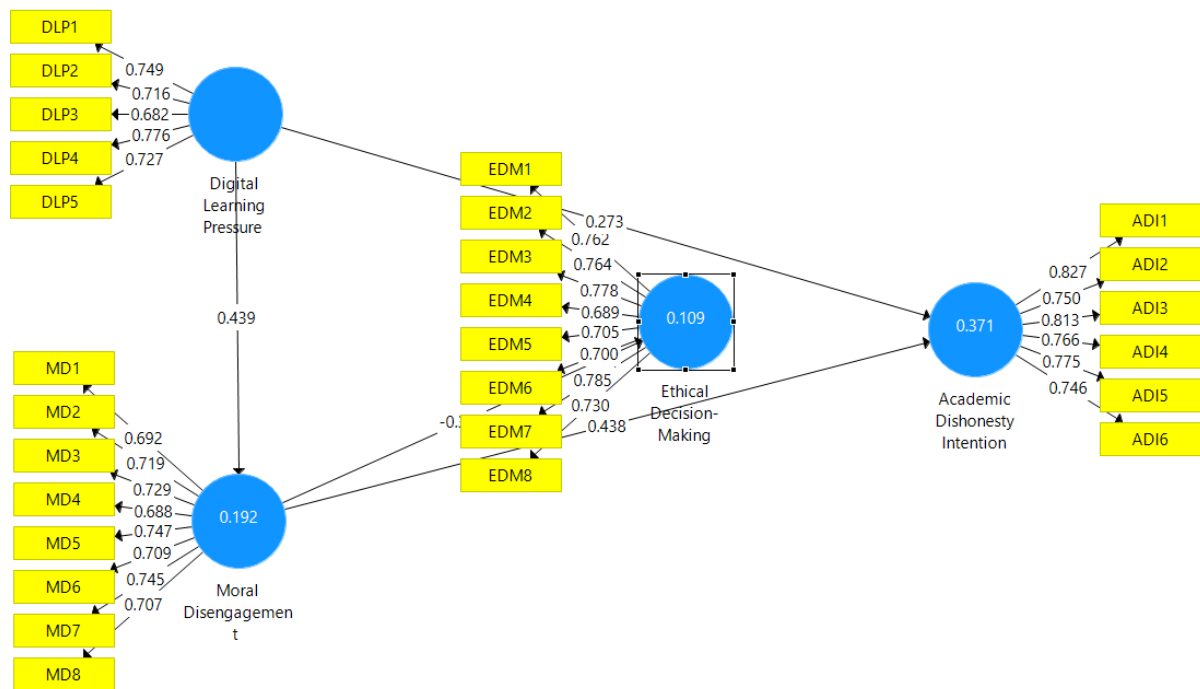


Figure 1. PLS-SEM Structural Model Diagram (Outer Loading, Path Coefficient, and R Square)

The outer loading values for all 27 indicators are presented in Table 3.

Table 3. Outer Loading of the Measurement Model

Construct	Indicator	Outer Loading
Digital Learning Pressure	DLP1	0,749
Digital Learning Pressure	DLP2	0,716
Digital Learning Pressure	DLP3	0,682
Digital Learning Pressure	DLP4	0,776
Digital Learning Pressure	DLP5	0,727
Moral Disengagement	MD1	0,692
Moral Disengagement	MD2	0,719
Moral Disengagement	MD3	0,729
Moral Disengagement	MD4	0,688
Moral Disengagement	MD5	0,747
Moral Disengagement	MD6	0,709
Moral Disengagement	MD7	0,745
Moral Disengagement	MD8	0,707
Ethical Decision-Making	EDM1	0,762
Ethical Decision-Making	EDM2	0,764
Ethical Decision-Making	EDM3	0,778
Ethical Decision-Making	EDM4	0,689
Ethical Decision-Making	EDM5	0,705
Ethical Decision-Making	EDM6	0,700
Ethical Decision-Making	EDM7	0,785
Ethical Decision-Making	EDM8	0,730
Academic Dishonesty Intention	ADI1	0,827
Academic Dishonesty Intention	ADI2	0,750
Academic Dishonesty Intention	ADI3	0,813
Academic Dishonesty Intention	ADI4	0,766
Academic Dishonesty Intention	ADI5	0,775
Academic Dishonesty Intention	ADI6	0,746

