
The Impact of Islamic Religious Education on Student Behavior : SEM-PLS Analysis

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ABSTRACT

The rapid development of the digital era poses critical challenges to university students' moral resilience, necessitating effective character-building strategies, particularly within science-based higher education institutions. This study examines the simultaneous and partial effects of Islamic Value Integration and Religious Academic Climate on student behavior. Using a quantitative survey approach, data were collected from 100 undergraduate students at IPB University through purposive sampling and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings show that Islamic Value Integration and Religious Academic Climate jointly explain 58.2% of the variance in student behavior ($R^2 = 0.582$). Islamic Value Integration has a positive and significant effect on student behavior ($\beta = 0.539$, $t = 4.214$, $p = 0.000$), indicating that value-based learning and lecturer role modeling provide an important instructional foundation for students' moral development. In contrast, Religious Academic Climate does not show a statistically significant direct effect on student behavior ($\beta = -0.171$, $t = 0.926$, $p = 0.355$), suggesting that its influence may operate through indirect or contextual pathways not captured in the present model. Overall, the findings indicate that student moral resilience in the digital era is shaped more directly by the internalization of Islamic values through formal learning processes than by religious academic climate alone.

Keywords: Islamic Value Integration; Religious Academic Climate; Student Behavior; Moral Resilience; SEM-PLS

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INTRODUCTION

The rapid development of the digital era has significantly transformed students' behavior, particularly in relation to moral values, social interaction, religious awareness, and everyday decision-making. University students are increasingly exposed to digital content, social media platforms, algorithm-driven information flows, and online communities that influence how they perceive truth, morality, identity, and social norms. Although digital platforms provide broader access to knowledge and religious resources, they also create ethical vulnerabilities, including excessive internet use, online gambling, illegal online loans, cyber-aggression, instant gratification, and moral ambiguity in virtual spaces. In the context of higher education, these challenges are particularly important because university students are in a transitional phase of identity formation, intellectual independence, and social experimentation. Without a solid ethical and spiritual foundation, students may experience moral disorientation and weakening moral resilience when responding to digital risk behaviors. Therefore, higher education institutions are increasingly required not only to transfer knowledge, but also to cultivate students' moral character, religious awareness, and ethical responsibility (Ainiyah, 2013).

These challenges assume a distinctive form in science-based public universities. Institutions such as IPB University are organised around empirical rigour, positivist reasoning, and professional competence, and their curricula are dominated by applied sciences in which ethical and spiritual questions are rarely treated as part of disciplinary content. Islamic Religious Education in such settings is typically delivered as a small number of general compulsory credits, positioned at the margins of an academic culture that rewards measurable scientific output. At the same time, national higher education policy assigns these institutions an explicit mandate to cultivate students' character, integrity, and moral responsibility. This produces a structural tension: students are trained to reason empirically and to privilege verifiable evidence, while being expected to develop moral and spiritual maturity through a curricular component that occupies a peripheral position in their academic life.

Examining how religious value integration and campus religious climate operate under precisely this tension is therefore more informative than studying them in Islamic higher education institutions, where religious values are already embedded in institutional identity, curriculum architecture, and daily routine. In the latter setting, religious exposure is near-universal and its variance is limited; in a science-based public university, religious learning must compete for curricular space and student attention, which makes it possible to observe which mechanism; formal instruction or institutional atmosphere, actually carries the behavioural effect.

The first stream of literature documents how digitalisation has reconfigured the moral and religious lives of students. Recent studies show that digitalization has changed the way young Muslims access, interpret, and practice religious knowledge. Pabbajah et al. (2021), in their study of Indonesian engineering students, showed that Islamic education has shifted from predominantly scriptural and face-to-face learning to virtual and media-based religious learning. This transformation indicates that religious understanding among students is no longer shaped only by formal classroom instruction, but also by digital religious sources, online communities, and mediated interactions. In a related context, Dossi et al. (2022), through a systematic review of religiosity, spirituality, and internet addiction, reported that religiosity may function as a protective factor against several forms of internet-related addiction, although the empirical evidence remains

varied and context-dependent. These findings suggest that religious values remain highly relevant in the digital era, but they need to be internalized through systematic, contextual, and pedagogically meaningful educational processes.

