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Identifying Key Determinants of Entrepreneurial Intention: Integrating TPB and Religiosity Among Islamic University Students in Yogyakarta

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Abstract

Unemployment among university graduates remains a pressing problem in Indonesia, which makes entrepreneurial intention among students an important policy concern. This study examines how independent attitude, entrepreneurial knowledge, motivation, and religiosity influence entrepreneurial intention among students at Islamic universities in Yogyakarta, using a model based on the Theory of Planned Behavior. Data were collected from January to March 2024 through an online questionnaire distributed via Google Forms to 252 students selected by purposive sampling and analyzed using partial least squares structural equation modeling in SmartPLS 4.1.0.1. The results show that motivation and entrepreneurial knowledge significantly increase entrepreneurial intention, with motivation having the stronger effect, whereas independent attitude and religiosity have no significant effect. These findings imply that entrepreneurship education at Islamic universities should prioritize building motivation and entrepreneurial knowledge through experiential learning and mentoring, rather than expecting religiosity alone to stimulate entrepreneurial intention.

Keywords: *entrepreneurial intention, islamic universities, religiosity, theory of planned behavior*

INTRODUCTION

The disparity between the number of university graduates and the availability of employment opportunities in Indonesia has become a critical issue that demands immediate attention (Kuncoro, 2021; Rosyadi & Ratnasih, 2021). This problem is closely tied to employment challenges and the increasing rate of educated unemployment, particularly among fresh graduates from higher education institutions across the country (Widowati et al., 2022; Wulandari & Sishadiyati, 2023). Educated unemployment is directly linked to the Human Development Index

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(HDI), which is influenced by factors such as education and social welfar**e** (Amalia et al., 2018; Dahliah & Nur, 2021; Ipmawan et al., 2022). As these factors improve, so does human quality, which can lead to a reduction in unemployment levels. According to national higher education statistics, in 2020, approximately 1.5 million graduates were recorded across all provinces and universities in Indonesia, while only around 230,000 jobs were available. This substantial gap contributes significantly to the potential rise in unemployment.

This issue must be addressed promptly, as it can lead to a continued increase in educated unemployment. The annual growth in population and the number of university graduates could exacerbate the problem if job creation fails to keep pace (Pisár et al., 2021). One potential solution to reduce unemployment in Indonesia—especially among younger generations and recent graduates—is to foster entrepreneurial spirit and promote self-employment as a viable career path (Costa & Brunila, 2016; Sarhan & Aziz, 2023).

According to the (Global Entrepreneurship Index, 2019), the number of entrepreneurs in Indonesia remains low, with the country ranked 75th out of 137 surveyed nations, scoring only 26% on a global scale. This ranking reflects the country's limited entrepreneurial engagement. Several contributing factors have been identified in the literature as reasons for the low entrepreneurial interest among Indonesian students. These include insufficient entrepreneurial knowledge, lack of motivation, fear of business risks, low entrepreneurial self-efficacy, and environmental influences such as societal and family pressures (Satriadi, Ausat, et al., 2022).

It is imperative to reframe the mindset of the younger generation-particularly students and fresh graduates-regarding their career trajectories. Rather than solely aspiring to become civil servants or corporate employees, graduates should be encouraged to explore entrepreneurial avenues as legitimate and rewarding career choices. Such a shift in perspective can help prevent an escalation in Indonesia's open unemployment rate (Rahmawati & Putri, 2021a). Engaging in entrepreneurship can serve as a pragmatic alternative for youth seeking solutions to employment challenges. Cultivating entrepreneurial interest early through education, enhancing entrepreneurial knowledge, building internal motivation, and creating a supportive university environment can foster this interest (Septiana & Kholid, 2022).

Entrepreneurial intention is recognized as a critical factor in increasing employment opportunities among university graduates (Gazi et al., 2024; Gelard & Saleh, 2011; Liñán et al., 2011; Zvarikova & Kacerauskas, 2017). It reflects a person's readiness and preference to initiate and manage their own business ventures. The Theory of Planned Behavior (TPB) posits that entrepreneurial intention is shaped by three core components: attitude toward behavior, subjective norms, and perceived behavioral control (Suciviana & Usman, 2022; Vamvaka et al., 2020). Attitude toward behavior represents the degree to which individuals hold positive or negative evaluations of entrepreneurship (Botsaris & Vamvaka, 2016; Entrialgo & Iglesias, 2016; Maresch et al., 2016; Ozaralli & Rivenburgh, 2016; Vamvaka et al., 2020). Subjective norms refer to perceived social pressures or support to engage in entrepreneurial activities (Anderson, 2023; Asimakopoulos et al., 2019; Baba et al., 2025; Bazan, 2022; Igwe et al., 2020). Perceived behavioral control relates to individuals' confidence in their ability to perform entrepreneurial actions, including their assessment of available resources and opportunities. Understanding how these components interact is essential for designing interventions—through education, policy, or training programs—that can effectively stimulate entrepreneurial interest.

Religiosity also plays a potentially influential role in shaping entrepreneurial intention among university students (Giacomin et al., 2022; A. K. E. Onjewu et al., 2023). Strong religious values may help form personal integrity, work ethic, and social responsibility—traits considered foundational in entrepreneurial success. In the context of Islamic education, integrating Islamic values into entrepreneurship education can encourage students to build businesses that are not only economically viable but also socially beneficial. Such integration has the potential to produce entrepreneurs who are both competitive and principled (David & Lawal, 2018a; McIntyre et al., 2023).

