



## RESEARCH ARTICLE

Section: *Sociology and Community Development*

## The relationship between research motivation and ethical decision-making among literature postgraduate students

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### ABSTRACT

This study investigated the relationship between research motivation and ethical decision-making among literature postgraduate students in Egyptian universities. Participants completed the Research Motivation Scale and Academic and Ethical Integrity Scale using a two-phase design with psychometric validation ( $n=403$ ) and main study samples ( $n=517$ ). Correlation analyses revealed significant positive relationships between intrinsic reward motivation and all ethical decision-making dimensions ( $r=.435$  to  $.476$ ), while failure avoidance motivation showed negative correlations with ethical integrity ( $r=-.132$  to  $-.232$ ). Multiple regression analysis demonstrated that research motivation dimensions significantly predicted ethical decision-making, explaining 21.2% of variance ( $R^2=.212$ ,  $F(3,513)=45.878$ ,  $p<.001$ ). Intrinsic reward motivation emerged as the strongest predictor ( $\beta=.374$ ,  $p<.001$ ), followed by failure avoidance motivation with a significant negative relationship ( $\beta=-.115$ ,  $p=.006$ ), and extrinsic reward motivation with a modest positive contribution ( $\beta=.086$ ,  $p=.043$ ). The findings support Self-Determination Theory's propositions about autonomous motivation fostering ethical behavior while highlighting the detrimental effects of avoidance-oriented motivations. Results suggest that educational interventions should prioritize cultivating intrinsic motivation through autonomy-supportive environments to enhance academic integrity among postgraduate students.

**KEYWORDS:** academic integrity, ethical decision-making, literature students, postgraduate education, research motivation, self-determination theory

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## Introduction

Research motivation is a fundamental driver in shaping postgraduate students' academic trajectories, functioning as a crucial mediator between personal characteristics and academic achievement (Helal & Hassan, 2025). Students with high research motivation demonstrate enhanced engagement, persistence, and overall success in their academic pursuits (Han & Wang, 2024). The satisfaction of basic psychological needs—autonomy, competence, and relatedness—fosters autonomous motivation, significantly predicting program satisfaction and completion intentions (Marchuk & Gordeeva, 2024). Furthermore, supportive supervisor relationships and research environments substantially influence students' intrinsic motivation and research productivity (Chen & Chen, 2024; Singh, 2025).

Parallel to the significance of research motivation, postgraduate research presents multifaceted ethical challenges that significantly impact students' research conduct and decision-making processes. Common issues include insufficient awareness of research ethics principles, inadequate formal training, and inconsistent institutional support (Bahrami et al., 2025; Makola & Ntoyanto-Tyatyantsi, 2023). Students frequently encounter difficulties navigating informed consent procedures, maintaining participant confidentiality, and ensuring responsible data management, particularly when working with vulnerable populations or sensitive research topics (Vimal et al., 2022). Power imbalances between students and supervisors and unclear communication within research teams complicate ethical decision-making processes (Brindley et al., 2020). Additionally, cultural and contextual factors in international or multidisciplinary research environments create ethical ambiguities that require careful consideration (Laas et al., 2024).

Understanding the relationship between motivation and ethics is crucial in academic research because motivation fundamentally shapes researchers' attitudes, choices, and persistence, while ethical principles ensure the integrity and societal value of their work (Islam & Samsudin, 2020). Intrinsic motivation has been linked to higher research productivity and stronger adherence to ethical practices, whereas extrinsic motivations may sometimes undermine research output and ethical standards (Peng & Gao, 2019). Ethical leadership and a culture of integrity enhance intrinsic motivation, fostering environments where researchers are more likely to engage in innovative and responsible scholarship (Shareef & Atan, 2019; Yeap, 2023). Moreover, higher ethical awareness is associated with better academic performance and more impactful research outcomes (Kushwaha et al., 2023). Ultimately, this relationship helps prevent misconduct, promotes fairness, and supports the development of socially responsible scholars (Janket et al., 2019).