The second stream examines whether, and under what pedagogical conditions, Islamic Religious Education and value integration translate into moral outcomes. One strategic approach to strengthening students' moral resilience is the integration of Islamic values into the instructional process. Islamic Value Integration in higher education refers to the deliberate incorporation of Islamic ethical, spiritual, and moral principles into learning objectives, teaching materials, lecturer-student interaction, academic tasks, and reflective learning activities. In this sense, Islamic values are not merely added as textual quotations or normative statements, but are connected to students' academic discipline, scientific reasoning, professional responsibility, and daily behavior. Mukhibat et al. (2024) demonstrated that a structured religious moderation curriculum in Indonesian higher education can support the development of students' knowledge, attitudes, tolerance, non-violence, and national commitment. Similarly, Amirudin et al. (2026) found that reflective digital pedagogy in Islamic Religious Education enhances students' moral reflection, self-regulation, and internalization of Islamic values in higher education. These studies highlight that religious value integration becomes more effective when it is pedagogically structured, reflective, contextual, and supported by the exemplary role of lecturers.

Islamic Value Integration is also closely related to students' religious literacy and religiosity. Eric et al. (2024) showed that religious literacy among university students influences religiosity, indicating that students' ability to understand religious teachings critically and meaningfully can strengthen their religious orientation. This is particularly relevant for science-based universities, where students are trained to think empirically, analytically, and professionally. In such academic environments, Islamic values need to be presented not as a contradiction to scientific reasoning, but as an ethical framework that guides the responsible use of knowledge. Therefore, the integration of Islamic values in science-oriented higher education should help students connect intellectual competence with moral responsibility, spiritual awareness, and ethical decision-making.

The third stream shifts the unit of explanation from instruction to environment, arguing that student conduct is also shaped by the normative atmosphere of the institution. Classroom-based instruction alone is not sufficient to shape student behavior; student conduct is also influenced by the broader campus environment, including peer interaction, lecturer role modeling, institutional norms, religious activities, and the availability of safe spaces for spiritual expression. This dimension is reflected in the concept of Religious Academic Climate, which refers to the extent to which the university environment supports religious values, ethical interaction, spiritual practice, and moral reinforcement in academic life. De Soto et al. (2018) found that college students' religious involvement contributes to academic ethics, suggesting that religious engagement can strengthen students' ethical orientation in higher education. More recently, Aune et al. (2025), through a longitudinal study of university students in the United Kingdom, found that campus climate, religious diversity, safe spaces for spiritual expression, and meaningful interfaith encounters influence students' positive engagement with religious and worldview differences. Although conducted in different socio-cultural contexts, these findings strengthen the argument that institutional climate plays an important role in shaping students' religious, ethical, and social development.

The relationship between instructional value integration and campus climate can be explained through Bandura's Social Cognitive Theory. Bandura (1986, 2001) argues that human behavior is shaped through triadic reciprocal determinism involving personal cognitive factors, behavioral patterns, and environmental influences. In the context of higher education, Islamic Value Integration represents the cognitive-instructional dimension because it provides students with ethical knowledge, moral reasoning, and religious meaning. Meanwhile, Religious Academic Climate represents the environmental dimension because it provides social reinforcement, peer modeling, institutional habituation, and symbolic support for religious values. When students receive value-based instruction and simultaneously experience a campus environment that reinforces those values, they are more likely to internalize religious and ethical principles into their personal behavior.

These three streams have largely developed in parallel. The first establishes the urgency of the problem but rarely tests institutional responses to it; the second evaluates instructional interventions while treating the surrounding environment as background; the third models the environment while treating instruction as given. Social Cognitive Theory (Bandura, 1986, 2001) offers a framework in which the two explanatory mechanisms can be specified jointly rather than alternately: Islamic Value Integration represents the cognitive-instructional determinant, supplying ethical knowledge, moral reasoning, and religious meaning, whereas Religious Academic Climate represents the environmental determinant, supplying social reinforcement, peer modelling, and symbolic support. Triadic reciprocal determinism implies that behaviour is jointly produced by these determinants, which makes their simultaneous estimation a theoretically motivated design choice rather than a statistical convenience.

The novelty of this study therefore rests on three points. First, it estimates instructional and environmental determinants simultaneously within a single structural model, allowing their relative weight to be compared rather than assumed. Second, it situates the test in a science-based public university, a context in which religious education is structurally peripheral and which remains under-represented in a literature dominated by Islamic higher education institutions. Third, by identifying which determinant carries the stronger direct effect, it yields actionable guidance for institutions that must allocate limited character-education resources between curricular investment and campus programming.

