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# Modeling Academic Motivation Based on Academic Buoyancy and Academic Conscientiousness Mediated by Teacher–Student Relationship Quality in Secondary School Students of Zahedan

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A B S T R A C T

**Purpose:** The objective of this study was to model academic motivation in secondary school students based on academic buoyancy and academic conscientiousness, considering the mediating role of teacher–student relationship quality.

**Methods and Materials:** This descriptive correlational study was conducted among 400 secondary school students in Zahedan, selected through stratified random sampling based on Morgan and Krejcie's sample size table. Four standardized questionnaires were used to measure academic motivation, academic buoyancy, academic conscientiousness, and teacher–student relationship quality. Descriptive statistics and Pearson correlation coefficients were calculated using SPSS-27, and Structural Equation Modeling (SEM) was conducted using AMOS-21 to test the hypothesized model.

**Findings:** The results indicated that both academic buoyancy ($\beta = 0.29$, $p < .001$) and academic conscientiousness ($\beta = 0.25$, $p < .001$) had significant direct effects on academic motivation. Teacher–student relationship quality also significantly predicted academic motivation ($\beta = 0.31$, $p < .001$). Moreover, academic buoyancy ($\beta = 0.08$, $p < .001$) and academic conscientiousness ($\beta = 0.07$, $p < .001$) had significant indirect effects on academic motivation through the mediating role of teacher–student relationship quality. The total effects of academic buoyancy and conscientiousness on motivation were $\beta = 0.37$ and $\beta = 0.32$, respectively. The model demonstrated good fit with $\chi^2/df = 2.31$, CFI = 0.96, TLI = 0.95, and RMSEA = 0.056.

**Conclusion:** The findings highlight the crucial role of both individual traits (buoyancy and conscientiousness) and relational factors (teacher–student relationships) in shaping students' academic motivation. Enhancing both psychological and interpersonal dimensions may foster sustained academic engagement and success.

***Keywords:*** *Academic Motivation; Academic Buoyancy; Academic Conscientiousness; Teacher–Student Relationship*

## 1. Introduction

In the rapidly evolving landscape of education, student motivation remains one of the most significant psychological constructs influencing academic engagement, performance, and long-term educational outcomes. Academic motivation, defined as the internal drive or external incentive that propels students to learn and succeed academically, has been the subject of extensive empirical investigation due to its multidimensional effects on learning behavior, achievement, and resilience in academic contexts (Datu & Yang, 2021). Motivation is not only shaped by internal attributes such as conscientiousness or self-beliefs but is also significantly affected by contextual and interpersonal dynamics, particularly the quality of interaction between teachers and students (Akram & Li, 2024; Fu & Wu, 2007).

Academic buoyancy, a concept that has gained traction in recent years, refers to students' capacity to successfully overcome routine academic challenges and setbacks such as poor grades, pressure from exams, and fluctuating workload demands (Bostwick et al., 2022). While resilience refers to recovery from more extreme adversity, buoyancy specifically addresses the ability to manage everyday academic stressors (Rafsanjani et al., 2024). The significance of buoyancy lies in its predictive power for key academic outcomes, including motivation and engagement. For example, a study by Xu and Wang (2022) confirmed that buoyancy significantly correlates with both intrinsic and extrinsic academic motivation in EFL learners (Xu & Wang, 2022). Moreover, Kritikou and Giovazolias (2022) in their systematic review highlighted that emotion regulation plays a mediating role between buoyancy and motivational adaptation, aligning well with self-determination theory's emphasis on autonomous motivation (Kritikou & Giovazolias, 2022). Given the critical function buoyancy serves in adapting to school stress, examining its direct and indirect effects on academic motivation becomes essential.

The second predictor in this study, academic conscientiousness, represents a student's disposition to be organized, diligent, and responsible in academic settings. As a subtrait of the broader Big Five personality domain, conscientiousness has long been associated with academic success. Imhof and Spaeth-Hilbert (2013) assert that conscientiousness, in tandem with cognitive ability and motivation, significantly predicts academic achievement (Imhof & Spaeth-Hilbert, 2013). Beyond performance, conscientious students also tend to have higher levels of intrinsic motivation, as they are more goal-oriented and persistent in their educational pursuits (Weißenfels et al., 2023). In addition, conscientiousness has been linked with metacognitive regulation and task management, both of which enhance motivational persistence (Emami Khotbesara et al., 2024). These findings provide a compelling rationale to include academic conscientiousness as a critical predictor in a comprehensive model of academic motivation.

