



Rethinking Achievement Motivation in Indonesian Students: The Influence of Teacher and Peer Relationships Amid a Shifting Collectivist Culture

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Abstract

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Despite extensive research on achievement motivation, few studies have integrated the role of students' social relationships—particularly with teachers and peers—within the broader cultural context, especially in collectivist societies. This study addresses that gap by examining whether teacher-student and peer relationships predict achievement motivation and whether collectivist cultural values moderate these associations among Indonesian junior high school students. A total of 317 participants completed standardized questionnaires measuring relationship quality, collectivist orientation, and achievement motivation. Data were analyzed using multiple regression and moderation analysis based on the F. Hayes method. The findings confirmed that both teacher-student and peer relationships significantly predict achievement motivation. However, a novel and unexpected result emerged: collectivist culture did not significantly moderate these relationships. This challenges prevailing theoretical assumptions that collectivist values amplify social influences on motivation and suggests a cultural shift among Generation Z Indonesian students toward more individualistic orientations. These results contribute new insights to motivation research by questioning the continued salience of collectivist values in shaping achievement motivation within modern, digital-age cohorts. The study offers theoretical implications for cross-cultural psychology and practical recommendations for fostering student motivation in evolving cultural contexts.

INTRODUCTION

Motivation plays a vital role in achieving excellent academic outcomes; individuals with high motivation possess the energy to pursue their goals and maintain that drive to attain optimal results (Goleman, 2017; Awan et al., 2011; Singh, 2011). According to Pintrich and Schunk (2002), motivation is essential in learning, whereas lack of motivation is a big challenge. Furthermore, insufficient motivation contributes to the decline in educational standards (Awan et al., 2011). A contemporary challenge in

the educational process is how to foster and enhance students' motivation to cultivate enthusiasm for learning and improve academic performance.

Although research on student achievement motivation has been conducted, it remains incomplete and lacking in scope. Previous studies have predominantly focused on internal variables as predictors (e.g., Zhang et al., 2015; Bhatt, 2018; Moyano et al., 2020; Arafah et al., 2020), thereby presenting achievement motivation solely as an internal need or drive without adequately considering the social variables that also influence it—such as McClelland's theory (Acquah et al., 2021). Moreover, studies grounded in Western individualistic cultural perspectives are limited, and little is known about how achievement motivation manifests or is influenced within Eastern collectivist cultures (Wu et al., 2021). This study was conducted in Indonesia, which, according to Hofstede's cultural dimensions, is a collectivist society where individuals prioritize group goals over personal interests (Pasteruk, 2020).

Additionally, numerous studies have demonstrated that cultural orientations such as individualism and collectivism exert different influences on achievement motivation (Heine et al., 2001; Greenfield et al., 2000; Salili, 2009; Kim & Choi, 2005; Cho et al., 2013). Recent research has further indicated that achievement motivation consists of two distinct systems—social-oriented and individual-oriented achievement motivation—reflecting the cultural dichotomy between Eastern and Western societies (Tao & Hong, 2014).

Although a wealth of research has explored achievement motivation, much of it has been narrowly focused on internal psychological variables, overlooking the significant role of social-contextual factors such as relationships with teachers and peers. Moreover, studies that do consider social influences are often rooted in Western, individualistic cultural paradigms, thereby limiting their applicability to Eastern, collectivist contexts. This omission is particularly striking given that collectivist cultures, such as Indonesia's, emphasize social interdependence and communal values, which are likely to shape the motivational dynamics of students. Despite theoretical claims and some empirical evidence suggesting that collectivist cultural orientations may intensify the influence of social relationships on motivation, empirical studies that test these moderating effects remain scarce and inconclusive. Furthermore, existing research has yet to examine whether these traditional collectivist influences persist among members of Generation Z—a demographic reportedly undergoing significant cultural transformation toward individualism. Therefore, this study addresses a critical and timely gap by empirically investigating the predictive roles of teacher-student and peer relationships on achievement motivation and testing whether collectivist culture moderates these relationships among Indonesian adolescents. By doing so, it contributes to a more culturally nuanced understanding of achievement motivation and responds to calls for integrating social and cultural contexts into motivational research.