Previous studies applying the Theory of Planned Behavior show that attitude, perceived behavioral control, and entrepreneurial knowledge shape students' entrepreneurial intention (Amofah & Saladrigues, 2022; Pham et al., 2023; Vamvaka et al., 2020), and that entrepreneurial motivation is a consistent predictor of that intention (Al-Jubari et al., 2019; Hassan et al., 2021). Evidence on religiosity, however, is less settled. Religiosity is associated with entrepreneurial intention in several contexts (Baranik et al., 2018; David & Lawal, 2018; Giacomin et al., 2023; Khoirunnisa et al., 2023), but its effect often operates indirectly through motivation, self-efficacy, or planned behavior (Jia et al., 2023; A.-K. E. Onjewu et al., 2023; Siswanto, 2024) and may differ by type of entrepreneurship, as it relates to social but not traditional entrepreneurial intention (McIntyre et al., 2023). Few studies test religiosity together with attitude, knowledge, and motivation within a TPB framework among students in institutions where religious values are embedded in academic culture. This study offers three novelties: (1) it tests religiosity simultaneously with independent attitude, entrepreneurial knowledge, and motivation in a TPB-based model; (2) it draws on students from five public and private Islamic universities in Yogyakarta rather than a single campus; and (3) it clarifies the relative strength of cognitive and motivational determinants compared with religiosity. Accordingly, this study aims to analyze the effect of independent attitude, entrepreneurial knowledge, motivation, and religiosity on entrepreneurial intention among students at Islamic universities in Yogyakarta, and to identify which factor has the strongest effect.

LITERATURE REVIEW

Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB), introduced by (Ajzen, 1991a), provides a robust foundation for understanding the determinants of entrepreneurial intention. TPB posits that intention is the most immediate antecedent of behavior and is shaped by three core constructs: attitude toward the behavior, subjective norms, and perceived behavioral control (PBC). The TPB is widely applied in entrepreneurship studies (Malebana, 2014a; Septiana & Kholid, 2022). TPB asserts that behavior is preceded by intention and perceived control over the action. An individual's intention is influenced by three core factors: attitude toward the behavior, subjective norms, and perceived behavioral control (Lortie & Castogiovanni, 2015).

Importantly, TPB posits a dual role for Perceived Behavioral Control (PBC). First, PBC acts as a predictor of intention, alongside attitude and subjective norms. Second, when the perception of control accurately reflects actual control, PBC can directly influence behavior without mediation by intention (Ajzen, 1991a; Vamvaka et al., 2020a). This dual influence underscores the significance of PBC in entrepreneurial contexts, where confidence in resource availability and capability often determines whether intention translates into action.

The TPB framework is particularly well-suited for predicting entrepreneurial intention because it offers a detailed and structured model for understanding behavioral motivations (Raguž & Matic, 2011). It has been extensively employed in entrepreneurship research due to its ability to explain how social and psychological factors interact to influence an individual's decision to start a business (A. K. E. Onjewu et al., 2023; Souitaris et al., 2007a; Vamvaka et al., 2020a; Wang et al., 2023).

Independent Attitude

Attitude is defined as an individual's evaluative disposition toward a particular behavior. In entrepreneurship, it reflects how students perceive self-employment whether it is favorably or unfavorably. An independent attitude represents a mental and behavioral tendency to act without reliance on others, which is crucial for entrepreneurial success. This includes the ability to act within the boundaries of ethical principles, show initiative, and remain resilient in the face of challenges (Amofah & Saladrigues, 2022b; Suciviana & Usman, 2022). Independent attitude in this study refers more to a positive attitude toward entrepreneurship and independence in business decision-making, rather than a general personality trait. This attitude measures how students view entrepreneurship as an independent career choice, where they have full control over managing their business, and their readiness to take risks associated with entrepreneurship.

Research has highlighted that an independent attitude often correlates positively with entrepreneurial intention (Rahman et al., 2015; Tshikovhi & Shambare, 2015). However, these effects may vary depending on context and the interaction with other motivational and cognitive variables. Within TPB, attitude is considered a conscious and subjective phenomenon, and thus, an individual's independent disposition can influence their perception of entrepreneurship and their willingness to engage in it (Tshikovhi & Shambare, 2015).

Entrepreneurial Knowledge

Knowledge, particularly in the domain of entrepreneurship, serves as an essential cognitive resource that shapes an individual's decision-making and innovation capability (Alqatan et al., 2025; Elrehail et al., 2024; Hasanein & Al-Romeedy, 2026; Kivijärvi, 2024; Lowik et al., 2017; Xiao et al., 2026; Xiong et al., 2025). Entrepreneurial knowledge encompasses an understanding of how to identify opportunities, manage risk, create value, and navigate the complexities of launching and sustaining a business (Prince et al., 2021; Ullah, 2020). Prior studies consistently support the notion that entrepreneurial knowledge plays a pivotal role in shaping intention to start a business (Pham et al., 2023b; Ruswanti, 2016). Knowledge enables individuals to evaluate business opportunities effectively and reduces uncertainty, thus enhancing their confidence and intention to act entrepreneurially (Escobar et al., 2022; Tshikovhi & Shambare, 2015). In the context of university students, particularly in Islamic institutions, such knowledge is often acquired through entrepreneurship courses, extracurricular programs, and mentoring initiatives. This research highlights the significance of individual factors affecting entrepreneurial intention in accordance with the SDGs. Entrepreneurial knowledge represents cognitive resources that can enhance individuals' confidence in their capacity to operate a business (perceived behavioural control). This study did not incorporate subjective norms as an independent concept, instead concentrating on the individual determinants deemed most pertinent to Islamic university students.