While student-related psychological traits are important, motivation cannot be fully understood without examining relational dynamics within the school environment. One of the most crucial of these is the teacher–student relationship, which can act as a powerful mediating variable in the motivational process. According to Granziera et al. (2022), both emotional and instrumental support from teachers foster greater academic buoyancy and engagement, which subsequently lead to heightened academic skills and motivation (Granziera et al., 2022). Similarly, Akram and Li (2024) showed that the teacher–student relationship significantly mediated the link between engagement and academic motivation in online learning environments, emphasizing its role even in digital settings (Akram & Li, 2024). Furthermore, longitudinal research conducted by Bostwick et al. (2022) employed cross-lagged multilevel modeling and demonstrated reciprocal effects between perceived school support—including teacher relationships—and motivational variables like academic engagement and buoyancy (Bostwick et al., 2022).

Evidence from the Iranian context also underscores the importance of relational variables. Eskandari Dehdazi et al. (2018), in a study among female secondary students in Tehran, found that teacher–student relationships were a strong predictor of both achievement motivation and self-regulated learning (Eskandari Dehdazi et al., 2018). Another Iranian study by Salimi and Khodaparast (2015) revealed that positive teacher interactions significantly enhanced both academic motivation and research self-efficacy in graduate students, supporting the generalizability of the relational motivation hypothesis across educational levels (Salimi & Khodaparast, 2015). Similarly, Zolfaghari et al. (2020) reported that supportive teaching styles and high-quality student–teacher interaction were significantly associated with higher academic achievement motivation, particularly among at-risk student populations (Zolfaghari et al., 2020).

In addition to the independent and mediating variables discussed above, it is also important to consider their potential interplay. Recent work by Almurumudhe et al. (2024) suggests that psychological traits like self-esteem and



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psychological capital can mediate the effect of academic engagement and procrastination on performance outcomes, pointing to the need for multivariate models in motivation research (Almurumudhe et al., 2024). In this context, it is plausible to hypothesize that teacher–student relationships may mediate the effect of academic buoyancy and conscientiousness on academic motivation by enhancing emotional security, goal clarity, and self-regulatory behaviors. Indeed, Emami Khotbesara et al. (2024) found that interventions aimed at increasing buoyancy reduced academic procrastination, suggesting a motivational pathway that may be reinforced through quality interpersonal support (Emami Khotbesara et al., 2024).

Another important consideration is how these variables interact in different socio-cultural and educational contexts. For instance, Rafsanjani et al. (2024) demonstrated that academic buoyancy and motivation collectively predicted learning achievement among Indonesian and Iranian students, pointing to their cross-cultural robustness (Rafsanjani et al., 2024). However, variations in teacher support structures and school systems necessitate localized investigations. In this regard, the present study contributes to the literature by focusing on secondary school students in Zahedan—a culturally diverse and educationally underserved region—where motivational processes may be shaped by unique contextual challenges such as limited resources, high teacher turnover, and social adversity.

Despite the growing consensus on the importance of academic buoyancy, conscientiousness, and teacher–student relationships, there is still limited research that combines these variables in an integrated, predictive model of academic motivation—especially within the context of Iranian education. Most existing studies either focus on pairwise relationships or treat these constructs independently. What remains underexplored is how student traits and relational quality converge to explain variations in academic motivation. As Xu and Wang (2022) emphasized, both interest and motivation matter for buoyancy, suggesting a need to examine motivation not as an isolated outcome but as an emergent property shaped by multiple influences (Xu & Wang, 2022). A model-based approach, such as Structural Equation Modeling (SEM), allows for simultaneous examination of direct and indirect pathways and offers insights into the mediating mechanisms that traditional regression models may overlook.

In light of the evidence presented, the present study aims to model academic motivation based on two key predictors—academic buoyancy and academic conscientiousness—with the mediating role of teacher–student relationship quality.