Concerning education, modern cultural psychology increasingly emphasizes how identity differences and specific cultural socialization practices can influence students' motivation and achievement at school (Eccles, 2009; Trumbull & Rothstein-Fisch, 2011). A central distinction lies between socialization rooted in individualistic traditions and those grounded in collectivist ones (Triandis & Suh, 2002). Studies have shown that in individualistic countries like the United States, extrinsic motivation correlates with lower academic achievement (Deci & Ryan, 2002), whereas in collectivist cultures like Hong Kong, rewards from others may be perceived more positively (Moneta & Siu, 2002). Additionally, research on Asian and Latin American adolescents—who are culturally collectivist—shows that achievement motivation is often influenced by family-oriented social factors, in contrast to American adolescents, whose motivation tends to be driven by individual needs. In collectivist cultures, achievement motivation is rooted more in collaboration than in competition (Fuligni, 2001; King et al., 2012).

Despite this, few studies have explored social relationship variables as predictors of achievement motivation. The expectancy-value theory (Eccles, 2005; Eccles, 2009; Wigfield & Eccles, 2000) explains that students' relationships with teachers and peers—as part of their social environment— influence academic disparities and contribute to the development of skills and abilities (Wigfield et al., 2012). A student's expectancies and values are directly tied to their motivation to achieve. Similarly, Bronfenbrenner's bioecological theory (1979), as expanded by Kohl et al. (2013), asserts that the environmental context plays a crucial role in shaping human development through reciprocal interactions between individuals and their surroundings. Numerous studies further support the idea that teacher-student relationships positively affect various outcomes, including student adjustment to school, engagement, academic performance, reduced learning fatigue, and increased motivation (Wubbels et al., 2016; Martin & Collie, 2019; Hamre & Pianta, 2001; Henry & Thorsen, 2018; Roorda et al., 2011; Koca, 2016).

Similarly, peer relationships are strong predictors of achievement motivation and academic success (Wang & Eccles, 2012; Juvonen & Knifsend, 2016; Li et al., 2020). Students who feel appreciated and respected by peers are more likely to report adaptive forms of achievement motivation, often reflected in high-quality friendships that value academic success. Conversely, low-quality peer relationships or associations with classmates who reject academic norms correlate with maladaptive motivation (Nelson & Debacker, 2008). Numerous studies confirm that peer relationships significantly predict students' motivation at school (Tongsilp, 2013; Best et al., 2015; Bakadorova & Raufelder, 2016; Li et al., 2020).

This study, therefore, seeks to determine whether teacher-student and peer relationships significantly predict achievement motivation. It also investigates whether collectivist culture moderates these relationships. This inquiry is grounded in findings

from previous studies suggesting that collectivist culture can moderate the influence of social relationships on achievement motivation. For instance, studies by Cheng and Lam (2013), Tao and Hong (2014), and Xu et al. (2023) found that students in collectivist cultures often exhibit extrinsic motivation—for example, pursuing higher education to fulfill parental expectations. Thus, in collectivist contexts, motivation tends to align with social goals. Perseverance has also been found to correlate more strongly with academic success in East Asian cultures compared to Western ones.

Consequently, this study includes collectivist culture as a moderating variable. People in collectivist societies are more likely to demonstrate achievement-oriented behaviors motivated by social factors such as family obligations (Salili, 2009; Fuligni, 2001). This suggests that collectivist culture may enhance the effects of teacher-student and peer relationships on motivation. However, other research has reported that teacher-student relationships are critical in both individualist and collectivist cultures, indicating that collectivist culture may not necessarily moderate their influence on achievement motivation (Raufelder & Mohr, 2011; Korir & Kipkemboi, 2014; Bakadorova et al., 2020). Similarly, peer relationships are essential across cultural contexts, suggesting that the moderating role of collectivist culture may be limited or insignificant.

METHODS

Research Design

This research is a quantitative correlational study. The purpose of the study is to determine whether there is a relationship between teacher-student relations, peer relations, and achievement motivation, and whether collectivist culture moderates the relationship between teacher-student and peer relations with achievement motivation.

Participant

The study targeted the population of junior high school students in East Java, Indonesia. A total of 317 students from various regions in East Java were selected as the sample. Participants were recruited through announcements on social media platforms, and the snowball sampling technique was used. The questionnaire was distributed via Google Forms, and participants were encouraged to share the invitation with other students in their network.

