Moral judgment as a pivotal modulator in entrepreneurial cognition frameworks

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Abstract

This study aims to reconstruct the adoption of the theory of planned behaviour for predicting entrepreneurial intentions by examining moral judgement as an intervening variable. This study is significant in the present times since there is flawed reasoning when analysing entrepreneurial intentions. Most people believe that entrepreneurial intention is a manifestation of social aspects or favourable or unfavourable evaluation of the behaviour of interest. As such, they formulate that those aspects directly affect entrepreneurial intentions. Within the current study, our analyses do not provide strong empirical evidence for such claims. It is documented that moral judgment becomes a mediator for the use of social aspects to predict entrepreneurial intentions. Then, this study also found that moral judgment is the best and closest predictor of entrepreneurial intentions. Individuals who exhibit strong moral judgment are more likely to pursue entrepreneurial activities, as their ethical values guide their decision-making processes and influence their perceptions of business opportunities. The main concern is not merely about profits or the support from people around us, but rather the ethical aspects of entrepreneurship that take precedence. Therefore, our study proposes different directions to understand and predict entrepreneurial intentions.

Keywords*: theory of planned behaviour, moral judgement, entrepreneurial intentions.*

Introduction

The theory of planned behaviour (which is widely known by the acronym TPB) explains the rationality of a person in carrying out an action (Ajzen, 1991). Building upon the foundation laid by the Theory of Reasoned Action, the TPB provides a comprehensive framework for comprehending the factors that shape individuals' decisions and actions (Ajzen, 1991). In essence, the TPB's paradigm lies in its recognition of the complex, vibrant subjectivity that colours human behaviour. It transforms the individual into an active participant in their choices, capable of consciously weaving their intentions into actions. Through this lens, TPB transcends being a mere psychological theory. According to Ajzen (1991,

2011), when people have favourable attitudes, perceive positive subjective norms, and believe they have control over a behaviour, they are more likely to act in alignment with their intentions. The original model states that TPB is made up of three distinct variables (personal attitudes, subjective norms, and perceived behavioural control) that each independently explain a person's behaviour.

The TPB has been widely used in various fields of science, for example a study conducted by Su et al. (2021). Their study focuses on the multifaceted dynamics that shape the entrepreneurial intentions of university students in China. The study explores the synergistic relationship between students' perceptions of university support and the influential TPB, providing valuable insights into the factors that drive entrepreneurial aspirations in this specific context. Then, Su et al. (2021) mentioned that the use of the TPB in nurturing entrepreneurial intentions among students remain unclear. Moreover, many researchers have either used the original model created by Ajzen (1991) to predict entrepreneurial ambitions or have updated the variable by expanding the original model with new constructs. However, the results of research are inconsistent and inconclusive (Farrukh et al., 2019; Tornikoski & Maalaoui, 2019). According to Su et al. (2021), there are deficiencies in building theoretical views of how psychological characteristics influence the desire to become an entrepreneur.

A holistic understanding of entrepreneurial intentions often requires both theoretical and practical views (Maheshwari et al., 2022). This means that a purely theoretical approach might lack practical applicability, and a purely practical approach might lack deep understanding. According to Maheshwari et al. (2022), the relationship between theoretical and practical views in the context of entrepreneurial intentions involves a continuous interplay between abstract understanding and real-world application. Parton (2000) explains the use of theory and practice in the social world. In his study, Parton argues that mistakes in thinking are caused by ambiguity in logics. Thus, Parton suggests that researchers must see social phenomena from a point of view that integrates theory and practice, not separately. The literature review conducted by Parton provides a basic description for researchers of the importance of the concept of logic that mixes theory and practice. The nexus of theory and practice is a fundamental aspect of analysing the social world. It involves the integration of theoretical frameworks and empirical research to gain a comprehensive understanding of social phenomena and to develop effective strategies for addressing real-world issues. The synergy between theory and practice allows for a deeper comprehension of the complexities of the social world and facilitates evidence-based decision-making.

Based on the rationalisation above, this research really needs to be done with an approach that combines theoretical and practical views. This is to answer a call for a study of entrepreneurial intentions involving a continuous interplay between theoretical and practical views (Maheshwari et al., 2022). Then, the current study is also to reconstruct the adoption of the TPB in entrepreneurial intention studies. Many prior studies using the TPB to predict the entrepreneurial intention of university students (Barba-Sánchez et al., 2022; Agu et al., 2021; Biswas and Verma, 2021). However, their results of the relationship between the TPB's variables on entrepreneurial intention remain contradictory. Prior studies

tend to examine the entrepreneurial intention as a manifestation of the determinants of the TPB. They conceptualise those determinants have direct effects on the activation of the entrepreneurial intention. Those studies simplify the individuals' moral reasoning. As such their results are inconclusive. To engage in this scholarly discussion, our study broadens and extends the TPB by introducing moral judgment as an intervening variable. We seek evidence of how moral judgment might play a role in influencing or mediating the relationship between the variables in the TPB. In this case, it is quite important if we take a deeper look at how psychological processes work, and how they affect decision making. Fiedler and Glöckner (2015) examined the relationship between moral judgment and a person's desire to take certain actions. What he has explored in general provides insight into how the decision-making process is formed. They show that the role of moral judgment is closely related to decision making. In other words, a person taking certain actions or making decisions cannot be separated from moral considerations within such an individual (Crockett, 2016).