## 2. Methods and Materials

### *2.1. Study Design and Participants*

This study employed a descriptive correlational design to examine the predictive relationship between academic buoyancy, academic conscientiousness, and academic motivation, with teacher–student relationship quality as a mediating variable. The target population included secondary school students in the city of Zahedan during the 2024–2025 academic year. Based on the sample size determination table proposed by Morgan and Krejcie, a sample of 400 students was selected through stratified random sampling to ensure representation across gender and school type. The inclusion criteria required students to be enrolled in secondary education and to consent (or have parental consent) to participate. The age range of the participants was between 13 and 18 years.

### *2.2. Measures*

To measure the dependent variable, academic motivation, the Academic Motivation Scale (AMS) developed by Vallerand et al. (1992) was utilized. This instrument includes 28 items and assesses three major dimensions of academic motivation: intrinsic motivation, extrinsic motivation, and amotivation. Each item is rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher scores indicating greater academic motivation. The scale has been widely used and validated in various cultural contexts, including Iran. For instance, Nasri et al. (2014) confirmed the scale's construct validity and reported a Cronbach's alpha of 0.84 for internal consistency among Iranian secondary school students.

The independent variable academic buoyancy was assessed using the Academic Buoyancy Scale developed by Martin and Marsh (2008). This scale consists of 9 items that evaluate students' capacity to effectively handle routine academic challenges such as test anxiety, poor performance, and workload pressure. Responses are rated on a 5-point Likert scale from 1 (not at all true) to 5 (very true). Higher scores reflect greater academic buoyancy. The scale has been translated, culturally adapted, and psychometrically validated in Iran. For example, Ghanbari et al. (2018) reported an acceptable construct validity and an internal


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consistency coefficient (Cronbach's alpha) of 0.81 for Iranian adolescents.

To measure academic conscientiousness, the study employed a modified subscale of conscientiousness adapted from the NEO Personality Inventory-Revised (NEO-PI-R), originally developed by McCrae and Costa (1992). This subscale includes 10 items tailored to assess aspects of conscientious behavior in academic contexts, such as organization, diligence, and responsibility. Items are rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Persian adaptation of this subscale has been validated in Iranian studies. For instance, Mohammadzadeh et al. (2016) reported a Cronbach's alpha of 0.86, confirming high internal consistency and adequate construct validity in samples of high school students.

The mediating variable, teacher–student relationship quality, was measured using the Student–Teacher Relationship Scale (STRS), developed by Pianta (2001). This scale comprises 28 items across three subscales: Closeness, Conflict, and Dependency. Items are rated on a 5-point Likert scale from 1 (never) to 5 (always), with higher scores on each subscale reflecting stronger presence of that relational quality. The STRS has been extensively used in both Western and non-Western contexts. In Iran, the scale has been psychometrically evaluated and validated. For example, Moradi et al. (2019) reported Cronbach's alpha coefficients ranging from 0.78 to 0.88 across the subscales, indicating strong reliability and construct validity among Iranian secondary school populations.

### *2.3. Data Analysis*

Data analysis was conducted using SPSS version 27 and AMOS version 21. Descriptive statistics (mean, standard deviation, frequency, and percentage) were used to summarize participant characteristics. To assess bivariate relationships between the dependent variable (academic motivation) and independent variables (academic buoyancy and academic conscientiousness), Pearson correlation coefficients were calculated. To evaluate the proposed theoretical model and mediating role of teacher–student relationship quality, Structural Equation Modeling (SEM) was employed. Model fit indices such as Chi-square/df, CFI, TLI, RMSEA, and SRMR were used to assess model adequacy.

## 3. Findings and Results

Out of the total 400 participants, 210 students (52.5%) were female and 190 students (47.5%) were male. Regarding educational grade levels, 138 students (34.5%) were in the 10th grade, 132 students (33.0%) in the 11th grade, and 130 students (32.5%) in the 12th grade. The age distribution ranged from 13 to 18 years, with a mean age of 15.74 years (SD = 1.42). In terms of school type, 259 students (64.8%) attended public schools, and 141 students (35.2%) were enrolled in private institutions. These characteristics reflect a diverse and representative sample of the secondary student population in Zahedan.