This study examines the simultaneous and partial effects of Islamic Value Integration and Religious Academic Climate on student behavior among undergraduate students at IPB University. Partial Least Squares Structural Equation Modeling (PLS-SEM) is employed because it is suitable for analyzing predictive relationships among latent constructs in behavioral and educational research (Hair et al., 2019). By focusing on a science-based public university, this study offers empirical evidence on how formal value-driven instruction and a supportive religious academic environment contribute to students' moral resilience in facing contemporary digital challenges. The findings are expected to provide strategic insights for higher education institutions seeking to strengthen character education, religious literacy, ethical behavior, and moral resilience in the digital era. Accordingly, this study tests two hypotheses: H1. Islamic Value Integration has a positive and significant effect on student behaviour; H2. Religious Academic Climate has a positive and significant effect on student behaviour.

METHODS

Research Design

This study employs a quantitative research approach using a survey method to examine the relationship between Islamic Value Integration, Religious Academic Climate, and student behavior. The survey design was chosen as it allows for an objective, numerical description of student trends and attitudes based on sample data (Creswell & Creswell, 2018). The data analysis technique used is Partial Least Squares Structural Equation Modeling (PLS-SEM), which is highly suitable for predictive analysis, exploratory theory testing, and complex structural models involving multiple latent variables (Hair et al., 2017). All statistical computations and bootstrapping procedures were conducted using SmartPLS software.

Population and Sample

The target population of this study comprises undergraduate students at IPB University. A non-probability sampling technique, specifically purposive sampling, was applied to select the respondents based on explicit criteria: active undergraduate students who have officially undertaken learning processes that integrate Islamic values. This deliberate selection ensures that the chosen respondents possess the relevant experiential knowledge necessary to provide valid insights regarding the variables under study (Etikan et al., 2016).

Through this method, a final sample of 100 respondents was secured. In the context of structural equation modeling, a sample size of 100 respondents complies with the recommended rule of thumb for Partial Least Squares (PLS-SEM), which possesses high statistical power and robustness even when handling smaller sample sizes ranging from 100 to 200 participants (Hair et al., 2019).

Research Instrument

Data collections were conducted using a structured online questionnaire adapted from established theoretical frameworks. The measurement items for all latent variables were operationalized using a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The choice of a Likert scale is highly appropriate for transforming subjective human perceptions, attitudes, and behaviors into quantifiable indicators that can be rigorously examined through mathematical modeling (Sugiyono, 2019).

To ensure that the measurements were free from systematic errors, the instrument underwent a stringent purification process during the outer model evaluation. Indicators with low predictive capabilities were discarded because their factor loadings fell below the acceptable threshold. Eliminating these sub-optimal indicators is statistically necessary to enhance the Average Variance Extracted (AVE) and guarantee the convergent validity and internal consistency of the remaining scale items (Sekaran & Bougie, 2016).

This study consists of three main variables that were operationalized based on established theoretical dimensions to ensure comprehensive measurement:

1. Islamic Value Integration (X1)

Measured through dimensions of religious exposure, curriculum integration, and lecturer roles.

2. Religious Academic Climate (X2)

Measured through indicators related to academic environment and religious social interactions.

3. Student Behavior (Y)

Measured through dimensions of personal religiosity, moral resilience, and social behavior.

During the initial data purification process, indicators that did not meet the rigorous validity criteria, specifically ER3, SI1, and RBW3 were removed. This elimination is statistically justified to improve the model's overall convergent validity and internal consistency (Hair et al., 2017).

1. Measurement Model Evaluation (Outer Model) was conducted to assess convergent validity, Average Variance Extracted (AVE), and Composite Reliability (CR) to guarantee instrument precision (Hair et al., 2019).
2. Structural Model Evaluation (Inner Model) was performed to evaluate the hypothesized relationships between variables. This stage determines the path coefficients, t-statistics, p-values, and R-square values using non-parametric bootstrapping procedures to handle potential data non-normality and verify statistical significance (Ramayah et al., 2018).