Experiments conducted by Schaich et al. (2006) quite clearly describes how moral judgment works. They tested if moral judgment and decision making are closely related. From their experimental studies, they documented that a person will respond to certain conditions, if there are clear reasons and emotional reactions. Schaich et al. (2006) note that someone will use his cognitive to facilitate or provide moral considerations to make decisions to act. The same thing was conveyed by Greene and Haidt (2002) that emotional factors have a significant influence on moral judgment, and these interactions occur before a person makes a decision.

On the basis of those arguments, we assume that there are neglected thoughts in predicting the entrepreneurial intention. Ajzen (1991) emphasises that the adoption of the TPB requires careful consideration. He theorises that "the three determinant factors ("attitudes", "subjective norms," and "perceived behavioural control") have an impact on specific behaviours only indirectly by influencing some of the factors that are more closely linked to the behaviour in question". After we understand the role of moral judgment in decision-making, it is quite rational to argue that the three determinant factors proposed by Ajzen should not have a direct influence on entrepreneurial intention, but are mediated by moral judgment before the intention to take action is formed. Therefore, this study is to seek evidence of which variables, directly or indirectly, have influence on the entrepreneurial intention of university students. By incorporating with the role of moral judgment as a mediating variable amongst the variables, this study becomes the first of its kind predicting the entrepreneurial intention of university students. Then, through this study we can adequately plan activities to reinforce our students' intention to be an entrepreneur. Essentially, it also helps our country, with entrepreneurial rates which are lower than the average, properly design entrepreneurial training in higher education institutions (Kadarusman, 2020).

Within this study we re-examined the direct effect of the TPB's determinants. It is to ensure whether they may have direct substantial contribution on formulating students' intention to be an entrepreneur. In the subsequent analysis, we entered the role of moral judgement as a mediating variable for the observed variables. The conceptual framework can be referred to the figure 1.

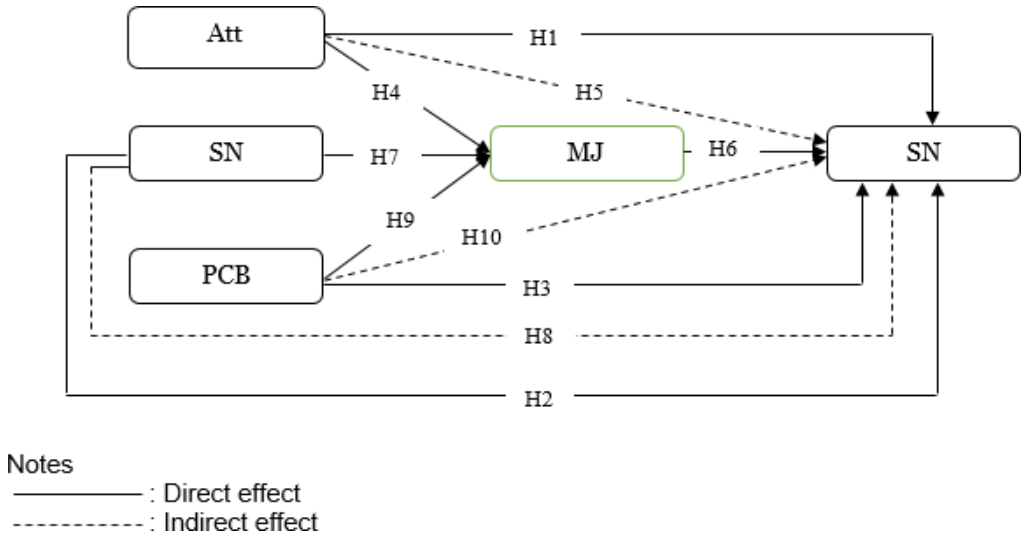

Figure 1: Conceptual framework

One of the functions of attitude, as argued by Munir et al. (2019), is to help people understand their world. In several ways, according to Neneh (2022), attitudes can determine patterns of human behaviour. Neneh (2022) defines attitude as a positive or negative evaluation system, for example a tendency to approve or reject objects, people or events. According to Ajzen (1991), the attitude variable refers to the extent to which a person has a favourable or unfavourable evaluation judgment in carrying out certain behaviours/actions. When they say that attitude is a form of evaluation, it means that it involves preferences (tendency to choose), generally expressed in terms such as like, dislike, hate, and love etc. Statements like these make it clear that attitude is an important part of a person to decide whether he or she under certain conditions and situations should take a certain action or not. For example, if the person thinks that entrepreneurship is a good thing and likes it, then the desire for entrepreneurship will be high. So based on this explanation, the first hypothesis: *H1: There is direct relationship between attitude and entrepreneurial intentions.*

Subjective Norms, as Ajzen (1991) explained, refers to the role of certain people or groups that are considered important for someone to support or not support the actions. This factor is influenced by the perceptions of other people around individual who will do an act. With the existence of these people, he is as an actor affected by the views of other people. With a simple understanding, subjective norm is a person's belief about how he will see the existing references if that person performs a certain behaviour. The notion of subjective norms, highlighted by several studies, is relevant as an intervention to generate new behaviour.