Table 3 shows that all outer loading values range from 0.682 to 0.827. Four indicators (DLP3 = 0.682; MD1 = 0.692; MD4 = 0.688; EDM4 = 0.689) fall slightly below the ideal threshold of 0.70, but were nonetheless retained in the model because the Average Variance Extracted (AVE) and Composite Reliability of their respective constructs still meet the required thresholds, in line with the guideline that indicators with loadings between 0.40 and 0.70 may be retained provided they do not reduce a construct's AVE and composite reliability below the required threshold [20].

The reliability and convergent validity of the constructs were then tested via Cronbach's Alpha, Composite Reliability, and AVE, with respective thresholds of 0.70 for reliability and 0.50 for AVE [20], [21]. The results are presented in Table 4.

Table 4. Construct Reliability and Convergent Validity

Construct	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Academic Dishonesty Intention	0,871	0,873	0,903	0,608
Digital Learning Pressure	0,781	0,787	0,851	0,534
Ethical Decision-Making	0,882	0,889	0,906	0,548
Moral Disengagement	0,865	0,866	0,894	0,515
Academic Dishonesty Intention	0,871	0,873	0,903	0,608

Table 4 shows that all constructs have Cronbach's Alpha values ranging from 0.781 to 0.882, Composite Reliability ranging from 0.851 to 0.906, and AVE ranging from 0.515 to 0.608. All these values exceed the required thresholds, so all four constructs are considered to meet the criteria for internal reliability and convergent validity.

Discriminant validity was tested using two criteria, namely the Fornell-Larcker Criterion [22] and the Heterotrait-Monotrait Ratio (HTMT) with a threshold below 0.90 [23]. The results of both tests are presented in Table 5 and Table 6.

Table 5. Discriminant Validity (Fornell-Larcker Criterion)

Construct	ADI	DLP	EDM	MD
Academic Dishonesty Intention (ADI)	0,780			
Digital Learning Pressure (DLP)	0,465	0,730		
Ethical Decision-Making (EDM)	-0,519	-0,183	0,740	
Moral Disengagement (MD)	0,557	0,439	-0,330	0,717

Table 6. Discriminant Validity (Heterotrait-Monotrait Ratio/HTMT)

Construct	ADI	DLP	EDM	MD
Academic Dishonesty Intention (ADI)				
Digital Learning Pressure (DLP)	0,560			
Ethical Decision-Making (EDM)	0,591	0,216		
Moral Disengagement (MD)	0,638	0,529	0,368	

Table 5 shows that the square roots of the AVE on the main diagonal are consistently greater than the correlations of that construct with any other construct in the model, while Table 6 shows that all HTMT values fall below 0.90, with the highest value of 0.638 observed between moral disengagement and academic dishonesty intention. Both criteria consistently confirm that the discriminant validity of all four constructs is satisfied [22], [23].

Collinearity among indicators was tested via the Variance Inflation Factor (VIF), with a threshold below 5 taken as an indication that no multicollinearity disrupts the estimation [20]. The results show that all indicator VIF values range from 1.365 to 2.143, well below the required threshold, so the measurement model is considered free of multicollinearity among indicators.

Structural Model Evaluation (Inner Model) and Hypothesis Testing

The structural model was evaluated through the coefficient of determination (R Square), effect size (f Square), model fit (SRMR), and the significance of path coefficients via a bootstrapping procedure with 5,000 subsamples, following standard PLS-SEM inner-model evaluation procedures [20], [24]. The R Square values for the three endogenous variables are presented in Table 7.