Procedure

All participants took part in the study voluntarily and without any compensation. Initially, the researchers sought informed consent and explained the procedure for completing the questionnaire. Those who agreed then filled out questionnaires measuring peer relations, collectivist cultural orientation, and achievement motivation via Google Forms, which were distributed through WhatsApp and Instagram.

Data Collection

Data were collected using questionnaires adapted following the standards set by Beaton et al. (2000). The adaptation process involved translating the scale into

Indonesian by two independent translators. The two versions were then synthesized into a single agreed-upon translation, followed by a back-translation into the original language to ensure meaning equivalence. An expert reviewed the revised scale, after which a pilot test was conducted—first on a small sample to evaluate item clarity, and then on a larger sample to assess validity and reliability.

The questionnaires were administered online to students from state junior high schools across Indonesia. The achievement motivation scale was developed by the researcher, while existing instruments were used for other variables. The Student-Teacher Relationship Scale (STRS) measured the quality of teacher-student relationships (Pianta, 2001); the Quality of Relationships Inventory (QRI) assessed peer relations; and the Individualism-Collectivism Scale (ICS) evaluated the degree of collectivism among participants..

Achievement Motivation Scale

The achievement motivation scale was developed by the researcher based on the expectancy-value motivation framework by Wigfield and Eccles (2002), which includes three key dimensions. The first is task choice, referring to an individual's tendency to select academic tasks over non-academic ones. The second dimension is persistence, which describes the individual's ability to stay engaged with tasks despite challenges such as difficulty, boredom, or fatigue. The third dimension is effort, representing the degree of physical and cognitive energy that a person invests in completing academic tasks.

Items were rated on a 5-point Likert scale, with 5 indicating the highest level of agreement. Higher scores reflected a stronger tendency toward academic involvement, persistence, and effort. Reliability analysis showed a Cronbach's Alpha of 0.828. Confirmatory factor analysis revealed loading factor values ranging from 0.423 to 0.751, and all model fit indices (Probability, GFI, AGFI, CFI, TLI, NFI, RMSEA, and RMR) indicated good fit.

The Student-Teacher Relationship Scale (STRS)

The STRS consists of two dimensions: conflict and closeness. The original version of the instrument demonstrated strong psychometric properties across diverse samples, including internal consistency values ranging from 0.86 to 0.89 in MTP studies, and it was predictive of classroom behavior, academic outcomes, and school retention (Pianta, 1992; Hamre & Pianta, 2001; Pianta, Steinberg, & Rollins, 1995).

The version used in this study, adapted for Indonesian junior high school students, showed an alpha coefficient of 0.771, with all item loadings exceeding 0.4. The model also satisfied goodness-of-fit criteria.

Quality of Relationships Inventory (QRI) Scale

The QRI measures peer relations across three dimensions: support, conflict, and depth of the relationship. The original version had an alpha coefficient of 0.826 (Pierce et al., 1991), and item loadings above 0.4, with acceptable fit indices (Hooper et al.,

2008). In this study, the adapted version for Indonesian junior high school students yielded an alpha coefficient of 0.827, with item loadings above 0.4 and a satisfactory overall model fit.

Individualism-Collectivism Scale (ICS)

The ICS comprises four dimensions: self-identity, goal priority, modes of social relations, and norm acceptance. Although past research reported relatively low reliability scores for some dimensions-0.67, 0.80, 0.70, and 0.68 respectively (Kim & Cho, 2011)-confirmatory factor analysis supported the construct's validity. Second-order factor modeling showed strong fit indices, with loading values ranging from 0.40 to 0.82.

In the current study, the adapted version for Indonesian students had a Cronbach's Alpha of 0.754, and item loadings ranged from 0.538 to 0.797. The model met all goodness-of-fit standards.

Data Analysis

Data were analyzed using multiple regression and moderation analysis based on the Macro F. Hayes procedure, conducted via IBM SPSS 24. These methods were used to evaluate whether collectivist culture moderates the relationship between teacher-student relations, peer relations, and achievement motivation, and to determine the strength and nature of any moderating effects.

