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The Integrity–Opportunity Gap in Higher Education: Perceived Academic Prevention Value, Perceived Misconduct Accessibility, and Sustainable Governance

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Abstract

Academic integrity is an important concern for higher education quality assurance. Drawing on Institutional Theory, the fraud triangle, and neutralization theory, this study examines associations among Perceived Academic Prevention Value (PAPV), Misconduct Accessibility, Moral Neutralization, and Performance Pressure, introducing the Integrity–Opportunity Gap as a descriptive configuration of individual perceptions. A newly developed questionnaire was administered to a non-probability convenience sample of 791 current and former students in Serbia. Exploratory and confirmatory factor analyses, structural equation modeling, bootstrap mediation, descriptive profile classification, and supplementary group comparisons were conducted. PAPV was negatively associated with Misconduct Accessibility, which was positively associated with Moral Neutralization. Their indirect association was statistically significant, whereas the examined pathways involving Performance Pressure were not. Under median-based classification, 21.2% of respondents exhibited both relatively high PAPV and high Misconduct Accessibility scores. This proportion represents a sample-dependent descriptive classification rather than an independently validated configuration, with fewer respondents meeting the classification criteria at stricter thresholds. The findings highlight the relevance of examining perceptions of prevention alongside perceived misconduct opportunities when investigating academic integrity. Implications for institutional governance and educational sustainability remain conceptual because institutional practices and sustainability outcomes were not directly measured.

Keywords: sustainable higher education; academic integrity; perceived academic prevention value; institutional governance; misconduct accessibility; Integrity–Opportunity Gap

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1. Introduction

The long-term sustainability of higher education institutions depends not only on their educational missions but also on governance arrangements capable of maintaining credible academic standards, institutional accountability, and trustworthy assessment practices [1]. These considerations are relevant to Sustainable Development Goal 4 (Quality Education), particularly the credibility of student assessment and the long-term effectiveness of quality assurance in higher education [2]. Academic integrity is therefore not only a matter of individual student conduct but also an organizational governance concern, requiring universities to translate institutional policies and strategic commitments into preventive environments in which academic standards are clearly communicated and opportunities to circumvent those standards are meaningfully constrained [3]. Although higher education

institutions increasingly rely on integrity policies, codes of conduct, reporting procedures, assessment controls, sanctions, and educational initiatives, academic misconduct remains persistent [4,5]. This persistence raises a fundamental question for sustainable institutional governance: to what extent is students' perceived value of academic-integrity prevention associated with the perceived accessibility of opportunities for academic misconduct?

Existing academic-integrity research provides substantial evidence that institutional context matters for the development and perceived effectiveness of university integrity practices. Honor-code arrangements, enforcement, sanctions, communication, peer norms, integrity cultures, and assessment practices have all been associated with students' academic behavior [6–9]. At the same time, students encounter practical conditions that can make misconduct more or less feasible, including examination supervision, reuse of assessment materials, access to unauthorized resources, digital copying, and possibilities for obtaining work from third parties [10,11]. Consequently, recognition of the potential value of academic-integrity prevention does not necessarily correspond with lower perceived accessibility of misconduct. Students may consider preventive measures relevant while simultaneously perceiving opportunities for academic misconduct as accessible, indicating that these two dimensions are conceptually distinct.

The increasing availability of generative artificial intelligence further complicates contemporary academic-integrity environments by introducing additional possibilities for producing, modifying, and submitting academic work [12]. Such technologies may also create new challenges for distinguishing legitimate academic assistance from misconduct [13,14]. Although these developments were relevant during the 2025–2026 data-collection period, the present study did not specifically measure generative AI use or AI-assisted misconduct. Consequently, its findings concern broader perceptions of academic-integrity prevention and misconduct accessibility rather than AI-specific practices.

This distinction exposes the central research gap addressed in the present study. While the literature has established the importance of academic-integrity policies, institutional controls, enforcement, and integrity cultures, less attention has been given to the relationship between students' perceived value of academic-integrity prevention and the perceived practical accessibility of academic misconduct. From an institutional governance perspective, this distinction is relevant to understanding how evaluations of preventive measures relate to perceptions of misconduct opportunities [15]. Examining these dimensions together may provide an additional perspective on academic-integrity governance without directly assessing institutional policy implementation [16].

To examine this relationship, the present study introduces the Integrity–Opportunity Gap as its central conceptual contribution. The Integrity–Opportunity Gap describes a configuration in which higher Perceived Academic Prevention Value (PAPV) coexists with higher perceived practical accessibility of academic misconduct. PAPV refers to respondents' evaluations of the potential value of preventive academic-integrity measures rather than their assessments of whether such measures are implemented within particular institutions. This perception-based configuration provides an additional perspective on how individuals evaluate academic-integrity prevention alongside perceived misconduct opportunities. Its relevance to institutional sustainability and governance is interpretative, as the study does not directly assess institutional policies, their implementation, or organizational outcomes. It thereby connects the study of preventive measures and perceived misconduct accessibility with broader discussions of institutional accountability and sustainable higher education governance.

The study additionally examines associations among perceived academic prevention value, misconduct accessibility, and students' justifications of academic misconduct. The fraud triangle provides a supporting theoretical framework for distinguishing pressure,

opportunity, and rationalization as functionally different conditions surrounding misconduct [17], while neutralization theory explains how norm-violating behavior can become cognitively justifiable without requiring individuals to abandon conventional moral standards [18]. In the present study, these perspectives are used to distinguish performance pressure as a motivational condition, perceived misconduct accessibility as a feasibility mechanism, and moral neutralization as a justificatory outcome. The fraud triangle is therefore employed as an organizing theoretical framework rather than as the primary object of empirical testing. Of particular interest is whether Perceived Academic Prevention Value is indirectly associated with Moral Neutralization through Misconduct Accessibility, providing a basis for examining the statistical relationships among these constructs.

Accordingly, the study investigates 791 current and former students of higher education institutions in Serbia and combines structural and configuration-based perspectives on perceived academic prevention value and misconduct accessibility. First, it examines whether higher Perceived Academic Prevention Value is associated with lower Misconduct Accessibility and whether accessibility, in turn, is associated with Moral Neutralization. It further examines the indirect association between Perceived Academic Prevention Value and Moral Neutralization through Misconduct Accessibility and considers Performance Pressure as a complementary motivational condition. Second, an exploratory, descriptive profile analysis addresses the following research question: How are respondents distributed across the four combinations of relatively higher and lower Perceived Academic Prevention Value and Misconduct Accessibility scores (RQ1)? This analysis describes the configuration designated as the Integrity–Opportunity Gap, characterized by relatively higher scores on both constructs. By integrating these perspectives, the study introduces a perception-based framework for examining the relationships between evaluations of preventive measures and perceived misconduct opportunities, contributing to discussions of academic integrity and sustainable higher education governance.

2. Literature Review and Hypothesis Development

2.1. Institutional Theory, Policy–Practice Decoupling, and Sustainable Academic Integrity Governance

Academic integrity is shaped not only by students' individual characteristics and ethical orientations but also by the institutional conditions under which academic work is performed [19]. Institutional Theory provides a broader organizational perspective by emphasizing how formal regulations, normative expectations, and cultural-cognitive structures shape organizational behavior and legitimacy, including within higher education governance [20]. Within higher education, this perspective situates academic-integrity policies and preventive arrangements within the governance structures through which universities seek to maintain institutional accountability, credible academic standards, and long-term organizational sustainability [21]. Research has consistently shown that integrity arrangements, enforcement practices, peer behavior, assessment conditions, and the broader academic environment are associated with students' engagement with academic misconduct [6–8,22,23]. From an institutional governance perspective, however, students' evaluations of the potential value of preventive measures should be distinguished from their perceptions of misconduct accessibility. Examining these dimensions together provides a basis for assessing their statistical association without assuming that respondents evaluated the implementation or effectiveness of preventive arrangements at particular institutions.

An important implication of Institutional Theory concerns the possibility of policy–practice decoupling, whereby formally established organizational policies and commitments may diverge from their actual implementation [24–26]. In higher education, such discrepancies may emerge when institutional integrity expectations and preventive arrangements coexist with assessment conditions that students perceive as allowing opportunities for

academic misconduct [27]. This distinction provides a broader theoretical context for examining perceived misconduct opportunities alongside evaluations of preventive measures. However, endorsing the potential value of academic-integrity prevention does not necessarily indicate that respondents have observed corresponding institutional practices. Consequently, Perceived Academic Prevention Value (PAPV) and Misconduct Accessibility are examined as distinct perceptual dimensions. Their coexistence at relatively higher levels defines the Integrity–Opportunity Gap as a descriptive configuration of individual evaluations.

While Institutional Theory and policy–practice decoupling provide the broader governance perspective, the fraud triangle and neutralization theory offer complementary explanations of the individual-level processes associated with academic misconduct. The fraud triangle differentiates pressure, opportunity, and rationalization as motivational, situational, and justificatory conditions surrounding norm-violating behavior [17,28,29], while neutralization theory explains how individuals may temporarily weaken the moral force of accepted norms through justificatory reasoning [19]. Applied to academic misconduct, these perspectives allow Performance Pressure to be treated as a motivational condition, Perceived Accessibility of Academic Misconduct (hereafter referred to as Misconduct Accessibility, MA) as a feasibility mechanism, and Moral Neutralization as a justificatory process [30–32]. These theoretical perspectives inform the examination of individual-level associations among the constructs without constituting a direct test of the fraud triangle or institutional governance practices.

2.2. Perceived Academic Prevention Value and Perceived Misconduct Accessibility

Institutional context is central to academic-integrity effectiveness because academic misconduct is embedded within broader organizational and cultural conditions rather than determined exclusively by individual characteristics [33]. Academic dishonesty has been associated with honor-code arrangements, perceived reporting and sanctioning, peer behavior, and wider institutional integrity environments [6,8,34]. More recent evidence has identified perceived peer misconduct and sanctions as relevant correlates of different forms of academic misconduct, while also demonstrating the multidimensional nature of academic misconduct measurement [35]. From an institutional governance perspective, the perceived value of preventive academic-integrity measures and the perceived accessibility of misconduct represent conceptually distinct but potentially related dimensions. Universities may establish rules, communicate integrity expectations, specify reporting procedures, and impose sanctions [36,37]. However, students' evaluations of the potential value of these measures do not necessarily reflect their implementation within particular institutions. This distinction motivates the examination of whether higher Perceived Academic Prevention Value is associated with lower perceived misconduct accessibility.

The perceived value of academic-integrity prevention may be negatively associated with perceived misconduct accessibility, as respondents who assign greater preventive value to clear integrity expectations, consistent enforcement, appropriate assessment design, effective supervision, and educational practices may also report lower perceived accessibility of misconduct [38,39]. This proposed association concerns individual evaluations rather than the actual effectiveness or implementation of institutional safeguards. Accordingly, the following hypothesis is proposed:

H1. *Perceived Academic Prevention Value is negatively associated with Perceived Accessibility of Academic Misconduct.*

2.3. Perceived Academic Prevention Value, Misconduct Accessibility, and Moral Neutralization

Perceived accessibility concerns whether academic misconduct appears practically feasible, whereas moral neutralization concerns whether such behavior can be cognitively reconciled with academic and personal moral standards [40]. Neutralization theory explains how individuals may temporarily weaken the normative force of accepted rules through justifications that render norm-violating behavior permissible under particular circumstances [19,41]. In academic settings, students may minimize the consequences of misconduct, displace responsibility onto instructors or institutional conditions, portray academic demands as unreasonable, or normalize dishonest practices by perceiving them as widespread [42,43]. Empirical research has also associated academic misconduct with psychological characteristics and contextual perceptions, including perceived peer misconduct and the severity of penalties [44]. Accessibility and neutralization therefore represent distinct but potentially connected components of the misconduct process, linking students' perceptions of institutionally situated misconduct opportunities with their cognitive interpretations of academic-integrity norms. Conversely, students who are more inclined to justify academic misconduct may also perceive greater opportunities for engaging in it, indicating that the association could operate in either direction [45].