The consequences of neglecting the intersection between motivation and ethics are particularly evident in the prevalence of unethical research practices. Unethical research practices, including fabrication, falsification, and plagiarism, pose significant threats to academic integrity with far-reaching consequences beyond individual researchers. These practices fundamentally undermine the credibility and reliability of research findings, potentially leading to the dissemination of false or misleading information with harmful societal impacts, particularly in critical fields such as medicine and public health (Kearney et al., 2024). The erosion of public trust in scientific findings represents a particularly concerning outcome. Edwards and Roy (2017) warn that such practices risk precipitating a new dark age with devastating consequences to humanity. Academic dishonesty damages the reputation of individual researchers and their institutions and perpetuates unethical conduct, as students who engage in such practices often carry these behaviors into their professional lives (Guerrero-Dib et al., 2020). Furthermore, the prevalence of questionable research practices is often driven by intense publication pressure and perverse incentives within academic systems (Bouter, 2020; Gopalakrishna et al., 2021).

From a theoretical perspective, several frameworks explain the relationship between motivation and ethical behavior through psychological and social perspectives. Social Learning Theory and Social Exchange Theory demonstrate that ethical behavior is learned through observation and reinforced by reciprocal relationships within organizational contexts (Luthfi & Fu'ad, 2025). Vroom's Valence-Instrumentality-Expectancy Model posits that individuals are motivated to act ethically when they value ethical outcomes and believe their actions will achieve those results (Osafo et al., 2021). Cognitive Evaluation Theory emphasizes intrinsic motivation's role, showing that personally meaningful ethical behavior enhances ethical decision-making, particularly under ethical leadership (Tu & Lu, 2016). Additionally, Moral Foundations Theory provides a framework for understanding how different moral values drive ethical actions (Chowdhury, 2019), while Public Service Motivation theory connects moral values with ethical conduct through individual moral foundations (Wang et

al., 2023).

Integrating motivational and ethical research represents a critical gap in our understanding of academic behavior that requires systematic investigation. Bridging the gap between motivational and ethical research is crucial for understanding how psychological drivers influence moral decision-making in academic contexts. Research demonstrates that intrinsic motivation fosters ethical behavior and decision-making while helping overcome external barriers to ethical practice (Madani et al., 2020). Integrating motivational insights with ethical frameworks enables the development of educational systems that teach ethical principles and inspire individuals to act authentically on them (Lee & Park, 2023). Furthermore, this relationship is particularly significant in organizational settings, where ethical leadership positively influences behavior through intrinsic motivation as a mediating factor (Shareef & Atan, 2019). Understanding individual orientations as motivational variables provides deeper insights into ethical consumer behavior and decision-making processes (Lee, 2019). A multi-level research agenda integrating psychology and business ethics enhances understanding and promotes meaningful dialogue across disciplines (Islam, 2020).

Research motivation is significant in literature studies due to the discipline’s emphasis on interpretive analysis, critical thinking, and exploring human experience through textual examination. Literature postgraduate students engage with complex theoretical frameworks, conduct hermeneutic analysis, and often grapple with subjective interpretations that require rigorous scholarly methodology and creative intellectual engagement. The intrinsic nature of literary research, which often involves deep personal connection to texts and ideas, may create unique motivational dynamics that distinguish literature students from those in more empirically-oriented disciplines.

Given the critical importance of both research motivation and ethical decision-making in postgraduate education, and the need to address the challenges posed by unethical research practices, comprehensive institutional policies, ethics education, and fundamental shifts in incentive structures that prioritize integrity over output are essential to preserve the scientific enterprise’s credibility and public trust. Therefore, the current study aims to investigate the relationship between research motivation and ethical decision-making among postgraduate students, and to explore the potential for predicting ethical decision-making based on research motivation levels.

Method

Participants

The study employed a two-phase design involving a psychometric validation and a main study sample, focusing specifically on literature postgraduate students. Data was collected across five Egyptian universities’ literature departments using a Google Forms questionnaire distributed to postgraduate students enrolled in Arabic literature, English literature, comparative literature, and literary criticism programs. The psychometric validation sample comprised 403 literature postgraduate students, while the main study sample comprised 517 literature postgraduate students. Both samples demonstrated similar demographic patterns, with female participants representing the majority (consistent with typical enrollment patterns in literature programs), participants aged 23-27 years constituting the largest age group, Higher Diploma students forming the predominant academic level, students from theoretical literature specializations (literary criticism, comparative literature, literary theory) outnumbering those from applied specializations (creative writing, translation studies), and urban residents comprising approximately two-thirds of each sample. Detailed demographic characteristics are presented in Table 1.