The results of the meta-analysis conducted by Cooke et al. (2016) show that the role of subjective norms is proven to influence a person's decision making. The result suggests that individuals with more positive subjective norms towards entrepreneurship are more likely to develop stronger entrepreneurial intentions.

The support and encouragement from their social environment can booster their confidence and motivation to pursue entrepreneurial opportunities. According to Shah et al. (2020) subjective norms contain individual beliefs to comply with the directions or suggestions of people around them to carry out entrepreneurial activities. Meanwhile, according to Ulker-Demirel and Ciftci (2020), it is related to belief in the role of the family in starting a business. Based on this explanation, the second hypothesis*:*

H2: There is direct relationship between subjective norm and entrepreneurial intentions.

Views of perceived behaviour control refer to an individual's perception of the ease or difficulty of performing a specific behaviour. It takes into account factors such as personal skills, resources, opportunities, and external constraints that might affect the person's ability to carry out the behaviour. In essence, PBC assesses how much control an individual believes they have over their ability to perform a particular action (Ajzen 1991). Research studies and meta-analytic reviews provide strong empirical support for TPB as a powerful model for explaining and understanding the formation and behaviour of entrepreneurial intentions (Cooke et al., 2016). In general, they found that behavioural control can be a predictor of entrepreneurial intentions. Individuals who perceive a higher level of control over their ability to engage in entrepreneurial activities are more likely to express a strong intention to become entrepreneurs. Additionally, Hagger and Chatzisarantis (2009) mention that the intention to become an entrepreneur will be high if the person has high self-confidence, has the character of a leader, and has good creativity. Entrepreneurship is a highly emotional behaviour. So individuals who have high optimism will be encouraged to start a business (Maheshwari & Kha, 2022). Based on this explanation, the third hypothesis*:*

H3: There is direct relationship between perceived behavioural control and entrepreneurial intentions.

According to Malle (2021) moral judgment is an intellectual ability, but emphasizes more on the moral aspect, which must be considered by every human being in order to produce moral actions. Malle (2021) notes that intellectual abilities related to moral judgment will develop gradually following the maturity of one's rationality. If referring to the understanding of attitude put forward by Ajzen (1991), a person before taking an action will evaluate whether the action to be carried out will provide a positive or negative value for him. And the results of this evaluation are expected in this study to be the initial capital in the formation of the moral judgment process. McNair et al. (2019) conveys all the important information identified by the model of causality, intentionality, and other mental conditions can form an explicit moral formation. It can be understood that the moral judgment postulated by the information model (profitable or unprofitable) is the result of a cause-and-effect analysis.

With regard to entrepreneurship, the role of moral judgment is very important because it will become a filter in decision making, which does not only consider the profit and loss aspects. It will process all incoming information on people who will be entrepreneurs. After carrying out this evaluation, the person will make moral considerations, for example whether what is being done is

contrary to social values and norms. As we know, people have evaluative reactions, which then influence these judgments. So based on this explanation, the fourth hypothesis:
H4: a person's moral judgment is influenced by attitude factors in doing entrepreneurship.

After the moral evaluation is carried out, the intention to do or not to do certain actions will be formed. In this context a person will show stronger ethical perceptions about their relationship to the business in which they are involved. Entrepreneurship is often seen as the pursuit of purely commercial goals that may conflict with ethical behaviour (Iwu et al., 2021). In the theory of planned behaviour, pure commercial can refer to things that are profitable for what will be done. However, the statement by Meoli et al. (2020) informs that there is a more fundamental problem than just thinking about the advantages and disadvantages of entrepreneurial activities.

Conceptually entrepreneurs should not only create wealth and value for themselves but also create value for others by developing new markets, new industries, new technologies, new institutional forms and new jobs (Munir et al, 2019). Here the role of moral judgment is needed in creating such values. So if a person has maturity in evaluating his business prospects, and the evaluation results are positive, then the intention to become an entrepreneur will be high. The results of Hagger and Chatzisarantis, (2009) study, show that attitudes do not affect a person's intention to become an entrepreneur. The work of Hagger and Chatzisarantis (2009) gives the emphasis on forming a desire for entrepreneurship which lies in a person's ability to assess or see business opportunities.