RESULTS

Descriptive Demographic Analysis Based on Age and Gender

The respondents in this study consisted of 317 junior high school students in East Java, Indonesia, aged 12 to 15 years. Specifically, the age distribution included students aged 12–13 years (Class VII), 13–14 years (Class VIII), and 14–15 years (Class IX).

Table 1
Respondents Distribution

Demographic	Total	Percentage
Age		
12 years	69	21,8%
13 years	90	28,4%
14 years	69	21,8%
15 years	89	28,1%
Gender		
Male	145	45,7%
Female	172	54,3%
City		
Surabaya	124	39,1%
Malang	74	23,3%
Sidoarjo	53	16,7%
Pamekasan	45	14,2%

Jember	5	1,6%
Banyuwangi	4	1,3%
Madiun	3	0,9%
Pasuruan	3	0,9%
Lumajang	2	0,6%
Sumenep	2	0,6%
Sampang	2	0,6%

As shown in Table 1, 21.8% of respondents were 12 years old, 28.4% were 13 years old, 21.8% were 14 years old, and 28.1% were 15 years old. This indicates that the majority of respondents were 13-year-olds, placing them in the early adolescent category.

The table also shows that of the 317 students, 45.7% were male and 54.3% were female, indicating that the sample was slightly dominated by female participants.

Additionally, Table 1 reveals that most respondents were from Surabaya (39.1%), followed by Malang (23.3%), Sidoarjo (16.7%), and Pamekasan (14.2%). The remaining participants were from Jember (1.6%), Banyuwangi (1.3%), Madiun and Pasuruan (each 0.9%), and Lumajang, Sumenep, and Sampang (each 0.6%). This distribution indicates that the majority of respondents came from urban areas.

Hypotheses

To address the aims of this study, multiple regression analysis was employed to test three hypotheses. First, the analysis examined whether there is a simultaneous relationship between teacher-student relations, peer relations, and achievement motivation. Second, it assessed whether teacher-student relations are significantly associated with achievement motivation. Third, it explored whether peer relations also have a significant relationship with achievement motivation. These hypotheses were tested to understand both the combined and individual predictive power of social relationship variables on students' motivation to achieve.

Table 2
Multiple Regression Analysis

Statistic	Value
<i>F</i>	97,867
<i>P</i>	0,000
<i>R</i>	0,620
<i>R Square</i>	0,384

The results in Table 2 show a significant positive relationship between the two predictor variables—teacher-student relations and peer relations—and student achievement motivation ($F = 97.867$; $p = 0.000$). These findings indicate that both teacher-student and peer relationships significantly predict students' achievement motivation, accounting for 38.4% of the variance in achievement motivation. The remaining 61.6% is explained by other factors not included in the model.

Table 3*Influence of Predictor Variables on Student Achievement Motivation*

Predictor variables	β	T	p
Teacher-Students Relation	0.477	6.726	0.000
Peer Relation	0.371	7.919	0.000

As shown in Table 3, both teacher-student relations and peer relations had significant positive effects on students' achievement motivation. Specifically, teacher-student relations ($\beta = 0.477$; $t = 6.726$; $p = 0.000$) suggest that the more positively students perceive their relationships with teachers, the higher their achievement motivation. Conversely, negative perceptions of these relationships correspond with lower motivation.

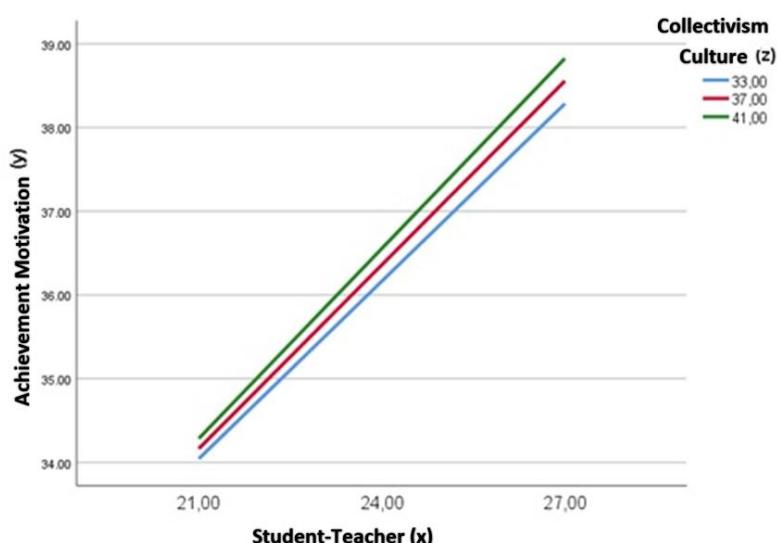
Similarly, peer relations also showed a significant effect ($\beta = 0.371$; $t = 7.919$; $p = 0.000$), indicating that stronger peer relationships are associated with higher achievement motivation, while weaker peer relations correspond with lower motivation. Therefore, both variables can be considered valid predictors of student achievement motivation.