Motivation

Motivation refers to the internal drive that compels an individual to pursue specific goals. In entrepreneurship, motivation is often categorized into push and pull factors. Push factors include unemployment or job dissatisfaction, while pull factors involve the desire for independence, financial success, and personal fulfilment (Otache et al., 2022).

Numerous empirical studies have found a significant positive relationship between motivation and entrepreneurial intention. Individuals who exhibit strong internal motivations tend to demonstrate a higher likelihood of engaging in entrepreneurial behaviour (Al-Jubari et al., 2019; Hassan et al., 2021; Tiwari et al., 2022; Yamini et al., 2022). Motivation not only fosters intention but also sustains entrepreneurial commitment in the face of uncertainty and failure (Jahanbin & Sharifi, 2023). Thus, motivation is considered a key driver that energizes and directs entrepreneurial behavior. The motivation developed in an Islamic university environment will lead to the formation of ethical attitudes, also driven by religious values. Therefore, entrepreneurship education at Islamic universities not only provides technical knowledge but also integrates the moral and social principles underlying entrepreneurship.

The Theory of Planned Behaviour (TPB) claims that Perceived Behavioural Control (PBC) affects entrepreneurial intention and can directly impact entrepreneurial behaviour, particularly when an individual's impression of control aligns with their actual control. This indicates that when an individual perceives control over resources and opportunities, they are more inclined to act in alignment with their predetermined intentions. Consequently, in this setting, PBC functions as a predictor of both entrepreneurial intention and behaviour.

Perceived Behavioral Control (PBC) in the TPB is an individual's perception of how much they feel they can control their entrepreneurial behavior, based on beliefs about control over resources and opportunities. PBC serves as a predictor of entrepreneurial intention, not as a proxy for it. Thus, PBC influences entrepreneurial intention, but intention itself is the result of three main factors: attitude, subjective norms, and PBC (Vamvaka et al., 2020a). According to the TPB, Perceived Behavioral Control (PBC) not only serves as a predictor of entrepreneurial intention but can also directly influence entrepreneurial behavior when a person's perceived control reflects the actual control they possess. In other words, PBC not only influences entrepreneurial intentions but can also lead to entrepreneurial action when individuals perceive sufficient control over existing resources and opportunities.

Religiosity

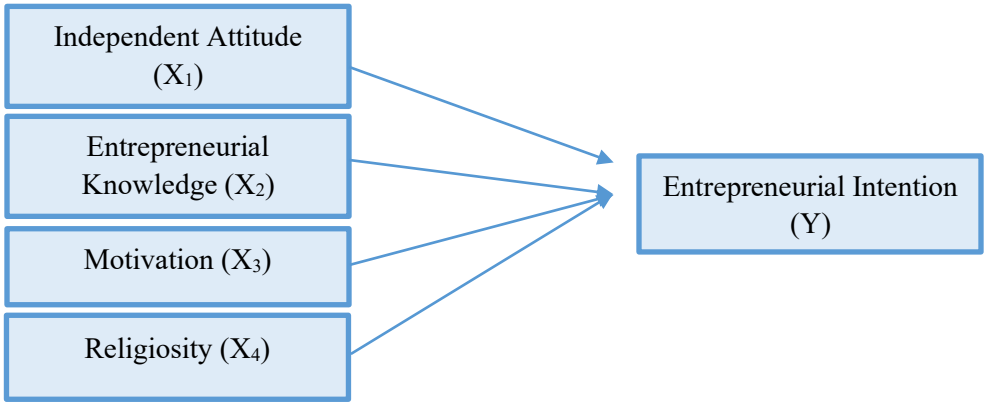
Religiosity refers to the degree of individual commitment to religious beliefs and practices (Amiruddin et al., 2023; Iddagoda & Opatha, 2017; Madni et al., 2016; Mohd Dali et al., 2019; Olowookere et al., 2016; Villani et al., 2019). It differs from religion as an institution; religiosity is more personal and experiential. In entrepreneurship, religiosity is increasingly recognized as a factor influencing ethical decision-making, risk-taking, and the moral dimensions of business conduct (Ali, 2023; Giacomin et al., 2022; McIntyre et al., 2023).

Within Islamic contexts, entrepreneurship is not merely an economic activity but also a form of worship. Entrepreneurs are expected to act with integrity, social responsibility, and compliance with shariah principles (Harizan & Mustafa, 2020). However, religiosity's influence on entrepreneurial intention remains inconclusive in the literature. While some studies show that religiosity positively correlates with entrepreneurial motivation and ethical behaviour (Baranik et al., 2018a; David & Lawal, 2018a), others find either no effect or even a negative relationship due

to varying definitions and measurements of religiosity (Jia et al., 2023b; Khoirunnisa et al., 2023b; McIntyre et al., 2023).