We also want to say that, conceptually, there is a mistake in understanding the concept of attitude. His views confound the concepts of attitude and behaviour control. Attitude is a form of evaluation of the value obtained when someone does or does not take certain actions. Meanwhile, behaviour control is self-evaluation regarding whether or not it is easy to carry out the action that has been planned. In this context, the ability to read and take advantage of business opportunities, by using the resources they have, may influence the individual's intention or willingness to start and operate a new business venture. Besides that, prior studies do not even pay attention to the aspect of moral judgment in determining one's intention to start a new business. So based on this exposure:
H5: a person's moral judgment mediates the relationship between attitude factors and entrepreneurial intentions;
H6: moral judgment influences entrepreneurial intentions..

According to Ajzen (1991) the role of important people that we have might also influence on the formation of intentions to perform certain behaviours. It is possible that the role of the family is also very important in providing moral considerations for someone to start a new business. Mei et al. (2020), explain, successful entrepreneurs, most of the family environment is supportive giving constructive considerations. But there are also views of families who want to drop their child's intention to become an entrepreneur. For example, a family that comes from a civil servant environment wants their children to work to avoid

uncertainty, such as entrepreneurship. Despite the absence of family support, his inner views have a very important influence. So it is not surprising that they remain confident and consistent with what they want to do (McNair et al., 2019). As explained by McNair et al. (2019), moral judgment will be present when a person experiences or is in a moral dilemma. So based on this exposure:
H7: a person's moral judgment is influenced by subjective norms in doing entrepreneurship.

From a psychological point of view, moral judgment is part of morality that occurs both within and between individuals (Hui et al., 2021). The judgment process used by individuals in entrepreneurship to determine the difference between what is right and wrong by using the approach of logic and moral reasoning. We expect the position of subjective norms is not too much influential. It is viewed as contributors of information, considerations and suggestions to determine whether an action is rational or moral. In relation to this research, the desire to engage in entrepreneurial activities can be considered as a result of a moral judgment reaction to subjective norms. So based on this exposure:
H8: a person's moral judgment mediates the relationship between subjective norms and entrepreneurial intentions.

Entrepreneurship is always associated with taking risks. The research findings provide evidence that individuals with greater risk taking have stronger levels of entrepreneurial intentions (Al-Mamary and Alraja, 2022). The same thing was also initiated by Barba-Sánchez et al. (2022), that a person tends to avoid things that make him uncomfortable and also supports him not being able to achieve them. Behaviour control refers to a person's belief and ability to do what he wants to do (Ajzen, 1991). In the context of entrepreneurial activity, it can also be referred to as the ease or difficulty of realizing one's desire to become an entrepreneur. The predictive power of behaviour control varies quite a lot depending on the type of behaviour, but it depends on the seriousness of the person to achieve his goals (Zaremohzzabieh et al., 2019). In this case, Crockett (2016) claims that moral judgment competence is necessary because it includes the ability to recognize internal and social complexities, recognize problems of moral conflict, and the ability to engage in ethical discourse with friends, experts, and authorities. This shows that in entrepreneurship not only a sense of competence but the belief to be able to process moral dilemmas is also needed in decision making. Thus moral judgment will provide a choice for individuals, whether the desire to take certain actions is continued or not.

Two experimental studies conducted by Greene and Haidt (2002) show that moral judgment is an important part of the social order, which encourages people to consider the existence of others rather than ourselves. If an entrepreneur ignores the social aspect, they are expressing low aspirations. Because they will only be shackled by their difficulties or their ability to deal with potential failures, obstacles and negative consequences of their actions instead of concentrating on how to get a more satisfying result. They tend to reduce efforts that contain high risk or avoid uncertainty. Under this point, Greene and Haidt (2002) conclude that in everyday life, a person's moral judgment is influenced by whether the decision maker chooses an option that is full of certainty (safe) or a choice that is

risky. So based on this exposure:
H9: a person's moral judgment is influenced by behavioural control factors in doing entrepreneurship, and
H10: a person's moral judgment mediates the relationship between behavioural control factors and entrepreneurial intentions.

Methods

We collected data using a questionnaire. The target population for this study comprises all students at the Faculty of Economics and Business (FEB) at Trunojoyo Madura University. This approach aligns with previous empirical studies that also focused on students. To achieve the desired results, we employed a sampling technique known as "saturated population." Specifically, we selected Diploma Entrepreneurship students from Trunojoyo Madura University. We chose these students because its Vision and Mission are highly promising for developing strong entrepreneurs. The students are equipped with essential knowledge of entrepreneurship theory and practice, enabling them to make a positive contribution to the country, particularly in the communities where they operate their businesses. For example, they can empower the local community to advance the businesses they start.