Moderation of Collectivist Culture on the Relationship Between Teacher-Student Relations and Student Achievement Motivation

Moderation analysis using the F. Hayes macro revealed that the interaction between collectivist cultural values and teacher-student relationships was not statistically significant ($b = 0.0062$, CI 95% [-0.0234, 0.0358], $p = 0.6799$). This suggests that collectivist culture does not significantly moderate the relationship between teacher-student relations and achievement motivation. The interaction only accounted for 0.04% of the variance in the model.

Graph 1

Moderating Effect 1



Based on the scatter plot and the linear regression lines shown in Graph 1, it can be concluded that the moderation effect is minimal. The regression lines for high, medium, and low collectivist values appear nearly parallel, indicating no substantial difference in the relationship regardless of cultural orientation.

Moderation of Collectivist Culture on the Relationship Between Peer Relationships and Student Achievement Motivation

The interaction effect between collectivist cultural values and peer relationships was also found to be not statistically significant ($b = -0.0171$, CI 95% [-0.0369, 0.0027], $p = 0.0902$). This result suggests that collectivist culture does not significantly moderate the relationship between peer relations and achievement motivation. The contribution of the interaction to the model was only 0.64%.

Table 4

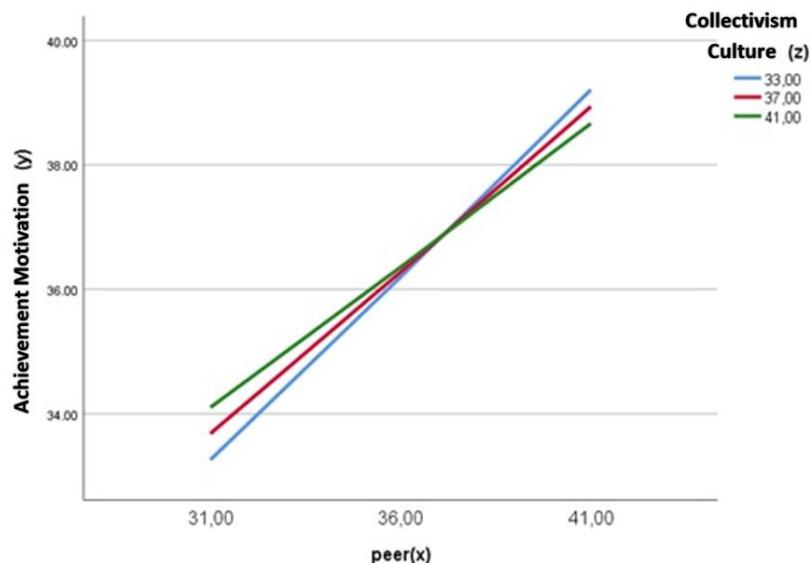
Conditional Effect of The Focal Predictor at Values of The Moderator (S)

Collectivist Values	Effect	SE	T	p	LLCI	ULCI
33,0000	0,5877	0,0632	9,3012	0,0000	0,4634	0,7120
37,0000	0,5193	0,0449	11,5625	0,0000	0,4309	0,6077
41,0000	0,4509	0,0573	7,8748	0,0000	0,3382	0,5636

According to Table 4, the relationship between peer relations and achievement motivation is slightly stronger among individuals with lower collectivist cultural values, although the difference is negligible.

Graph 2

Moderating Effect 2



As illustrated in Graph 2, the scatter plot and regression lines suggest that the moderation effect of collectivist values is trivial. Although the lines for high, medium, and low collectivist values intersect slightly, they remain nearly parallel, indicating minimal moderation.