Table 7. R Square and R Square Adjusted Values

Endogenous Variable	R Square	R Square Adjusted
Academic Dishonesty Intention	0,371	0,368
Ethical Decision-Making	0,109	0,107
Moral Disengagement	0,192	0,190

Table 7 shows that digital learning pressure and moral disengagement jointly explain 37.1 per cent of the variance in academic dishonesty intention, digital learning pressure explains 19.2 per cent of the variance in moral disengagement, and moral disengagement explains 10.9 per cent of the variance in ethical decision-making. Based on Chin's [24] criteria, the R Square value for academic dishonesty intention is classified as moderate-to-weak, while the R Square values for ethical decision-making and moral disengagement are classified as weak. Model fit was tested via the Standardized Root Mean Square

Residual (SRMR), which showed a value of 0.085 for the estimated model, close to the 0.08 threshold commonly used as an indication of model fit in PLS-SEM [20].

Testing of the direct-relationship hypotheses among constructs was carried out via a bootstrapping procedure with 5,000 subsamples, using a significance criterion of t-statistics above 1.96 and a p-value below 0.05 [20]. The path-coefficient testing results are presented in Table 8.

Table 8. Hypothesis Testing Results (Path Coefficients)

Hypothesis	Structural Path	Coefficient (O)	T Statistics	P Values	Remarks
H1	Digital learning pressure -> Moral disengagement	0,439	11,708	0,000	Supported
H2	Digital learning pressure -> Academic dishonesty intention	0,273	6,306	0,000	Supported
H3	Moral disengagement -> Ethical decision-making	-0,330	7,253	0,000	Supported
H4	Ethical decision-making -> Academic dishonesty intention	-0.369	10,260	0,000	Supported
H5	Moral disengagement -> Academic dishonesty intention	0,438	10,817	0,000	Significant

Table 8 presents the structural model results. All five hypothesized relationships are significant, with t-statistics exceeding 1.96 and p-values of 0.000; thus, H1–H5 are supported at the 95% confidence level. Digital learning pressure positively affects moral disengagement (H1: $\beta = 0.439$, $t = 11.708$, $p = 0.000$) and academic dishonesty intention (H2: $\beta = 0.273$, $t = 6.306$, $p = 0.000$), indicating that greater digital learning pressure increases students' tendency toward moral disengagement and academically dishonest behavior.

Moral disengagement negatively affects ethical decision-making (H3: $\beta = -0.330$, $t = 7.253$, $p = 0.000$), suggesting that students who are more likely to rationalize unethical behavior tend to make fewer ethical decisions. Ethical decision-making negatively affects academic dishonesty intention (H4: $\beta = -0.369$, $t = 10.260$, $p = 0.000$), indicating that stronger ethical decision-making reduces students' intention to engage in academic dishonesty. Conversely, moral disengagement positively affects academic dishonesty intention (H5: $\beta = 0.438$, $t = 10.817$, $p = 0.000$), confirming that greater moral disengagement is associated with stronger intentions to commit academic dishonesty.

Overall, the findings indicate that digital learning pressure contributes to academic dishonesty both directly and through moral disengagement, while ethical decision-making functions as a protective factor against such intentions. Although H5 in its original formulation could not be tested, the bootstrapping procedure nonetheless produced an indirect effect of digital learning pressure on academic dishonesty intention and on ethical decision-making via moral disengagement, as presented in Table 9.

Table 9. Indirect Effect Testing Results (Specific Indirect Effects)

Mediation Path	Coefficient (O)	T Statistics	P Values	Remarks
Digital learning pressure -> Moral disengagement -> Academic dishonesty intention	0,192	8,234	0,000	Significant
Digital learning pressure -> Moral disengagement -> Ethical decision-making	-0,145	5,985	0,000	Significant

Table 9 presents the specific indirect effects of digital learning pressure through moral disengagement. The results show that digital learning pressure has a positive and significant indirect effect on academic dishonesty intention through moral disengagement ($\beta = 0.192$, $t = 8.234$, $p = 0.000$). This indicates that moral disengagement partially mediates the relationship between digital learning pressure and academic dishonesty intention, as the direct effect is also significant. Furthermore, digital learning pressure has a negative and significant indirect effect on ethical decision-making through moral disengagement ($\beta = -0.145$, $t = 5.985$, $p = 0.000$), indicating that increased digital learning pressure indirectly reduces ethical

decision-making through greater moral disengagement. Overall, these findings confirm the important mediating role of moral disengagement in explaining how digital learning pressure influences students' academic and ethical responses.