General information about the participants involved in this research is previously predicted. Of the 93 questionnaires initially collected for this research, only 72 were suitable for analysis and could be processed. The remaining 21 questionnaires had to be excluded due to incomplete responses. Several key questions were left unanswered. This exclusion was necessary to maintain the integrity and reliability of the data, as missing information could lead to inaccuracies or skewed results, potentially affecting the overall validity of the study's findings. Consequently, the focus of the research was narrowed to the 72 fully completed questionnaires, ensuring a more robust and consistent dataset for analysis. The data reveals that female participants were more dominant, comprising 44 individuals or 61.10% of the sample, while male participants numbered 28, representing 38.90%. Since this research was conducted in the odd semester of 2020, the distribution of students included those in semesters 1, 3, and 5. Our data also show that fifth-semester students were the most represented, with 40 participants making up 55.55% of the total sample. This is followed by third-semester students, who numbered 30, accounting for 41.66%. The fewest participants were from the first semester, with only two students representing 2.80% of the sample.

To measure the three determinants of TPB and the variable of the desire to become an entrepreneur, we adopted measurement items developed by Farrukh et al. (2019). The primary reason for this choice is that Ramdhani developed these measurement items in alignment with Ajzen's (2011) study, ensuring that the original concepts of TPB (Ajzen, 1991, 2011) are preserved. Our choice is crucial as it maintains the theoretical integrity of TPB, which posits that behavior is driven by intentions influenced by attitudes, subjective norms, and perceived behavioral control. By adhering to Ramdhani's adaptation, we ensure that our measurement of these constructs is both valid and reliable. Furthermore, to measure the moral judgment variable, we adopted the items used by Pellegrini

and Ciappei, (2015). This choice allows us to capture the ethical dimensions of entrepreneurial intentions, which can be a significant factor in decision-making processes. Then, to maintain consistency and enhance the comparability of our data, we employed a 5-point Likert scale for all these measurements. This scale ranges from "strongly disagree" to "strongly agree," providing a nuanced understanding of respondents' attitudes, beliefs, and intentions. By integrating these well-established measurement tools, our study benefits from a robust methodological foundation that aligns with previous research, ensuring that our findings are both credible and comparable with existing literature.

We used Partial Least Square (PLS), following the methodological precedence in past studies (Adu et al., 2020; Shah et al., 2020). We used PLS because the use of PLS is very effective in making and predicting parameters in research models (Ghasemy et al., 2020). In addition, the advantages of PLS are able to map all paths to many dependent variables in the same research model and analyse all paths in the structural model simultaneously (Memon et al., 2021). PLS can address endogeneity issues that may arise in regression analysis when there is a feedback loop between predictor and response variables, making it more robust in causal modelling. Then, PLS can handle collinearities among the response variables in multivariate regression settings. As such, it can be useful when dealing with problems that involve multiple correlated response variables.

Results and Discussions

This stage is the initial stage to measure whether all the indicators the researcher uses are valid or not. So before researchers do hypothesis testing, this stage is very necessary. For testing "goodness of fit," the first step taken by researchers is to look at the value of the "loading factor," which is valid if the value is above 0.5 for each variable in this study (Memon et al., 2021). The results of the PLS application can be seen in Table 1. As we already know, the loading factor value for all the variables in Table 1 already meets the validity assumption with the parameter exceeding 0.5. This preliminary step ensures that the measurement model is reliable and that each construct is adequately represented by its indicators.Therefore, the researchers can proceed to hypothesis testing with confidence that the measurement model accurately reflects the underlying theoretical constructs. Additionally, the rigorous validation process enhances the credibility of the study, ensuring that subsequent analyses and conclusions are based on a solid foundation of reliable data.

To strengthen the prior results, we analyse whether the indicators in this study have met the assumption of discriminant validity. The decision is made by comparing the value of the "loading factor" between variables. For the "discriminant validity" test, it is indicated in Table 2. Table 2 provides information if the loading factor values for all variables are above the "loading factor" values encoded one another. For example, the loading factor value for the indicators of the attitude variable exceeded the loading factor values in other variables, namely (subjective norms, perceived behaviour control, moral judgment and entrepreneurial intention). Thus, the indicators used by researchers have met the assumption of discriminant validity. In order to strengthen this conclusion, the researcher also considered the value of "square root of average variance extracted (AVE)". The goal is the same to find out whether the indicators used by

researchers have met the assumption of "discriminant validity" or not.

Table 1. Loading Factor

	AT	SN	PBC	MJ	EI
Att 1	0.823				
Att 2	0.843				
Att 3	0.758				
Att 4	0.842				
Att 5	0.786				
SN1		0.810			
SN 2		0.842			
SN 3		0.827			
SN 4		0.889			
SN 5		0.859			
PBC 1			0.836		
PBC 2			0.852		
PBC 3			0.872		
PBC 4			0.769		
PBC 5			0.889		
MJ1				0.743	
MJ2				0.701	
MJ3				0.821	
MJ4				0.836	
MJ5				0.816	
EI 1					0.814
EI 2					0.826
EI 3					0.833
EI 4					0.787
EI 5					0.750

For conclusion, the AVE value must be above 0.5. If we refer to the results in table 3, the indicators used by researchers have met the assumption of discriminant validity because all AVE values are above 0.5. For this stage we draw conclusions based on the values of “Composite Reliability” and “Cronbach's Alpha”. This test phase aims to see the consistency of the indicators used to reflect the variables used. The value of “Composite Reliability” which is said to be good and accepted is above 0.7, while for "Cronbach's Alpha" it is above 0.6. For the two parameters, it is presented in table 4.