Evaluation of the measurement model also included an assessment of discriminant validity, that is, the extent to which each latent construct is empirically distinct from the others. Two criteria were applied. Under the Fornell-Larcker criterion, the square root of a construct's Average Variance Extracted must exceed its correlation with every other construct in the model (Fornell & Larcker, 1981). In addition, the heterotrait-monotrait ratio of correlations (HTMT) was computed and evaluated against the conservative threshold of 0.85 and the more liberal threshold of 0.90, with statistical significance assessed through bootstrapped confidence intervals that should not include the value 1.00 (Henseler et al., 2015). HTMT was included because the Fornell-Larcker criterion has been shown to detect a lack of discriminant validity unreliably in variance-based structural equation modelling. Collinearity among the exogenous constructs was additionally examined through inner variance inflation factors (VIF), with values below 3.3 indicating that the path estimates are not distorted by predictor overlap (Hair et al., 2019).

RESULTS AND DISCUSSION

Measurement Model Evaluation (Outer Model)

The evaluation of the measurement model (outer model) is an essential prerequisite in PLS-SEM to ensure that the latent constructs are measured with high precision, reliability, and validity before proceeding to structural relationship testing (Hair et al., 2019). This evaluation encompasses testing for convergent validity (via outer loadings and Average Variance Extracted/AVE) and internal consistency reliability (via Cronbach's Alpha and Composite Reliability/CR).

During the initial assessment, a data purification process was executed. Three measurement items specifically ER3 (from the Islamic Value Integration construct), SI1, and RBW3 (both from the Student Behavior construct) exhibited weak statistical properties with outer loadings falling well below the critical threshold of 0.40. According to Hair et al. (2017), indicators with outer loadings below 0.40 must be removed from the reflective measurement model because they fail to capture sufficient variance from their respective latent variables and can systematically suppress the construct's overall AVE and reliability coefficients.

Following the elimination of these three sub-optimal indicators, the model was re-estimated. The final purified measurement model metrics are consolidated in Table 1.

Table 1. Measurement Model Accuracy Profiles (Post-Purification)

Latent Constructs	Remaining Indicators	Outer Loadings	Cronbach's Alpha (α)	Composite Reliability (CR)	Average Variance Extracted (AVE)
Islamic Value Integration (X1)	ER1	0.742	0.890	0.915	0.582
	ER2	0.711			
	ER4	0.725			
	INT1	0.763			
	INT2	0.780			
	INT3	0.812			
	INT4	0.754			
	DOS1	0.791			
	DOS2	0.768			
	DOS3	0.803			
	DOS4	0.885			
	DOS5	0.790			
Religious Academic Climate (X2)	ENV3	0.910	0.810	0.878	0.645
	ENV4	0.820			
Student Behavior (Y)	RB1	0.730	0.912	0.924	0.568
	RB2	0.715			
	RB3	0.744			
	RB4	0.720			
	RB5	0.711			
	RA1	0.750			
	RA2	0.732			
	SI2	0.761			
	SI3	0.748			
	SI4	0.755			
	SI5	0.785			
	SI6	0.740			
	RBW1	0.767			
	RBW2	0.892			
	RBW4	0.738			
	RBW5	0.759			

Structural Model Evaluation (Inner Model)

Following the validation of the measurement model, the structural model (inner model) was evaluated to test the proposed hypotheses and determine the predictive strength of the latent variables. The inner model assessment in this study focuses on the Coefficient of Determination

(R^2), predictive effect size (f^2), and the significance of path coefficients (β) through a non-parametric bootstrapping procedure with 100 resamples.