Table 1 Demographic Characteristics of Study Participants

Variable	Category	Psychometric Sample (n=403)	Main Study Sample (n=517)
		n (%)	n (%)
Gender	Male	96 (23.8%)	105 (20.3%)
	Female	307 (76.2%)	412 (79.7%)
Age	23–27 years	175 (43.4%)	225 (43.5%)
	28–30 years	79 (19.6%)	87 (16.8%)
	31–35 years	149 (37.0%)	205 (39.7%)

Academic Level	PhD	24 (6.0%)	37 (7.2%)
	Master's	71 (17.6%)	77 (14.9%)
	Higher Diploma	308 (76.4%)	403 (77.9%)
Field of Study	Applied/Practical	128 (31.8%)	178 (34.4%)
	Theoretical	275 (68.2%)	339 (65.6%)
Family Residence	Urban	277 (68.7%)	340 (65.8%)
	Rural	152 (37.7%)	197 (38.1%)

## Instruments

### Research Motivation Scale (RMS)

The Research Motivation Scale, originally developed by Deemer et al. (2010), assessed participants' research motivation across multiple dimensions. The scale consists of 20 items distributed across three primary dimensions: Intrinsic Reward (9 items), Failure Avoidance (6 items), and Extrinsic Reward (5 items). Participants respond to each item using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The scale does not yield a total score, as each dimension is analyzed separately to maintain the theoretical distinctiveness of different motivational orientations.

Confirmatory factor analysis conducted on the psychometric sample demonstrated acceptable model fit indices (CMIN/DF = 3.189, GFI = .878, CFI = .932, RMSEA = .074). Reliability analysis revealed excellent internal consistency for the Intrinsic Reward dimension ( $\omega = 0.948$ ,  $\alpha = 0.948$ ), good reliability for the Failure Avoidance dimension ( $\omega = 0.831$ ,  $\alpha = 0.826$ ), and good reliability for the Extrinsic Reward dimension ( $\omega = 0.833$ ,  $\alpha = 0.833$ ). Convergent validity was established through Average Variance Extracted (AVE) values ranging from 0.501 to 0.682, and discriminant validity was confirmed through appropriate Maximum Shared Variance (MSV) values.

### Academic and Ethical Integrity Scale

The Academic and Ethical Integrity Scale, developed by Rua et al. (2024), was utilized to measure factors influencing students' ethical decision-making in academic environments. The scale comprises nine items organized into three dimensions: Rules and Policies (3 items), Personal Morality (3 items), and Pressure to Perform (3 items). Each item is rated on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree), with some items requiring reverse scoring. Higher scores indicate greater levels of academic and ethical integrity. Confirmatory factor analysis demonstrated excellent model fit (CMIN/DF = 1.531, GFI = .980, CFI = .992, RMSEA = .036). The scale showed acceptable to good reliability across dimensions: Rules and Policies ( $\omega = 0.780$ ,  $\alpha = 0.776$ ), Personal Morality ( $\omega = 0.863$ ,  $\alpha = 0.862$ ), and Pressure to Perform ( $\omega = 0.770$ ,  $\alpha = 0.737$ ). The total scale reliability was adequate ( $\omega = 0.729$ ,  $\alpha = 0.774$ ). Convergent validity was supported by AVE values ranging from 0.540 to 0.692, and discriminant validity was established through appropriate correlation patterns among the factors.

## Procedure

Data was collected electronically through Google Forms distributed to postgraduate students across five Egyptian universities. The survey was administered in Arabic to ensure cultural appropriateness and comprehension among participants. Participants were given clear instructions regarding the study's purpose, voluntary participation, and confidentiality measures. The data collection process followed a systematic approach, beginning with the psychometric validation phase to establish the reliability and validity of the instruments within the Egyptian cultural context. The main data collection phase was implemented after successful validation to gather the primary dataset for hypothesis testing. Participants completed both instruments in a single session, with the order of presentation counterbalanced to minimize order effects.

## Data Analysis

Statistical analyses were conducted using SPSS and AMOS software packages. The analytical approach included descriptive statistics to characterize the sample, confirmatory factor analysis to validate the measurement models, correlation analyses to examine relationships between variables, and multiple regression analysis to test predictive

relationships. Specifically, Pearson correlation coefficients were calculated to explore the relationships between research motivation dimensions and ethical decision-making factors. Multiple regression analysis was employed to investigate the predictive capacity of research motivation dimensions on overall ethical decision-making scores. Model assumptions were tested, including normality, linearity, homoscedasticity, and multicollinearity, to ensure the appropriateness of the analytical techniques.