Discussion

Digital Learning Pressure and Moral Disengagement

The first finding of this study confirms that digital learning pressure drives students to activate moral disengagement mechanisms, consistent with the first hypothesis proposed. This finding reinforces the argument that excessive technological workload, the demand for constant connectivity, and the complexity of learning platforms create psychological dissonance that in turn drives students to seek cognitive justification for behaviour that deviates from their personal moral standards [6], [7]. Students facing techno-overload and techno-uncertainty tend to rationalise dishonesty as a reasonable consequence of a system perceived as unfair, rather than as a deliberate ethical violation.

This result is consistent with the findings of Saleem et al. [1] that technostress increases students' psychological pressure to the point of reducing the quality of academic engagement and reinforces the evidence from Torales et al. [2] linking technostress with increased anxiety that weakens individuals' moral control. This finding also extends the conclusions of Waqas et al. [4] regarding the role of technological pressure in shaping a permissive attitude towards AI-assisted cheating, by empirically showing that this pathway operates through increased moral disengagement among a cross-national Muslim student population, a group that has rarely been the subject of testing in the prior technostress and academic dishonesty literature.

The strength of the observed effect indicates that digital pressure is not merely a situational stressor, but a structural factor that systematically erodes the moral evaluation capacity of Muslim students when confronted with technology-based academic demands. Islamic values emphasising trustworthiness and honesty appear not yet sufficient to serve as a sole buffer when technological pressure is high, a condition that underscores the need for structural intervention at the institutional level, not solely at the level of the individual student.

Digital Learning Pressure and Academic Dishonesty Intention

In addition to influencing moral disengagement, digital learning pressure was also shown to directly drive academic dishonesty intention, confirming this study's second hypothesis. This pattern confirms that students do not always require a lengthy process of moral rationalisation before considering an academic shortcut; time pressure and a workload exceeding their capacity can directly drive cheating intention without first passing through an erosion of moral standards.

This finding is consistent with Sadiq [10], who showed a link between time pressure, peer pressure, and technological facilitation with academic dishonesty, and reinforces the argument of Anitha and Sundaram [17] that academic stress drives students to make pragmatic, unethical choices in order to meet task demands on time. The pattern of procrastination triggered by digital time pressure, as described by Amigud and Lancaster [18], appears relevant in explaining why students overwhelmed by online learning platforms are more prone to considering unauthorised generative AI use or other forms of cheating as a quick solution to the pressure they face.

The existence of this direct effect underscores the urgency of Valente et al.'s [19] recommendation regarding the importance of time management and structured academic support in breaking the chain between digital pressure and dishonesty. Without such support, students tend to take a direct route towards cheating intention without pausing to consider its ethical consequences in depth, a pattern that differs from the gradual rationalisation mechanism commonly described in the moral disengagement literature. Additional evidence that moral disengagement also mediates the relationship between digital learning pressure and cheating intention reinforces the picture that the pathway towards academic dishonesty is twofold: a fast, direct pathway and an indirect pathway that first involves moral rationalisation.

Moral Disengagement and Ethical Decision-Making

Moral disengagement was shown to weaken students' ethical decision-making capacity, confirming this study's third hypothesis. This negative relationship illustrates the psychological process whereby students who have activated a moral-disengagement mechanism, whether through moral justification, euphemistic labelling, or diffusion of responsibility, lose the sensitivity needed to recognise the ethical dimension of an action before it is carried out. This weakened moral sensitivity also disrupts every component of Rest's four-stage model, from moral judgment through to moral character, which should otherwise function as a final filter before a behavioural intention is formed [8], [9].