When misconduct is perceived as difficult to perform, closely monitored, or likely to be detected, students may perceive fewer opportunities for norm-violating behavior [46,47]. Conversely, when misconduct appears readily accessible and practically feasible, it becomes a more realistic behavioral possibility and may create conditions in which students can more readily normalize or justify conduct that conflicts with academic norms [48,49]. This relationship is consistent with the distinction between opportunity and rationalization in the fraud triangle and with evidence linking perceived opportunity to the rationalization of academic misconduct [18,50]. From an institutional governance perspective, perceived misconduct accessibility is therefore relevant not only as an opportunity-related condition but also as a potential correlate of students' willingness to justify violations of academic-integrity norms. Accordingly:

H2. *Perceived Accessibility of Academic Misconduct is positively associated with Moral Neutralization of Academic Misconduct.*

Perceived Academic Prevention Value may also be directly associated with students' moral interpretations of misconduct. Academic-integrity environments communicate normative expectations concerning acceptable conduct, while clear rules, consistent enforcement, instructor communication, and visible institutional commitment are relevant to shared understandings of academic responsibility [6,8]. Within an institutional governance framework, these preventive arrangements represent potential sources of normative guidance concerning academic responsibility and integrity. Respondents who assign greater value to academic-integrity prevention may also report lower levels of Moral Neutralization, independently of their perceptions of misconduct accessibility. This proposed association provides a theoretically distinct relationship against which the indirect pathway through Misconduct Accessibility can be examined. Accordingly:

H3. *Perceived Academic Prevention Value is negatively associated with Moral Neutralization of Academic Misconduct.*

The relationship between Perceived Academic Prevention Value and Moral Neutralization may also involve an indirect association through Misconduct Accessibility. Rules and integrity communication establish normative boundaries, while assessment design, supervision, enforcement, and detection are relevant to perceptions of the practical accessibility

of misconduct [51,52]. Higher Perceived Academic Prevention Value is hypothesized to be associated with lower Perceived Accessibility of Academic Misconduct, which is, in turn, expected to be associated with lower Moral Neutralization. Misconduct Accessibility is therefore specified as a statistical mediator between Perceived Academic Prevention Value and Moral Neutralization, without implying a causal mechanism or institutional policy effectiveness. Accordingly:

H4. *Perceived Accessibility of Academic Misconduct statistically mediates the association between Perceived Academic Prevention Value and Moral Neutralization of Academic Misconduct.*

2.4. Performance Pressure as a Complementary Motivational Condition

Performance Pressure is incorporated as a complementary motivational condition to distinguish students' motivation from the associations involving Perceived Academic Prevention Value and Misconduct Accessibility examined in this study. Within the fraud triangle, pressure reflects circumstances that may create a perceived need to achieve a desired outcome, whereas opportunity concerns whether misconduct is practically feasible [18]. In higher education, such pressure may arise from academic failure, progression requirements, financial consequences, parental expectations, career ambitions, and competition [9,38,53]. Research on contract cheating has additionally identified academic difficulties, competing responsibilities, personal circumstances, and self-discipline as reasons students report for seeking to outsource academic work [54]. Although pressure does not itself create opportunities for misconduct, students experiencing stronger performance demands may become more attentive to available means of overcoming academic constraints [55]. Such heightened attention may be associated with greater recognition of existing misconduct opportunities, providing a theoretical rationale for examining the relationship between Performance Pressure and perceived Misconduct Accessibility. Accordingly:

H5. *Performance Pressure is positively associated with Perceived Accessibility of Academic Misconduct.*

Performance pressure may also be associated with students' justificatory cognition. Demands related to academic achievement, progression, financial consequences, or future careers may provide situational grounds for construing misconduct as necessary or understandable and may facilitate neutralization of its normative implications [19]. Research examining AI-related academic dishonesty has also highlighted the relevance of motivation and rationalization within the fraud triangle framework [56]. Moreover, Performance Pressure may be indirectly associated with Moral Neutralization through Misconduct Accessibility, consistent with the theoretical distinction between motivational, opportunity-related, and justificatory conditions. This possibility allows the study to examine an additional statistical indirect association without assuming a causal or temporal sequence. Within the broader institutional governance framework, Performance Pressure is therefore treated as a complementary individual-level condition rather than as a direct indicator of institutional policy effectiveness. Accordingly:

H6. *Performance Pressure is positively associated with Moral Neutralization of Academic Misconduct.*

H7. *Perceived Accessibility of Academic Misconduct statistically mediates the association between Performance Pressure and Moral Neutralization of Academic Misconduct.*

The complete hypothesized model, including the associations involving Perceived Academic Prevention Value and the complementary Performance Pressure pathways, is presented in Figure 1.

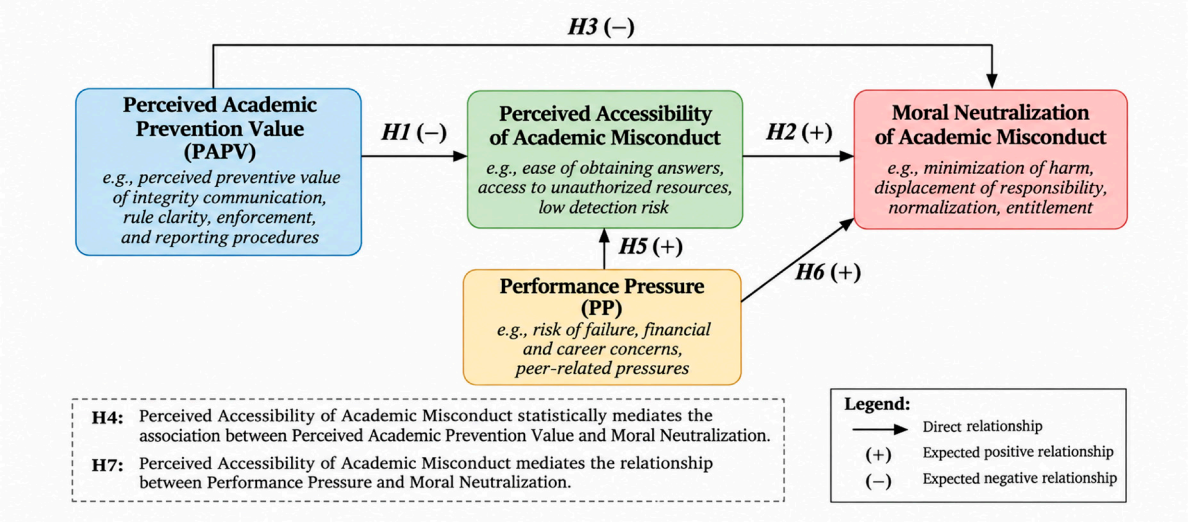


Figure 1. Conceptual Model and Hypothesized Relationships.

3. Materials and Methods

3.1. Study Design and Data Collection

The study employed a cross-sectional survey design to collect data from current and former students of higher education institutions in Serbia. The research examined students' perceived value of academic-integrity prevention, perceived misconduct accessibility, and related motivational and justificatory conditions, with particular attention to the associations among these dimensions within the broader context of higher education governance. Data collection was conducted throughout the 2025/2026 academic year, from October 2025 to June 2026. To obtain a heterogeneous sample and reach students across different higher education settings, the researchers employed a non-probability convenience sampling approach using multiple institutional distribution channels. During the data-collection period, the researchers visited higher education institutions on several occasions, including the University of Belgrade, the University of Novi Sad, and the University of Niš, as well as private higher education institutions located in these three cities. The researchers collaborated with academic colleagues and university professors who distributed the online questionnaire link to students within their institutions.

In addition, student parliaments and other student representative bodies at participating faculties were approached and asked to circulate the survey link directly among students. This combined distribution strategy enabled the questionnaire to reach students from different years of study, academic trajectories, funding statuses, and both public and private higher education institutions. Participation was voluntary, and respondents completed the questionnaire electronically. A total of 877 questionnaire responses were initially collected. During data screening, 86 incomplete questionnaires (9.8%) were excluded, resulting in a final analytical sample of 791 fully completed questionnaires (90.2%). No missing-data imputation was performed, as incomplete questionnaires were excluded prior to statistical analysis.

Because the questionnaire link was distributed through academic colleagues, university professors, and student representative bodies, the total number of individuals who received the survey invitation could not be reliably determined. The recruitment records also did

not permit a reliable reconstruction of the total number of participating institutions and faculties or the distribution of respondents across academic disciplines. Consequently, a conventional recruitment response rate could not be calculated, and the reported 90.2% represents the questionnaire retention rate rather than the response rate.

3.2. Sample Characteristics

The distribution by year of study and graduation status indicated considerable heterogeneity in terms of participants' academic trajectories. Among currently enrolled students, third-year students represented the largest group (17.2%), followed by second-year (14.9%), first-year (13.4%), and fourth-year students (13.3%). Fifth-year students accounted for 9.5% of the sample, while 4.7% were enrolled in their sixth or subsequent year of study or reported an extended study duration. The sample also included respondents who had already completed their studies: 5.2% had graduated within the previous 12 months, 8.5% between 12 and 24 months previously, 6.8% between two and five years previously, and 6.6% more than five years previously. With respect to student funding status, 58.3% of respondents were predominantly state-funded students, whereas 41.7% were self-funded. The gender distribution showed a higher representation of women, who constituted 60.1% of the sample, compared with 39.9% men. The overwhelming majority of participants were domestic students (94.3%), while international students represented 5.7% of the sample. Regarding institutional ownership, 70.9% of respondents were currently or formerly enrolled at publicly owned higher education institutions founded by the Republic of Serbia, whereas 29.1% attended privately owned institutions.

In terms of academic progression, more than three-quarters of respondents (76.2%) reported regularly passing examinations without repeating a year of study. In contrast, 23.8% indicated that they were currently repeating or had previously repeated one or more years of study. Overall, the sample predominantly comprised domestic students from public higher education institutions with regular academic progression, while also including meaningful representation of self-funded students, students from private institutions, and respondents with experience of delayed academic progression.

3.3. Measurement Instrument

Data were collected using a structured questionnaire developed specifically for the present study. The questionnaire was administered in Serbian and consisted of 45 closed-ended, polytomous statements rated on a five-point Likert-type response scale ranging from 1 (strongly disagree) to 5 (strongly agree), with 2 (disagree), 3 (neither agree nor disagree), and 4 (agree) as intermediate response options. As the questionnaire was developed and administered in Serbian, no translation procedure was required. Before data collection, the questionnaire was reviewed by four academic experts to assess the relevance, clarity, and coverage of the proposed measurement items. No separate pilot test was conducted. The initial measurement instrument consisted of 45 items designed to capture a broad range of perceptions concerning academic-integrity prevention, situational opportunities, motivational conditions, and justifications associated with academic misconduct in higher education.

No separate construct-specific introductory instructions were provided, as the questionnaire items were distributed across the instrument rather than grouped into predefined thematic blocks. All respondents received the items in the same fixed presentation order; individual-level randomization was not applied.

The original general instruction provided to respondents in Serbian was:

> *"Molimo Vas da procenite u kojoj meri se slažete sa sledećim tvrdnjama koje opisuju okolnosti, pritiske, opravdanja i preventivne mere povezane sa akademskim nepoštenjem.*

Tvrdnje se odnose na akademske situacije uopšteno, a ne nužno na Vaše lično ponašanje ili iskustvo. Za svaku tvrdnju označite stepen slaganja na skali od 1 (uopšte se ne slažem) do 5 (u potpunosti se slažem).”

The English translation is:

“Please indicate the extent to which you agree with the following statements describing circumstances, pressures, justifications, and preventive measures related to academic misconduct. The statements refer to academic situations in general and do not necessarily concern your personal behavior or experience. For each statement, indicate your level of agreement on a scale from 1 (strongly disagree) to 5 (strongly agree).”

This general instruction established that respondents evaluated their agreement with statements concerning academic-integrity-related circumstances and perceptions, rather than reporting the frequency of misconduct or necessarily describing their own behavior. The complete initial item pool, item codes, and subsequent item-retention decisions are presented in Table A1. Each item was assigned a unique identifier consisting of the letter V (variable) followed by a numerical code from 1 to 45 for data management and analytical documentation. These identifiers did not determine the questionnaire presentation order. All respondents received the same fixed arrangement of items, which did not follow the numerical sequence of the V1–V45 codes. Items addressing different conceptual domains were distributed throughout the questionnaire rather than presented in consecutive construct-specific blocks. The factor-based organization in Table A1 serves analytical reporting purposes and does not reproduce the original questionnaire sequence. No separate factor-specific introductory instructions were administered, and the four-factor structure was identified empirically through exploratory factor analysis rather than imposed through predefined questionnaire blocks.

