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Islamic Religiosity and Learning Motivation in Indonesian University Students

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The role of learning motivation in academic success has long been a central concern in educational psychology with growing interest in the influence of religious and spiritual factors that may foster motivation. The primary aim of the present study was to predict learning motivation based on Islamic religiosity among Indonesian university students. It was hypothesized that Islamic religiosity would positively predict learning motivation. A secondary hypothesis proposed that this predictive association might vary across university types and disciplines. A sample of N=338 participants was selected using stratified two-stage sampling from three mainstream Indonesian universities. They responded to the Islamic Religiosity Scale comprising three subscales namely religious practice, religious altruism, and religious honor; and the Learning Motivation Scale comprising six subscales namely self-efficacy, learning environment stimulation, science learning values, active learning strategies, performance goal, and achievement goal. Data were analyzed using SPSS version 23 by conducting descriptive analysis and inferential statistics including independent sample t-tests, Pearson Product-Moment correlation, and moderation analysis. The results from the t-test revealed that participants from Islamic universities scored higher on religiosity subscales and motivation subscales compared to those from general universities. Results from correlation and moderation analyses confirmed that religiosity subscales predicted motivation factors. Moreover, the associations between religious altruism and two motivation subscales active learning strategies and self-efficacy were moderated by university type. Specific findings indicated that the associations were stronger for students from Islamic universities and weaker for students from general

universities. These findings have implications for educational counselors to consider incorporating Islamic teachings and religious altruism into counseling techniques when addressing students' learning and achievement issues.

Keywords: Islamic religiosity; religious practice; religious altruism, learning motivation

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Introduction

Religiosity encompasses a structured array of behaviors, beliefs, emotional responses, and motivational drives shaped by a formalized system of faith tied to a specific religious tradition (Dedert et al., 2004). As a psychosocial system, Islam offers individuals a framework for life that integrates faith-based beliefs, practices, cognition, motivation, and coping strategies rooted in Islamic teachings (Abu'l-ʿ Ala Maududi, 2000; Fatima et al., 2022; Fatima et al., 2025). Over the past two to three decades, scholars from various disciplines, including sociology, psychology, and education, have increasingly turned their attention to the topic of religiosity (Pargament & Abu Raiya, 2007; Sutantoputri & Watt, 2012). However, studies that empirically examine the psychological dimensions of Islamic religiosity, especially those focusing on its motivational aspects, remain limited. Much of the existing research has centered on Christian contexts and prioritized domains like mental health and overall well-being (e.g., Antrop-Gonzalez et al., 2007; Jeynes, 2002; 2008). Some research in the Islamic context also exits yet considering that Islam is not only the second largest but also the fastest growing religion globally (Abu Raiya et al., 2008; Pew Research Center, 2015), there is a clear need to explore its role in shaping motivation. In response to this gap, the present study seeks to investigate how Islamic religiosity influences academic motivation among students enrolled in both Islamic and non-Islamic universities.

Association between Islamic Religiosity and Learning Motivation

Religion and education serve as two foundational institutions that significantly influence human development and the process of social learning (Brown & Taylor, 2007). Both play essential roles in equipping individuals with skills and competencies that contribute to personal growth and well-being (Erpay & Jandarbek, 2014). Within Islamic teachings, the pursuit of knowledge holds a central position, not only as an intellectual endeavor but also as a spiritual obligation. Various verses from Qur'an and sayings of the Prophet Muhammad emphasize the elevated status of those

who seek knowledge, encouraging Muslims to engage in education as a form of devotion and self-improvement (e.g., Al Qur'an 96:1–5; Abu-Umama, Hadith 2682). In a nutshell, for Muslims, educational attainment is considered as a religious obligation. This is further supported by the work of earlier Muslim scholars, scientists, and philosophers including but not limited Ibn-e-Sina, Al- Gazali, Ibn-e-Khaldoun, and Al-Farabi who were highly inspired by spiritual rewards to seek knowledge for the betterment of humanity. The intellectual achievements of Muslim scholars throughout history were supported by the full engagement of both cognitive and reflective thinking processes.

Furthermore, religiosity should not only be measured in terms of behavioral frequency, but also deeper dimensions such as religious motivation, spiritual orientation, and closeness to God needs to be considered. These dimensions have been shown to significantly predict emotional well-being and internal drive (Hill & Pargament, 2003). Based on the reviewed literature, it can be inferred that Islamic religiosity has the potential to directly influence learning motivation among Muslim learners. Put differently, individuals with strong religious commitment may draw spiritual encouragement from Islamic texts, including the Qur'an and Hadith, in their pursuit of knowledge. More precisely, religion serves as a central motivational factor that supports Muslim students in accomplishing their academic responsibilities and educational goals (Ibrahim, 2012).

Religion as a motivational force plays a vital role in offering individuals a sense of purpose, direction, and clearly defined life objectives. In the Islamic tradition, religiosity is not limited to spiritual rituals but encompasses a comprehensive way of life that inherently aligns with motivational structures guiding behavior. Through religious education and socialization, individuals are encouraged to absorb and embrace values that have been shaped by cultural and spiritual heritage. Once these values are internalized, they evolve into personal standards that influence one's decisions and actions (Ryan et al., 1993) and serve as powerful sources of motivation that support individuals in pursuing meaningful goals. Religion's motivational aspect encourages adherents to behave in ways that reflect both personal integrity and alignment with established religious and cultural principles (Gűven, 2013). Empirical evidence also suggests that students with strong religious orientations tend to exhibit higher academic performance (Din et al., 2019) and are more likely to avoid academic dishonesty (Rettinger & Jordan, 2005). According to LaRose (2009), various dimensions of religiosity including religious practices, affiliations, and spiritual experiences are meaningfully

associated with indicators of academic performance. Based on these findings, several scholars have advocated for the inclusion of religious values within educational curricula to foster more holistic student development.

Recent scholarly works have increasingly explored the relationship between religiosity and various indicators of academic success, including achievement, performance, and educational outcomes (Sutantoputri & Watt, 2012). While much of this research has relied on data from Christian populations, the general trend highlights a consistent positive correlation between religious involvement and academic achievements (Brown & Gary, 1991; Reichard, 2011). Commonly used indicators in these studies include grade point average, academic attainment, and completion of educational programs. Despite clear evidence that Islamic teachings emphasize the pursuit of knowledge, empirical investigations of the religiosity learning motivation link remain limited. While some research in the Islamic context exists, the findings are somewhat mixed and needs further evidence for making conclusions. For example, Fatima and colleagues (Fatima et al., 2017) have reported that global religiosity and religious identification are positively associated with intrinsic and extrinsic academic motivation in Muslim university students. Moreover, in a qualitative study based on data from 10 high achiever Latino high school students, Antrop-Gonzalez et al. (2007) have explored themes for how their religiosity enhances their academic output. Of four emerged themes, one motivational theme has stated that belief in God enables them to view education as a significant aspect of ultimate life objective of being spiritually successful. However, the results based on another sample of Muslim high school students have not confirmed the link between intrinsic religious motivation and academic motivation (Gűven, 2013). Therefore, for a clearer understanding, it is imperative to evaluate this link between religiosity and academic motivation in samples from underrepresented Muslim countries.