## Results

Pearson correlation coefficients were calculated among all study variables to address the research hypothesis examining the relationships between research motivation and ethical decision-making. The correlation matrix revealed significant associations between various dimensions of research motivation and ethical integrity, as presented in Table 2. These correlational analyses provided the foundation for understanding the bivariate relationships between motivational orientations and ethical decision-making components.

Table 2 Intercorrelations Among Research Motivation and Ethical Decision-Making

Variable	1	2	3	4	5	6	7
1. Intrinsic Reward	0						
2. Failure Avoidance	-.303**	0					
3. Extrinsic Reward	.374**	-.039	0				
4. Rules and Policies	.435**	-.132**	.262**	0			
5. Personal Morality	.476**	-.215**	.307**	.541**	0		
6. Pressure to Perform	.136**	-.160**	.008	.142**	.229**	0	
7. Total Ethical Decision-Making	.441**	-.232**	.231**	.691**	.748**	.733**	0

Note.  $N = 517$ . \*\* $p < .01$ .

The correlation analysis revealed several significant relationships between research motivation dimensions and ethical decision-making variables. Intrinsic reward motivation demonstrated moderate positive correlations with rules and policies adherence ( $r = .435$ ,  $p < .01$ ), personal morality ( $r = .476$ ,  $p < .01$ ), and total ethical integrity ( $r = .441$ ,  $p < .01$ ). These findings suggest that students who are intrinsically motivated toward research also tend to exhibit higher levels of ethical integrity across multiple dimensions. Conversely, failure avoidance motivation showed negative correlations with all ethical integrity dimensions, indicating that students motivated primarily by avoiding failure tend to demonstrate lower ethical standards. This pattern of relationships provides strong support for the theoretical framework underlying Self-Determination Theory, which posits that autonomous forms of motivation are associated with more positive behavioral outcomes.

Extrinsic reward motivation exhibited positive but weaker correlations with most ethical dimensions, with the strongest relationship observed with personal morality ( $r = .307$ ,  $p < .01$ ). The correlation between intrinsic and extrinsic reward motivations was moderate ( $r = .374$ ,  $p < .01$ ), suggesting these motivational orientations are related but distinct constructs rather than opposite ends of a single continuum. Notably, failure avoidance motivation showed negative correlations with both intrinsic motivation ( $r = -.303$ ,  $p < .01$ ) and total ethical integrity ( $r = -.232$ ,  $p < .01$ ), supporting the theoretical distinction between approach and avoidance motivational orientations. These correlation patterns align with previous research demonstrating that approach-oriented motivations foster more adaptive academic behaviors, while avoidance-oriented motivations may undermine performance and ethical conduct.

To examine the predictive capacity of research motivation dimensions on ethical decision-making, a multiple regression analysis was conducted with the three research motivation dimensions (intrinsic reward, failure avoidance, and extrinsic reward) as predictor variables and total ethical integrity as the criterion variable. The results of this analysis are presented in Table 3. This analytical approach allowed for simultaneously examining all motivational predictors while controlling for their intercorrelations and determining their unique contributions to ethical decision-making.

Table 3 Multiple Regression Analysis: Research Motivation Predicting Ethical Decision-Making

Predictor Variable	B	SE B	$\beta$	t	p
Constant	20.202	2.211	—	9.137	.000
Intrinsic Reward	.406	.048	.374	8.412	.000
Failure Avoidance	-.143	.051	-.115	-2.784	.006
Extrinsic Reward	.156	.077	.086	2.029	.043

Note.  $N = 517$ .  $B$  = unstandardized coefficient;  $SE\ B$  = standard error of  $B$ ;  $\beta$  = standardized coefficient.

The multiple regression analysis revealed that the three research motivation dimensions accounted for a significant proportion of variance in ethical decision-making,  $R = .460$ ,  $R^2 = .212$ ,  $F(3, 513) = 45.878$ ,  $p < .001$ . This indicates that research motivation dimensions explain approximately 21.2% of the variance in students' ethical integrity scores, representing a moderate effect size according to Cohen's conventions. The overall model was statistically significant, suggesting that research motivation serves as a meaningful predictor of ethical decision-making among postgraduate students in the Egyptian context.