The questionnaire was developed through a literature-informed item-generation process rather than through the direct adoption or adaptation of a single existing scale. This approach was adopted to examine a broader set of academic-integrity perceptions within a common measurement framework, encompassing situational accessibility, motivational pressures, misconduct-related justifications, and evaluations of preventive measures. The resulting instrument was therefore intended to assess the constructs as operationalized in the present study, rather than to reproduce the item composition of previously published neutralization or opportunity scales. Item generation drew on multiple strands of academic-integrity research concerning institutional prevention, performance-related demands, perceived opportunities for misconduct, and students’ justificatory cognition. The Fraud Triangle framework originating in Cressey’s [17] work provided an additional conceptual basis for distinguishing pressure, opportunity, and rationalization as functionally different conditions surrounding misconduct.

Because the Fraud Triangle was not developed as a measurement framework for educational settings, it served as a conceptual heuristic rather than as a predetermined factor structure. Item development was further informed by established research on individual and contextual predictors of academic dishonesty, motivational and achievement-related influences, peer norms, perceived opportunities, institutional integrity cultures, and preventive practices [8,9,32]. Within the institutional governance framework adopted in the present study, the measurement domains are interpreted as complementary dimensions of perceived academic prevention value, perceived misconduct accessibility, and individual-level motivational and justificatory conditions. Although prevention value and misconduct accessibility address related aspects of academic integrity, they differ in their measurement focus: PAPV concerns evaluations of the potential value of preventive measures, whereas

Misconduct Accessibility concerns perceptions of circumstances under which academic misconduct may be feasible.

To ensure broad content coverage, the initial item pool incorporated situations and perceptions repeatedly identified in the literature as relevant to academic misconduct. These included academic and performance demands, risk of failure, financial and parental consequences, aspirations for further study and employment, competition, peer approval, and social embarrassment. Accordingly, Performance Pressure was conceptualized broadly to encompass academic, career-related, and social expectations associated with educational achievement, rather than examination performance alone. The instrument also captured circumstances affecting the perceived feasibility of misconduct, including examination supervision, reuse of examination questions, access to previously shared information, control of prohibited materials, instructor responses, access to online content, and the possibility of obtaining academic work from third parties. These situational indicators are relevant to the institutional governance perspective because they capture respondents' perceptions of circumstances associated with the practical accessibility of academic misconduct, without directly assessing institutional safeguards or their implementation. The inclusion of these themes was consistent with evidence that academic dishonesty is shaped by both motivational conditions and situational assessments of the risks, costs, and opportunities associated with misconduct [57,58].

The item pool additionally included statements addressing the cognitive processes through which students may interpret, justify, minimize, or normalize academically dishonest behavior. These covered perceived entitlement, examination difficulty, perceived irrelevance of assessment content, attribution of responsibility to instructors, competing work and study obligations, ambiguity of institutional policies, peer normalization, and perceptions of misconduct in the wider social environment. Their inclusion was informed by the rationalization component of the Fraud Triangle [16] and by academic-integrity research demonstrating the relevance of attitudes toward cheating, perceived peer behavior, social norms, and contextual justifications in explaining academic dishonesty [8,9,57].

Some items addressed conceptually related conditions across measurement domains. For example, V34 combined policy ambiguity with students' expectations of avoiding consequences, while V22 and V35 both referred to labor-market competition. Their final factor assignments followed the empirical loading patterns identified through EFA. V22 was retained within Performance Pressure, whereas V35 was retained within Moral Neutralization. Although these items contain similar references to labor-market competition, their different factor assignments may reflect differences in wording, respondents' interpretations, or other contextual influences. Importantly, the items were not administered in consecutive construct-specific blocks, and their factor assignments were determined empirically rather than by questionnaire structure. Nevertheless, the observed loading differences do not independently establish conceptual distinctiveness, and potential item-context effects cannot be excluded. These assignments were retained for the present analysis while acknowledging that statistical factor membership does not, by itself, resolve all questions of conceptual overlap.

The initial instrument also incorporated items assessing respondents' evaluations of the potential value of preventive academic-integrity measures. These items addressed the perceived preventive relevance of academic-integrity communication and clarity, specification of permitted and prohibited resources, instructor involvement, student–instructor relationships, enforcement of rules and sanctions, discussion of academic integrity, and procedures for reporting and responding to misconduct. This coverage was informed by research emphasizing the relevance of institutional and social contexts to academic misconduct, including integrity cultures, honor-code environments, faculty practices, com-

munication of standards, and enforcement mechanisms [8,35]. Following exploratory factor analysis, seven items (V38–V40 and V42–V45) were retained to represent Perceived Academic Prevention Value (PAPV). These items primarily assess respondents' evaluations of the potential preventive value of academic-integrity measures rather than their perceptions of whether such measures are present or consistently implemented at particular institutions. Item V41 was excluded during factor analysis and was not included in the final PAPV construct. Accordingly, PAPV is operationalized as a perception-based evaluation of preventive measures, not as an indicator of actual institutional preventive environments, policy implementation, or governance effectiveness.

The resulting 45-item pool was intentionally heterogeneous and conceptually broad. The literature was used to establish the substantive boundaries of the instrument and to ensure adequate representation of institutional, situational, motivational, and justificatory conditions relevant to academic misconduct, rather than to impose a fixed multidimensional measurement structure in advance. Several items were formulated in general or hypothetical terms, referring to students or academic situations rather than directly asking respondents to report their own misconduct. Consequently, responses are interpreted as evaluations of the described circumstances and justifications rather than direct measures of personal misconduct behavior. For example, V5 ("No one will find out") refers to a generalized expectation of non-detection without identifying a particular misconduct situation, whereas V38 concerns the perceived potential of instructor interventions to reduce misconduct-related justifications. The absence of more specific contextual information in these items may allow different interpretations among respondents. Certain items (including V4, V30, and V31) also incorporated more than one contextual element, which may limit the precision with which individual aspects of these statements can be distinguished. Accordingly, the empirical dimensionality of the instrument and the composition of the resulting constructs were subsequently examined through exploratory factor analysis, as described in the following section.

3.4. Data Analysis

Data analysis was conducted in several stages. Statistical analyses were performed using IBM SPSS Statistics (version 28; IBM Corp., Armonk, NY, USA) and IBM SPSS Amos (version 28; IBM Corp., Armonk, NY, USA). First, descriptive statistics were used to summarize the characteristics of the sample. The measurement structure of the questionnaire was then examined using exploratory factor analysis (EFA). Sampling adequacy and factorability were assessed using the Kaiser–Meyer–Olkin (KMO) measure and Bartlett's test of sphericity. Maximum Likelihood extraction with Direct Oblimin rotation was applied, allowing the extracted factors to correlate. Items with primary factor loadings below the predefined threshold of 0.50 were excluded from the final measurement structure. The excluded items included Answer Copying (V7), Identity Verification (V12), and Harm Denial (V32). Although these items address substantively relevant aspects of academic misconduct, their exclusion reflected the specified empirical retention criterion rather than a judgment that their content was theoretically irrelevant. Harman's single-factor test was additionally performed as a preliminary diagnostic of potential common method variance.

Following EFA, the measurement model was evaluated using confirmatory factor analysis (CFA) on the full analytical sample ($N = 791$). Although a random split would have produced subsamples of approximately 395–396 respondents, exceeding a 10:1 participant-to-item ratio for the final 35-item measurement model, sample adequacy in factor analysis cannot be determined solely by fixed participant-to-item ratios, as it also depends on the characteristics of the factor structure and the precision of parameter estimation [59,60]. The full-sample approach was retained to preserve the available information for parameter

estimation and to assess the fit of the EFA-derived four-factor structure within the complete dataset. Nevertheless, conducting EFA and CFA on the same respondents provides within-sample evaluation rather than independent cross-sample validation. Accordingly, independent replication of the measurement model remains necessary.

Construct reliability and convergent validity were assessed using standardized factor loadings, composite reliability (CR), and average variance extracted (AVE). Discriminant validity was examined using both the heterotrait–monotrait ratio (HTMT) and the Fornell–Larcker criterion. Structural equation modeling (SEM) was subsequently employed to examine the hypothesized associations among Moral Neutralization, Performance Pressure, Perceived Academic Prevention Value (PAPV), and Perceived Accessibility of Academic Misconduct. The CFA and SEM models were estimated using maximum likelihood (ML) in IBM SPSS Amos (version 28; IBM Corp., Armonk, NY, USA), treating the five-category Likert items as approximately continuous indicators. This approach was considered in light of the five response categories, the available sample size ($N = 791$), and the observed multivariate kurtosis (-0.853; critical ratio $= -0.236$). Nevertheless, the ordinal nature of the items and the potential sensitivity of parameter estimates and standard errors to the estimation method are acknowledged as methodological limitations.

Overall model adequacy was evaluated using multiple goodness-of-fit indices, including the chi-square to degrees of freedom ratio (χ^2/df), Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Normed Fit Index (NFI), Incremental Fit Index (IFI), Tucker–Lewis Index (TLI), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), Parsimony Normed Fit Index (PNFI), and Parsimony Comparative Fit Index (PCFI). Standardized path coefficients were used to evaluate the proposed direct relationships. The covariance between Performance Pressure and PAPV was freely estimated in the revised structural model. No post hoc correlated measurement errors were introduced. Indirect effects were examined using nonparametric bootstrapping with 5000 resamples in AMOS. Bootstrap confidence intervals were used to evaluate the statistical significance of the estimated indirect associations. The explanatory capacity of the structural model was assessed using the coefficient of determination (R^2) for the endogenous constructs.

An exploratory, descriptive individual-level profile analysis was conducted to address RQ1 by classifying respondents into relatively higher and lower levels of Perceived Academic Prevention Value (PAPV) and Perceived Accessibility of Academic Misconduct using median-based composite-score classification. The median was selected as a transparent, sample-relative reference point that enabled an interpretable 2×2 description of the joint distribution without assuming theoretically established or externally validated cutoffs. This choice was methodological rather than diagnostic, and alternative percentile thresholds were examined to assess classification sensitivity.

The resulting four profiles were used to describe the joint distribution of respondents' evaluations of preventive measures and their perceptions of misconduct accessibility. This classification was descriptive and was not intended to identify statistically distinct populations or test interaction effects between the constructs. Particular attention was given to the configuration characterized by higher PAPV and higher perceived misconduct accessibility, conceptualized as the Integrity–Opportunity Gap. This configuration was interpreted as the coexistence of two distinct perceptual dimensions rather than evidence of discrepancies between institutional prevention policies and their implementation.

The sensitivity of the Integrity–Opportunity Gap classification to the selected thresholds was examined by applying alternative high-category cutoffs corresponding approximately to the 60th, 66.7th, and 75th percentiles of both composite-score distributions. The numbers and proportions of respondents simultaneously meeting the higher PAPV and

higher misconduct-accessibility criteria were compared across thresholds. This assessment was descriptive and was not intended to establish the statistical robustness or independent validity of the configuration. As a supplementary sensitivity analysis, the five structural relationships were re-estimated using multiple regression models based on composite scores calculated from the 35 retained measurement items. Standardized regression coefficients were compared with the corresponding latent-variable SEM estimates. The indirect effects in the composite-score models were assessed using 5000 bootstrap resamples and 95% percentile confidence intervals.

To provide an additional descriptive assessment of the Integrity–Opportunity Gap, supplementary group comparisons were conducted between respondents classified as having higher PAPV and higher Misconduct Accessibility (n = 168) and those with higher PAPV but lower Misconduct Accessibility (n = 256). Both categories were derived from the median-based classification. Independent-samples *t*-tests were used to examine differences in Moral Neutralization and Performance Pressure, with Cohen's d reported as the effect-size measure. Pearson's chi-square tests were used to assess differences in funding status, student status, and institution type, with Cramer's V reported as the corresponding effect-size measure. These comparisons were exploratory and descriptive, intended to characterize the two categories rather than establish the independent statistical validity of the Integrity–Opportunity Gap or identify a distinct underlying mechanism.

An additional sensitivity analysis was conducted using only currently enrolled students (n = 577), excluding respondents who had previously completed their studies (n = 214). The original full-sample median thresholds were retained when calculating the distribution of the four PAPV–Misconduct Accessibility profiles. The five principal associations were also examined using multiple linear regressions based on composite construct scores. These supplementary analyses assessed the consistency of the descriptive profile distribution and association patterns within the currently enrolled student subsample without re-estimating the latent-variable SEM.