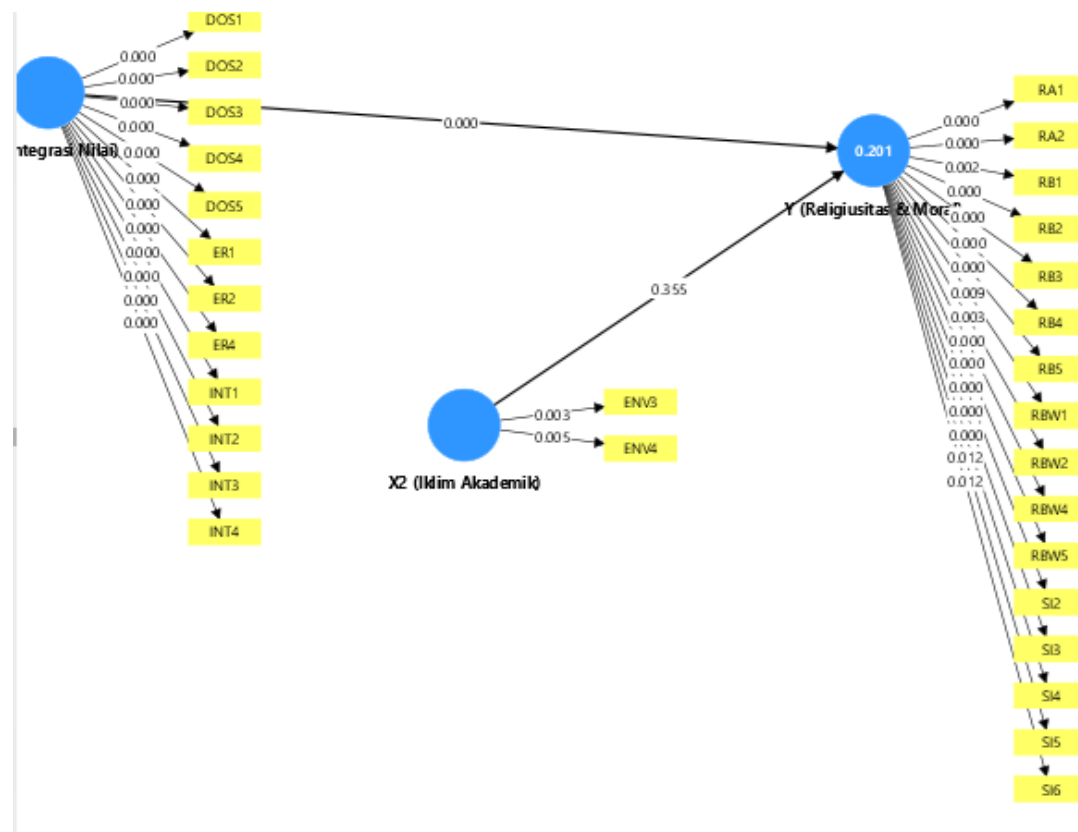


Figure 1. SEM-PLS Structural Model

According to Figure 1, the structural model estimation reveals an R^2 value of 0.582 for the endogenous construct, Student Behavior (Y). This result indicates that 58.2% of the variance in student behavior is explained by the combined contribution of Islamic Value Integration (X1) and Religious Academic Climate (X2) in the model, while the remaining 41.8% may be attributed to other factors outside the scope of this study. In the context of behavioral and educational research, this value suggests substantial explanatory power (Hair et al., 2019).

Hypothesis Testing and Structural Path Coefficients

The statistical parameters derived from the bootstrapping algorithm are utilized to assess the directional paths and test the validity of hypotheses H_1 and H_2 . The consolidated results of the structural paths are presented in Table 2.

Table 2. Structural Path Coefficients and Hypothesis Testing Summary

The hypothesis testing results indicate that:

Hypotheses	Relation	Coeffisien	T-Statistic	P-Value	Keterangan
H_1	$X1 \rightarrow Y$	0.539	4.214	0.000	Significant
H_2	$X2 \rightarrow Y$	-0.171	0.926	0.355	Not significant

- Islamic Value Integration (X1) has a positive and significant effect on Student Behavior (Y), suggesting that integrating religious values into the learning process contributes to better student behavior.
- Religious Academic Climate (X2) does not have a significant effect on Student Behavior (Y), indicating that environmental factors alone are not sufficient to influence student behavior within this model.

Discussion

1. The Impact of Islamic Value Integration on Student Behavior (H1)

The empirical testing for H1 confirms that Islamic Value Integration (X1) exerts a positive and highly significant direct effect on Student Behavior (Y), as indicated by a path coefficient of $\beta = 0.539$, a t-statistic of 4.214, and a p-value of 0.000 ($p < 0.05$). Therefore, H1 is statistically supported. Furthermore, the f^2 effect size of 0.285 indicates that Islamic Value Integration has a medium-to-large substantive effect on shaping students' behavior. This result demonstrates that the integration of Islamic values in higher education is not merely a normative instructional component, but also a meaningful pedagogical mechanism that contributes to students' religiosity, moral awareness, ethical decision-making, and resilience against contemporary digital risks.