**Table 1**

*Descriptive Statistics for Study Variables (N = 400)*

| Variable | Mean (M) | Standard Deviation (SD) |
|---|---|---|
| Academic Motivation | 3.84 | 0.56 |
| Academic Buoyancy | 3.67 | 0.61 |
| Academic Conscientiousness | 3.91 | 0.52 |
| Teacher–Student Relationship | 3.73 | 0.58 |

The descriptive statistics indicate that students reported relatively high levels of academic conscientiousness (M = 3.91, SD = 0.52) and academic motivation (M = 3.84, SD = 0.56). Academic buoyancy showed a moderately high mean (M = 3.67, SD = 0.61), while teacher–student relationship quality also received a favorable average score (M = 3.73, SD = 0.58). These results suggest generally positive student perceptions across all measured variables.

Prior to conducting parametric analyses, key statistical assumptions were examined. The assumption of normality was assessed using skewness and kurtosis indices; all variables demonstrated acceptable values, with skewness ranging from -0.82 to 0.65 and kurtosis from -0.71 to 0.84, indicating approximate normal distribution. Linearity was confirmed through visual inspection of scatterplots showing linear patterns among the predictor and criterion variables. Multicollinearity was examined using the Variance Inflation Factor (VIF), with all VIF values ranging from 1.18 to 1.63, remaining well below the critical threshold of 10. Additionally, the assumption of homoscedasticity was



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satisfied, as residual plots demonstrated random and evenly distributed residuals. These findings confirmed the suitability of the data for correlation and structural equation modeling analyses.

**Table 2**

*Pearson Correlation Coefficients and Significance Levels Among Variables*

| Variables | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| 1. Academic Motivation | — | | | |
| 2. Academic Buoyancy | .51** | — | | |
| 3. Academic Conscientiousness | .48** | .45** | — | |
| 4. Teacher–Student Relationship | .54** | .49** | .43** | — |

** $p < .01$

The Pearson correlation coefficients show significant positive relationships among all variables. Academic motivation was significantly correlated with academic buoyancy ($r = .51$, $p < .01$), academic conscientiousness ($r = .48$, $p < .01$), and teacher–student relationship ($r = .54$, $p < .01$). Additionally, academic buoyancy and conscientiousness were positively associated ($r = .45$, $p < .01$), as were buoyancy and teacher–student relationship ($r = .49$, $p < .01$). These results support the hypothesized associations among the variables.

**Table 3**

*Fit Indices for the Structural Equation Model*

| Fit Index | Value | Recommended Criteria |
|---|---|---|
| Chi-Square ($\chi^2$) | 194.37 | — |
| Degrees of Freedom | 84 | — |
| $\chi^2$/df | 2.31 | < 3.00 |
| GFI | 0.94 | ≥ 0.90 |
| AGFI | 0.91 | ≥ 0.90 |
| CFI | 0.96 | ≥ 0.95 |
| TLI | 0.95 | ≥ 0.95 |
| RMSEA | 0.056 | ≤ 0.08 |

The fit indices indicated a good model fit. The chi-square to degrees of freedom ratio ($\chi^2$/df = 2.31) was below the recommended threshold of 3.0. Goodness-of-fit indices such as GFI (0.94), AGFI (0.91), CFI (0.96), and TLI (0.95) met or exceeded their respective criteria, while the RMSEA value (0.056) fell within the acceptable range. These results suggest that the proposed structural model adequately represents the data.

**Table 4**

*Standardized and Unstandardized Path Coefficients in the Structural Model (N = 400)*