DISCUSSION

The results of this study show that teacher-student and peer relations are significantly associated with achievement motivation, both simultaneously and individually. These findings provide empirical support for the expectancy-value theory (Eccles, 2005; Eccles, 2009; Wigfield & Eccles, 2000). According to Eccles et al. (2006), social environments—such as those shaped by parents, teachers, and peers—play a crucial role in shaping individuals' expectancies and values related to achievement motivation. The findings are also consistent with Bronfenbrenner's bioecological theory (1979), which emphasizes that individual development occurs through reciprocal interactions between people and the sociocultural environment. Among the most influential factors are the family, peer group, and school context (Bronfenbrenner & Ceci, 1994). The current findings confirm this theory, demonstrating that students' relationships with parents, teachers, and peers are significant predictors of their achievement motivation at school.

This study further supports the findings of prior research conducted by Flanagan, Erath, and Bierman (2008) and Raufelder and Mohr (2011), who found that peer and teacher relationships positively influence students' motivation to achieve. Additionally, a study by Bakadorova et al. (2020) showed that students perceive both peers and teachers as sources of motivational support (Hoferichter et al., 2014). The importance of teacher-student relationships from the perspective of expectancy-value theory was also emphasized by Wigfield et al. (1998) and further developed by Wigfield et al. (2012), who argue that students' relationships with teachers and peers are central to shaping their academic development, ability beliefs, and achievement values. When students have positive and supportive relationships with teachers and peers, they are more likely to form strong internal motivational beliefs.

Moreover, peer relationships have been identified as a strong predictor of school engagement and academic success, often even more influential than support from parents or teachers (Wang & Eccles, 2012). Students who are accepted by their peer group report higher academic engagement and a more positive perception of school. This, in turn, increases their participation in classroom activities and positively impacts their academic achievement (Ladd et al., 2009).

These findings underscore the importance of students' social relationships at school—especially with teachers and peers—as key external predictors of achievement motivation. To date, much research has focused primarily on internal factors, often overlooking the external, social dimensions of motivation. This study contributes by highlighting the critical role that interpersonal dynamics in the school environment play in shaping students' drive to succeed academically. It offers both theoretical validation and practical implications for future studies on achievement motivation from a social-contextual perspective.

Furthermore, the study reveals that collectivist culture does not significantly moderate the relationship between teacher-student or peer relations and achievement motivation. This finding is consistent with previous research by Flanagan, Erath, and Bierman (2008) and Raufelder and Mohr (2011), which also showed that social contexts in schools—such as teacher-student and peer relationships—positively affect achievement motivation across both individualistic and collectivistic cultural backgrounds. Similarly, Korir and Kipkemboi (2014) found that such relationships were equally important in both cultural settings, suggesting that the positive effects of interpersonal relationships on motivation transcend cultural orientations.

In contrast to these findings, some prior studies have suggested that achievement motivation functions differently depending on cultural context—particularly along the individualism-collectivism spectrum (Heine et al., 2001; Greenfield et al., 2000; Salili, 2009). Cultural orientation has been shown to affect motivation and behavior in distinct ways (Kim & Cho, 2011; Cho et al., 2013). For instance, collectivist cultures are characterized by close group ties, cooperation, harmony, and prioritization of group over individual goals (Hofstede & Hofstede, 2005). Individuals in such cultures often emphasize social obligation, family orientation, and collaboration (Salili, 2009; Fuligni, 2001). Therefore, it would be reasonable to expect that teacher-student and peer relations would have a stronger influence on achievement motivation in collectivist cultures than in individualist ones.

However, an unexpected finding of this research is that collectivist culture did not moderate the relationship between teacher-student or peer relations and achievement motivation. This contradicts what previous theoretical models would predict. A possible explanation lies in the transformation of cultural values among Generation Z, who formed the participant group in this study. According to Stillman (2017), Generation Z—born between 1995 and 2012—is also referred to as the "net generation" or "internet generation."