For instance, religiosity can be measured through belief-based indicators, such as trust in divine will, or through practice-based metrics, such as frequency of religious observance and community engagement. This variation in operationalization may account for the mixed findings across empirical studies. In this study, religiosity is treated as a personal value that may or may not significantly influence students' entrepreneurial orientation depending on how it interacts with cognitive and motivational variables. Based on the findings described above, the following hypothesis is formulated in this study as shown in Figure 1 below:

Figure 1. Framework of Research



(Source: *Figure processed by the author 2024*)

METHOD

This study employs a quantitative research design aimed at examining the influence of several psychological and value-based factors—including entrepreneurial knowledge, motivation, religiosity, and independent attitude—on the entrepreneurial intention of students enrolled at Islamic universities in Yogyakarta, Indonesia. The research adopts a positivist approach, wherein data are collected through structured instruments and analyzed statistically to validate the proposed model and test the formulated hypotheses.The target population comprises male and female students from Islamic higher education institutions located within the Special Region of Yogyakarta. These institutions include both public and private Islamic universities. A purposive sampling technique was employed to select respondents based on their relevance to the study's objectives. In total, 252 students were selected as the sample. This sample size is consistent with recommendations in structural equation modeling (SEM) literature, where a range of 200 to 400 observations is considered appropriate for obtaining accurate and reliable model estimations (Hair et al., 2006; Kline, 2011). The inclusion criteria were as follows: (1) the respondent must be currently enrolled in an Islamic university in Yogyakarta, and (2) the respondent must be willing to participate voluntarily. No specific restrictions were imposed based on the students' academic discipline or year of study to ensure the diversity and generalizability of the results within the defined population. Primary data were gathered using a structured questionnaire distributed through Google Forms. The questionnaire included items designed to measure each research variable using a five-point Likert scale. These indicators were adapted and translated to fit the local

academic and cultural context. The questionnaire was divided into several sections: demographic information, items related to independent attitude, entrepreneurial knowledge, motivation, religiosity, and entrepreneurial intention.

The data were analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) technique using SmartPLS version 4.1.0.1. The choice of PLS-SEM over covariance-based SEM was based on its advantages in handling relatively small sample sizes, non-normal data distributions, and models with formative indicators (Harizan & Mustafa, 2020). The analysis consisted of two stages: the Outer Model (Measurement Model) assessment and the Inner Model (Structural Model) assessment. The Outer Model evaluation focused on testing the reliability and validity of the measurement instruments through indicator loadings, composite reliability (CR), and average variance extracted (AVE). Only indicators with loading values ≥ 0.7 were retained. Discriminant validity was examined using the Fornell-Larcker criterion and cross-loading analysis.The Inner Model was assessed to examine the relationships among latent constructs, using bootstrapping procedures with 5,000 resamples to determine the significance of path coefficients. Hypotheses were tested based on t-statistics (>1.96 for 95% confidence) and p-values (<0.05 for significance).

RESULT

Respondent Profile

Table 1. Respondent Profile

Category	Frequency	Percentage
Gender		
Male	172	68%
Female	80	32%
University		
UII	64	25%
UMY	29	12%
UAD	54	21%
UNISA	33	13%
UIN Yogyakarta	72	29%
Department		
Faculty of Religion	32	13%
Faculty of Medicine	4	2%
Faculty of Engineering	23	9%
Faculty of Phsychology	19	8%
Faculty of Business and Economics	49	19%
Faculty of Law	30	12%
Faculty of Social and Politic Science	3	1%
Faculty of Education	10	4%
Other	82	33%

Source: *Primary data, processed* (2024)

A total of 252 valid responses were collected from students at various Islamic universities in Yogyakarta. The respondent profile data is as explained in table 1. The gender distribution shows that 68% of the respondents were male (172 students), while the remaining 32% were female (80 students). Regarding the institutional origin, 25% of respondents were from Universitas Islam Indonesia (UII), 12% from Universitas Muhammadiyah Yogyakarta (UMY), 21% from Universitas Ahmad Dahlan (UAD), 13% from Universitas 'Aisyiyah (UNISA), and 29% from Universitas Islam Negeri (UIN) Yogyakarta.

Disciplinary backgrounds varied, with most respondents coming from the Faculty of Economics and Business (19%), followed by Law (12%), Religious Studies (13%), and others from faculties such as Engineering, Psychology, Medicine, Social and Political Sciences, and Education. This diversity adds value to the generalizability of the findings across various academic domains within Islamic higher education institutions.

Measurement Model

The measurement model was evaluated following the guidelines of Hair et al.(Hair et al., 2021), covering indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. In the initial estimation, nine indicators had outer loadings below the recommended threshold of 0.70, namely M1 and M3 (motivation), R2, R3, and R5 (religiosity), and SM1, SM2, SM4, and SM5 (independent attitude). These indicators were removed and the model was re-estimated. None of the indicators of entrepreneurial knowledge or entrepreneurial intention had to be removed. As shown in Table 2, all retained loadings in the re-estimated model ranged from 0.718 to 0.929, indicating that each indicator shares more than half of its variance with its construct. Composite reliability ranged from 0.794 to 0.848, and average variance extracted (AVE) ranged from 0.584 to 0.715, exceeding the thresholds of 0.70 and 0.50, respectively. Internal consistency reliability and convergent validity were therefore established for all five constructs.

The removal of indicators changed the substantive content of three constructs, and this has to be considered when the structural results are interpreted. Independent attitude is now represented by SM3, honesty and responsibility ($\lambda = 0.929$), and SM6, positive, creative, and innovative thinking ($\lambda = 0.752$). The items that captured the autonomy-related side of independence, namely the desire to achieve personal goals, self-confidence, adaptability, and persistence, did not load adequately. Religiosity is represented by R1, interest in deepening religious knowledge ($\lambda = 0.897$), and R4, daily religious practice and avoidance of prohibited actions ($\lambda = 0.719$). The two belief items (R2 and R5) and the item on participation in religious communities (R3) were dropped. In terms of the Centrality of Religiosity Scale (Huber & Huber, 2012), the retained measure therefore reflects the intellectual and private-practice dimensions rather than the ideological and public-practice dimensions. Motivation retained M2, M4, and M5, which describe being motivated to engage in business, receiving appreciation for business efforts, and finding business activities interesting, whereas the two general achievement items were removed. Religiosity and independent attitude are each measured by two indicators, which is acceptable in PLS-SEM but narrows the content domain of both constructs.