4. Results

The data were suitable for exploratory factor analysis, with a Kaiser–Meyer–Olkin (KMO) value of 0.969 and a significant Bartlett's test of sphericity, $\chi^2(990) = 20{,}032.419$, $p < 0.001$. These results supported proceeding with factor extraction. Maximum Likelihood extraction supported a four-factor solution, with initial eigenvalues of 12.658, 6.489, 4.102, and 2.566; the fifth eigenvalue decreased to 0.745. Inspection of the scree plot revealed a clear elbow after the fourth factor, followed by a relatively flat trajectory, providing additional support for the four-factor solution (Figure A1).

The four retained factors explained 53.302% of the variance after extraction, accounting respectively for 27.077%, 13.210%, 8.299%, and 4.716%. Harman's single-factor test was used as a preliminary diagnostic of potential common method variance. The first unrotated component accounted for 28.130% of the total variance, below the commonly applied 50% threshold, indicating that no dominant single factor emerged. However, this result does not exclude common method bias or establish that the observed associations are unaffected by the shared measurement source. The EFA identified a four-factor structure corresponding to Moral Neutralization, Performance Pressure, Perceived Academic Prevention Value (PAPV), and Misconduct Accessibility (Table 1). Primary factor loadings ranged from 0.681 to 0.827, with all retained items loading strongly on their corresponding factors.

Table 1. Pattern Matrix.

Item	Code	Moral Neutralization	Performance Pressure	Perceived Academic Prevention Value	Misconduct Accessibility
Exam Sharing	V1	0.046	−0.023	0.044	0.689
Weak Supervision	V3	0.040	0.002	−0.011	0.702
Question Reuse	V4	−0.021	0.025	−0.019	0.750
Low Detection	V5	−0.009	−0.007	0.012	0.737
Online Copying	V6	0.025	0.006	−0.018	0.714
Contract Cheating	V8	−0.007	−0.017	−0.032	0.699
Material Control	V9	−0.041	0.046	−0.037	0.688
Instructor Leniency	V10	−0.017	−0.004	0.001	0.732
Hidden Access	V11	0.062	−0.020	0.004	0.708
Failure Risk	V13	−0.031	0.700	0.058	0.062
Financial Aid	V14	0.030	0.686	−0.007	0.012
Parental Support	V15	0.010	0.759	0.011	0.020
Academic Progression	V16	−0.022	0.711	−0.027	0.041
Career Ambition	V17	0.080	0.681	−0.014	−0.098
Academic Recognition	V18	0.002	0.690	−0.051	−0.028
Labor Competition	V22	−0.066	0.745	0.038	0.079
Peer Approval	V23	−0.010	0.739	0.005	−0.010
Social Shame	V24	−0.008	0.733	−0.031	−0.061
Earned Entitlement	V25	0.822	0.004	−0.045	−0.077
Personal Challenge	V26	0.726	0.024	0.058	0.081
Exam Difficulty	V27	0.808	−0.012	−0.023	0.000
Content Irrelevance	V28	0.730	−0.026	0.008	0.017
Collective Normalization	V29	0.769	0.014	0.000	0.023
Instructor Blame	V30	0.770	−0.059	0.000	0.004
Work Overload	V31	0.724	0.015	0.020	0.009
Policy Ambiguity	V34	0.784	0.005	0.044	0.047
Career Competition	V35	0.739	0.034	0.020	−0.016
Societal Normalization	V37	0.704	0.009	−0.066	−0.036
Instructor Prevention	V38	0.024	0.036	0.712	−0.034
Resource Clarity	V39	−0.031	−0.020	0.824	0.020
Relational Prevention	V40	0.005	−0.011	0.708	−0.031
Rule Awareness	V42	−0.039	−0.007	0.827	0.018
Consistent Enforcement	V43	0.011	0.018	0.738	−0.024
Integrity Communication	V44	0.035	−0.006	0.782	−0.021
Reporting Procedures	V45	−0.026	0.005	0.810	0.021

Note. EFA pattern matrix with four factors. All 35 retained items preserve their original questionnaire codes (V1–V45).

Cross-loadings were consistently low, indicating a well-differentiated factor structure within the exploratory analysis. In particular, the items questioned in terms of their conceptual allocation showed distinct empirical loading patterns. Policy Ambiguity (V34) loaded primarily on Moral Neutralization (0.784), with a substantially lower loading on Misconduct Accessibility (0.047). Similarly, Labor Competition (V22) loaded primarily on Performance Pressure (0.745), whereas Career Competition (V35) loaded primarily on Moral Neutralization (0.739). Their corresponding cross-loadings on the alternative factors were low (−0.066 for V22 on Moral Neutralization and 0.034 for V35 on Performance Pressure). These results support the empirical factor assignments, although they do not eliminate potential conceptual overlap between individual item formulations. Of the initial 45 items, 35 met the specified retention criteria and were retained in the final four-factor solution; the excluded items and corresponding retention decisions are reported in Table A1.

The four-factor confirmatory measurement model demonstrated good fit to the observed data, $\chi^2(554) = 586.664$, $p = 0.163$, $\chi^2/df = 1.059$, CFI = 0.998, TLI = 0.998, and RMSEA = 0.009 (90% CI [0.000, 0.015], PCLOSE = 1.000). The standardized CFA factor loadings ranged from 0.675 to 0.829, indicating substantial associations between the retained indicators and their respective latent constructs. Complete standardized loading estimates for all 35 retained items are provided in Table A2. As presented in Table 2, Cronbach's alpha coefficients ranged from 0.904 to 0.932, while composite reliability (CR) values ranged from 0.905 to 0.932, exceeding the recommended threshold of 0.70 across all four constructs. Average variance extracted (AVE) values ranged from 0.513 to 0.604, exceeding the 0.50 criterion. Together, these results supported the internal consistency and convergent validity of the four-factor measurement model within the examined sample.

Table 2. Construct Reliability and Convergent Validity.

Construct	Items	Cronbach's α	CR	AVE
Moral Neutralization (MN)	10	0.932	0.932	0.580
Performance Pressure (PP)	9	0.904	0.905	0.513
Perceived Academic Prevention Value (PAPV)	7	0.914	0.914	0.604
Misconduct Accessibility (MA)	9	0.907	0.907	0.521

Note. Cronbach's α = Cronbach's alpha; CR = composite reliability; and AVE = average variance extracted. Cronbach's alpha coefficients were calculated using all 791 respondents and the 35 retained measurement items.

Discriminant validity was supported by both the HTMT ratio and the Fornell–Larcker criterion. As reported in Table 3, HTMT values ranged from 0.044 to 0.634 and remained below the conservative threshold of 0.85. The highest value (0.634) occurred between Moral Neutralization and Misconduct Accessibility, indicating that these constructs were related but empirically distinguishable.

Table 3. Heterotrait–Monotrait Ratio (HTMT) of Construct Correlations.

Construct	F1	F2	F3	F4
F1—Moral Neutralization	—			
F2—Performance Pressure	0.044	—		
F3—Perceived Academic Prevention Value	0.309	0.101	—	
F4—Misconduct Accessibility	0.634	0.066	0.466	—

Consistent evidence was obtained from the Fornell–Larcker criterion (Table 4), as the square root of the AVE for each construct (0.716–0.777) exceeded the absolute values of its correlations with the other latent constructs. The correlations reported in Table 4 were obtained from the confirmatory factor analysis rather than from composite scores. Of particular relevance to the distinction between Perceived Academic Prevention Value and Misconduct Accessibility, their latent correlation was −0.464, whereas the corresponding HTMT value was 0.466, below the 0.85 threshold. The square roots of AVE for PAPV (0.777) and Misconduct Accessibility (0.722) also exceeded the absolute value of their latent correlation. Together, these results supported the empirical discriminant validity of the four constructs, including PAPV and Misconduct Accessibility, while not excluding some thematic overlap in their item content.

Table 4. Fornell–Larcker Criterion for Discriminant Validity.

Construct	F1	F2	F3	F4
F1—Moral Neutralization	0.762			
F2—Performance Pressure	0.001	0.716		
F3—Perceived Academic Prevention Value	−0.311	0.099	0.777	
F4—Misconduct Accessibility	0.635	−0.054	−0.464	0.722

Note. Diagonal values represent the square roots of average variance extracted (AVE), while off-diagonal values represent correlations between latent constructs estimated in the confirmatory factor analysis (CFA). Discriminant validity is supported when the square root of AVE exceeds the absolute value of the corresponding latent correlations.

The final structural equation model demonstrated satisfactory overall fit to the observed data, $\chi^2(554) = 586.664$, $p = 0.163$, with a normed chi-square of $\chi^2/df = 1.059$. Incremental fit indices were consistently high (NFI = 0.963, IFI = 0.998, TLI = 0.998, CFI = 0.998), while the RMSEA was 0.009 (90% CI [0.000, 0.015], PCLOSE = 1.000), indicating close model fit. The parsimony-adjusted indices were PNFI = 0.896 and PCFI = 0.929. The final specification allowed the two exogenous constructs, Perceived Academic Prevention Value and Performance Pressure, to covary freely. Their standardized correlation was small but statistically significant (r = 0.099, $p = 0.012$). Compared with the initial specification in which their covariance was constrained to zero, the freely estimated covariance improved model fit, $\Delta\chi^2(1) = 6.502$, $p = 0.011$, while leaving the substantive structural relationships largely unchanged (Table 5). These global fit indices describe the overall model, including its measurement structure, and should not be interpreted as independent evidence of the direction of structural associations.

Table 5. Comparison of Structural Model Specifications.

Fit Index	Covariance Constrained to Zero	Freely Estimated Covariance
χ^2	593.166	586.664
df	555	554
χ^2/df	1.069	1.059
p-value	0.127	0.163
NFI	0.962	0.963
IFI	0.997	0.998
TLI	0.997	0.998

Table 5. *Cont.*

Fit Index	Covariance Constrained to Zero	Freely Estimated Covariance
CFI	0.997	0.998
RMSEA	0.009	0.009
RMR	0.051	0.039
PNFI	0.898	0.896
PCFI	0.930	0.929

Note. Both models were estimated using maximum likelihood (N = 791). The initial specification constrained the covariance between Perceived Academic Prevention Value (PAPV) and Performance Pressure (PP) to zero, whereas the final specification estimated this covariance freely. The nested-model comparison indicated a statistically significant improvement in overall fit, $\Delta\chi^2(1) = 6.502$, $p = 0.011$. RMR denotes the unstandardized root mean square residual and should not be interpreted as SRMR.

The structural relationships depicted in Figure 2 indicate associations among Perceived Academic Prevention Value, Misconduct Accessibility, and Moral Neutralization, while accounting for the covariance between the two exogenous constructs. Perceived Academic Prevention Value was negatively associated with Misconduct Accessibility, whereas Misconduct Accessibility was positively associated with Moral Neutralization. By contrast, the direct relationship between Perceived Academic Prevention Value and Moral Neutralization was weak and non-significant, as were the relationships involving Performance Pressure. The principal pattern of structural associations remained consistent after allowing PAPV and Performance Pressure to covary, supporting the stability of the substantive findings across these two specifications.

The structural model revealed differences in the strength and significance of the hypothesized direct relationships (Table 6). Perceived Academic Prevention Value was significantly and negatively associated with Misconduct Accessibility ($\beta = -0.463$, SE = 0.036, C.R. = −11.503, $p < 0.001$), supporting H1. Thus, higher Perceived Academic Prevention Value was associated with lower perceived accessibility of academic misconduct. Misconduct Accessibility, in turn, was significantly and positively associated with Moral Neutralization ($\beta = 0.625$, SE = 0.049, C.R. = 13.968, $p < 0.001$), supporting H2. This was the strongest direct relationship in the structural model, indicating that greater perceived accessibility of misconduct was associated with stronger moral neutralization.

Table 6. Structural Path Estimates and Hypothesis Testing.