| Path | Effect Type | B | S.E. | β | p |
|---|---|---|---|---|---|
| Academic Buoyancy → Academic Motivation | Direct | 0.26 | 0.05 | 0.29 | < .001 |
| Academic Conscientiousness → Academic Motivation | Direct | 0.22 | 0.04 | 0.25 | < .001 |
| Teacher–Student Relationship → Academic Motivation | Direct | 0.28 | 0.05 | 0.31 | < .001 |
| Academic Buoyancy → Teacher–Student Relationship | Direct | 0.24 | 0.04 | 0.27 | < .001 |
| Academic Conscientiousness → Teacher–Student Relationship | Direct | 0.21 | 0.05 | 0.23 | < .001 |
| Academic Buoyancy → Teacher–Student Relationship → Academic Motivation | Indirect | 0.07 | 0.02 | 0.08 | < .001 |
| Academic Conscientiousness → Teacher–Student Relationship → Academic Motivation | Indirect | 0.06 | 0.02 | 0.07 | < .001 |
| Academic Buoyancy → Academic Motivation (Total Effect) | Total | 0.33 | — | 0.37 | — |
| Academic Conscientiousness → Academic Motivation (Total Effect) | Total | 0.28 | — | 0.32 | — |

The structural model showed significant direct effects of academic buoyancy ($\beta = .29$, $p < .001$), academic conscientiousness ($\beta = .25$, $p < .001$), and teacher–student relationship quality ($\beta = .31$, $p < .001$) on academic



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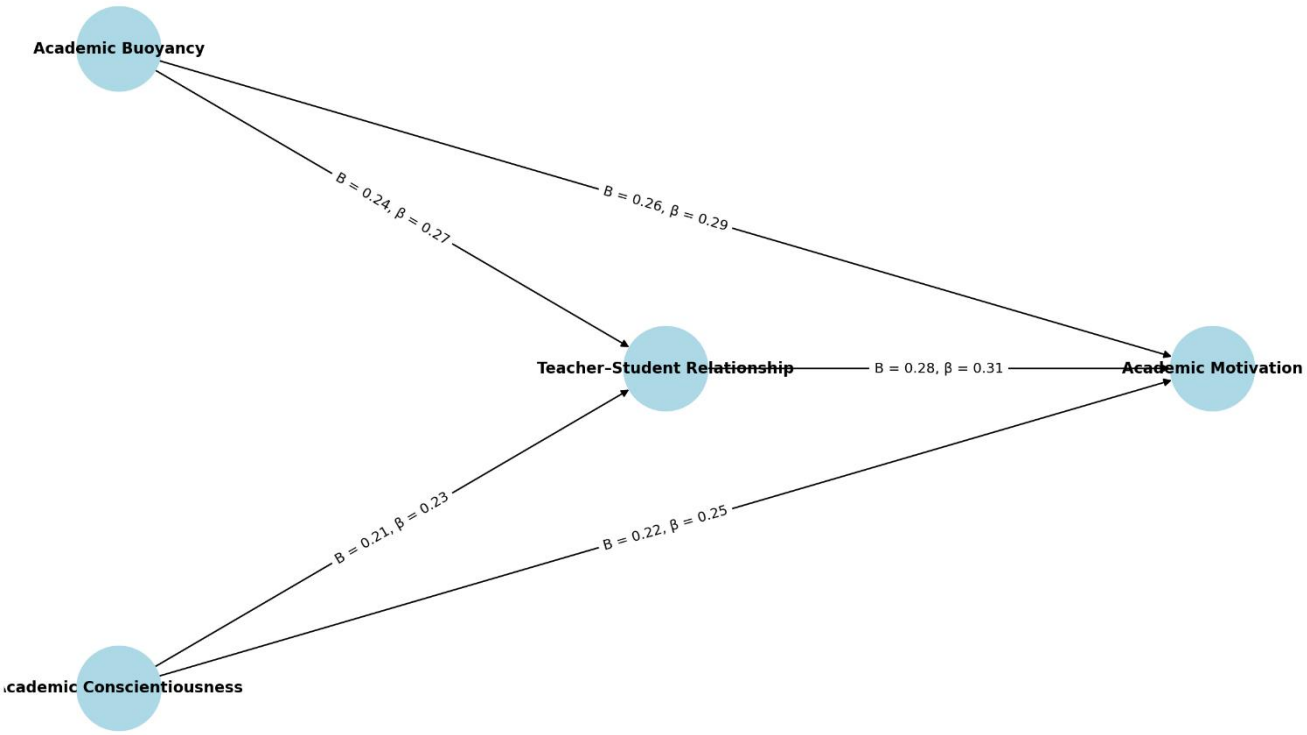
motivation. Additionally, both academic buoyancy and conscientiousness had significant indirect effects on motivation via teacher–student relationship (β = .08 and β = .07, respectively). The total effects underscore the importance of both individual and relational variables in fostering academic motivation.