Table 2. *Measurement model: indicator loadings, reliability, and convergent validity*

Construct / indicator	Loading	CR	AVE
Motivation (M)		**0.818**	**0.599**
M2	0.800		
M4	0.729		
M5	0.766		
Entrepreneurial intention (MB)		**0.848**	**0.584**
MB1	0.813		
MB2	0.758		
MB3	0.768		

Construct / indicator	Loading	CR	AVE
MB4	0.714		
Entrepreneurial knowledge (PK)		**0.837**	**0.632**
PK1	0.800		
PK2	0.784		
PK3	0.800		
Religiosity (R)		**0.794**	**0.661**
R1	0.842		
R4	0.706		
Independent attitude (SM)		**0.832**	**0.715**
SM3	0.783		
SM6	0.732		

Source: *Primary data, processed* (2024)

Table 3. *Discriminant validity: Fornell–Larcker criterion*

	MB	M	PK	R	SM
MB	**0.769**				
M	0.739	**0.776**			
PK	0.590	0.561	**0.800**		
R	0.235	0.152	0.237	**0.815**	
SM	0.171	0.071	0.297	0.290	**0.834**

Source: *Primary data, processed* (2024)

Discriminant validity was assessed with the Fornell–Larcker criterion (Fornell & Larcker, 1981). As presented in Table 3, the square root of the AVE of each construct (MB = 0.769; M = 0.776; PK = 0.800; R = 0.815; SM = 0.834) was higher than its correlations with all other constructs. The cross-loadings reported in Appendix A lead to the same conclusion, as every indicator loaded most strongly on its own construct. The highest inter-construct correlation was found between motivation and entrepreneurial intention (r = 0.739). Although this value is still below the square root of the AVE of entrepreneurial intention (0.769), the margin is narrow, indicating that the two constructs are empirically distinct but closely related.

Structural Model and Hypotheses Testing

Table 4. *Structural model results (bootstrapping, 5,000 resamples)*

Hypothesis / path	β	SE	t	p	Decision
H1 SM → MB	0.043	0.043	0.998	.318	Not supported
H2 PK → MB	0.238	0.065	3.642	< .001	Supported
H3 M → MB	0.580	0.054	10.711	< .001	Supported
H4 R → MB	0.063	0.045	1.385	.166	Not supported

Note. SE = β / t. R^2 (MB) = 0.585. Source: *Primary data, processed* (2024)

The model explained 58.5% of the variance in entrepreneurial intention ($R^2 = 0.585$), which is moderate (Hair et al., 2019). Bootstrapping with 5,000 resamples (Table 4) showed that motivation ($\beta = 0.580$, $t = 10.711$, $p < .001$) and entrepreneurial knowledge ($\beta = 0.238$, $t = 3.642$, $p < .001$) significantly predicted entrepreneurial intention, supporting H3 and H2. Independent attitude ($\beta = 0.043$, $t = 0.998$, $p = .318$) and religiosity ($\beta = 0.063$, $t = 1.385$, $p = .166$) had no significant effect, so H1 and H4 were not supported.

DISCUSSION

This study examined how independent attitude, entrepreneurial knowledge, motivation, and religiosity shape the entrepreneurial intention of students at Islamic universities in Yogyakarta. The results show a clear pattern: intention is driven mainly by motivational and cognitive factors, while the attitudinal and value-based factors examined here have no significant direct effect. The following discussion interprets each finding in light of the Theory of Planned Behavior (TPB) and prior studies, and explains why some results agree and others disagree with earlier research.

Motivation as the Dominant Driver of Entrepreneurial Intention

The finding that motivation is the strongest predictor of entrepreneurial intention is consistent with a large body of research. Al-Jubari et al. (Al-Jubari et al., 2019), who integrated self-determination theory with the TPB among Malaysian university students, showed that motivational orientation is a central antecedent of entrepreneurial intention. Similar conclusions were reached by Hassan et al. (Hassan et al., 2021), who found that entrepreneurial motivation mediates the effect of entrepreneurship education on intention, and by Jahanbin and Sharifi (Jahanbin & Sharifi, 2023), who identified motivation as a direct predictor of intention. In the Indonesian context, Marfuah (Marfuah, 2021) also reported that entrepreneurial motivation significantly increases students' interest in entrepreneurship, and Malebana (Malebana, 2014) found a comparable pattern among rural university students in South Africa.

The retained motivation indicators help explain why the effect is so strong. They refer to finding business interesting, being motivated to engage in business, and being appreciated for business efforts, which correspond to the pull factors described by Otache et al. (Otache et al., 2022) rather than to push factors such as unemployment. Students who are attracted to business activity for its own sake are more likely to see entrepreneurship as a desirable career, and such intrinsic interest tends to sustain commitment in the face of uncertainty (Jahanbin & Sharifi, 2023). This is in line with what Sarosa (2005) describes as entrepreneurial drive. The size of this effect should nevertheless be read with some caution. The correlation between motivation and entrepreneurial intention ($r = 0.739$) is close to the square root of the AVE of intention, and the content of the retained motivation items partly overlaps with the attitude-toward-the-behavior component of the TPB (Ajzen, 1991). Part of the strong coefficient may therefore reflect the conceptual proximity of the two constructs, not only a causal influence.