Islamic Religiosity and Academic Motivation: Differences across Discipline and University Type

The relationship between religion and science has been the focus of the rising body of research (Johnson et al., 2015). In fact, an orientation towards religion comprises several sub- components, each of which may have a unique association with science. The general evidence suggests that science has a special value in Islam. As per Islamic values, the ultimate goal of knowledge achievement is the betterment of human life in this world and the hereafter; and this betterment cannot be achieved without

scientific knowledge. Islamic teachings clearly dictate that Allah has appointed human beings as a vicegerent on the earth (Al Qur'an, 6: 165). Scientific contributions of many Muslim scientists also support the connection between Islam and science. Besides, the Islamization of modern sciences and social sciences such as Islamic Law, Islamic Finance, Islamic Economics, Islamic Mathematics, and even Islamic Physics is also on the rise (Zaelani, 2015). Previous research showed a positive correlation between the level of religiosity and the average grades and an increase in the sense of responsibility and empathy among students studying dental science (Sarchami et al. 2020). Moreover, early Muslim scholars, Lehman and Shriver (1968) argue that religiosity explains cognitive differences. This cognitive distinction gives rise the question "Are there any differences in religiosity between natural scientists and social scientists"? A national Survey by the Carnegie Commission of Higher Education studied a subsample of 20,008 college and university faculty. The findings reported that 42% of faculty from natural sciences regularly attend religious ceremonies compared to 32% from political science, 38% from social sciences, and 20% from psychology discipline. However, this survey assessed religion as a general holistic construct (Ladd et al., 1969). Though some conceptual and descriptive literature relates science and religiosity, Ecklund and Scheitle (2007) has not found significant interdisciplinary differences on religiosity between social and natural scientists. Instead, they report demographic variables including age, marital status, and having children to be the predictors of religiosity among scientists. In general, there is a noticeable lack of empirical research comparing levels of religiosity and learning motivation between students majoring in natural sciences and those in social sciences. To address this gap, the present study investigates potential differences in religiosity and academic motivation among these two academic disciplines.

Social scientists and recent researchers have highlighted the importance of socialization training in religious environment for wellbeing and learning outcomes (e.g., Fatima et al., 2018; Fatima et al., 2022; Jeynes, 2002). Initial evidence based on earlier studies indicates that students from religious educational institutes outperform their counterparts from general and/or public institutes on academic tasks (e.g., Jeynes, 2002). Social psychologists generally argue that religious educational institutions may offer more favorable conditions compared to mainstream schools, particularly in aspects that support cognitive engagement and intellectual development, both of which contribute to improved academic outcomes. Contributing factors often include a structured and value-

oriented environment, enhanced group cohesion, stronger behavioral discipline, and reduced exposure to violence, and increased academic workload, all of which help students focus more effectively on their studies. In his empirical examination, Jeynes (2002) evaluated the theoretical claims put forward by social psychologists and found that the specific characteristics of religious schools significantly contributed to the superior academic performance of their students.

However, much of this body of research has concentrated on Christian populations, particularly comparisons between students attending Catholic schools and those enrolled in public institutions (Jeynes, 2008). Though Islam is the fastest growing religion in the world and the number of Islamic religious schools and universities is increasing, yet researchers only rarely have examined academic performance related variables in students from Islamic universities. Drawing on the perspectives proposed by social psychologists, it is reasonable to infer that Muslim students attending Islamic universities are likely to demonstrate stronger religious commitment and greater motivation in their academic pursuits.

Theoretical Background

Self-determination theory (Ryan & Deci, 2000) provides useful lens for understanding the associations of Islamic religiosity with learning motivation. Learning motivation is regarded as a driving force arising from intrinsic and extrinsic factors to reinforce learning achievement. Religion being a comprehensive psychosocial system provides motivational resources to regulate individual's behaviors. Gűven (2013) argues that due to motivational drive of religion, followers are internally motivated to follow religious norms and values.

Islamic religiosity provides both intrinsic and extrinsic resources driving the learning motivation. Religious values when internalized serve as a self-determination approach to provide motivational drive for knowledge learning. Islamic teachings and religiosity facilitate intrinsic motivation through pursuit of knowledge as a divine obligation for spiritual growth. Likewise, religiosity reinforces identified and integrated regulation for internalization of academic goals as one's divine obligation. Religious practices and altruistic acts once internalized and integrated with personal values promote individual's tendency to freely choose and practice them. At this level, such acts and motivation are experienced as self- determined. Likewise, religious altruism may also bring social rewards in the form of social support and connectedness and ability to effectively deal with

learning and relational challenges which in turn may serve as an external driving force to foster academic performance.

Rationale

Drawing from the reviewed literature, this study seeks to examine the extent to which Islamic religiosity predicts students' learning motivation across both Islamic and general university settings, as well as between students majoring in natural and social sciences. Much of the existing research in educational psychology has been conducted within Christian populations in Western, industrialized societies, while relatively few studies have also explored Islamic religiosity in this domain. Importantly, Muslim communities in Southeast Asia particularly in Indonesia embody a distinctive religious culture where local Indonesian cultural practices and social norms coexist and influence Islamic beliefs system. Such local expression of Islam is often referred to as Islam Nusantara, which blends authentic Islamic values with local Indonesian cultural practices without compromising the core principles of Islam, such as moral, spiritual, and ethical guidance. This integration highlights how Islamic religiosity, expressed within a culturally contextualized framework, remains relevant to students' daily lives and educational experiences. It provides a meaningful basis to predict motivation and goal-directed behavior from religiosity in Indonesian higher education context. Moreover, Islamic universities in Indonesia typically place greater emphasis on religious guidance and practices than general universities. This in turn, may further reinforce the influence of authentic Islamic values on students' learning motivation supporting the rationale for examining differences across university types and disciplines.

Objectives

1. To examine the predictive role of Islamic religiosity on specific learning motivation subscales among university students.
2. To compare levels of Islamic religiosity and learning motivation between students from Islamic and general universities, and between natural and social sciences disciplines.
3. To investigate whether university status and academic discipline moderate the relationship between Islamic religiosity and specific learning motivation.

Hypotheses

On the basis of the previous discussion, we have formulated the following hypotheses:

1. Islamic religiosity would be a positive predictor of specific learning motivation subscales in university students.

2. Levels of religiosity and learning motivation will vary between students from Islamic versus general universities and between students from natural versus social sciences disciplines.
3. University status and discipline will moderate the link between religiosity and specific learning motivation subscales

Method

Research Design

This study adopted a cross-sectional design to examine whether Islamic religiosity predicts learning motivation among Indonesian university students. The focus was to compare students enrolled in an Islamic university with those from general universities across two academic domains: natural sciences and social sciences.

Sample

The study used G-Power analyses to calculate the sample size. Based on the G power analysis, it was decided to get a final sample of N=300 participants. Initially, a total of N=400 participants were contacted from three state universities (1 Islamic & 2 general sector) in Malang, Indonesia. Although the number of universities per group differed (one Islamic vs. two general universities), an equal allocation of participants (N=169 each) was maintained. This decision was made to enhance statistical power and ensure comparability between institutional types, while acknowledging that representativeness across all Indonesian universities was limited. The calculated sample sizes against each statistical analysis used in the study are presented in Table 1.