This result reinforces Moore's [7] argument that moral disengagement systematically reduces individuals' capacity for moral evaluation and judgement, and is consistent with the findings of Greitemeyer and Kastenmüller [11] regarding the close relationship between moral disengagement and low ethical orientation, as reflected in low honesty-humility. This finding also extends the conclusions of Zhang et al. [12] regarding the role of moral rationalisation in reducing the quality of students' moral judgment when using ChatGPT for academic tasks, by showing that this weakening effect also holds consistently among Muslim students who normatively possess a strong religious-ethical reference point.

This evidence suggests that religious affiliation alone does not automatically protect against the erosive effect of moral disengagement. Once this cognitive mechanism is activated, the ethical-reflective process underlying decision-making can still be disrupted regardless of a student's underlying value background, so that the strengthening of Islamic values needs to be accompanied by practical moral-reasoning training in order to be truly effective in curbing moral disengagement.

The Path from Ethical Decision-Making to Academic Dishonesty Intention and the Mediating Role of Ethical Decision-Making

The findings confirm that ethical decision-making plays a crucial role in reducing students' intentions to engage in academic dishonesty within digital learning environments. Students who demonstrate stronger ethical decision-making are more likely to evaluate academic situations through moral considerations before acting, making them less likely to justify dishonest behavior. This finding reinforces Rest's Four-Component Model, which explains that ethical behavior emerges from an individual's ability to recognize moral issues, make ethical judgments, prioritize ethical values, and translate those judgments into appropriate actions. When these processes function effectively, students become more capable of resisting unethical responses despite experiencing academic demands.

This result also highlights that ethical decision-making serves as more than a personal moral disposition; it functions as an active cognitive process that enables students to critically assess the consequences and legitimacy of their academic choices. In digital learning environments, where opportunities for plagiarism, unauthorized collaboration, and AI-assisted cheating are increasingly accessible, the ability to engage in ethical reasoning becomes an essential protective mechanism for maintaining academic integrity. Recent studies similarly suggest that students with stronger ethical reasoning are less likely to rationalize dishonest academic behavior, even when technological convenience lowers the barriers to misconduct.

Beyond its direct influence, ethical decision-making also operates as an important psychological mechanism through which moral disengagement shapes academic dishonesty intention. The findings indicate that moral disengagement weakens students' capacity for ethical evaluation, thereby making dishonest intentions more likely to emerge. This suggests that once students begin to justify unethical conduct through cognitive rationalizations, their ability to make principled moral judgments becomes compromised. As a result, moral disengagement does not merely encourage dishonest behavior directly but also undermines the ethical decision-making process that would otherwise restrain such behavior.

At the same time, moral disengagement continues to exert a direct influence on academic dishonesty intention, indicating that cognitive justifications for unethical behavior can encourage dishonest intentions even before students engage in deeper ethical reflection. Taken together, these findings suggest that moral disengagement operates through two complementary pathways: one that directly legitimizes dishonest behavior and another that gradually erodes ethical decision-making, ultimately making academic dishonesty appear more acceptable. This dual process provides a more comprehensive understanding of how psychological and ethical mechanisms interact in shaping academic integrity within digitally intensive learning environments.

Theoretical Implications

The findings make meaningful contributions to the three theoretical foundations underlying this study by demonstrating how digital learning pressure influences students' academic dishonesty through interconnected psychological and ethical processes.

First, the findings extend Moral Disengagement Theory by showing that moral disengagement is not only activated by interpersonal or situational pressures but also by structural pressures embedded in digital learning environments. The increasing demands associated with online learning, technological adaptation, and continuous digital engagement create conditions that encourage students to rationalize unethical behavior. This broadens the application of Moral Disengagement Theory into the context of human-technology interaction, an area that has received comparatively less attention in previous research.