Table 2. Cross Loading Factor

	AT	SN	PBC	MJ	EI
Att 1	0.823	0.707	0.540	0.648	0.643
Att 2	0.843	0.744	0.592	0.690	0.698
Att 3	0.758	0.577	0.471	0.716	0.733
Att 4	0.842	0.819	0.803	0.771	0.784
Att 5	0.786	0.746	0.736	0.692	0.690

SN1	0.740	0.810	0.644	0.696	0.713
SN 2	0.738	0.842	0.638	0.748	0.752
SN 3	0.720	0.827	0.590	0.658	0.674
SN 4	0.842	0.889	0.803	0.771	0.784
SN 5	0.774	0.859	0.750	0.710	0.701
PBC 1	0.786	0.746	0.836	0.692	0.690
PBC 2	0.759	0.780	0.852	0.786	0.791
PBC 3	0.620	0.656	0.872	0.632	0.627
PBC 4	0.538	0.559	0.769	0.661	0.646
PBC 5	0.644	0.664	0.889	0.649	0.643
MJ1	0.623	0.450	0.356	0.743	0.750
MJ2	0.555	0.631	0.605	0.701	0.661
MJ3	0.740	0.778	0.817	0.821	0.814
MJ4	0.825	0.813	0.812	0.836	0.826
MJ5	0.758	0.577	0.471	0.816	0.813
EI 1	0.740	0.778	0.807	0.811	0.814
EI 2	0.825	0.853	0.812	0.816	0.826
EI 3	0.758	0.577	0.471	0.816	0.833
EI 4	0.690	0.770	0.689	0.760	0.787
EI 5	0.623	0.450	0.356	0.743	0.750

Table 3. Square Root of Average Variance Extracted (AVE)

Variables	Average Variance Extracted (AVE)
Attitude	0.658
Subjective Norm	0.715
Perceived Behavioural Control	0.713
Moral Judgment	0.617
Entrepreneurial Intentions	0.744

Table 4. Composite Reliability and Cronbach's Alpha

Variables	Composite Reliability	Cronbach's Alpha
Attitude	0.870	0.906
Subjective Norm	0.900	0.926
Perceived Behavioural Control	0.899	0.925
Moral Judgment	0.844	0.889
Entrepreneurial Intentions	0.861	0.900

After the researchers consider the values of Composite Reliability and Cronbach's Alpha, which are shown in table 5, it can be concluded that the indicators used by researchers have no problem with the assumption of reliability. Because all the values of Composite Reliability and Cronbach's Alpha for all variables have exceeded the recommended values. In other words, no Composite Reliability value is below 0.8, and no Cronbach's Alpha value is below 0.8.

Based on the information in Table 5, it is evident that none of the determinant variables in the Theory of Planned Behavior (TPB) – attitude (Att),

subjective norm (SN), and perceived behavioral control (PBC) – have direct effects on the entrepreneurial intention (EI) variable. The paths from attitude (t-statistic 1.811, p-value 0.071), subjective norm (t-statistic 1.144, p-value 0.253), and perceived behavioral control (t-statistic 0.661, p-value 0.509) to entrepreneurial intention are all rejected.

Table 5. Direct effects

Paths	t statistics	p values	Notes
Att -> MJ	6.966	0.000	Supported
Att -> EI	1.811	0.071	Rejected
SN -> MJ	0.582	0.561	Rejected
SN -> EI	1.144	0.253	Rejected
PBC -> MJ	2.613	0.009	Supported
PBC -> EI	0.661	0.509	Rejected
MJ -> EI	19.016	0.000	Supported

In addition, table 5 also provides the results of the direct effect test on all determinant variables in TPB on the moral judgment variable. Statistically data shows that attitude towards behaviour (*t* statistic = 6.966 and *p* value = 0.000), and perceived behaviour control (*t* statistic = 2.613 and *p* value = 0.009) have greater *t* tables of 1.96 (> 1.96), and their *p* value is below 0.05 (<0.05). This means that the two variables that are hypothesised to have an effect on the moral judgment variable are accepted. These results are contrary to the subjective norm where the *t* statistic (0.582) and *p* value (0.561), below the value of 1.96 (<1.96), and also its *p* value exceeds the value of 0.05 (> 0.05). It means that its correlation to the moral judgment is not supported. The last data presented in table 5 is about the influence between the moral judgment on the entrepreneurial intention. Statistically data shows that the moral judgment (*t* statistic = 19.016 and *p* value = 0.000) have greater *t* tables of 1.96 (> 1.96), and their *p* value is below 0.05 (<0.05). This means that the hypothesised moral judgment influences the entrepreneurial intention is supported.