Table 1

Power Analysis for Each Test

Type of Test	Effect Size	Power	p	Total Sample Size
Chi-square (χ^2)	.30	.95	.05	145
Proportion test (t test)	.30	.95	.05	290
Pearson's correlation	.25	.95	.05	197
Regression analysis	.10	.95	.05	132

Note. Power analysis was conducted to determine the minimum required sample size for each statistical test at an alpha level of .05 and desired power of .95. Effect sizes were selected based on conventional benchmarks.

Sampling Strategy

The study employed a stratified two-stage sampling procedure. At the first stage, universities were stratified by institutional type (Islamic vs. general) and academic discipline (natural vs. social sciences). Within each stratum, four departments were selected (four from natural sciences and four from social sciences in each university). At the second stage, students were randomly selected from each department's enrollment list. In the Islamic university, approximately 25 students were drawn from each department (yielding 200 participants in total), whereas in the two general universities, about 12 - 13 students were drawn from each department (yielding 100 participants per university). This allocation was designed to achieve an equal overall distribution between the Islamic (n = 200) and general (n= 200) university groups. The final sample of the study included 338 university students (Mage = 20.42 years, SDage= 1.53; 53% female & 47% male participants). The data of remaining participants was excluded during missing data analysis. The sample distribution was equal from Islamic and general sector universities (n1=n2=169). Nearly half (n=176) of the participants were from natural sciences disciplines and others (n-162) were from social sciences disciplines. The demographic characteristics of the sample are presented in Table 2.

Table 2

Demographic Characteristics of the Sample

Variables	Group	Men (n=159)		Women (n=179)		Total (N=338)	
		M(SD)	*f*	M(SD)	*f*	M(SD)	*f*
Age		20.50(1.14)		20.36(1.14)		20.42(1.53)	
University type	Islamic		80		89		169
	General		79		90		169
Discipline	Natural sciences		84		92		176
	Social sciences		75		87		162
Studied Islam in childhood	Yes		157		175		332
	No		2		4		6
Decreasing religiosity	Yes		34		31		65
	No		125		148		273

Note. Italicized values are frequencies.

Instrument

Demographic Information Sheet. A questionnaire was developed to obtain demographic information about personal variables including gender, age, education, university, and department.

Islamic Religious Scale (IRS)

Islamic Religious Scale was developed by Tiliouine et al. (2009) to assess the level of religiosity in participants. The religiosity was measured in three subscales namely religious altruism, religious honor, and religious practice. Religious Altruism was assessed by 5 items to evaluate altruistic interaction with others. Religious Practice assessed by 6 items evaluates the attendance of religious activities (e.g., mean no. of prayers). Religious Honor comprising five items assessed practicing religious obligations. All items used a 5-point Likert type response format from 1 to 5 (never - always).

Learning Motivation scale (Tuan et al., 2005) consisted of six learning motivational factors: active learning strategies assessed from 8 items, achievement goal assessed from 5 items, self-efficacy assessed from 7 items, learning environment stimulation assessed from 6 items, performance goal measured from 4 items, and science learning value measured from 5 items. All items used a response format of five-point Likert scale from 1 to 5 (strongly disagree to strongly agree). Factor analysis with orthogonal rotation was also analyzed to test factorial validity of the scale in this study. Findings showed good to acceptable eigenvalues and good Alpha reliabilities for 5 factors including active learning strategies (8.83, α = .86), achievement goal (3.58, α = .88), self-efficacy (2.36, α = .73), learning environment stimulation (1.93, α = .78), and performance goal (1.51, α = .77). Factor analysis followed by orthogonal rotation showed that the 6th factor, science learning value, showed low factor loadings. In addition, the eigenvalue for this factor (1.23) did not meet the required eigenvalue. Therefore, the subscale was not used for further analyses.

Procedure

After obtaining necessary permission from the university authorities included in the study, data collection was started. The research team coordinated with faculty members to gain access to the departments selected through stratified sampling. After obtaining institutional permission, questionnaires were distributed to students during scheduled class sessions. Participants completed the survey in a supervised classroom setting, and completed forms were collected immediately by the research team. The scales order was counter- balanced across participants to avoid

any effect due to order. After data collection, the researchers thanked the participants for their voluntary participation.

Ethical Considerations

Ethical approval for the study was obtained from the institutional ethics committee of School of Islamic Studies Ma'had Aly al-Hikam Malang. Participation was voluntary, and informed consent was obtained from all participants prior to data collection. Participants were assured of anonymity and confidentiality, and they were allowed to withdraw at any time without penalty.

Statistical Analysis

Data were analyzed using SPSS (Version 23). Initially, descriptive statistics (means and standard deviations) were computed for all study variables. Independent samples t-tests were conducted to examine differences in Islamic religiosity and learning motivation across university types (Islamic vs. general) and academic disciplines. Pearson Product Moment correlation analyses were performed to assess the relationships between religiosity subscales and learning motivation subscales. To test the predictive role of Islamic religiosity and the moderating effects of university type and academic discipline, moderation analyses using multiple regression were conducted. Interaction terms were created following mean-centering of predictor variables to reduce multicollinearity. Statistical significance was evaluated at the .05 alpha level.

Results

The current study examined the relationship between Islamic religiosity and learning motivation among university students. Pearson's Product Moment correlation analyses were conducted to assess the associations between religiosity subscales and learning motivation subscales, while multiple linear regression analyses were performed to examine the predictive role of Islamic religiosity in learning motivation. Factor loadings, descriptive statistics, Cronbach's alpha, eigenvalues, and variance explained for each factor were presented in Table 3

Table 3

Factor Loadings, Descriptive Statistics, Cronbach Alpha, Eigenvalues, Required Eigenvalues from the Parallel Analysis, and Variance Explained for Each Factor for Islamic Religiosity Scale

	Component		
Item	**RA**	**RP**	**RH**
Tolerate others for God's sake	.77		
Charity as a religious duty	.66		
Praise God at the beginning and end of work	.66		
Seek relief for God's sake when anxious/sad	.64		
Advise others to do good and avoid sin	.62		
Average no. of voluntary prayers		.80	
Weekly hours studying al-Qur'an		.74	
Prayers in group or mosque		.72	
Voluntary fasting other than Ramadhan		.61	
Average no. of prayers on time		.53	
Weekly time watch/read/listen religion		.43	
Fast at Ramadhan			.71
Mecca pilgrimage if affordable			.26
Regard religion as personally important			.26
Obedient parents for religious reasons			.24
Avoid mixing with opposite sex			.18
Mean (*SD*)	3.73 (.72)	3.04 (.67)	4.03 (.75)
Cronbach Alpha	.79	.78	.61
Inter-item correlation range	.30 - .50*	.23 - .58*	.18 - .39*
Eigen value	5.61	1.62	1.01
Required Eigen value (derived from Parallel)	1.39	1.31	1.24
Percentage of variance explained	35.03	10.12	6.32

Note. p< .001; RA= religious altruism; RH= religious honor; RP= religious practice*

In the current study, Principal factor analysis and orthogonal rotation were employed to test the validity of IRS in this study. Kaiser-Meyer-Olkin (KMO) value was .90, and Bartlett's Test of Sphericity reached significance (p<.001). Factor loadings, descriptive statistics, Cronbach's alpha, eigenvalues, and variance explained for each factor were presented in Table 3. Not only did the factor loadings of the third factor and its variance were weaker than the other two, but the parallel analysis also showed that its eigenvalue did not reach the required threshold. Due to weakness of the third factor, the final analyses used factors 1 and 2 only (Religious Practice & Religious Altruism) in the current study.