Examination of individual predictors revealed that intrinsic reward motivation was the strongest predictor of ethical decision-making ( $\beta = .374$ ,  $t = 8.412$ ,  $p < .001$ ), followed by failure avoidance motivation, which demonstrated a significant negative relationship ( $\beta = -.115$ ,  $t = -2.784$ ,  $p = .006$ ). Extrinsic reward motivation contributed significantly but more modestly to the prediction model ( $\beta = .086$ ,  $t = 2.029$ ,  $p = .043$ ). These findings suggest that students with higher intrinsic motivation toward research demonstrate greater ethical integrity, while those primarily motivated by avoiding failure show lower ethical standards. Though smaller, the positive contribution of extrinsic motivation indicates that external rewards may also play a supportive role in ethical decision-making when combined with intrinsic motivation.

The regression model successfully demonstrates that research motivation is a significant predictor of ethical decision-making among postgraduate students, with intrinsic motivation emerging as the most influential factor. The negative contribution of failure avoidance motivation aligns with theoretical expectations and previous research suggesting that avoidance-oriented motivations may undermine ethical behavior by creating defensive rather than growth-oriented mindsets. These results empirically support the hypothesized relationship between motivational orientations and ethical decision-making in academic contexts. Furthermore, the predictive model offers practical implications for educational interventions that foster research motivation and ethical integrity among postgraduate students.

## Discussion

The study demonstrated a significant predictive relationship between research motivation and ethical decision-making, explaining 21.2% of variance in ethical integrity scores. Intrinsic reward motivation emerged as the strongest positive predictor ( $\beta = .374$ ), supporting Self-Determination Theory's propositions about autonomous motivation fostering adaptive behaviors through satisfaction of basic psychological needs (Ryan et al., 2021; Ryan & Deci, 2000; Peng & Gao, 2019; van den Broeck et al., 2021). Failure avoidance motivation showed a significant negative relationship ( $\beta = -.115$ ), consistent with approach-avoidance theories linking avoidance orientations to defensive mindsets and compromised ethical standards (Gilbert et al., 2022; Sakaki et al., 2024; Rolls, 2023; Deemer et al., 2025). Extrinsic reward motivation demonstrated a modest positive contribution ( $\beta = .086$ ), suggesting external incentives can support ethical behavior when appropriately structured (Mitchell et al., 2018; Bardach & Murayama, 2025).

The findings demonstrate substantial alignment with existing literature while extending our understanding of motivation-ethics relationships in academic contexts. The positive association between intrinsic motivation and ethical decision-making ( $r = .441$ ) is consistent with research by Kotera et al. (2018), who found that business students with higher intrinsic motivation demonstrated stricter ethical judgment, and supports meta-analytic evidence showing intrinsic motivation as a robust predictor of ethical behavior and well-being (van den Broeck et al., 2021). These results also align with research by Curren et al. (2020) on moral self-determination, which demonstrates how intrinsic motivation facilitates internalizing ethical principles through need-supportive educational environments. The findings confirm theoretical propositions by Arvanitis and Kalliris (2020) that moral integrity requires cognitive, emotional, and motivational consistency, which is more readily achieved

when individuals are intrinsically motivated toward their academic pursuits. The negative relationship between failure avoidance motivation and ethical decision-making extends previous research on approach-avoidance motivations in academic settings. These findings are consistent with research by Michaelsen & Esch (2023), who found that avoidance motivation is linked to stress and anxiety, which can undermine positive behavioral outcomes.

The current results support research by Deemer et al. (2025), who demonstrated that failure avoidance negatively predicts research career intentions, suggesting that avoidance-oriented motivations may have broad negative implications for academic engagement and ethical conduct. Furthermore, the findings align with neuroscientific research by Rolls (2023) showing that avoidance motivation is associated with defensive processing patterns that may compromise ethical decision-making capacity. The modest positive relationship between extrinsic reward motivation and ethical decision-making presents a more nuanced picture that supports and extends existing literature. While Self-Determination Theory traditionally suggests that extrinsic motivation may undermine intrinsic motivation and ethical behavior when perceived as controlling (Morris et al., 2022), the current findings align with research by Onu et al. (2019) demonstrating that the dynamics of extrinsic motivation in ethical decision-making depend heavily on context and implementation. The positive contribution observed in this study is consistent with research by Tu and Lu (2016) and Lin et al. (2022), showing that extrinsic rewards can support positive outcomes when perceived as informational rather than controlling and when they align with personal values and organizational norms.