**Figure 1**

*Final Model with Path Coefficients*




## 4. Discussion and Conclusion

The purpose of this study was to investigate the predictive roles of academic buoyancy and academic conscientiousness on academic motivation, with teacher–student relationship quality as a mediating variable among secondary school students in Zahedan. Structural Equation Modeling (SEM) confirmed that both academic buoyancy and conscientiousness directly predicted academic motivation, and that teacher–student relationship quality played a significant mediating role in these associations. All path coefficients in the model were statistically significant, and model fit indices suggested an acceptable to good model fit. These findings provide empirical support for the hypothesized model and offer insights into how psychological traits and relational variables collectively shape student motivation in educational contexts.

The direct effect of academic buoyancy on academic motivation (β = 0.29) was both statistically significant and practically meaningful. This result aligns with previous research indicating that students who can effectively cope with routine academic challenges—such as performance pressure, deadlines, and temporary setbacks—tend to maintain higher levels of motivation over time (Bostwick et al., 2022). In particular, Xu and Wang (2022) highlighted that academic motivation and interest significantly influence buoyancy, and in turn, buoyancy fosters continued motivation among students navigating complex learning environments (Xu & Wang, 2022). Similarly, Datu and Yang (2021) emphasized that buoyancy is not only associated with motivation but also with better academic achievement and self-regulation (Datu & Yang, 2021). These findings collectively support the current study's conclusion that academic buoyancy serves as a critical psychological resource enabling students to sustain their motivation in the face of everyday academic stressors.

The role of academic conscientiousness as a direct predictor of academic motivation (β = 0.25) was also substantiated in the present study. Students who reported being organized, responsible, and persistent were more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likely to demonstrate stronger motivational tendencies. This finding is consistent with the literature emphasizing the predictive power of conscientiousness on academic performance and motivation (Imhof & Spaeth-Hilbert, 2013). Weißenfels et al. (2023) demonstrated that conscientiousness contributes to motivation by reinforcing academic self-efficacy, a key driver of motivated behavior (Weißenfels et al., 2023). Moreover, Emami Khotbesara et al. (2024) found that training interventions focused on enhancing academic psychological capacities—including traits like conscientiousness—could significantly reduce procrastination and improve engagement (Emami Khotbesara et al., 2024). Taken together, these studies affirm that conscientiousness contributes not only to achievement but also to the inner motivational architecture that sustains academic effort and persistence.

The most notable contribution of this study lies in its examination of the mediating role of teacher–student relationship quality. The findings demonstrated that this variable significantly mediated the relationships between both academic buoyancy and academic motivation, and academic conscientiousness and academic motivation. Specifically, students who perceived their relationships with teachers as warm, supportive, and respectful were more likely to translate their personal traits into motivated academic behavior. This observation aligns closely with previous research emphasizing the relational foundation of motivation. Granziera et al. (2022) reported that teacher support—both emotional and instrumental—fosters not only buoyancy and engagement but also motivation and academic skills development in students across multiple educational contexts (Granziera et al., 2022). Akram and Li (2024) similarly highlighted that high-quality teacher–student interactions significantly mediate the relationship between online engagement and motivation, even in virtual settings (Akram & Li, 2024). These findings confirm that the affective bond between teachers and students serves as a motivational catalyst, facilitating the internalization of academic goals.

Additional support for the mediating effect of teacher–student relationships comes from the Iranian context. Eskandari Dehdazi et al. (2018) found that strong teacher–student relationships were a significant predictor of both achievement motivation and self-regulated learning among Iranian high school girls (Eskandari Dehdazi et al., 2018). Similarly, Salimi and Khodaparast (2015) demonstrated that supportive teacher interactions significantly enhanced motivation and self-efficacy among graduate students (Salimi & Khodaparast, 2015). Furthermore, Zolfaghari et al. (2020) reported that teaching styles and student–teacher interaction quality significantly influenced achievement motivation among students at risk of dropping out, suggesting that teacher behavior is instrumental in shaping motivational outcomes in vulnerable student populations (Zolfaghari et al., 2020). Thus, the current study's findings are not only consistent with international evidence but are also deeply embedded in the sociocultural dynamics of Iranian educational environments.