The Islamic university setting may further strengthen this motivational pathway. Tiwari et al. (Tiwari et al., 2022) and Yamini et al. (Yamini et al., 2022) showed that prosocial and intrinsic motivation, namely the desire to benefit others and the enjoyment of the activity itself, are strong predictors of entrepreneurial intention. In Islamic teaching, business is regarded as a legitimate and honorable way of earning a living and as a means of benefiting society (Harizan & Mustafa, 2020). Students in Islamic universities are regularly exposed to this view, which can make the motivation to engage in business feel both personally rewarding and morally meaningful. The appreciation item (M4) is also relevant here: recognition from family, lecturers, and peers for business efforts

reinforces the motivation to pursue entrepreneurship. Motivation thus appears to be the channel through which the broader values of the environment are translated into a concrete career intention.

The Effect of Entrepreneurial Knowledge on Entrepreneurial Intention

The significant effect of entrepreneurial knowledge supports the findings of Pham et al. (Pham et al., 2023), who showed that entrepreneurship knowledge contributes to the formation of students' e-entrepreneurial intention, and of Tshikovhi and Shambare (Tshikovhi & Shambare, 2015), who found a positive relationship between entrepreneurial knowledge and intention among South African Enactus students. Escobar et al. and Souitaris et al. (Rodriguez-Escobar et al., 2022; Souitaris et al., 2007) likewise argue that entrepreneurship training raises intention by equipping students with knowledge of how to start and manage a business. The indicators used in this study, namely willingness to take business risks, ability to analyze opportunities, and ability to solve business problems, are closely related to perceived behavioral control in the TPB. Students who believe they understand these aspects feel more capable of running a business and therefore more willing to start one (Ajzen, 1991; Vamvaka et al., 2020).

However, the effect of knowledge is considerably smaller than that of motivation and its path coefficient is less than half as large. This suggests that knowledge is a necessary but not a sufficient condition for entrepreneurial intention. Alkhalaf et al. (2022) found that among French students the effect of entrepreneurial knowledge on intention runs largely through behavioral antecedents such as attitude and perceived control, and Hassan et al. (2021) showed that motivation mediates the effect of entrepreneurship education. The moderate correlation between knowledge and motivation found in this study ($r = 0.561$) points in the same direction: part of the influence of knowledge may be transmitted through motivation rather than appearing as a direct effect. Knowing how to run a business raises intention most when it is accompanied by the desire to do so.

The relatively modest effect of knowledge may also reflect how entrepreneurial knowledge is acquired by the respondents. Only about one fifth of the respondents come from the Faculty of Economics and Business, while the majority study religion, law, engineering, psychology, education, and other fields in which entrepreneurship is not a core part of the curriculum. For these students, entrepreneurial knowledge is gained mainly through elective courses, seminars, or personal experience, so its depth may vary considerably. Ruswanti (2016) and Satriadi et al. (2022) emphasized that practical, hands-on training such as home-industry training and business practice is more effective in building intention than theoretical knowledge alone. Knowledge that is experiential and applied is more likely to raise students' confidence that they can actually run a business, which is the mechanism through which knowledge shapes intention in the TPB.

The Effect of Motivation on Entrepreneurial Intention

The results for motivation and entrepreneurial knowledge should not be seen as two separate findings. The two constructs are moderately correlated, which indicates that students who know more about running a business also tend to be more motivated to do so, and vice versa. Previous studies suggest that this relationship is sequential rather than coincidental. Otache et al. (2022) found a serial pathway in which entrepreneurship education first shapes entrepreneurial orientation and motivation, which then raise entrepreneurial intention. Wang et al. (2023) showed that the effect of entrepreneurship education on intention is mediated by entrepreneurial self-efficacy, that is, by students' confidence in their own ability to carry out entrepreneurial tasks. Souitaris et al. (2007) found that entrepreneurship programmes raise intention mainly through the

inspiration they generate, rather than through the knowledge they transfer or the resources they provide.

Read together with these studies, the present results suggest that knowledge and motivation reinforce each other. Knowledge reduces the uncertainty of starting a business and makes entrepreneurship look feasible, while motivation makes it look desirable. Students who see entrepreneurship as both feasible and desirable are most likely to form a strong intention. This also explains why motivation shows a much larger direct effect: it is the more proximal of the two factors, and part of the effect of knowledge is likely carried through it. For entrepreneurship education, the implication is that courses which only transfer knowledge may have limited impact unless they also inspire students, for example through direct contact with entrepreneurs, real business projects, and early experiences of success.

The Effect of Independent Attitude on Entrepreneurial Intention

The non-significant effect of independent attitude contrasts with Amofah and Saladrigues (2022), Suciviana and Usman (2022), and Vamvaka et al. (2020), all of whom reported that attitude and independence contribute positively to entrepreneurial intention. It also differs from Jaya and Harti (2021), whose instrument was adapted for this study and who found a significant effect of independent attitude among students at Universitas Negeri Surabaya. Three explanations may account for this difference.