Table 4

Differences across University Type and Discipline on Religiosity Variables and Learning Motivation Variables

	University Type			Discipline		
Variables	Islamic M (SD)	General M (SD)	t value	Natural Sciences M (SD)	Social Sciences M (SD)	t value
Religious Practice	3.23(.61)	2.85(.67)	5.50***	3.05(.59)	3.04(.75)	.11
Religious Altruism	3.88(.73)	3.58(.68)	3.91***	3.76(.69)	3.70(.76)	.78
Self-Efficacy	3.97(.69)	3.67(.69)	4.03***	3.88(.70)	3.76(.71)	1.57
Active Learning Strategies	4.23(.54)	4.00(.44)	4.21***	4.13(.49)	4.10(.53)	.43
Performance Goal	3.24(.78)	3.24(.88)	.03	3.28(.81)	3.20(.86)	.86
Achievement Goal	4.25(.72)	4.05(.62)	2.67**	4.27(.58)	4.01(.75)	3.56***
Learning Environment Stimulation	4.02(.54)	3.86(.61)	2.53*	3.91(.58)	3.97(.57)	-.99

*Note. *** = p<.001; ** = p<.01; * = p<.05*

Data were analyzed for missing values and factor loadings for Islamic religiosity scale were calculated as a validity check. Keeping in view the low factor loadings and internal consistency of religious honor subscales, only two subscales of Islamic Religiosity Scale (Religious Altruism & Religious Practices) were used for further analysis (see Table 3). Likewise, five subscales from learning motivation scale including all but science learning values were used in the final data analyses. For descriptive analysis, means, SDs, and α coefficients were computed first for the variables. The university wise (Islamic & general) and disciplines wise (natural & social sciences) differences were tested by $\chi 2$ followed by a proportion test on a demographic item assessing feeling of decreasing Islamic religiosity ("Yes" or "No" choice). A significant association between feeling of decreasing religiosity and university type emerged ($\chi 2[1] = 32.02$, $p<.001$) with more students from general universities (n=53; 31.4%) reporting decreasing religiosity than Islamic university (n=12; 7.1%). Also, a significant association was found between feeling of decreasing religiosity and discipline ($\chi 2[1] = 5.97$, $p<.05$) with more students than expected by chance from social sciences (n=40; 24.7%) to report decreasing religiosity compared to natural sciences (n=25; 14.2%). Next, independent sample t tests were calculated to evaluate university wise (Islamic & general) and disciplines wise (natural & social sciences) between group differences in study variables. When compared on university type, participants from Islamic university reported higher levels

of religiosity (practice & altruism) and motivation in all factors except performance goal. However, the data did not support the differences between participants from natural and social science disciplines on study variables except for achievement goal on which participants from natural sciences scored significantly higher (Table 4). Also, independent sample t tests were analyzed to calculate gender differences on all study variables, but no significant differences were observed on any of the religiosity or learning motivation variables.

Table 5

Association between Religious Practice, Religious Altruism, and Learning Motivation

Variables	RA	SE	ALS	PG	AC	LES
RP	.562**	.240**	.331**	.082	.196**	.365**
RA	-	.304**	.422**	.064	.260**	.377**
SE		-	.386**	.294**	.144*	.167*
ALS			-	.004	.314**	.409**
PG				-	-.163*	-.038
AG					-	.408**
LES						-

*Note. *=p<.01; **=p<.001; RP=religious practice; RA=religious altruism; SE=self-efficacy; ALS=active learning strategies; PG=performance goal; AG=achievement goal; LES=learning environment stimulation*

Correlation coefficients were computed to examine the relations of religiosity factors with learning motivation subscales, and the results have been shown in Table 5. The findings revealed that both religious subscales (altruism & practice) showed a positively significant correlation with four out of five learning motivation subscales including achievement goal, self-efficacy, active learning strategies, and learning environment stimulation. Both religious factors did not correlate with performance goal subscale.

Table 6

University Type and Discipline Moderating the Religiosity—Learning Motivation Link

Predictors	Outcomes											
	SE			ALS			AG			LES		
	M1	M2	M3	M1	M2	M3	M1	M2	M3	M1	M2	M3
RP	.10	.07	.19	.14*	.11	-.19	.07	.06	.82*	.22**	.22**	.18
RA	.25**	.24**	.65**	.35**	.34**	.76**	.22**	.20**	.23	.25**	.25**	.28
Uni Type	-	-.15**	.75*	-	-.12*	.17	-	-.08	.45	-	-.02	-.02
Discipline	-	-	-	-	-	-	-	-	.46	-	-	-

								.18**				
RPxUni Type	-	-	-.17	-	-	.49	-	-	-.47	-	-	.06
RAxUni Type	-	-	-.78*	-	-	-.80*	-	-	-.08	-	-	-.06
RPxDiscipline	-	-	-	-	-	-	-	-	-	-	-	-
									.82*			
RAxDiscipline	-	-	-	-	-	-	-	-	.03	-	-	-
R^2	.10	.12	.14	.19	.21	.22	.07	.11	.14	.18	.18	.18
Incremental R^2		.02	.02		.02	.01		.04	.03		.00	.00
Model fit F	18.47	15.03	11.20	39.56	28.68	18.70	12.83	10.28	6.84	35.85	23.90	14. 27
M1,df: 2,337	***	***	***	***	***	***		******	***	*	***	***
M2,df: 4,337												
M3,df: 8,337												

*Note. * = p<.05, ** = p<.01, ***=<.001; Uni Type=Islamic vs General University; Discipline=natural vs social sciences; M=Model; SE=self-efficacy, ALS=active learning strategies, AG=achievement goal, LES=learning environment stimulation; RP =religious practice; RA =religious altruism;*

Table 7, moderation analyses were computed by analyzing two religious factors as predictors, discipline and university type as two moderators and four learning motivation outcomes as criterion variables. Hierarchical regression analyses approach was used to predict a particular criterion variable (for example self-efficacy) from religious factors in model 1, from two moderators in model 2, and lastly from the four interaction variables (interaction between religious practice and religious altruism with university status and discipline). In the 1st model, religious practice and religious altruism were added as a block of predictors. In the 2nd model, university type and discipline were added as a block of two moderators to evaluate the incremental variance due to moderators. In the 3rd model, four interaction terms were added as a block to assess further incremental variance due to interaction. Notably, discipline as a second moderator in the 2nd model and two related interaction terms of discipline in the 3rd model were added only for achievement goal because discipline appeared as a significant factor for only this variable. The same hierarchical regression approach to moderation analyses was followed for all four significant learning motivation variables. The results revealed that university type significantly moderates the association of religious altruism with self-efficacy and active learning strategies, and the results have been presented in Table 6. However, university type did not moderate the links of religious altruism or religious practice with active learning strategies. Further findings revealed that discipline significantly moderated the association of religious practice with achievement goal.