The indirect effects observed in the structural model further illuminate the interaction between personal traits and relational factors. Academic buoyancy and conscientiousness were both found to influence motivation indirectly through teacher–student relationships, with indirect standardized path coefficients of 0.08 and 0.07, respectively. These findings align with the view that motivation is an emergent phenomenon that is co-constructed by individual characteristics and environmental feedback (Fu & Wu, 2007). Almurumudhe et al. (2024) similarly reported that psychological constructs such as self-esteem mediated the relationship between psychological capital and academic engagement, reinforcing the need for multivariate models to capture the complexity of motivational systems (Almurumudhe et al., 2024). Emami Khotbesara et al. (2024) also demonstrated that interventions that foster buoyancy may indirectly influence motivation by reducing procrastination and strengthening relational bonds with educators (Emami Khotbesara et al., 2024). This body of evidence affirms that motivation cannot be fully understood by examining intrapersonal traits in isolation; instead, it emerges through dynamic interactions between individuals and their learning contexts.

The total effects of academic buoyancy ($\beta = 0.37$) and academic conscientiousness ($\beta = 0.32$) on academic motivation emphasize their combined influence, both directly and through mediation. These cumulative effects suggest that both personal and relational resources need to be simultaneously cultivated to enhance motivation effectively. Rafsanjani et al. (2024), in their cross-national study, found that the interaction between academic buoyancy and motivation was predictive of learning achievement, further confirming the synergistic effects of motivational constructs (Rafsanjani et al., 2024). The present study contributes to this literature by proposing and validating a comprehensive model that integrates personality traits and interpersonal relationships to explain academic


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motivation among secondary students in a culturally diverse Iranian context.

The theoretical implications of these findings lie in their support for motivational models that integrate elements from both trait and contextual theories. Specifically, the study affirms the principles of self-determination theory, which posits that social environments that provide support, autonomy, and structure foster greater internal motivation (Kritikou & Giovazolias, 2022). Furthermore, the current model supports transactional perspectives of motivation, where internal dispositions such as conscientiousness interact with external inputs like teacher support to influence behavior over time. From a methodological perspective, the use of SEM allowed for a nuanced understanding of these interrelationships and provided empirical backing for the mediational hypotheses that have often been assumed but not tested in Iranian educational research.

Despite its contributions, this study is not without limitations. First, the use of self-report instruments raises the possibility of social desirability and self-perception biases, which may have influenced how students reported their motivation and perceptions of teacher relationships. Second, the cross-sectional design limits causal inference, and the temporal directionality of the relationships remains theoretically but not empirically confirmed. Third, the study sample was geographically restricted to Zahedan, which may limit the generalizability of the findings to other cities or rural areas within Iran. Finally, unexamined variables such as socioeconomic status, teacher characteristics, or peer influence may have moderated or confounded some of the observed relationships.

Future research should consider longitudinal designs to establish causal pathways and examine how these relationships evolve over time, particularly across different educational transitions (e.g., from middle to high school). Incorporating qualitative methods, such as student or teacher interviews, could also offer deeper insights into the relational dynamics that influence motivation. Further, replicating the model across diverse regions in Iran and including moderating variables like gender, school type, and academic track would strengthen the ecological validity of the model. Studies that integrate objective measures of academic achievement could also add empirical depth to the findings.

To translate these findings into educational practice, schools should implement teacher training programs that emphasize relational competencies—such as empathy, communication, and emotional support—as foundational elements of effective pedagogy. Counseling and intervention programs that strengthen students' buoyancy and conscientiousness through goal-setting, emotional regulation, and organizational skills could enhance motivational readiness. Additionally, school administrators should design policies and classroom structures that promote sustained, meaningful interaction between students and teachers, creating an environment where motivation can flourish through both internal and relational pathways.

## Authors' Contributions

All authors significantly contributed to this study.

## Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

## Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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## Declaration of Interest

The authors report no conflict of interest.

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## Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the interview and participated in the research with informed consent.

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