The first explanation concerns measurement. After indicator removal, independent attitude was represented only by honesty and responsibility (SM3) and by positive, creative, and innovative thinking (SM6). These are general character traits rather than an evaluation of self-employment as an independent career. The TPB states that attitudes predict intention best when they are specific to the behavior in question (Ajzen, 1991). Because the autonomy-related items, such as the desire to achieve personal goals, self-confidence, and persistence, were dropped, the construct that remained is only weakly connected to the decision to start a business. The weak bivariate correlation between independent attitude and intention ($r = 0.171$) supports this interpretation. The second explanation is the limited entrepreneurial literacy of many students. Rosmiati et al. (2015) argued that when students do not understand the practical routes to self-employment, a disposition toward independence is not translated into entrepreneurial intention. The third explanation is that independence may work together with other variables rather than on its own. The studies that found a significant effect generally examined independence alongside entrepreneurship education, role models, or perceived behavioral control (Amofah & Saladrigues, 2022; Vamvaka et al., 2020). In this study, once motivation and knowledge are controlled for, the unique contribution of independent attitude becomes negligible.

This interpretation is supported by the wider TPB literature. Lortie and Castogiovanni (2015) noted that entrepreneurship studies operationalize attitude in very different ways, ranging from general personality dispositions to specific evaluations of starting a business, and that the predictive power of attitude is much weaker when it is measured as a general disposition. Tshikovhi and Shambare (2015), who found a significant effect, measured personal attitudes that refer directly to entrepreneurship. Raguž and Matic (2011) likewise showed that students' perceptions of entrepreneurship as a career, rather than their general traits, are what distinguish students with and without entrepreneurial intentions. It is therefore likely that students in this study who are honest, responsible, and creative do not necessarily see these qualities as reasons to become entrepreneurs;

they may equally apply them to careers as employees, civil servants, or professionals, which remain the preferred career paths for many university graduates in Indonesia.

The Effect of Religiosity on Entrepreneurial Intention

The non-significant effect of religiosity is consistent with Khoirunnisa et al. (2023), who found no direct link between religiosity and socio-entrepreneurial intention among Muslim youth in Indonesia, and with McIntyre et al. (2023), who showed that the influence of religiosity on entrepreneurial intention depends on other psychological conditions. Ali (2023) and Giacomin et al. (2022) likewise reported that the relationship varies across countries and religious affiliations. On the other hand, the result differs from David and Lawal (2018) and Baranik et al. (2018), who found religiosity to be positively related to entrepreneurship. This difference cannot be attributed to a belief-based measurement of religiosity, because the re-estimated model shows that the belief items were dropped and that the retained indicators reflect religious learning and private religious practice. The difference with David and Lawal (2018), who measured religiosity through attendance and involvement in religious organizations, therefore lies more in the contrast between private and public, communal religiosity than between belief and practice. Communal religious involvement may provide networks, role models, and trust that support business activity, which private devotion alone does not provide.

The literature also suggests that the type of entrepreneurship matters. Jia et al. (2023) found that religiosity and spiritual intelligence affect social entrepreneurial intention, and Khoirunnisa et al. (2023) examined socio-entrepreneurial intention among Muslim youth. Religiosity may therefore be more closely related to the intention to start ventures with a social or religious mission than to commercial entrepreneurship in general. Because this study measured general entrepreneurial intention, the possible influence of religiosity on specific forms of entrepreneurship, such as social, halal, or sharia-based businesses, may not have been captured.

Two further conditions may explain why religiosity has no direct effect in this sample. First, all respondents are students at Islamic universities, where religious learning and daily practice are part of the institutional environment. Such a setting tends to produce a relatively homogeneous level of religiosity, and when a predictor varies little across respondents its ability to explain differences in intention is limited. Second, religiosity may influence intention indirectly. Siswanto (2024) showed that among Muslim students in Indonesia religiosity strengthens entrepreneurial motivation, which then shapes goal-related behavior, and Onjewu et al. (2023) found that the TPB components mediate the relationship between religiosity and nascent entrepreneurship. Religiosity may therefore act as a distal antecedent that shapes motivation and ethical orientation rather than as a direct driver of intention. This interpretation fits the Islamic view of entrepreneurship as a form of worship guided by integrity and social responsibility (Harizan & Mustafa, 2020) religious values may determine how students would run a business more than whether they intend to start one.

The Role of Character and Religious Values in Entrepreneurial Intention

The non-significant results for independent attitude and religiosity may also share a common root. After indicator removal, both constructs mainly capture moral character: independent attitude is represented by honesty, responsibility, and positive thinking, and religiosity by religious learning and daily religious practice. In Islamic teaching these qualities are closely related, since honesty (sidq) and trustworthiness (amanah) are regarded as part of religious commitment and as the ethical foundation of business conduct (Harizan & Mustafa, 2020) The

correlation between independent attitude and religiosity in this study, although modest, is among the highest of the correlations between predictor constructs, which is consistent with this overlap. Both constructs therefore describe the kind of person a student is, rather than how the student evaluates entrepreneurship as a career.

This distinction is important for interpreting the results. Good character and strong religious values are widely regarded as conditions for sustainable and ethical entrepreneurship, and earlier studies have linked them to the success of entrepreneurs who are already running a business (Baranik et al., 2018). However, the present findings suggest that these qualities do not determine whether students want to become entrepreneurs in the first place. A student with high integrity and strong religious commitment may equally choose to become a teacher, a civil servant, or an employee in a private company. Character and values thus seem to shape the quality of entrepreneurship once the decision has been made, while the decision itself is driven by motivation and knowledge. This interpretation is in line with studies showing that religiosity is more strongly related to the ethical and social orientation of business than to the intention to start one (Jia et al., 2023a; Khoirunnisa et al., 2023), and it suggests that future research should examine character and religiosity as predictors of the type and conduct of entrepreneurship rather than only of entrepreneurial intention.