Second, the findings strengthen Ethical Decision-Making Theory by demonstrating that ethical decision-making functions both as a protective factor against academic dishonesty and as an important

mechanism linking moral disengagement with dishonest intentions. Rather than viewing ethical reasoning as an isolated individual characteristic, the findings suggest that it is a dynamic cognitive process that can either protect students from unethical behavior or become weakened when cognitive justifications begin to normalize misconduct. This perspective enriches Rest's framework by illustrating how psychological disengagement interferes with ethical reasoning before influencing behavioral intentions.

Third, the findings provide additional support for Self-Regulation Theory by illustrating how external pressures can gradually weaken students' ability to maintain internal moral standards. As digital learning demands become more intense, students may experience greater difficulty regulating their behavior, making unethical choices easier to justify. This indicates that self-regulation should be understood not only as an individual capacity but also as a process that can be influenced by the broader learning environment.

Overall, the integration of these three theoretical perspectives offers a more comprehensive explanation of academic dishonesty in digital learning. Rather than treating digital learning pressure as a single predictor of dishonest intentions, the findings demonstrate that technological demands activate psychological rationalization, weaken ethical decision-making, and ultimately increase the likelihood of academic dishonesty through interconnected direct and indirect mechanisms. This integrated perspective represents the study's theoretical contribution by positioning moral disengagement and ethical decision-making as complementary mechanisms that connect digital learning experiences with students' academic integrity outcomes.

Practical and Managerial Implications

The findings of this study provide practical guidance for Islamic universities, digital-learning administrators, and higher-education policymakers seeking to strengthen academic integrity in the era of generative AI. Because digital learning pressure contributes to both moral disengagement and students' intentions to engage in academic dishonesty, institutions should reconsider how digital learning environments are designed and managed. Reducing unnecessary technological complexity, balancing assignment schedules, and implementing realistic deadlines can help minimize the structural pressures that encourage students to seek unethical academic shortcuts.

The findings also indicate that moral disengagement represents a central psychological mechanism through which academic dishonesty develops. Accordingly, preventive interventions should not focus solely on enforcing sanctions but also on helping students recognize and challenge the cognitive justifications that make dishonest behavior appear acceptable. Academic mentoring programs grounded in Islamic values can integrate spiritual reflection with moral reasoning exercises, enabling students to identify common rationalization strategies and strengthen their commitment to ethical academic conduct. Discussions based on real academic dilemmas may further help students recognize how moral disengagement operates in everyday learning situations.

Another important implication concerns the role of ethical decision-making as a protective factor against academic dishonesty. Universities should therefore provide systematic opportunities for students to develop ethical reasoning alongside technical competencies. Ethics education should move beyond theoretical instruction by incorporating case-based learning, reflective discussions, and decision-making simulations involving the responsible use of generative AI in academic work. Such approaches can strengthen students' ability to evaluate ethical consequences before making academic decisions, thereby reducing the likelihood of dishonest intentions.

Institutional policies should likewise provide clear guidance regarding acceptable and unacceptable uses of generative AI. Explicit definitions of AI-assisted misconduct, transparent reporting procedures, and consistent enforcement mechanisms can reduce the ambiguity that often enables students to rationalize unethical behavior. Continuous literacy programs on responsible AI use should accompany these policies to ensure that students understand the ethical boundaries of AI-supported learning rather than viewing AI merely as a shortcut for completing assignments.

Finally, proactive academic support remains essential. Time-management consultations, digital-skills training, and small-group academic mentoring can reduce students' dependence on unethical coping strategies when facing demanding learning environments. Combining structural improvements, ethics education, and academic support offers a more comprehensive approach than relying solely on punitive measures because it simultaneously addresses environmental pressures, psychological rationalization, and ethical decision-making capacities that collectively shape academic integrity. Related evidence links Islamic spiritual well-being and spiritual leadership with behavioral regulation and coping [25], [26], [27], while conventional statistical-power guidance remains relevant for future study design [28]. Adjacent studies on entrepreneurial motivation, digital leadership, migrant-worker empowerment, and digital work stress likewise show that technology-related outcomes are embedded in wider organizational and community contexts [29], [30], [31], [32].