Hypothesis	Path	β (Standardized)	SE	C.R.	*p*-Value	Result
H1	PAPV → Misconduct Accessibility	−0.463	0.036	−11.503	<0.001	Supported
H2	Misconduct Accessibility → Moral Neutralization	0.625	0.049	13.968	<0.001	Supported
H3	PAPV → Moral Neutralization	−0.025	0.035	−0.691	0.490	Not supported
H5	Performance Pressure → Misconduct Accessibility	−0.009	0.037	−0.238	0.812	Not supported
H6	Performance Pressure → Moral Neutralization	0.037	0.035	1.174	0.241	Not supported

Note. PAPV = Perceived Academic Prevention Value. The final model freely estimated the covariance between PAPV and Performance Pressure. Standardized regression coefficients (β) are reported alongside standard errors (SE) and critical ratios (C.R.) derived from the corresponding unstandardized maximum likelihood estimates. C.R. values were calculated as the ratios of unstandardized estimates to their standard errors.

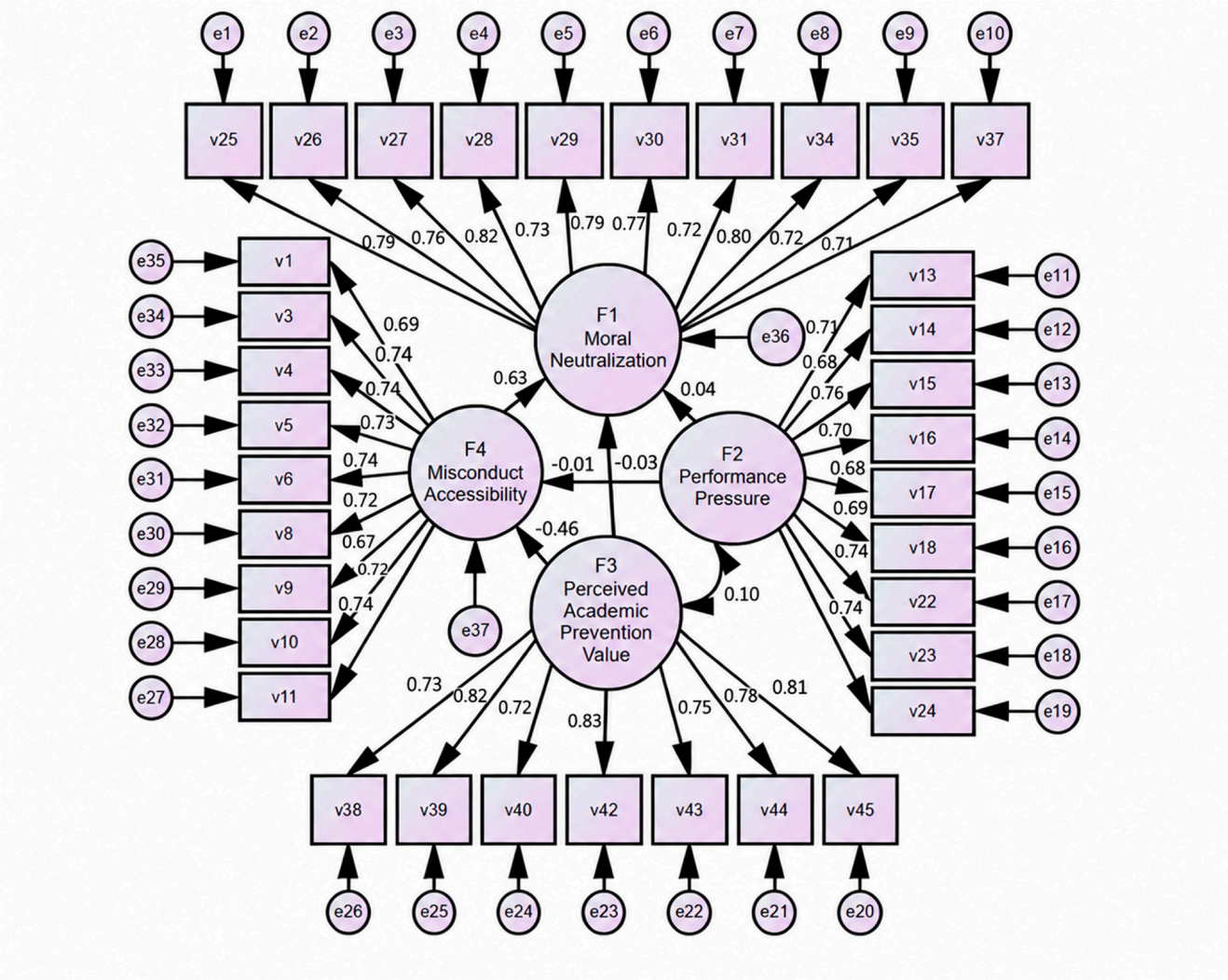


Figure 2. Structural Equation Model of Academic Misconduct Accessibility and Moral Neutralization.

The direct association between Perceived Academic Prevention Value and Moral Neutralization was small and statistically non-significant (β = −0.025, SE = 0.035, C.R. = −0.691, $p = 0.490$), and H3 was therefore not supported. Performance Pressure was not significantly associated with Misconduct Accessibility (β = −0.009, SE = 0.037, C.R. = −0.238, $p = 0.812$), providing no support for H5. Likewise, its direct association with Moral Neutralization was positive but small and non-significant (β = 0.037, SE = 0.035, C.R. = 1.174, $p = 0.241$); consequently, H6 was not supported.

The mediation analysis examined the hypothesized indirect association between Perceived Academic Prevention Value and Moral Neutralization through Misconduct Accessibility. Indirect effects were estimated using nonparametric bootstrapping with 5000 resamples, and statistical significance was evaluated using 95% percentile bootstrap confidence intervals. Perceived Academic Prevention Value had a significant indirect association with Moral Neutralization through Misconduct Accessibility (β = −0.289, 95% PC CI [−0.344, −0.239]). Because the percentile confidence interval excluded zero, the indirect association was statistically significant. In contrast, the corresponding direct association was small and non-significant (β = −0.025), whereas the standardized total effect of Perceived Academic Prevention Value on Moral Neutralization was −0.314. This pattern was consistent with indirect-only statistical mediation and supported H4. The indirect association between Performance Pressure and Moral Neutralization through Misconduct Accessibility was negligible (β = −0.005, 95% PC CI [−0.050, 0.041]). Because the confidence interval included

zero, the indirect association was not statistically significant. The corresponding direct association was also non-significant (β = 0.037), while the standardized total effect was 0.032. Thus, no statistically significant indirect association was identified for Performance Pressure, and H7 was not supported (Table 7).

Table 7. Mediation Analysis and Hypothesis Testing.

Hypothesis	Path	Direct Effect (β)	Indirect Effect (β)	Total Effect (β)	95% PC CI Lower	95% PC CI Upper	Mediation Type	Result
H4	PAPV → MA → MN	−0.025	−0.289	−0.314	−0.344	−0.239	Indirect-only statistical mediation	Supported
H7	PP → MA → MN	0.037	−0.005	0.032	−0.050	0.041	No significant mediation	Not supported

Note. PAPV = Perceived Academic Prevention Value; MA = Misconduct Accessibility; MN = Moral Neutralization; PP = Performance Pressure; PC CI = percentile bootstrap confidence interval. All effect estimates are standardized. The 95% confidence intervals refer to indirect effects and were obtained using the percentile bootstrap method with 5000 resamples in AMOS. The analysis identifies statistical indirect associations and does not establish causal mediation.

The explained variance of the endogenous constructs is presented in Table 8. The final structural model accounted for 21.5% of the variance in Misconduct Accessibility ($R^2 = 0.215$) and 40.5% of the variance in Moral Neutralization ($R^2 = 0.405$). The model therefore explained a larger proportion of variance in Moral Neutralization than in Misconduct Accessibility.

Table 8. Explained Variance of Endogenous Constructs.

Endogenous Construct	R^2
Misconduct Accessibility	0.215
Moral Neutralization	0.405

The configuration-based profile analysis complemented the variable-centered SEM by examining the joint distribution of Perceived Academic Prevention Value and Misconduct Accessibility at the individual level (Table 9). The largest descriptive category comprised respondents classified as having higher Perceived Academic Prevention Value (PAPV) and lower Misconduct Accessibility scores (n = 256, 32.4%). Under the median-based classification, 168 respondents (21.2% of the total sample) were assigned to the Integrity–Opportunity Gap, simultaneously reporting relatively higher PAPV and Misconduct Accessibility. This proportion represents a sample-specific classification outcome rather than an objectively established prevalence of institutional academic-integrity problems.

These respondents represented 39.6% of all participants in the high-PAPV group, indicating that nearly two in five respondents with high Perceived Academic Prevention Value scores nevertheless perceived academic misconduct as highly accessible. High Misconduct Accessibility was more prevalent among respondents with lower PAPV than among those with higher PAPV. Thus, while the profile distribution was consistent with the overall negative association between PAPV and Misconduct Accessibility identified in the structural model, it provided a descriptive account of the joint distribution of these constructs by identifying the number and proportion of respondents within each combination of relatively higher and lower scores. The Integrity–Opportunity Gap identifies a median-defined

configuration characterized by higher Perceived Academic Prevention Value and higher perceived Misconduct Accessibility within the same respondents.

Table 9. Perceived Academic Prevention Value –Misconduct Accessibility Profiles.

Profile	Perceived Academic Prevention Value	Misconduct Accessibility	n	% of Total Sample	% Within PAPV Level
Lower PAPV–Lower Accessibility	Low	Low	118	14.9	32.2
Lower PAPV–Higher Accessibility	Low	High	249	31.5	67.8
Higher PAPV–Lower Accessibility	High	Low	256	32.4	60.4
Integrity–Opportunity Gap	High	High	168	21.2	39.6
Total			791	100.0	

Note. Higher and lower categories were defined using median-based classification of composite scores. The Integrity–Opportunity Gap is a descriptive label for the higher-PAPV/higher-Misconduct Accessibility cell of the resulting 2 × 2 classification, rather than a numerical difference between the constructs or an independently measured latent variable. These categories indicate relative positions within the sample rather than objectively high or low levels.

4.1. Threshold Sensitivity of the Integrity–Opportunity Gap Classification

A supplementary threshold-sensitivity analysis examined how the number and proportion of respondents assigned to the Integrity–Opportunity Gap changed under alternative classification thresholds. When the classification thresholds for Perceived Academic Prevention Value and Misconduct Accessibility were raised from the median to approximately the 60th, 66.7th, and 75th percentiles, the number of respondents simultaneously classified in the higher categories of both constructs decreased from 168 (21.2%) to 93 (11.8%), 54 (6.8%), and 22 (2.8%), respectively (Table 10). These results show that the number and proportion of respondents assigned to this configuration decrease as the thresholds increase. The analysis is descriptive and does not establish the statistical robustness of the configuration or its prevalence beyond the examined sample.

Table 10. Sensitivity of the Integrity–Opportunity Gap Classification to Alternative Thresholds.

Classification Threshold	n	% of Total Sample
Median-based classification	168	21.2
Approximately 60th percentile	93	11.8
Approximately 66.7th percentile	54	6.8
Approximately 75th percentile	22	2.8

Note. The Integrity–Opportunity Gap was defined as the simultaneous occurrence of high Perceived Academic Prevention Value and high Misconduct Accessibility. Alternative thresholds were applied to both composite-score distributions. Percentile categories are approximate because of tied composite scores.

4.2. Sensitivity Analysis of the Structural Model

A supplementary sensitivity analysis examined whether the principal structural relationships remained consistent when the final latent-variable SEM was complemented by regression models based on composite scores calculated from the 35 retained measurement items. Both approaches retained the underlying constructs as continuous variables, thereby complementing the threshold-dependent descriptive profile analysis without relying on dichotomous classification. The supplementary models retained the same five

direct relationships as the final structural model, allowing the comparison of standardized path estimates across the two analytical specifications. The results indicated substantial consistency between the final SEM estimates and the composite-score regression estimates (Table 11).

Table 11. Comparison of Final SEM and Composite-Score Sensitivity Estimates.

Structural Path	Final SEM β	Composite-Score β
Perceived Academic Prevention Value → Misconduct Accessibility	−0.463	−0.423
Misconduct Accessibility → Moral Neutralization	0.625	0.563
Perceived Academic Prevention Value → Moral Neutralization	−0.025	−0.050
Performance Pressure → Misconduct Accessibility	−0.009	−0.009
Performance Pressure → Moral Neutralization	0.037	0.035

Note. Final SEM coefficients are standardized estimates reported in Table 6, with the covariance between PAPV and Performance Pressure freely estimated. Composite-score coefficients are standardized multiple-regression estimates calculated using the 35 retained measurement items. The sensitivity analysis preserves the five structural relationships but does not explicitly model measurement error.