Table 7

Interactive Associative Patterns between Religiosity Factors and Learning Motivation Factors at Levels of Moderator

Predictor	Levels of predictor	ALS		SE		AG	
		University Type (Moderator)				Discipline (Moderator)	
		Islam.Uni	Gen.Uni	Islam.Uni	Gen.Uni	Nat.Sci	Soc.Sci
	Low	5.02	3.95	3.60	3.01	-	-
RA	Medium	5.30	3.95	3.93	2.94	-	-
	High	5.59	3.93	4.26	2.97	-	-
RP	Low	-	-	-	-	2.97	3.65
	Medium	-	-	-	-	2.98	4.03
	High	-	-	-	-	2.98	4.41

Note. CT = raw score is the completion in seconds; ALS= Active Learning Strategies; AG= Achievement Goal; SE= Self-Efficacy; Islam.Uni=Islamic University; Gen.Uni=General University; Nat.Sci=Natural Science; Soc.Sci=Social Science

Stronger interpretation of the significant interactive effects was made by additional analyses using Modgraph to provide graphic representation of interactive associations (Jose, 2013). In addition, it provided cell means of criterion variables in relation to predictors across levels of the moderator (see Table 7). Graphs were also generated to show differential predictive associations of religiosity factors with specific learning motivation outcome as a function of the moderator (see Figure 1). Findings from Table 7 as well as from Figures 1 and 2 have revealed that predictive associations between altruism, learning strategies, and self-efficacy were stronger for students from Islamic universities. Likewise, associations between religious practice and achievement goal were stronger for students from social compared to natural sciences disciplines.

Figure 1

Showing Moderated Relations between Religious Altruism and Active Learning Strategies Across General University and Islamic University Students

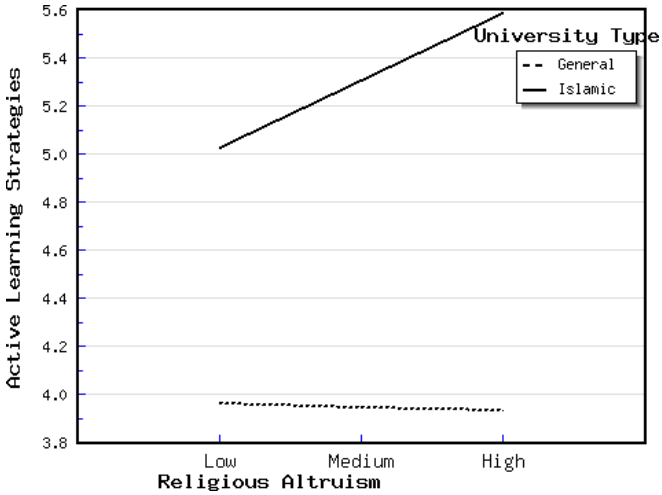


Figure 2

Showing Moderated Relations between Religious Altruism and Self-efficacy Across General University and Islamic University Students

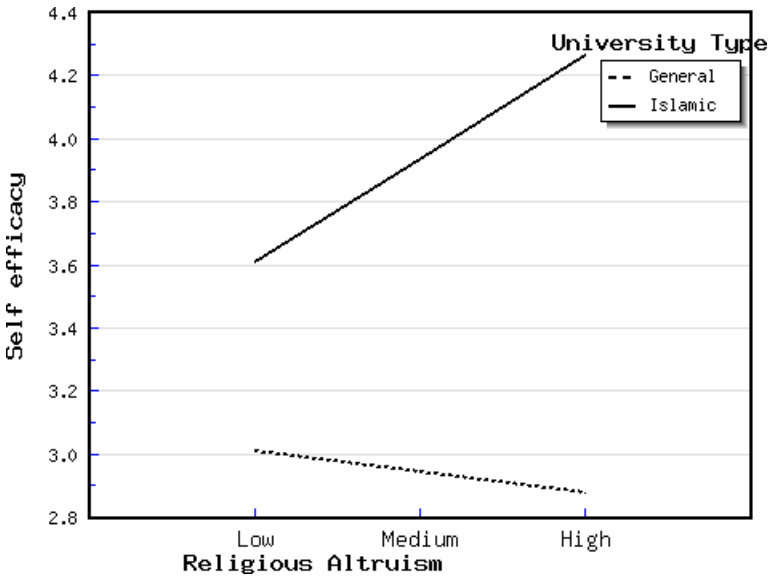
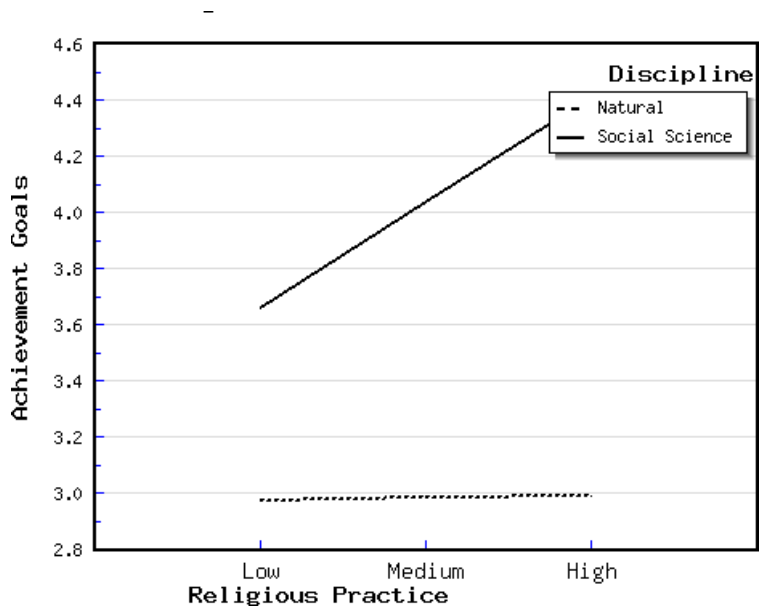


Figure 3

Showing Moderated Relations between Religious Practice and Achievement Goal Across General University and Islamic University Students



Discussion

The primary aim of the current study was to examine learning motivation as predicted by religious factors among Indonesian university students. In the current study, religiosity was assessed based on two major constructs: religious altruism and religious practice. To achieve the objectives of the study, the associations between these religiosity factors and five dimensions of learning motivation were first examined. Then, moderation analyses using regression models were conducted to assess the unique associative patterns between students from Islamic and general universities, as well as between students majoring in natural and social sciences. In general, the findings supported the study hypotheses, showing that religiosity factors significantly predicted learning motivation. The results from the independent samples t-tests, correlations, and regression analyses revealed several noteworthy findings: (i) religiosity both altruism and practice was significantly correlated with four learning motivation factors; (ii) participants from Islamic universities reported higher levels of Islamic religiosity and learning motivation; (iii) participants from natural science disciplines reported significantly higher levels of achievement goal; and (iv) the association between religious altruism and active

learning strategies as well as self-efficacy was stronger for Islamic university students than for general university students, while (v) the association between religious practice and achievement goal was stronger for natural science students compared to social science students.