While the overall pattern of results aligned with theoretical predictions, the positive relationship between extrinsic reward motivation and ethical decision-making ( $\beta = .086$ ,  $p = .043$ ) contrasts with traditional Self-Determination Theory, which suggests that extrinsic motivation may undermine ethical behavior. This discrepancy may be attributed to the postgraduate context in Egyptian universities, where external rewards are perceived as supportive rather than controlling. Venkatesamy et al. (2022) argue that intrinsic and extrinsic rewards can work synergistically when aligned with personal values and institutional goals, and the positive correlation between intrinsic and extrinsic motivations ( $r = .374$ ) supports this view. Cultural factors also play a role; Bandhu et al. (2024) highlight how collectivistic cultures may perceive external rewards as reinforcing social values. Despite its modest effect size, extrinsic motivation remains less influential than intrinsic motivation ( $\beta = .374$ ), consistent with Self-Determination Theory (Fischer et al., 2019; Aldabbas et al., 2023).

The study highlights the positive correlation between intrinsic motivation and ethical decision-making in academic settings, extending the understanding of autonomous motivation and moral behavior. It suggests that educational interventions should focus on cultivating intrinsic motivation through environments that foster autonomy, competence, and relatedness. The study also highlights the interaction between different motivational orientations and moral behavior, suggesting integrated approaches that consider both approach and avoidance motivational systems. The results suggest strategies for enhancing ethical conduct in postgraduate education, such as creating environments that foster intrinsic motivation through autonomous learning, meaningful research experiences, and supportive mentorship relationships. Assessment and evaluation systems should promote learning and growth, while external rewards and recognition can support ethical behavior when designed to complement intrinsic motivation. The findings have significant implications for research ethics education and training programs, emphasizing the need to address the underlying motivational factors driving ethical decision-making.

The study on research motivation and ethical decision-making has several limitations. The study's cross-sectional design hinders the ability to establish causal relationships between motivation and ethical decision-making, as the data represent associations simultaneously. Longitudinal research is needed to determine whether changes in motivation lead to corresponding changes in ethical behavior or if the relationship is bidirectional. The study relies on self-report measures, which may be subject to social desirability bias, especially when measuring sensitive constructs like ethical decision-making. The sample was drawn exclusively from Egyptian universities, limiting the findings' generalizability to other cultural and educational contexts. The study focused on postgraduate students, which may not generalize to undergraduates, faculty, or researchers in other career stages. The Academic and Ethical Integrity Scale may not capture the full complexity of ethical decision-making in research contexts.

Future research should explore the motivation-ethics relationship in academic contexts, focusing on

longitudinal studies to establish causal relationships and examine changes in motivational orientations over time. Cross-cultural research is crucial to determine the generalizability of these findings across different educational systems, cultural contexts, and national settings. Experimental and quasi-experimental designs should be used to manipulate motivational conditions and measure their effects on ethical decision-making. Research should also examine moderating factors, such as individual differences in personality, moral identity, and cognitive styles, as well as contextual factors like organizational climate, leadership styles, and institutional policies. Specific motivational interventions, such as goal-setting programs, mentorship models, and autonomy-supportive teaching practices, could provide valuable insights for developing evidence-based approaches to promoting ethical conduct in academic settings. Long-term career outcomes and professional behavior of individuals with different motivational profiles could help establish the practical significance of these relationships for the scientific enterprise and society.

## **Conclusion**

This study provides compelling evidence for the significant role of research motivation in predicting ethical decision-making among postgraduate students, demonstrating that different motivational orientations have distinct and meaningful relationships with academic integrity. The findings strongly support Self-Determination Theory's emphasis on the importance of intrinsic motivation for fostering positive behavioral outcomes, highlighting the detrimental effects of failure avoidance motivation on ethical conduct. The results suggest that creating educational environments that cultivate intrinsic motivation while minimizing failure-oriented anxiety may be crucial for promoting ethical behavior in academic settings. The modest positive contribution of extrinsic reward motivation indicates that external incentives can complement intrinsic motivation when appropriately designed and implemented. These findings have important implications for educational practice, institutional policy, and research ethics training, suggesting that effective approaches to promoting academic integrity must address the underlying motivational factors that drive ethical decision-making rather than relying solely on rules-based compliance systems.

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#### **Authorship and Level of Contribution**

All authors contributed to the literature research, data collection, analysis, and interpretation of the collected data.

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