The negative association between Perceived Academic Prevention Value and Misconduct Accessibility remained evident ($\beta = -0.423$, compared with $\beta = -0.463$ in the final SEM), as did the positive association between Misconduct Accessibility and Moral Neutralization ($\beta = 0.563$, compared with $\beta = 0.625$). The direct association between Perceived Academic Prevention Value and Moral Neutralization remained small ($\beta = -0.050$, compared with $\beta = -0.025$), while the Performance Pressure pathways also remained close to zero ($\beta = -0.009$ and $\beta = 0.035$ in the composite-score models, compared with $\beta = -0.009$ and $\beta = 0.037$ in the final SEM, respectively). These findings indicate that the principal structural relationships were relatively stable across latent-variable and composite-score specifications.

Supplementary mediation analysis using 5000 bootstrap resamples further examined the stability of the indirect pathways. The indirect association between Perceived Academic Prevention Value and Moral Neutralization through Misconduct Accessibility remained negative (standardized $\beta = -0.238$), with an unstandardized 95% percentile bootstrap confidence interval of $[-0.274, -0.188]$. In contrast, the indirect effect of Performance Pressure remained negligible (standardized $\beta = -0.005$), with an unstandardized 95% percentile bootstrap confidence interval of $[-0.043, 0.035]$. Thus, the statistically significant indirect association involving Perceived Academic Prevention Value, but not Performance Pressure, was also identified under the composite-score specification. Overall, the principal association patterns remained consistent across the latent-variable SEM and composite-score specifications.

4.3. Supplementary Group Comparison of the Integrity–Opportunity Gap

To further examine the descriptive characteristics of the Integrity–Opportunity Gap, a supplementary comparison was conducted between respondents classified as having higher Perceived Academic Prevention Value (PAPV) and higher Misconduct Accessibility ($n = 168$) and those reporting higher PAPV but lower Misconduct Accessibility ($n = 256$). Both categories were derived from the median-based classification presented in Table 9. Independent-samples *t*-tests were used to compare Moral Neutralization and Performance Pressure, while Pearson's chi-square tests examined differences in funding status, student status, and institution type. Cohen's d and Cramer's V were reported as measures of effect size.

Respondents classified within the Integrity–Opportunity Gap reported significantly higher Moral Neutralization (M = 3.190, SD = 0.907) than those in the higher-PAPV/lower-Misconduct Accessibility category (M = 2.393, SD = 0.880), $t(422) = -9.005$, $p < 0.001$, Cohen's d = 0.893. This difference represented a large effect. In contrast, Performance Pressure did not differ significantly between the two categories, $t(422) = 0.806$, $p = 0.421$, Cohen's d = −0.080. No statistically significant differences were identified for funding status ($\chi^2(1) = 1.199$, $p = 0.273$, Cramer's V = 0.053), student status ($\chi^2(1) = 0.213$, $p = 0.645$, Cramer's V = 0.022), or institution type ($\chi^2(1) = 1.570$, $p = 0.210$, Cramer's V = 0.061).

As summarized in Table 12, these supplementary comparisons provide a descriptive characterization of the Integrity–Opportunity Gap beyond its defining PAPV and Misconduct Accessibility scores. However, the higher Moral Neutralization observed in this category should be interpreted in light of the previously established positive association between Misconduct Accessibility and Moral Neutralization. Consequently, the group difference does not establish the independent validity of the Integrity–Opportunity Gap as a distinct empirical phenomenon or demonstrate a separate underlying mechanism. Rather, the findings identify an additional characteristic of the median-defined configuration while maintaining its exploratory and descriptive interpretation.

Table 12. Comparison of the Integrity–Opportunity Gap and Higher-PAPV/Lower-Misconduct Accessibility Groups.

Variable	Higher PAPV/Lower MA (n = 256)	Integrity–Opportunity Gap (n = 168)	Test Statistic	*p*-Value	Effect Size
Moral Neutralization (MN)	2.393 ± 0.880	3.190 ± 0.907	$t(422) = -9.005$	<0.001	$d = 0.893$
Performance Pressure (PP)	3.067 ± 0.950	2.992 ± 0.911	$t(422) = 0.806$	0.421	$d = -0.080$
Funding status			$\chi^2(1) = 1.199$	0.273	V = 0.053
State-funded	151 (59.0%)	108 (64.3%)	—	—	—
Self-funded	105 (41.0%)	60 (35.7%)	—	—	—
Student status			$\chi^2(1) = 0.213$	0.645	V = 0.022
Domestic student	242 (94.5%)	157 (93.5%)	—	—	—
International student	14 (5.5%)	11 (6.5%)	—	—	—
Institution type			$\chi^2(1) = 1.570$	0.210	V = 0.061
Public institution	191 (74.6%)	116 (69.0%)	—	—	—
Private institution	65 (25.4%)	52 (31.0%)	—	—	—

Note. PAPV = Perceived Academic Prevention Value; MA = Misconduct Accessibility. Continuous variables are presented as mean ± standard deviation, and categorical variables as n (within-category percentage). Independent-samples *t*-tests were used for continuous variables, and Pearson's chi-square tests for categorical variables. Cohen's d is oriented as Integrity–Opportunity Gap minus the higher-PAPV/lower-MA category, whereas t statistics reflect the reverse group order. The analysis included 424 respondents belonging to the two compared categories. The classification is descriptive and does not establish the independent statistical validity of the Integrity–Opportunity Gap configuration.

4.4. Sensitivity Analysis Restricted to Currently Enrolled Students

To examine whether the inclusion of former students influenced the descriptive classification and principal associations, an additional sensitivity analysis was conducted using only currently enrolled students (n = 577; 72.9% of the full sample). Respondents who had completed their studies (n = 214; 27.1%) were excluded. The original full-sample median thresholds were retained for the classification of Perceived Academic Prevention Value (PAPV) and Misconduct Accessibility (MA), allowing the descriptive distribution of the

four profiles to be examined under the same classification criteria. Among currently enrolled students, 126 respondents (21.8%) were classified within the Integrity–Opportunity Gap configuration, compared with 168 respondents (21.2%) in the full sample. The other three profiles comprised 86 respondents (14.9%) with lower PAPV and lower MA, 175 (30.3%) with lower PAPV and higher MA, and 190 (32.9%) with higher PAPV and lower MA. The similarity between the full-sample and restricted-sample proportions indicates that the descriptive prevalence of the Integrity–Opportunity Gap configuration was not materially altered by excluding former students.

To examine the principal associations within the restricted sample, supplementary multiple linear regressions were estimated using the composite scores of the four constructs. PAPV was negatively associated with MA ($\beta = -0.412$, $p < 0.001$), whereas Performance Pressure (PP) was not significantly associated with MA ($\beta = -0.016$, $p = 0.676$). The regression model explained 17.1% of the variance in MA ($R^2 = 0.171$). In the second model, MA was positively associated with Moral Neutralization (MN; $\beta = 0.531$, $p < 0.001$), while the associations of PAPV ($\beta = -0.054$, $p = 0.161$) and PP ($\beta = 0.049$, $p = 0.159$) with MN were not statistically significant. The second model explained 30.7% of the variance in MN ($R^2 = 0.307$). As shown in Table 13, the directions and statistical significance patterns of all five principal associations were consistent with those observed in the full-sample analyses. However, this composite-score sensitivity analysis does not constitute independent validation of the latent structural model.

Table 13. Sensitivity Analysis Restricted to Currently Enrolled Students: Comparison of Principal Associations.

Structural Path	Full-Sample Composite β (N = 791)	Currently Enrolled β (n = 577)	*p* (n = 577)
PAPV → MA	−0.423	−0.412	<0.001
MA → MN	0.563	0.531	<0.001
PAPV → MN	−0.050	−0.054	0.161
PP → MA	−0.009	−0.016	0.676
PP → MN	0.035	0.049	0.159

Note. PAPV = Perceived Academic Prevention Value; MA = Misconduct Accessibility; MN = Moral Neutralization; and PP = Performance Pressure. Both columns report standardized multiple-regression coefficients based on composite scores. The full-sample estimates are reproduced from Table 11. The restricted-sample analysis includes only currently enrolled students. Both analyses use the same five principal relationships, without explicitly modeling measurement error.

5. Discussion

5.1. Perceived Academic Prevention Value and Misconduct Accessibility: A Governance Perspective

The central finding of this study concerns the statistically significant indirect association between Perceived Academic Prevention Value and Moral Neutralization through Misconduct Accessibility. Perceived Academic Prevention Value was negatively associated with Misconduct Accessibility, while Misconduct Accessibility showed a strong positive association with Moral Neutralization. At the same time, the direct relationship between Perceived Academic Prevention Value and Moral Neutralization was negligible and statistically non-significant. The statistically significant indirect effect, together with the non-significant direct association, is consistent with an indirect-only statistical mediation pattern involving Misconduct Accessibility, without establishing a causal or temporal sequence among the constructs. This pattern was also supported by the supplementary composite-score sensitivity analysis, in which the indirect association remained significant across the alternative analytical specification.

This pattern provides a more differentiated account of the associations among respondents' evaluations of preventive academic-integrity measures, perceived misconduct accessibility, and Moral Neutralization. PAPV captures respondents' assessments of the potential preventive value of academic-integrity communication, enforcement, and related measures rather than their evaluations of whether these measures are implemented at particular institutions. The negative association between PAPV and Misconduct Accessibility therefore concerns two perceptual dimensions and does not establish that institutional preventive practices are associated with fewer opportunities for misconduct. Although both constructs address aspects of academic-integrity regulation and enforcement, PAPV evaluates the potential preventive value of such measures, whereas Misconduct Accessibility assesses the perceived feasibility of misconduct under conditions such as insufficient supervision, low detection probability, and instructor leniency. Their empirical discriminant validity was supported by the HTMT and Fornell–Larcker results, although some thematic overlap between the item domains remains possible. From a governance perspective, the findings suggest that evaluations of preventive measures and perceptions of misconduct accessibility may be considered complementary sources of information, without treating either as evidence of institutional effectiveness.

The findings are consistent with the conceptual distinction between opportunity and rationalization originating in Cressey's [17] work, although the present analysis concerns self-reported perceptions rather than directly observed institutional conditions. Rather than treating rationalization solely as an individual moral deficit, this perspective directs attention to the situational conditions that make misconduct appear practically possible. The results indicate a positive association between perceived misconduct accessibility and Moral Neutralization, consistent with the theoretical relationship between perceived opportunity and justificatory cognition.

This interpretation also extends the neutralization perspective of Sykes and Matza [18]. Neutralization theory explains how individuals may temporarily suspend the restraining force of conventional norms by constructing justifications that reduce responsibility, harm, or culpability. This interpretation is consistent with the theoretical relevance of perceived opportunity to misconduct-related justificatory cognition, without establishing that accessibility precedes moral evaluations. These findings can be considered alongside institutional academic-integrity research [8] and evidence concerning the perceived feasibility and anticipated costs of misconduct [9], while identifying Misconduct Accessibility as a statistical mediator between PAPV and Moral Neutralization.

For sustainable academic-integrity governance, the findings indicate the relevance of considering evaluations of preventive measures alongside perceived misconduct accessibility, while distinguishing these perceptions from assessments of actual institutional practices. Maintaining coherence between institutional policies and educational practices is an ongoing governance challenge [14], particularly as technological developments introduce new challenges for academic integrity and assessment [21].

5.2. The Integrity–Opportunity Gap: Coexistence of Prevention Value and Perceived Misconduct Accessibility

The profile analysis complements the structural findings by describing how respondents are distributed across combinations of relatively higher and lower Perceived Academic Prevention Value and Misconduct Accessibility scores. Although Perceived Academic Prevention Value was negatively associated with Misconduct Accessibility at the aggregate level, this relationship did not characterize all respondents. The higher-PAPV/higher-Misconduct Accessibility configuration accounted for 21.2% of the total sample and 39.6% of respondents in the higher-PAPV category. Thus, higher evaluations of preventive measures coexisted

with higher perceived misconduct accessibility among these respondents. This proportion represents a descriptive outcome of the median-based classification rather than evidence of an independently validated empirical configuration.