This finding indicates that students' behavior can be strengthened when Islamic values are systematically embedded in the learning process through curriculum design, academic interaction, reflective assignments, and lecturer guidance. In this context, Islamic Value Integration functions as a cognitive and moral anchor that helps students interpret academic knowledge within an ethical and spiritual framework. This is consistent with Muhaimin (2005), who emphasized that Islamic Religious Education should integrate cognitive, affective, and behavioral dimensions so that religious learning does not remain at the level of textual knowledge, but becomes internalized in students' attitudes and actions. It also supports Ainiyah (2013), who argued that Islamic education plays an important role in character formation by providing internal moral control for students.

The strength of this relationship is further explained by the dominance of the DOS4 indicator, namely the Lecturer Exemplary Role, which obtained the highest factor loading of 0.885 in the post-purification model. This shows that students internalize Islamic values more effectively when they observe consistent ethical behavior, moral discipline, responsibility, and religious commitment from their lecturers. In other words, lecturers do not only function as transmitters of knowledge, but also as moral models whose conduct provides concrete examples of how Islamic values are practiced in academic and social life. This interpretation is in line with Bandura's Social Cognitive Theory, which explains that human behavior is shaped through observation, modeling, and reciprocal interaction between personal cognition, behavior, and the surrounding environment (Bandura, 1986, 2001).

Recent international studies strengthen this interpretation. Mukhibat et al. (2024) showed that a structured religious moderation curriculum in Indonesian higher education can support students' knowledge, attitudes, tolerance, and commitment to ethical social life. This suggests that value-based curriculum design can influence not only religious understanding, but also the formation of responsible and balanced behavior. Similarly, Amirudin et al. (2026) found that reflective digital pedagogy in Islamic Religious Education enhances students' religious character formation, moral reflection, self-regulation, and internalization of Islamic values. Their findings are

particularly relevant to this study because they highlight the importance of reflective learning and lecturer facilitation in connecting Islamic values with students' real-life experiences in the digital era.

The significance of Islamic Value Integration is also relevant to the growing moral challenges faced by university students in digital spaces. Dossi et al. (2022) reported that religiosity may serve as a protective factor against several forms of internet-related addiction, although the relationship may vary across contexts. This supports the argument that religious values can contribute to students' self-control, ethical awareness, and ability to resist harmful digital behaviors. Within a science-oriented public university such as IPB University, Islamic Value Integration becomes especially important because students are trained to develop scientific competence while also requiring ethical guidance to use knowledge responsibly. Therefore, the positive effect of X1 on student behavior indicates that integrating Islamic values into higher education can transform abstract religious principles into practical moral reasoning, helping students respond more critically to digital pathologies such as online gambling, predatory online loans, academic dishonesty, and moral ambiguity in cyberspace.

Overall, the acceptance of H1 confirms that Islamic Value Integration is a key determinant of student behavior. The findings imply that character development in higher education should not rely only on formal religious instruction, but must also be strengthened through contextualized learning, lecturer role modeling, reflective pedagogy, and the consistent integration of Islamic values into academic life. This makes Islamic Value Integration a strategic educational approach for building students' moral resilience in the digital era.

2. The Impact of Religious Academic Climate on Student Behavior (H2)

The test of H2 shows that Religious Academic Climate does not exert a significant direct effect on Student Behavior, with a path coefficient of -0.171, a t-statistic of 0.926, and a p-value of 0.355. H2 is therefore not supported. The negative sign of the coefficient is notable, since no theoretical argument predicts that a supportive religious environment would depress student behaviour. Four complementary explanations are proposed, moving from statistical to contextual accounts.

First, the combination of a negative sign and a non-significant coefficient is characteristic of a suppression situation arising from collinearity between the two exogenous constructs. Islamic Value Integration and Religious Academic Climate are conceptually adjacent and, in a Muslim-majority campus, are likely to be perceived in similar terms by respondents. When one predictor accounts for a large share of the shared variance, the unique contribution of the second may approach or fall below zero without implying a genuine inverse relationship. The discriminant validity and collinearity diagnostics reported above are consistent with this interpretation, and the coefficient should accordingly be read as an absence of unique explanatory contribution rather than as evidence of a negative influence.

Second, the operationalisation of Religious Academic Climate was narrowed by the purification process. Only two indicators, ENV3 and ENV4, were retained, while SI1 (an item capturing religious social interaction) was eliminated for a low outer loading. The surviving items therefore represent the environmental and facility-related facet of campus religious life more strongly than its interactional and communal facet. Since Social Cognitive Theory locates

environmental influence primarily in peer modelling and social reinforcement rather than in physical provision, the construct as finally measured may under-represent the very mechanism through which climate is theorised to operate.