Furthermore, as explained in the conceptual framework in this study, the moral judgment is positioned as a mediating variable for the influence of the three variables of the theory of planned behaviour on the entrepreneurial intention.

Table 6. Indirect effects

Paths	t statistics	p values	Notes
PBC -> MJ -> EI	2.532	0.012	Supported
SN -> MJ -> EI	0.577	0.564	Rejected
Att -> MJ-> EI	6.468	0.000	Supported

Referring to the statistical data in table 6, it shows that the moral judgment only mediates the effects of the attitude variable and perceived behavioural control on entrepreneurial intentions. Meanwhile, for the influence of subjective norm on entrepreneurial intentions, moral judgment variables do not mediate such a relationship. This refers to their *t* statistics (Attitude -> Moral Judgment; 6.468; Perceived Behaviour Control -> Moral Judgment; 2.253), exceeding 1.96

(> 1.96), and *p* value (Attitude -> Moral Judgment; 0.000; Behavior Control -> Moral Judgment; 0.012) below the value of 0.05 (<0.05). This means that the moral judgment variable hypothesised to mediate the effects of the attitude and perceived behavioral control on entrepreneurial intentions is accepted. While the interaction process between moral judgment on the relationship between subjective norms and entrepreneurial intentions is not supported. It shows that its *t* statistic" (Subjective Norms -> Moral Judgment; 0.577), is below the value of 1.96 (<1.96), and the *p* value (Attitude -> Moral Judgment; 0.564) exceeds the value of 0.05 (> 0.05). This indicates the hypothesis that moral judgment mediates the relationship between subjective norm variables on entrepreneurial intentions is rejected.

It is patently discernible that attitude, subjective norms, and perceived behavioral control do not manifest direct corollaries on entrepreneurial intentionality. These empirical findings present a formidable challenge to the orthodox tenets of the TPB, which traditionally postulates that these intrinsic determinants should unequivocally predict behavioral intentionality. Concurrently, our investigation elucidated that these determinants – specifically attitudinal dispositions and perceived behavioral regulation – exhibit tangible influence on moral judgement, with the exception of subjective norms. Intriguingly, it is the moral judgement that exerts a profound impact on entrepreneurial intentionality. This intricate interplay underlines the need for a re-evaluation of TPB's foundational assumptions in the context of entrepreneurial cognizance and behavioral propensities.

Furthermore, our study found that moral judgment mediates the positive influence of attitude and perceived behavioral control on entrepreneurial intention. This mediation effect highlights the crucial role that moral judgment plays in translating positive attitudinal dispositions and a sense of control into concrete entrepreneurial intentions. It suggests that individuals with favorable attitudes towards entrepreneurship and strong perceived behavioral control are more likely to develop entrepreneurial intentions when they also possess a high level of moral judgment. This underlines the importance of moral and ethical considerations in the decision-making process, indicating that ethical reasoning can enhance the translation of positive attitudes and perceived control into entrepreneurial actions. These findings point to the necessity of incorporating moral education and ethical training into entrepreneurship programs to better prepare aspiring entrepreneurs for the complex ethical dilemmas they may face. Such findings strengthen Lancastre et al.' (2024) study that entrepreneurs who prioritise ethical considerations are more likely to build sustainable and socially responsible enterprises, fostering trust and long-term success. At the same time, our study agree with prior studies (Bruder, 2021; Power et al., 2020) that entrepreneurship is not just about creating wealth or gaining approval, but about making decisions that align with one's moral values and contribute positively to the community and environment.

Conversely, the absence of a mediation effect in the path between subjective norms and entrepreneurial intention suggests that moral judgment does not play a significant role in this relationship. This finding indicates that the influence of subjective norms on entrepreneurial intention operates through a different mechanism, independent of moral judgment. It is possible that the

impact of subjective norms on entrepreneurial intentions is more direct and less influenced by an individual's moral reasoning. This might be because subjective norms, which pertain to perceived social pressure and expectations, operate on a more external and less reflective level compared to personal attitudes and perceived control. Therefore, even if individuals are aware of social expectations regarding entrepreneurship, this awareness does not necessarily translate into entrepreneurial intentions through moral judgment. Moral judgment, which involves a personal assessment of right and wrong (Schein, 2020), operates independently of external social pressures and expectations. Individuals might recognise the societal value placed on entrepreneurship (Hota et al., 2023), yet if their moral judgment does not align with these expectations, this awareness alone is insufficient to motivate them to take entrepreneurial action. This divergence in pathways emphasizes the complexity of the factors influencing entrepreneurial intention and the need for a more nuanced understanding of how different psychological and social determinants interact.