The findings related to the first hypothesis revealed that religious factors significantly predicted specific learning motivation variables, namely achievement goal, active learning strategies, self-efficacy, and learning environment stimulation. Consistent with findings from earlier research conducted in Western and Christian contexts (e.g., Cohen et al., 2003; Antrop-Gonzalez et al., 2007; Jeynes, 2002), the present findings extend this evidence to a Muslim-majority population. Also, the current findings are consistent with those from earlier studies from the same region showing religiosity and spirituality predicting motivation and student performance (Ariani, 2021). Notably, the current study adds empirical evidence from an underrepresented population Indonesian Muslim university students to the global discussion of religion and academic motivation. Although cross-religious similarities in findings might seem unexpected due to differences in religious teachings yet support from other studies conducted among Muslim samples in Asian contexts exists for such similarities (Fatima et al., 2017; Sulalah et al., 2025).

From an Islamic psychological and theological perspective, these findings are conceptually supported by numerous Qur'anic injunctions and Prophetic traditions emphasizing the pursuit of knowledge as a moral and spiritual duty. The Qur'an commands, "Read in the name of your Lord who created" (Al-Qur'an, 96:1–5), and also affirms, "Say, are those who know equal to those who do not know?" (Al-Qur'an, 39:9). This divine encouragement positions learning not as a mere intellectual exercise but as a form of worship and obedience to God. The Prophet Muhammad ﷺ also said, "Seeking knowledge is an obligation upon every Muslim" (Sunan Ibn Mājah, Hadith No. 224). Therefore, Muslim students with higher levels of religiosity may naturally perceive learning assignments as religious obligations. This spiritual orientation likely nurtures stronger motivation toward acquiring knowledge than among their less religious counterparts. Furthermore, altruism in Islam rooted in the principle of ithār (**إيثار**), or selfless giving encourages believers to assist others in learning and cooperation, which aligns closely with the construct of active learning strategies.

The results further revealed that religious altruism was a stronger predictor of learning motivation than religious practice. This indicates that the internalized moral dimension of religiosity manifested in care for

others, generosity, and service to the community plays a more substantial role in sustaining motivation than ritual observance alone. Within Islamic teaching, altruism and the pursuit of knowledge are intertwined moral imperatives. The Qur'an affirms, "The example of those who spend their wealth in the way of Allah is like a seed of grain that sprouts seven ears, in every ear a hundred grains" (Al-Qur'an, 2:261), illustrating that altruistic deeds multiply both personal and communal benefit. Similarly, verses commanding the pursuit of knowledge (Al-Qur'an, 96:1–5; 39:9; 58:11) and the Prophet's exhortations toward seeking knowledge as a religious duty (Ṣaḥīḥ Muslim, 16:221) reinforce the idea that learning is an act of worship. Consequently, Muslim students with stronger religious commitment may perceive academic efforts as part of their religious obligation, fostering greater persistence and intrinsic motivation. Moreover, altruistic attitudes may lead students to collaborate in group learning, assist peers, and engage in prosocial academic behaviors, all of which strengthen self-efficacy and academic engagement. In the framework of Islamic pedagogy, divine assistance (tawfīq) is believed to accompany those who support others sincerely for the sake of Allah (Al-Ghazālī, Iḥyāʾ ʿUlūm ad-Dīn, Vol. 3), thus amplifying their confidence and achievement orientation through spiritual as well as cognitive reinforcement.

The findings revealed that religious altruism compared to religious practice was stronger predictor of specific learning motivation factors. A couple of explanations may likely explain the stronger association. Primarily, religiosity may facilitate setting realistic goals and enhancing self-efficacy (Abdel-Khalik & Lester, 2017), thereby facilitating academic outputs in university students (e.g., Honicke et al., 2023). In addition, as per Islamic education, divine help may support those who support and serve their fellows. Consequently, good levels of altruistic behavior may help students with higher religiosity levels in effectively dealing with learning and relational challenges which in turn increases learning motivation and academic performance.

Concerning the second hypothesis, participants from Islamic universities scored higher on both religiosity constructs and all learning motivation subscales except performance goal. This finding aligns with previous literature (e.g., Jeynes, 2002), which highlighted that religious institutions often enhance both religiosity and academic achievement through structured moral and value-based education. The Islamic concept of ʿilm nāfiʿ beneficial knowledge further reinforces this relationship, where knowledge is pursued not for personal gain but for the service of

humanity and the pleasure of God. Meta-analytic findings showing that religious commitment correlates positively with academic success, particularly among minority populations, also support this result (Jeynes, 2008). The higher motivation among Islamic university students can also be explained through Qur'anic principles that encourage Muslims to seek knowledge for both worldly and spiritual success: "Say, my Lord, increase me in knowledge" (Al-Qur'an, 20:114), and "Allah will raise those who have believed among you and those who were given knowledge by degrees" (Al-Qur'an, 58:11). As explained by al-Zuhaylī (2009), such verses illustrate that intellectual pursuit is a path toward falāḥ success in this world and the Hereafter.

Additionally, students from general universities reporting lower religiosity levels aligns with expectations, as Islamic universities tend to maintain religious atmospheres that reinforce daily spiritual practices and moral reflection. Islamic universities also integrate learning with devotional activities, such as prayer, Qur'an recitation, and community service, which are known to enhance both cognitive and emotional engagement with study material.

In contrast, the absence of significant differences between social and natural science students (except for achievement goal) suggests that the influence of religiosity on motivation operates beyond disciplinary boundaries. The higher achievement goal reported by natural science students, as supported by Ecklund and Scheitle (2007), may be linked to the strong epistemic compatibility between Islam and science. Islamic scholars such as Ibn al-Haytham, al-Fārābī, and Ibn Sīnā viewed scientific inquiry as an extension of worship, since exploring nature reveals the signs of God (āyāt Allāh) in creation.

Regarding the third hypothesis, the stronger association between religious altruism and both active learning strategies and self-efficacy among Islamic university students can be explained by the social context of these institutions. Group-based learning in religiously infused environments cultivates mutual assistance, collective reflection, and peer led teaching practices highly praised in Islamic pedagogy since the classical madrasa system. The Prophet Muhammad ﷺ said, "The believers, in their mutual kindness, compassion, and sympathy, are just like one body" (Ṣaḥīḥ al-Bukhārī, Hadith No. 6011). Such cooperative learning context likely enhances academic motivation and personal efficacy. Regarding the moderation effect of discipline, the stronger association between religiosity practice and achievement goal among natural science students (compared to social science students) may reflect Islam's intrinsic

harmony with scientific reasoning and inquiry (cf. Dweck & Leggett, 1988). In Islam, scientific exploration is viewed as uncovering the divine wisdom (ḥikmah) embedded in the universe, thereby transforming academic pursuit into spiritual devotion.