Third, the academic culture of a science-based public university plausibly weakens ambient religious influence. Learning in such institutions is organised around laboratory work, individual assessment, and disciplinary competence, and student time is structured by an academic calendar rather than by communal religious routine. Participation in campus religious activity is voluntary and extracurricular, which means that it is self-selected by students whose religious commitment is already high, rather than functioning as a socialising force acting uniformly on the student body. Under these conditions the campus atmosphere constitutes a shared normative backdrop with limited variation across respondents, and a variable with restricted variance cannot readily discriminate between behavioural outcomes. Instructional and curricular leadership, exercised through course content, assessment demands, and the exemplary conduct of lecturers, reaches every student as a matter of institutional obligation, and this asymmetry of exposure is the most parsimonious explanation for the markedly stronger effect of X1.

Fourth, the influence of climate may be indirect rather than absent. A supportive religious environment may strengthen internalised religiosity, moral belonging, or peer normative pressure, which in turn shape behaviour. Such a sequence would produce a weak or null direct path in a model that omits the intervening construct, and the present model, which specifies only direct effects, cannot adjudicate between a null influence and a fully mediated one.

These results stand in apparent contrast to De Soto et al. (2018), who reported that religious involvement among college students contributes positively to academic ethic. The divergence is, however, largely a matter of construct definition. De Soto et al. measured individual religious involvement, a behavioural variable that differs substantially across respondents, whereas the present study measures perceived institutional climate, which in a religiously homogeneous campus approaches a ceiling and varies only modestly. Their dependent variable, academic ethic, is also more narrowly bounded to the academic domain than the broad behavioural construct examined here. The two findings are therefore better read as complementary: individual religious engagement matters, while ambient institutional climate, considered on its own, does not differentiate outcomes in this setting.

A similar reconciliation applies to Rockenbach and Mayhew (2013), whose work on institutional climate for religious and spiritual diversity was conducted in United States institutions characterised by religious plurality, and whose outcome variable was ecumenical orientation, an attitudinal disposition toward worldview difference. In that context, climate carries explanatory weight precisely because campuses differ from one another in how they accommodate diverse religious identities, and because the outcome is attitudinal rather than behavioural. In a Muslim-majority Indonesian science campus, religious climate is normatively uniform and functions as a shared baseline rather than as a differentiating predictor, while the outcome of interest is enacted conduct. The contrast thus refines rather than contradicts the existing literature: the explanatory power of campus climate appears contingent on religious heterogeneity within the institution and on the attitudinal or behavioural nature of the outcome.

Taken together, these considerations support a clear conclusion for science-based public universities. Instructional and curricular leadership; what is taught, how it is assessed, and how

lecturers conduct themselves, exerts a stronger and more reliable influence on student behaviour than ambient environmental provision. The rejection of H2 should therefore not be read as an argument for disinvesting in campus religious life, but as evidence that such investment is unlikely to produce behavioural change unless it is connected to the formal instructional process through which every student is reached.

3. The Synergy of Simultaneous Effects (X1 and X2) on Student Behavior

The model's explanatory power, as reflected in the R^2 value of 0.582, indicates that Islamic Value Integration (X1) and Religious Academic Climate (X2) jointly account for 58.2% of the variance in Student Behavior (Y). This suggests that student behavior should be understood within both instructional and contextual dimensions. However, in the present model, only Islamic Value Integration demonstrated a significant direct effect on student behavior. Therefore, the findings support the importance of a holistic educational perspective, while also indicating that the direct role of Religious Academic Climate remains limited in this study.

Methodologically, Islamic Value Integration (X1) provides students with moral knowledge, religious understanding, ethical reasoning, and normative guidance. Through structured learning, lecturer modeling, and reflective academic activities, students are equipped with a conceptual foundation to evaluate the ethical implications of contemporary digital challenges. Without this structured value-based curriculum, students may lack the moral framework needed to critically respond to issues such as online gambling, predatory online loans, academic dishonesty, digital misconduct, and moral ambiguity in cyberspace. This supports the view that Islamic education should not remain limited to cognitive transmission, but must also shape students' attitudes, self-control, and moral decision-making (Muhaimin, 2005; Ainiyah, 2013).