These findings have significant theoretical implications for the TPB and its application to entrepreneurial intention. They suggest that the TPB's traditional focus on attitude, subjective norms, and perceived behavioral control as direct predictors of behavioral intention may be overly simplistic. Instead, the role of moral judgment as a mediator introduces an additional layer of complexity that must be accounted for in models of entrepreneurial intention. The results of this study are supported by Asma et al. (2019) who argue that if entrepreneurship is often seen as the pursuit of purely commercial goals, then it is likely to ignore other aspects, for example, ethical behavior in business. In the TPB, pure commercial here can refer to things that are profitable for what will be done. However, the statement by Asma et al. (2019) informs that there is a more fundamental problem than just thinking about the advantages and disadvantages of entrepreneurial activities. In addition, the results of this study are supported by Paramita et al. (2022), that conceptually entrepreneurs should not only create wealth and value for themselves but also create value for others by developing new markets, new industries, new technologies, new institutional forms and new jobs. Then, the role of moral judgment is needed in creating that value. So if a person has maturity in evaluating his business prospects, and the evaluation results are positive in the sense that they are in accordance with moral considerations, then the intention to become an entrepreneur will be high. Through the results of this study, it is very relevant if these results can provide new directions in research conducted by Wegner et al. (2022), which results in entrepreneurial attitudes having no effect on entrepreneurial intentions.

This mediation highlights the importance of integrating ethical considerations into theoretical frameworks and suggests that future research should explore the interplay between moral reasoning and other psychological determinants of entrepreneurial behavior. By doing so, researchers can develop more comprehensive and accurate models that better reflect the real-world decision-making processes of aspiring entrepreneurs. The findings also suggest practical implications, such as the need for educational programs that emphasise not only entrepreneurial skills and attitudes but also ethical decision-making and moral reasoning, to better prepare individuals for the ethical challenges of entrepreneurship.

Conclusion

This study is to re-examine the application of the TPB in predicting entrepreneurial intentions. Our study confirms that entrepreneurial intentions is a dynamic topic. It cannot be just predicted by the views of favourable or unfavourable benefits of doing a business. Or even it is not a manifestation of subjective norms and perceived behavioural control. These results suggest that the three determinants of the TPB are not reflective of entrepreneurial intentions. We documented that the closest predictor of entrepreneurial intentions is the actor's moral judgement. In some cases, individuals may act in alignment with their moral judgments even when it goes against personal interests or societal norms. This is often driven by a strong sense of moral duty or ethical commitment. It is well documented that students' entrepreneurial intentions might be influenced by a complex interplay of various internal and external factors, however moral judgment is relatively important from situation to situation. So, it is too simple to conclude that the entrepreneurial intentions are the product of the three determinants of the TPB.

This study offers significant practical implications for entrepreneurship education, training programs, and policy-making. This suggests that entrepreneurship education programs should place greater emphasis on developing ethical reasoning and moral judgment among aspiring entrepreneurs. Instead of focusing solely on the perceived benefits, subjective norms, and behavioral control associated with entrepreneurial activities, these programs should integrate modules that encourage students to critically evaluate the moral and ethical dimensions of business decisions. Moreover, policymakers aiming to foster entrepreneurship should consider incorporating ethical considerations into their support structures, such as funding criteria and mentorship programs, to ensure that emerging entrepreneurs are not only economically driven but also guided by a sense of moral responsibility. This approach could lead to the development of more socially responsible businesses that contribute positively to society.

This study opens the door to numerous avenues for further research, particularly in the realm of understanding entrepreneurial intentions beyond the traditional framework of the TPB. While our findings indicate that the TPB's three determinants – attitude towards behavior, subjective norms, and perceived behavioral control – do not fully account for entrepreneurial intentions, they highlight the critical role of moral judgment in shaping these intentions. Future studies could explore the nuances of how moral judgment interacts with other psychological and social factors in influencing entrepreneurial decisions. Researchers might investigate the conditions under which moral judgment either strengthens or weakens entrepreneurial intentions, examining how different cultural, social, and economic contexts affect this relationship.

Another promising area for future research lies in the exploration of other potential determinants of entrepreneurial intentions that have been overlooked by the TPB. This study suggests that the traditional predictors may not be sufficient to fully understand the complexity of entrepreneurial intentions, which are likely influenced by a broader array of cognitive and emotional factors. For instance,

future research could examine the role of individual values, ethical beliefs, and emotional intelligence in shaping entrepreneurial intentions. Moreover, the impact of external influences such as societal expectations, cultural norms, and economic conditions on the formation of entrepreneurial intentions warrants further investigation. Comparative studies across different cultures and regions could reveal how these external factors interact with internal psychological determinants, including moral judgment, to influence entrepreneurial behavior. By expanding the scope of research beyond the TPB, we can develop a more comprehensive understanding of the factors that drive individuals to pursue entrepreneurial ventures, ultimately contributing to more effective educational programs, policy interventions, and support mechanisms for aspiring entrepreneurs.

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