CONCLUSION

This study demonstrates that digital learning pressure, moral disengagement, and ethical decision-making are interconnected mechanisms that shape academic dishonesty intention among Muslim university students in Indonesia and Malaysia. The findings show that increasing digital learning pressure not only encourages dishonest intentions directly but also contributes to greater moral disengagement, while moral disengagement simultaneously weakens students' ethical decision-making. Furthermore, ethical decision-making functions as an important protective mechanism that reduces the likelihood of academic dishonesty intention, highlighting the importance of maintaining students' ethical reasoning within digitally intensive learning environments.

The findings further reveal that academic dishonesty is influenced by both direct and indirect psychological processes. Moral disengagement directly increases dishonest intentions while also contributing indirectly by undermining ethical decision-making. Likewise, digital learning pressure influences academic dishonesty not only through its direct relationship with students' intentions but also through the pathway of moral disengagement. These interconnected mechanisms indicate that technological demands, psychological rationalization, and ethical cognition should be understood as complementary rather than isolated factors in explaining academic integrity.

The principal contribution of this study lies in integrating Moral Disengagement Theory, Ethical Decision-Making Theory, and Self-Regulation Theory into a single empirical framework examined among cross-national Muslim students during the generative AI era. Unlike previous studies that often examine these mechanisms separately, this research demonstrates how technological pressure activates moral disengagement, weakens ethical reasoning, and ultimately shapes academic dishonesty intention through multiple interconnected pathways. This integrated perspective enriches contemporary discussions on academic integrity by positioning ethical decision-making not merely as an individual characteristic but as a cognitive resource that can either protect students from dishonest behavior or become vulnerable when moral disengagement takes hold.

Beyond its theoretical contribution, this study provides practical insights for Islamic higher education institutions seeking to develop ethics-oriented digital learning policies. Strategies such as improving digital learning design, strengthening moral reasoning education, clarifying AI ethics policies, and expanding proactive academic support may help cultivate students who are better prepared to navigate increasingly complex technological environments without compromising academic integrity. In the long term, strengthening ethical judgment during higher education may contribute not only to reducing academic misconduct but also to fostering graduates capable of maintaining professional integrity in AI-driven workplaces.

Limitations and Directions for Future Research

Several limitations should be considered when interpreting the findings of this study. First, the cross-sectional research design does not allow definitive causal conclusions, meaning that the observed relationships should be interpreted as structural associations rather than conclusive evidence of causal effects. Future studies employing longitudinal designs would provide stronger evidence regarding how digital learning pressure, moral disengagement, and ethical decision-making evolve over time.

Second, all variables were measured using self-report questionnaires, creating the possibility of social desirability bias, particularly for indicators related to academic dishonesty intention. Students may underreport unethical intentions because of social or religious expectations. Future research could therefore combine self-reported perceptions with objective behavioral indicators, such as plagiarism detection records, learning-management-system activity, or responsible AI usage data, to obtain a more comprehensive understanding of academic integrity behaviors.

Third, several measurement indicators exhibited relatively weaker psychometric performance, suggesting opportunities for further instrument refinement. Future studies should revalidate these indicators within the context of AI-supported higher education while considering emerging dimensions of digital learning pressure and ethical decision-making that reflect the rapid evolution of generative AI technologies.

Future research should also expand the present model by examining contextual factors that may strengthen or weaken the identified relationships. Variables such as religiosity, AI literacy, institutional ethical climate, or self-control may function as important moderators that explain why some students remain ethically resilient despite experiencing substantial digital learning pressure. Exploring these contextual influences would provide a more nuanced understanding of how academic integrity can be sustained across diverse educational environments and technological conditions.

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