The Integrity–Opportunity Gap is a conceptual label for the higher-PAPV/higher-Misconduct Accessibility cell of the median-based 2 × 2 matrix. It does not represent a numerical difference between the constructs or an independently measured latent variable. PAPV reflects evaluations of the potential value of preventive academic-integrity measures, whereas Misconduct Accessibility concerns respondents' perceptions of opportunities for academic misconduct. The configuration therefore describes the coexistence of relatively higher prevention-value evaluations and higher perceived misconduct accessibility. An alternative interpretation is that respondents who perceive misconduct as readily accessible may consequently attach greater importance to preventive measures, reflecting a heightened perceived need for prevention rather than an institutional discrepancy. Given the cross-sectional design, the direction of this relationship cannot be established. Moreover, these evaluations do not indicate whether preventive measures are present, consistently implemented, or effective within particular institutions. Although Institutional Theory and policy–practice decoupling provide a broader context for considering academic-integrity governance, the identified configuration does not constitute empirical evidence of institutional policy–practice misalignment. Accordingly, the term Integrity–Opportunity Gap is retained exclusively as a descriptive label for the coexistence of these perceptions, not as an indicator of an objectively established institutional gap.

This distinction extends research emphasizing the importance of institutional context in academic misconduct. McCabe and Treviño [6] demonstrated that contextual characteristics of the academic environment are important correlates of cheating, while subsequent research showed that institutional integrity arrangements, including honor codes and related normative structures, can shape student behavior [8]. Research on student cheating has also emphasized that decisions concerning misconduct depend partly on its perceived feasibility and anticipated costs [9]. The present findings complement these perspectives by documenting the coexistence of these two perceptual dimensions within the observed sample.

The Integrity–Opportunity Gap provides a configuration-based perspective alongside the negative aggregate association between PAPV and Misconduct Accessibility. Whereas the structural model estimates the overall association between these constructs, the profile analysis identifies respondents with relatively higher scores on both dimensions. This coexistence indicates variation in respondents' evaluations of preventive measures and perceived misconduct opportunities. From a governance perspective, further research incorporating institutional policy records, assessment practices, and enforcement procedures would be necessary to examine whether these perceptual patterns correspond with institutional conditions.

The threshold sensitivity analysis further qualifies this descriptive classification. The proportion of respondents meeting both higher-category criteria decreased to 2.8% ($n = 22$) at the approximately 75th-percentile threshold. This variation demonstrates that the configuration's size depends on the selected thresholds and does not establish statistical robustness or a fixed population prevalence. The supplementary group comparison (Table 12) provided additional descriptive evidence by showing that respondents in the Integrity–Opportunity Gap category reported substantially higher Moral Neutralization than those with higher PAPV but lower Misconduct Accessibility (Cohen's $d = 0.893$). In contrast, no statistically significant differences emerged for Performance Pressure, funding status, student status, or institution type. The difference in Moral Neutralization is consistent with the positive association between Misconduct Accessibility and Moral Neutralization observed in the structural model and therefore does not independently validate the config-

uration as a distinct phenomenon. Nevertheless, the comparison provides a more detailed empirical characterization of the respondents meeting the specified classification criteria, while preserving the exploratory interpretation of the Integrity–Opportunity Gap.

5.3. From Normative Compliance to Opportunity-Sensitive Institutional Governance

The mediation and profile findings are consistent with distinguishing the perceived value of normative prevention from perceived misconduct accessibility when considering academic-integrity governance. Normative prevention communicates what students should or should not do through integrity codes, ethical expectations, educational initiatives, and sanctioning frameworks. Opportunity-sensitive prevention, by contrast, addresses the situational conditions that make misconduct more or less feasible. This distinction builds on evidence that academic dishonesty is shaped not only by individual dispositions but also by characteristics of the academic environment [6,8] and by students' assessments of whether misconduct can be successfully accomplished [9].

The findings do not imply that integrity communication, ethical education, or shared academic norms are unimportant. Such mechanisms establish behavioral expectations and communicate institutional standards. However, respondents may recognize the potential value of normative safeguards while also perceiving opportunities for misconduct. This coexistence suggests that evaluations of preventive measures and perceived misconduct accessibility should be considered separately when examining academic-integrity governance. From a sustainable governance perspective, normative and opportunity-sensitive prevention should be integrated rather than treated as alternative institutional strategies. Combining integrity communication and preventive educational interventions with appropriate assessment design, supervision, and periodic evaluation of perceived misconduct opportunities may provide a more comprehensive approach to academic-integrity governance [3]. Such integration could support the credibility of academic assessment as educational practices and technological conditions evolve [21].

5.4. The Limited Role of Performance Pressure

A secondary finding concerns Performance Pressure. Contrary to the hypothesized relationships, Performance Pressure was not significantly associated with either Misconduct Accessibility or Moral Neutralization, and its indirect relationship with Moral Neutralization through accessibility was also non-significant. Although Performance Pressure exhibited a small positive correlation with Perceived Academic Prevention Value ($r = 0.099$, $p = 0.012$), allowing this covariance to be freely estimated did not materially alter the hypothesized structural relationships. Thus, neither the direct nor the mediated pressure-based pathways received empirical support. These findings do not imply that performance-related demands are generally irrelevant to academic misconduct. Previous research has associated achievement concerns, performance goals, and fear of failure with students' motivations for cheating [7,9,57]. Rather, the present findings indicate that the measured Performance Pressure construct was not significantly associated with Misconduct Accessibility or Moral Neutralization in this sample. Although the measurement model demonstrated satisfactory reliability and convergent validity for Performance Pressure (CR = 0.905; AVE = 0.513), the absence of significant structural associations should not be interpreted as definitive evidence that motivational pressure, perceived opportunity, and justification operate independently.

Within the present model, Performance Pressure was not significantly associated with perceived misconduct opportunities or Moral Neutralization, although these results do not exclude relationships involving other measures of academic misconduct. The construct incorporated academic achievement demands alongside career-related and social expectations, including peer approval and avoidance of embarrassment. Although the retained

indicators demonstrated satisfactory standardized factor loadings (0.680–0.759), this relatively broad operationalization may not capture more specific forms of examination-related pressure or fear of failure emphasized in previous research. Furthermore, several PP items were formulated in the third person, referring to students generally rather than respondents' personal experiences. Consequently, the resulting scores may reflect generalized perceptions of performance demands rather than individually experienced pressure, potentially contributing to the non-significant structural associations. Accordingly, the non-significant findings should be interpreted in relation to the particular content of the PP scale rather than generalized to all forms of academic performance pressure.

The contrast with Misconduct Accessibility is particularly informative. Whereas the examined direct and indirect associations involving Performance Pressure were not statistically significant, Misconduct Accessibility was positively associated with Moral Neutralization and formed part of the statistically significant indirect association between Perceived Academic Prevention Value and Moral Neutralization. Within the present model, Misconduct Accessibility exhibited a significant positive association with Moral Neutralization, whereas Performance Pressure did not. This difference concerns the specific constructs and indicators examined and does not establish that perceived opportunity is generally more important than motivational pressure in explaining academic misconduct. Because the study did not measure actual misconduct behavior, however, these findings should not be interpreted as demonstrating that Performance Pressure is unrelated to academic misconduct itself. Future research should examine whether performance-related motivation contributes to actual misconduct under particular assessment conditions, while maintaining the distinction between motivational pressures and perceived institutional opportunities.

5.5. Theoretical Contributions to Institutional Governance and Academic Integrity Research

This study makes two interconnected theoretical contributions to research on academic integrity within the broader context of institutional governance, policy–practice alignment, and sustainable higher education. First, it examines an opportunity-related indirect association between Perceived Academic Prevention Value and misconduct-related justificatory cognition. The statistically significant indirect-only pattern identifies Misconduct Accessibility as a statistical mediator between respondents' evaluations of preventive measures and Moral Neutralization, without establishing a causal mechanism. This contributes to contextual approaches to academic dishonesty [6] by examining associations among perceived prevention value, misconduct accessibility, and justificatory cognition.

Second, the study introduces the Integrity–Opportunity Gap as a descriptive framework that highlights a theoretically relevant combination of perceptions within the observed joint distribution, without proposing an independently validated empirical phenomenon. The supplementary comparison further indicates that respondents meeting these classification criteria report higher Moral Neutralization than those with higher PAPV but lower Misconduct Accessibility, although this difference is consistent with the established association between accessibility and neutralization. By combining structural modeling, descriptive profile classification, and supplementary group comparisons, the study provides a more differentiated account of how prevention-value evaluations, perceived misconduct accessibility, and justificatory cognition are related, without attributing institutional-level meaning to individual perceptions.

Together, these contributions provide a perception-based perspective on academic-integrity prevention and misconduct accessibility within the broader context of institutional governance. Institutional Theory offers a relevant framework for interpreting these individual-level perceptions within broader discussions of academic-integrity governance. This distinction is relevant to sustainable higher education governance because it sepa-

rates respondents' evaluations of preventive approaches from empirical assessments of institutional policy implementation.

5.6. Practical Implications for Sustainable Higher Education Governance

The findings suggest that academic-integrity evaluations may benefit from distinguishing students' assessments of the potential value of preventive measures from their perceptions of misconduct accessibility. Because PAPV does not measure the presence or implementation of institutional safeguards, these evaluations should be complemented by institution-specific evidence concerning policies, assessment design, supervision, digital environments, detection, and enforcement when institutional effectiveness is examined. The Integrity–Opportunity Gap identifies respondents whose higher evaluations of preventive measures coexist with higher perceived misconduct accessibility. This configuration may provide an exploratory indication of how students understand academic-integrity prevention and evaluate misconduct opportunities, but it should not be treated as a validated diagnostic measure of institutional governance deficiencies. Periodic student surveys incorporating both PAPV and Misconduct Accessibility could document the distribution of these perceptions over time, provided that consistent classification criteria are applied. Additional institution-referent measures would be required to examine whether these patterns correspond with actual institutional practices.

At the faculty and instructor levels, the findings may be considered alongside broader evidence concerning assessment design and academic-integrity safeguards. Regular modification of examination materials, appropriate supervision, control of unauthorized resources and devices, assessment formats less susceptible to straightforward copying, verification procedures where appropriate, and credible detection mechanisms can complement normative integrity initiatives. The objective should not be to maximize surveillance, but to reduce predictable vulnerabilities that make misconduct appear easy, accessible, or unlikely to be detected. Integrity communication and ethical education remain important, but their effectiveness may be strengthened when they operate within assessment conditions designed to reduce practical opportunities for misconduct and supported by regular institutional evaluation of perceived vulnerabilities.

At the institutional level, PAPV–Misconduct Accessibility profiles could serve as preliminary, perception-based information within academic-integrity reviews by documenting how respondents evaluate preventive measures alongside perceived misconduct opportunities, without independently establishing deficiencies in institutional accountability, governance effectiveness, or policy implementation. Accreditation and quality-assurance bodies could encourage institutions to incorporate anonymous student surveys on academic-integrity prevention and perceived misconduct opportunities into internal quality-assurance procedures. Such evaluations could be complemented by periodic reviews of assessment regulations, examination supervision procedures, and institutional mechanisms for reporting and addressing academic misconduct. Incorporating these perceptual dimensions into institutional quality-assurance processes may be considered alongside research concerning relationships between institutional policies and educational practices [14] and evaluations of academic-integrity interventions [3]. However, assessing whether formal integrity arrangements correspond with actual institutional practices would require additional evidence concerning policy implementation, assessment design, supervision, and enforcement.

5.7. Study Limitations and Future Research

The cross-sectional, single-source design limits causal interpretation and does not establish temporal ordering among the examined constructs. In particular, although the proposed model specifies an association from Misconduct Accessibility to Moral Neutraliza-

tion, the reverse direction is also theoretically plausible, as respondents who more readily justify academic misconduct may perceive greater opportunities for engaging in it. The present data cannot distinguish between these directional interpretations. The observed indirect associations should therefore be interpreted statistically rather than causally. Because all principal constructs were measured through the same cross-sectional, self-report questionnaire, shared response tendencies, social desirability, and other common method effects may have influenced the observed associations. Although Harman's single-factor test did not identify a dominant single factor, this diagnostic cannot establish that common method bias was absent.