Overall, the findings of this study affirm that Islamic religiosity particularly its altruistic and value-oriented aspects plays a crucial role in fostering learning motivation, self-efficacy, and goal orientation among university students. These results support the idea that educational interventions grounded in Islamic values can enhance not only academic outcomes but also moral and social development. Future studies are encouraged to expand this line of inquiry by integrating Islamic psychological frameworks such as tazkiyat al-nafs (self-purification) and niyyah (intentionality) to further understand how faith-driven motivation operates in educational contexts.

Conclusion

To conclude, Islamic religiosity appears to be positive factor for improved learning motivation among Muslim university students. Particularly, religious altruism is more valuable resource for active learning strategies and self-efficacy for participants from Islamic universities. Likewise, religious practice appears more important to achievement goal for participants from natural sciences disciplines.

Limitations, Strengths, and Future Directions

The present study has several strengths over the previous research. Most important among these is that the study is based on a sample from a Muslim country in an underrepresented Asian region, Indonesia, in contrast to Christian samples from Western developed countries in most of the studies. Moreover, the study has tried to comprehensively evaluate the learning motivation from various dimensions. Similarly, the construct of religiosity was also measured from factors of altruism and practice instead of taking it a general construct. Also, it focused on the moderating role of university type and discipline for a better understanding of the connection between religiosity and learning motivation in the context of religious learning environment. Finally, an appropriate sample size, random sampling procedure, and consideration of an underrepresented sample add further power to the current findings in the existing literature.

Despite the strengths, the current findings must be interpreted with caution in light of certain limitations. Firstly, cross-sectional research paradigm limits the study to draw causal interpretations about the direction of relationships. Future longitudinal and experimental studies are recommended to ascertain causal directions. Moreover, considering the

cross- religious similarities and differences (Saroglou, 2011), it is recommended to examine similar associations across different Ibrahimic and non-Ibrahimic religions. Finally, the present study has recruited sample from one Islamic country limiting the generalizability of the results to Muslim students from other countries and regions of the world. For future studies and better generalizability, it is recommended to select diverse samples from different countries

Implications

The findings have several implications for educational counselors to consider Islamic teachings in designing counseling techniques when dealing with students' learning and achievement issues. Moreover, it is recommended to train students for better religious altruism for their improved ability to effectively manage academic and relational problems in an active learning environment and for improved learning motivation.

References

Abdel-Khalek, A. M., & Lester, D. (2017). The association between religiosity, generalized self-efficacy, mental health, and happiness in Arab college students. *Personality and Individual Differences, 109*, 12-16. https://doi.org/10.1016/j.paid.2016.12.010.

Abu'l-ʿ Ala Maududi, (2000). Tafhimul Qur'an (Vol. 1, p. 170). Lahore, Pakistan: Islamic publications.

Abu Raiya, H. A., Pargament, K. I., Mahoney, A., & Stein, C. (2008). A psychological measure of Islamic religiousness: Development and evidence for reliability and validity. *The International Journal for the Psychology of Religion*, 18, 291–315. https://doi.org/10.1080/10508610802229270

Abu-Umama. (1998). Book on Knowledge: What has been related about the superiority of fiqh over worship, Hadith 2682. In I. Tirmidhi. Al-Jamiʿ Al- Tirmidhi. Darul- Gharb Al-Islami.

Al-Ghazālī, *Iḥyāʾ ʿUlūm ad-Dīn*, Vol. 3.

Al Qur'an. *Surah al-An'am*, 6, verse 165. Al Qur'an. *Surah al-'Alaq,* 96, verses 1-5.

Al Qur'an. *Surah al-Mujādilah*, 58, verses 11.

Al Qur'an. *Surah al-Zumar*, 39, verses 9.

Al-Zuhaylī, W. (2009). *al-Tafsīr al-Munīrfī al-'Aqīdawa al-Šar'iyyawa al-Manhaj* (Vol. 12), Dār al-Fikr.

Antrop-Gonzalez, R., Velez, W., & Garrett, T. (2007). Religion and high academic achievement in Puerto Rican High School Students. *Religion and Education, 34*(1), 63-75.

https://doi.org/10.1080/15507394.2007.10012392

Ariani, D.W. (2021). The role of religiosity and spirituality in motivating and improving students' performance in Indonesia. *Journal of Education, Society and Behavioural Science, 34*(8), *52-63*. https://doi.org/10.9734/jesbs/2021/v34i830351

Brown, D., & Gary, L. (1991). Religious socialization and educational attainment among African Americans: An empirical assessment. *Journal of Negro Education, 60*, 411– 426. http://dx.doi.org/10.2307/2295493

Brown, S., & Taylor, K. (2007). Religion and education: Evidence from the national child development study. *Journal of Economic Behavior & Organization*, 63, 439–460. https://doi.org/10.1016/j.jebo.2005.08.003

Cohen, A. B., Siegel, J. I., & Roezin, P. (2003). Faith versus practice: Different bases for religiosity judgments by Jews and Protestants. *European Journal of Social Psychology*, 33, 287-295. https://doi.org/10.1002/ejsp.148

Dedert, E. A., Studts, J. L., Weissbecker, I., Salmon, P. G., Banis, P. L., & Sephton, S. E. (2004). Religiosity may help preserve the cortisol rhythm in women with stress- related illness. *International Journal of Psychiatry in Medicine, 34*, 61–77. https://doi.org/10.2190/2Y72-6H80-BW93-U0T6

Din, F., Muhammad, H., Arzeen, S., & Ullah, S. (2019). Life satisfaction, religiosity, positive-negative affect and academic performance in undergraduates. *Pakistan Journal of Professional Psychology: Research and Practice, 10*(2), 34-46. https://doi.org/10.62663/pjpprp.v10i2.62

Dweck, C. S., & E. L. Leggett. (1988). A Social-Cognitive Approach to Motivation and Personality. *Psychological Review, 95*, 256–273. https://doi.org/10.1037/0033-295X.95.2.256

Ecklund, E. H., & Scheitle, C. P. (2007). Religion among academic scientist: Distinctions, disciplines, and demographic. *Social Problems*, *54*(2), 289–307. https://doi.org/10.1525/sp.2007.54.2.289

Erpay, İ. & Jandarbek, Z. (2014). A problem of religion study teaching in an independent Kazakhstan. *Procedia Social and Behavioral Sciences*, *141*, 352–356. https://doi.org/10.1016/j.sbspro.2014.05.062

Fatima, S., Arshad, M., & Mushtaq, M. (2022). Religious coping and young adult's mental well-being during Covid-19: Testing a

double moderated mediation model. *Archive for the Psychology of Religion*, *44*(3), 158-174. https://doi.org/10.1177/00846724221121685

Fatima, S., Arshad, S., Farooq, Z. & Sharif, S. (2025). Religious coping fosters mental health: Does psychological capital enable Pakistani engineers to translate religious coping into mental wellbeing?. *Journal of Religion & Health, 64*, 1898–1915. https://doi.org/10.1007/s10943-024-02075-8