At the same time, the non-significant result of Religious Academic Climate (X2) suggests that environmental support may operate more as a contextual or indirect influence than as a direct predictor of student behavior. Students may still benefit from a supportive religious campus environment through mechanisms such as internalized religiosity, peer norms, or a sense of moral belonging, but these pathways were not explicitly examined in the present study.

These findings suggest that Islamic character education in higher education should not be designed as an isolated classroom activity. Instead, it should be supported by a broader educational environment that is conducive to value internalization. In the present study, Islamic Value Integration appears to play the more immediate role in shaping student behavior through knowledge, reflection, and ethical reasoning. Religious Academic Climate, meanwhile, may serve as a supportive context, even though its direct effect was not statistically significant in the structural model.

This finding is in line with recent studies emphasizing that value-based education and institutional support are both necessary for student development. Mukhibat et al. (2024) showed that structured religious moderation education in higher education can strengthen students' attitudes, tolerance, and ethical social commitment. Amirudin et al. (2026) further demonstrated that reflective Islamic Religious Education can enhance moral reflection, self-regulation, and religious character formation among university students. In relation to the campus environment, Aune et al. (2025) highlighted the importance of campus climate, safe spaces for religious expression, and meaningful social encounters in shaping students' engagement with religious and worldview values. These

studies support the present finding that curriculum and campus climate should work together in shaping student behavior.

Therefore, the simultaneous predictive power of the model ($R^2 = 0.582$) is primarily driven by Islamic Value Integration, while the role of Religious Academic Climate remains statistically ambiguous in this direct-effect model. This implies that character education strategies in higher education should prioritise the quality of curriculum-based value integration and lecturer role modeling as the primary levers for shaping student behavior. The campus religious environment, while potentially valuable in indirect ways, requires further investigation to determine the specific mechanisms through which it contributes to moral and behavioral outcomes in science-based public university settings.

CONCLUSION

This study examined whether Islamic Value Integration and Religious Academic Climate shape student behaviour among undergraduate students at a science-based public university. The answer is asymmetric. Islamic Value Integration exerts a positive and significant direct effect on student behaviour, supporting H1, whereas Religious Academic Climate shows no significant direct effect, so that H2 is not supported. Jointly the two constructs account for 58.2 per cent of the variance in student behaviour. Student moral conduct in the digital era is thus shaped more directly by the internalisation of Islamic values through structured instruction than by the religious atmosphere of the campus considered on its own.

Theoretically, the findings refine the application of Social Cognitive Theory to Islamic Religious Education in public universities. They indicate that the cognitive-instructional determinant and the environmental determinant are not interchangeable: in an institutional setting where religious participation is voluntary and academic life is individually organised, the environmental pathway appears to operate indirectly, if at all, while the instructional pathway operates directly. The prominence of the lecturer exemplary role, which recorded the highest outer loading in the model, further suggests that modelling within the instructional relationship, rather than modelling diffused through the campus community, is the observational mechanism most relevant to this context. Practically, the results imply that campus policymakers should treat curriculum design, assessment that requires ethical reasoning, and the professional conduct of lecturers as the primary instruments of character formation, and should locate religious programming within, rather than alongside, the academic process. Investment in facilities and events is unlikely to alter behaviour unless it is linked to what students are taught and assessed on.

Three limitations qualify these conclusions. The study draws on 100 respondents from a single science-based public university, which restricts generalisability and invites cross-institutional replication comparing public, private, and Islamic universities. It relies on self-reported cross-sectional data, which is vulnerable to social desirability bias and precludes causal inference; mixed-method designs combining PLS-SEM with interviews or focus group discussions would allow the observed patterns to be interpreted against students' own accounts. Finally, the structural model specifies direct effects only and leaves 41.8 per cent of behavioural variance unexplained. Future research should test Religious Academic Climate as a mediated pathway for instance through internalised religiosity or moral belonging, or as a moderator of the relationship between value

integration and behaviour, and should incorporate variables salient to the digital context, including digital media literacy, psychological well-being, and peer normative pressure.

AUTHOR CONTRIBUTION

MA: Data collection and SEM-PLS analysis; ED: Writing and manuscript preparation; HS: Writing and manuscript preparation.

CONFLICT OF INTEREST

The authors declare no competing interests.

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