The newly developed questionnaire also requires validation in independent samples, particularly given the broad content of certain indicators, potentially overlapping item formulations, and the use of third-person statements. Although the questionnaire items were not administered in consecutive construct-specific blocks, potential effects of item presentation order, wording, and contextual interpretation cannot be entirely excluded. This consideration is particularly relevant to V22 and V35, which address similar labor-market conditions but exhibited different factor assignments. Because item-order effects were not experimentally examined, the observed factor structure cannot be considered entirely independent of potential questionnaire-context effects. Future research could refine the instrument, examine more specific dimensions of Performance Pressure, and evaluate item-order effects through randomized questionnaire designs. The non-probability convenience sampling approach limits the generalizability of the findings. Including both current and former students may introduce differences associated with the timing of their academic experiences.

Although supplementary descriptive comparisons were conducted between the two higher-PAPV categories, measurement invariance and structural differences across student status, gender, funding categories, and institutional types were not assessed, and potential institutional clustering was not formally modeled. These group comparisons do not establish the independent validity of the Integrity–Opportunity Gap configuration, particularly because the observed Moral Neutralization difference may reflect its established association with Misconduct Accessibility. Furthermore, the median-based classification and alternative percentile thresholds remain sample-dependent, and no correlation-adjusted null-distribution test was conducted to determine whether the observed configuration occurred more frequently than expected under the joint distribution of PAPV and Misconduct Accessibility. Future studies could address these limitations through probability-based sampling, institution-level identifiers, measurement-invariance testing, and independently validated classification approaches. The absence of behavioral and institution-level data prevents direct assessment of actual academic misconduct or institutional policy implementation. Future longitudinal and multilevel research could combine individual perceptions with institutional records, assessment practices, and behavioral indicators. Particular attention should also be given to generative artificial intelligence, including AI-assisted misconduct, perceived detection risks, and institutional responses to emerging academic-integrity challenges.

6. Conclusions

This study identified a statistically significant indirect association between Perceived Academic Prevention Value (PAPV) and Moral Neutralization through Misconduct Accessibility, alongside a non-significant direct association. A broadly similar pattern of associations was observed across latent-variable and composite-score specifications; however, the latter used the same dataset and should not be interpreted as independent validation of the findings. These findings indicate that respondents' evaluations of the potential value of academic-integrity prevention and their perceptions of misconduct accessibility represent

distinct but related dimensions relevant to the study of academic integrity within higher education governance.

The Integrity–Opportunity Gap represents the study's central conceptual contribution, describing a configuration in which higher Perceived Academic Prevention Value coexists with higher perceived Misconduct Accessibility. Under median-based classification, 21.2% of respondents met the criteria for this configuration, with the proportion decreasing to 2.8% at the approximately 75th-percentile threshold. These proportions illustrate the sensitivity of the descriptive classification to the selected thresholds. Supplementary group comparisons indicated that respondents meeting the Integrity–Opportunity Gap criteria reported significantly higher Moral Neutralization than those with higher PAPV but lower Misconduct Accessibility (Cohen's d = 0.893), whereas no statistically significant differences were observed in Performance Pressure, funding status, student status, or institution type.

Given the established positive association between Misconduct Accessibility and Moral Neutralization, this difference does not independently validate the configuration as a distinct phenomenon. Rather, the configuration provides a perception-based perspective on the coexistence of evaluations of preventive measures and perceived misconduct opportunities, without establishing inconsistencies in institutional academic-integrity policies or their implementation. The findings should be interpreted within the limitations of the cross-sectional, perception-based research design. The study contributes an individual-level perspective to academic-integrity research, while its relevance to sustainable higher education governance remains conceptual rather than empirically demonstrated through institutional or sustainability outcomes.

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Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki, and approved by the Ethics Committee of Singidunum University (protocol code 202, 25. September 2025) for studies involving humans.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The anonymized item-level data supporting the findings of this study are available from the corresponding author upon reasonable request. The dataset is not publicly deposited to protect respondents' confidentiality. Relevant statistical analysis documentation is also available upon reasonable request, where available.

Conflicts of Interest: The authors declare no conflicts of interest.

Appendix A

Table A1. Initial Measurement Items and Item Retention Following EFA.

Item	Code	Measurement Item	EFA Status
V1	Exam Sharing	A roommate, classmate, or friend shared information from previous examinations.	Retained

Table A1. *Cont.*

Item	Code	Measurement Item	EFA Status
V2	Device Access	A student can easily store and retrieve information using electronic devices.	Excluded
V3	Weak Supervision	There is insufficient supervision by the instructor or examination staff.	Retained
V4	Question Reuse	The instructor rarely changes examination questions, allowing students to obtain questions from previous examinations through friends or classmates.	Retained
V5	Low Detection	No one will find out.	Retained
V6	Online Copying	Online content can easily be copied and slightly modified to avoid detection.	Retained
V7	Answer Copying	A student can easily see and copy another student's answers during an examination.	Excluded
V8	Contract Cheating	A student can pay someone else to complete an assignment or examination on their behalf.	Retained
V9	Material Control	Prohibited examination materials are not checked before students take the examination.	Retained
V10	Instructor Leniency	The instructor is lenient and is unlikely to take action.	Retained
V11	Hidden Access	A student can easily access concealed information by going to the restroom during an examination.	Retained
V12	Identity Verification	Student identification with a photograph is not required before taking an examination.	Excluded
V13	Failure Risk	A student is at risk of failing an examination.	Retained
V14	Financial Aid	A student may lose financial aid.	Retained
V15	Parental Support	A student fears losing or receiving reduced financial and other support from their parents.	Retained
V16	Academic Progression	A student needs a high grade to pursue doctoral studies.	Retained
V17	Career Ambition	A student wants to obtain a well-paid job.	Retained
V18	Academic Recognition	A student may lose their place on the Dean's List, President's List, or in an honor society.	Retained
V19	Peer Competition	A student is competing with others.	Excluded
V20	Job Security	A student is at risk of losing their job.	Excluded
V21	Family Dependence	Family members depend on the student.	Excluded
V22	Labor Competition	There is strong competition in the labor market.	Retained
V23	Peer Approval	A student wants to impress friends or members of their peer group.	Retained
V24	Social Shame	A student wants to avoid embarrassment or shame among friends or members of their peer group.	Retained
V25	Earned Entitlement	A student has studied hard for the examination and therefore feels entitled to pass it.	Retained
V26	Personal Challenge	Cheating is perceived as a challenge.	Retained
V27	Exam Difficulty	The examination is extremely difficult anyway.	Retained

Table A1. *Cont.*

Item	Code	Measurement Item	EFA Status
V28	Content Irrelevance	The material or tasks included in the examination are perceived as irrelevant.	Retained
V29	Collective Normalization	Everyone does it.	Retained
V30	Instructor Blame	The instructor is demanding and does not provide additional opportunities to earn points.	Retained
V31	Work Overload	A student has so many responsibilities, combining work and study, that they feel they deserve to pass.	Retained
V32	Harm Denial	A student believes that no one is harmed by the misconduct.	Excluded
V33	Misconduct Unawareness	A student is unaware that the behavior constitutes academic misconduct.	Excluded
V34	Policy Ambiguity	There are no clear policies, so students believe they can get away with academic misconduct.	Retained
V35	Career Competition	There is excessive competition in the labor market.	Retained
V36	Tuition Entitlement	Tuition fees are so high that a student feels entitled to pass.	Excluded
V37	Societal Normalization	Similar forms of misconduct occur throughout Serbian society anyway.	Retained
V38	Instructor Prevention	Instructors can take steps to reduce the extent to which students' justifications lead to academic misconduct.	Retained
V39	Resource Clarity	Explicitly clarifying which resources are acceptable and unacceptable reduces ambiguity and opportunities for academic misconduct.	Retained
V40	Relational Prevention	Building personal relationships and connections with students can help limit certain forms of academic misconduct.	Retained
V41	Integrity Policies	Institutional academic integrity programs and policies, such as honor codes, can significantly influence student behavior.	Excluded
V42	Rule Awareness	Clearly informing students about academic integrity rules can reduce the occurrence of academic misconduct.	Retained
V43	Consistent Enforcement	Consistent enforcement of rules and sanctions for academic misconduct can deter students from engaging in such behavior.	Retained
V44	Integrity Communication	Instructors who openly discuss academic integrity with students can contribute to reducing academic misconduct.	Retained
V45	Reporting Procedures	Clearly defined procedures for reporting and addressing cases of academic misconduct can contribute to its prevention.	Retained

Note. EFA = exploratory factor analysis. Items with factor loadings below the predefined threshold of 0.50 were excluded. Of the initial 45 items, 10 were excluded, leaving 35 items in the final four-factor solution. The seven retained prevention-related items (V38–V40 and V42–V45) assess respondents' evaluations of the potential preventive value of academic-integrity measures rather than their presence or implementation at particular institutions. Item V41 was excluded following EFA. The numerical item codes (V1–V45) and their presentation in this appendix are used for analytical documentation and do not represent the original order of questionnaire administration. Items were presented in a non-sequential order, without separate construct-specific introductory instructions. The four-factor classification reflects the empirical results of EFA rather than predefined questionnaire blocks.

Table A2. Standardized CFA Factor Loadings of Retained Measurement Items.

Construct	Item	Standardized Loading (λ)
Moral Neutralization (F1)	V25	0.789
	V26	0.763
	V27	0.817
	V28	0.734
	V29	0.785
	V30	0.770
	V31	0.722
	V34	0.800
	V35	0.720
	V37	0.709
Performance Pressure (F2)	V13	0.708
	V14	0.692
	V15	0.759
	V16	0.703
	V17	0.680
	V18	0.685
	V22	0.744
	V23	0.736
	V24	0.736
Perceived Academic Prevention Value (F3)	V38	0.725
	V39	0.820
	V40	0.719
	V42	0.829
	V43	0.752
	V44	0.781
	V45	0.806
Misconduct Accessibility (F4)	V1	0.695
	V3	0.740
	V4	0.738
	V5	0.725
	V6	0.743
	V8	0.716
	V9	0.675
	V10	0.718
	V11	0.744

Note. CFA = confirmatory factor analysis; λ = standardized factor loading. All 35 retained indicators were estimated using maximum likelihood in AMOS on the full analytical sample (N = 791). Item codes correspond to Table A1. Standardized loadings ranged from 0.675 to 0.829.

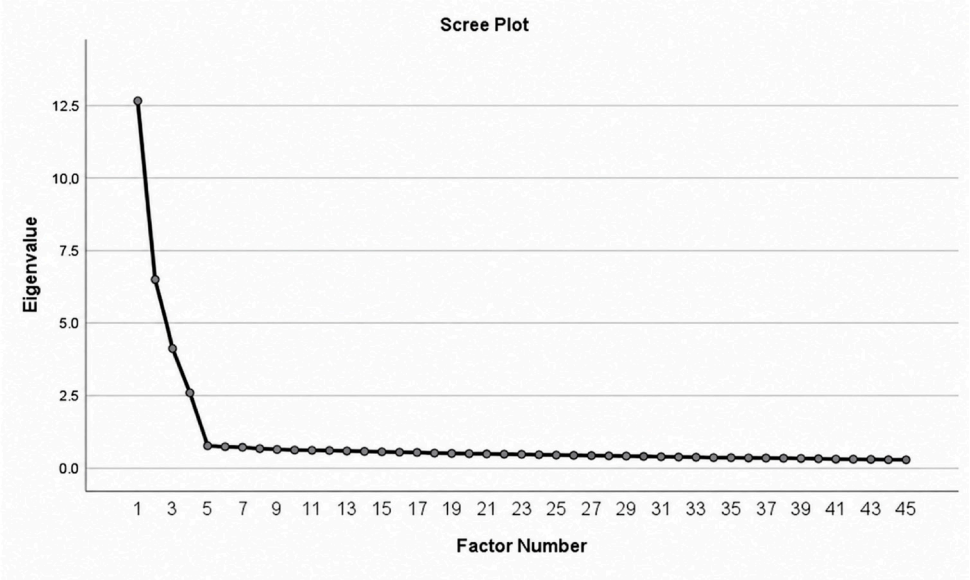


Figure A1. Scree Plot of Initial Eigenvalues for the 45-Item Measurement Instrument. Note. The scree plot indicates an elbow after the fourth factor, providing additional support for the four-factor solution.

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