Fatima, S., Mehfooz, M., & Sharif, S. (2017). Role of Islamic religiosity in predicting academic motivation of university students. *Psychology of Religion and Spirituality*, *9*(4), 377-386. http://dx.doi.org/10.1037/rel0000097

Fatima, S., Mehmood, N. & Shakil, M. (2022). Mediated associations between religious coping, self-regulation, and psychological distress vary for young Muslim men and women in Lahore, Pakistan. *Journal of Religion & Health, 61*, 109–124. https://doi.org/10.1007/s10943-021-01413-4

Fatima, S., Sharif, S., & Khalid, I. (2018). How Does Religiosity Enhance Psychological Well-Being? Roles of Self-Efficacy and Perceived Social Support. *Psychology of Religion and Spirituality*, *10*(2), 119–127. https://doi.org/10.1037/rel0000168

Gűven, M. (2013). Relation of motivation and religiosity: An empirical research on the relation of academic motivation and intrinsic religious motivation. *EkevAkademiDergisi, 17,* 151–165.

Hill, P. C., & Pargament, K. I. (2003). Advances in the conceptualization and measurement of religion and spirituality: Implications for physical and mental health research. *American Psychologist, 58*(1), 64–74. https://doi.org/10.1037/0003-066X.58.1.64

Honicke, T., Broadbent, J., & Fuller-Tyszkiewicz, M. (2023). The self-efficacy and academic performance reciprocal relationship: the influence of task difficulty and baseline achievement on learner trajectory. *Higher Education Research & Development*, *42*(8), 1936–1953. https://doi.org/10.1080/07294360.2023.2197194

Ibrahim, M. (2012). Scholastic incentives and educational perceived value: the Role of religion in Muslim students' achievement strivings. A Rasch model analysis. *International Journal of Humanities and Social Science*, *12*(2), 113–124. Corpus ID: 55957459

Jeynes, W. H. (2002). Why religious schools positively impact the academic achievement of children. *International Journal of Education and Religion, 3,* 16–32. https://doi.org/10.1163/157006202760182418.

Jeynes, W. H. (2008). The Effects of Catholic and Protestant Schools The Effects of Catholic and Protestant Schools: A Meta-Analysis. Catholic Education: A Journal of Inquiry and Practice, 12 (2), 255–275. https://doi.org/10.15365/joce.1202092013

Johnson, D. R., Scheitle, C. P., & Ecklund, E. H. (2015). Individual religiosity and orientation towards science: Reformulating relationship. *Sociological Science, 2*, 106– 124. https://doi.org/10.15195/v2.a7

Jose, P. E. (2013). *ModGraph-I: A programme to compute cell means for the graphical display of moderational analyses: The internet version, Version 3.0*. Wellington: Victoria University of Wellington. Retrieved November 11, 2013, from http://pavlov.psyc.vuw.ac.nz/paul-jose/modgraph/

Ladd, E., Lipset, S.M., & Trow, M. (1969). Carnegie Commission National Survey of Higher Education: Faculty Study Subsample. [distributor], 1992-02-16. https://doi.org/10.3886/ICPSR07078.v1

LaRose, R. A. (2009). *The Relationship between Religiosity and Educational Pursuit and Perception*(Doctoral dissertation). Utah State University, Utah, USA. Retrieved from https://digitalcommons.usu.edu/etd/444

Lehman, E. C. Jr., & Shriver, D. W. Jr. (1968). Academic discipline as predictive faculty religiosity. *Social Forces, 47*(2), 171 – 182. https://doi.org/10.2307/2575147

Pargament, K. I., & Abu-Raiya, H. (2007). A decade of research on the psychology of religion and coping: Things we assumed and lessons we learned. *Psyke & Logos, 28*, 742–766. https://doi.org/10.7146/pl.v28i2.8398

Pew Research Center. (2015). *The future of world religions: Population growth projections, 2010 –2050*. Retrieved from http://www.pewforum .org/2015/04/02/religious- projections-2010-2050/#fnref-22652-2

Reichard, J. D. (2011). Individual religious commitment and interdisciplinary academic achievement: Student religiosity as a factor in a national academic competition. *Christian Perspectives in Education, 4*, 2. Retrieved from http://digitalcommons.liberty.edu/cpe/vol4/iss2/2

Rettinger, D. A., & Jordan, A. E. (2005). The relation among religion, motivation, and college cheating: A natural experiment. *Ethics & Behavior, 15*(2), 107 – 129. http://dx.doi.org/10.1207/s15327019eb1502_2

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology, 25*, 54–67. http://dx.doi.org/10.1006/ceps.1999.1020

Ryan, R. M., Rigby, S., & King, K. (1993). Two types of religious internalization and their relations to religious orientations and mental health. *Journal of Personality and Social Psychology, 65*, 586 –596. http://dx.doi.org/10.1037/0022-3514.65.3.586

Sarchami, R., Rajaei, S., & Aalaei, S. (2020). Evaluation of the relationship between religious beliefs and academic achievements of dental students. *Journal of Education and Health Promotion, 9*(1), 305-309. https://doi.org/10.4103/jehp.jehp_576_19

Saroglou, V. (2011). Believing, bonding, behaving, and belonging: The big four religious dimensions and cultural variation. *Journal of Cross-Cultural Psychology, 42*(8), 1320-1340. https://doi.org/10.1177/0022022111412267

Ṣaḥīḥ al-Bukhārī. (n.d.). *Ṣaḥīḥ al-Bukhārī* . Beirut: Dār al-Kutub al-ʿIlmiyyah. Ṣaḥīḥ Muslim, A. H. (1988). *Ṣoḥīḥ Muslim* (Vol. 16). Beirut: Dār al-Kutub al-'Ilmiyya.

Sulalah, Fatima, S., & Rohman, M. (2025). Does childhood religiosity enhance learning motivation? Testing the role of Islamic religiosity using moderated mediation model. *Archive for the Psychology of Religion, 47*(1), 3-19. https://doi.org/10.1177/00846724241229731

Sunan Ibn Mājah. (n.d.). *Sunan Ibn Mājah*. Beirut: Dār al-Kutub al-ʿIlmiyyah

Sutantoputri, N. W., & Watt, H. M. G. (2012). Attribution and motivation: A cultural study among Indonesian university students. *International Journal of Higher Education, 1*, 118 –129. https://doi.org/10.5430/ijhe.v1n2p118

Tiliouine, H., Cummins, R. A., & Davern, M. (2009). Islamic religiosity, subjective wellbeing and health. *Mental Health, Religion, and Culture, 12*(1), 55-74. http://dx.doi.org/10.1080/13674670802118099

Tuan, H., Chin, C., & Shieh, S. (2005) The development of a questionnaire to measure students' motivation towards science learning. *International Journal of Science Education, 27*(6), 639-654. https://doi.org/10.1080/0950069042000323737

Zaelani, K. (2015). Philosophy of science actualization for Islamic science development: philosophical study on an epistemological framework for Islamic sciences. *Pacific Science Review B: Humanities and Social Science, 1*, 109 – 113.

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