The four predictors together explained more than half of the variance in entrepreneurial intention, which represents a moderate level of explanatory power (Hair et al., 2021). This is noteworthy because the model does not include subjective norms, one of the three core components of the TPB, and focuses only on individual psychological and value-based factors. The result shows that, for students at Islamic universities, individual factors, and motivation in particular, already account for a large share of the differences in entrepreneurial intention. At the same time, the remaining unexplained variance indicates that other factors also play a role, such as subjective norms, entrepreneurial self-efficacy, family business background, and prior entrepreneurial experience, which have been identified as important antecedents in earlier research (Satriadi, Almaududi Ausat, et al., 2022; Wang et al., 2023).

The characteristics of the respondents also help to place the findings in context. The sample covers five Islamic universities in Yogyakarta, both public and private, and students from a wide range of faculties, with only about one fifth coming from economics and business. The findings therefore describe Islamic university students in general rather than business students alone, which strengthens their relevance for university-wide entrepreneurship policies. However, about two thirds of the respondents are male. Vamvaka et al. (2020) found that the structural relationships between attitude, perceived behavioral control, and entrepreneurial intention differ between male and female students, and Sarhan and Aziz (2023) showed that female graduates face specific barriers in forming entrepreneurial intention. The dominance of male respondents may therefore have shaped the overall pattern of results, and it remains an open question whether motivation and

The findings are also relevant to the wider problem of educated unemployment in Indonesia. Several studies have shown that the number of unemployed graduates remains high and that it is shaped by the limited capacity of the formal labor market to absorb university graduates (Rahmawati & Putri, 2021b; Widowati et al., 2022; Wulandari & Sishadiyati, 2023). In this situation, entrepreneurship is often promoted as an alternative career path, and Costa and Brunila (2016) as well as Sarhan and Aziz (2023) argued that entrepreneurship education can help young graduates create their own employment. The present results indicate which levers are most likely

to work for students at Islamic universities. Policies that rely mainly on strengthening character or religious values will not, by themselves, increase the number of students who intend to start a business. Programs that make business activity attractive and that give students practical knowledge of how to start and manage a business are more promising. Because students in this study come from many faculties, such programs should not be limited to economics and business students but should be accessible to students across all disciplines.

Viewed together, the results reveal a hierarchy among the four determinants. Factors that are directly connected to the act of starting a business, namely the attraction to business activity (motivation) and the belief that one can handle business tasks (knowledge), have a significant effect on intention. In contrast, factors that describe the student's general character and values, namely honesty, creativity, religious learning, and religious practice, do not have a direct effect. This pattern is consistent with the view that intention is formed by proximal, behavior-specific beliefs, while more general personal characteristics operate in the background (Ajzen, 1991; Lortie & Castogiovanni, 2015). It also explains why studies that measure independence or religiosity in a business-specific way, for example independence in business decision-making or religious norms related to commerce, tend to find stronger effects than studies that measure them as general traits.

This hierarchy has an important consequence for students at Islamic universities. These students generally have strong religious values and good personal character, which are valuable assets for ethical business conduct. However, these assets do not automatically become entrepreneurial intention. They need to be connected to concrete business experience and motivation before they influence career choice. In the context of Indonesia's demographic challenges and its vision of human capital development through higher education (Kuncoro, 2021), this finding suggests that Islamic universities have a strong foundation of character and values on which entrepreneurial motivation and competence can be built.

CONCLUSION

Motivation and entrepreneurial knowledge positively and significantly influence the entrepreneurial intention of students at Islamic universities in Yogyakarta, with motivation as the strongest determinant. Independent attitude and religiosity have positive but non-significant effects. Students' intention to become entrepreneurs is therefore driven mainly by their attraction to business activity and their understanding of how to run a business, not by general personal character or religious values.

Theoretically, this study partially supports the Theory of Planned Behavior. Motivation and entrepreneurial knowledge, which correspond to the attitude toward entrepreneurship and perceived behavioral control, are proven to shape intention. Independent attitude and religiosity, which in this study reflect general character and religious practice, do not affect intention directly. This finding enriches the theory by showing that in an Islamic higher education context, general traits and values act as distal factors that need to be connected to business-specific beliefs before they influence entrepreneurial intention.

Practically, Islamic universities should design entrepreneurship programs that give priority to building motivation, through mentoring, role models from successful Muslim entrepreneurs, business competitions, and incubators that let students experience business directly. These programs should be combined with practical training in opportunity analysis, risk management, and problem solving, and should be open to students from all faculties, not only economics and business. Religious values should be integrated into entrepreneurship education as

the ethical foundation of business, for example through case studies of halal enterprises and Islamic business ethics, so that they strengthen students' motivation rather than being expected to raise intention on their own. For policymakers, the findings suggest that efforts to reduce educated unemployment through entrepreneurship should focus on practical experience and motivation rather than on general character building alone.

This study has several limitations. Religiosity and independent attitude were each measured by only two indicators after item removal, so the content of both constructs is narrower than intended. The data were self-reported and collected at a single point in time, which limits causal conclusions and does not fully rule out common method bias. The sample was also limited to students at Islamic universities in Yogyakarta. Future research should use more complete measures of religiosity and independent attitude, test religiosity and independent attitude as antecedents of motivation or as moderators rather than only as direct predictors, add variables such as subjective norms, entrepreneurial self-efficacy, and family business background, and compare students at Islamic and non-Islamic universities in different regions. Longitudinal designs would also help determine whether entrepreneurial intention is eventually translated into actual business activity.

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CONFLICT OF INTEREST
The authors declare no conflict of interest.

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