Research by Tolstikova et al. (2020) suggests that Generation Z is characterized by traits such as reduced sociability, emotional immaturity, dependency on digital technology, and individualistic tendencies. Their study found that self-expression is the dominant value among Gen Z, which aligns more closely with individualism than collectivism. These traits also shape their social behavior and achievement motivation. As a result, members of Generation Z may pursue individual goals and personal success without placing much emphasis on social harmony or family obligations—values that traditionally define collectivist cultures (Hamamura, 2012).

In the Indonesian context, Maulana (2021) observed a cultural shift in Generation Z, who now tend to use "I" rather than "we," indicating a movement toward individualism. This is reinforced by a report from Indonesia's Central Bureau of Statistics (2021) which indicates that Generation Z—comprising nearly 28% of the population—spends an average of 3.5 hours daily on mobile internet use, about 13%

more than the millennial generation (Tirto Media Research, 2017). Excessive use of gadgets and social media has contributed to this cultural shift, making Gen Z more individualistic, even in traditionally collectivist countries like Pakistan (Jamal, 2020).

Cultural transformation is often complex and influenced by a range of ecological, economic, and historical factors. According to Sachs' modernization theory, national development and modernization can cause societies to become more individualistic (Nhema & Zinyama, 2016). Supporting this, a recent study by Shin et al. (2022) found that infrastructure development and modernization—such as the construction of toll roads—can alter both language and cultural practices in local communities.

In Indonesia, evidence of this transformation has been documented in organizational and generational contexts. A study of 2,025 employees at a state-owned company found a shift in values from collectivist to individualist (Mangundjaya, 2013). Another empirical study involving 1,455 workers across four major cities in Indonesia revealed emerging individualistic values among respondents (Sihombing, 2013). Additionally, cross-generational research by Albert et al. (2009) found that while Indonesians are generally less individualistic than Germans, the transmission of individualistic values was actually higher among Indonesian participants.

An important finding of this study, therefore, is that collectivist culture no longer appears to moderate the relationship between teacher-student and peer relations and achievement motivation. This suggests that these social relationships are equally important across both collectivist and individualist cultures. The likely explanation is a cultural transformation among Generation Z, which may be contributing to a blurring of traditional cultural boundaries. As Indonesia becomes increasingly modernized and technologically advanced, the strong collectivist identity that once defined the culture may be giving way to more individualistic values. This has profound implications for how motivation is understood and studied in contemporary contexts.

Ultimately, these findings suggest that the long-standing dichotomy between individualism and collectivism in cross-cultural research may need to be re-evaluated. Future research should explore this shift more deeply by comparing populations across countries with different cultural backgrounds. A more nuanced and dynamic approach to cultural dimensions could offer valuable insights into the evolving nature of motivation in a globalized world.

CONCLUSION

The results showed that teacher-student and peer relationships were significant predictors of students' achievement motivation in school. However, the relationships between these variables and achievement motivation were not moderated by collectivist culture. This finding suggests that in both collectivist and individualist contexts, positive social relationships with teachers and peers are equally important in supporting

students' academic success and enhancing their motivation to achieve. Therefore, attention should be given to fostering strong, positive teacher-student relationships and peer connections to promote students' academic engagement and performance.

This study also provides an important and unexpected finding regarding the cultural dimension of Generation Z, indicating a potential shift toward more individualistic orientations. Nonetheless, the researchers acknowledge the limitations of this study, including the sample size and the geographic scope, which was limited to one region in East Java. Additionally, the moderation analysis may benefit from further refinement in future research.

For future studies, it is recommended to involve a larger and more diverse population, ideally covering multiple regions or countries. Comparative studies between countries with different cultural backgrounds would provide a more comprehensive understanding of how cultural values interact with social relationships to influence achievement motivation. Furthermore, a more robust moderation analysis could help reveal subtle effects that may not have been detected in the current study.

In general, this study offers practical insights into the importance of teacher-student and peer relationships for fostering achievement motivation in educational settings. These findings should be taken into account by teachers, students, parents, and policymakers to promote positive, supportive, and collaborative social environments in schools. Such efforts can significantly contribute to enhancing students' motivation and academic success. Finally, the results provide empirical evidence that the distinction between individualist and collectivist cultures may be less relevant when it comes to the importance of social relationships in education, as both cultural orientations recognize the value of positive interpersonal connections in supporting students' achievement motivation.

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