



European Research on Management and Business Economics

www.elsevier.es/ermbe



The influence of social capital and entrepreneurial attitude orientation on entrepreneurial intentions: the mediating role of psychological capital

Tuatul Mahfud^{a,b,*}, Mochamad Bruri Triyono^a, Putu Sudira^a, Yogiana Mulyani^b

^a Graduate School, Yogyakarta State University, Colombo St. No.1, Yogyakarta 55281, Indonesia

^b Hospitality Department, Balikpapan State Polytechnic, Soekarno Hatta St. Km. 8, Balikpapan 76126, Indonesia

ARTICLE INFO

Article history:

Received 22 January 2019

Received in revised form 12 December 2019

Accepted 12 December 2019

Available online xxx

JEL classification:

I23

L26

M13

ABSTRACT

The entrepreneurial intention plays a vital role in generating new business. Although many studies have shown that attitude is influential in shaping intentions, few discuss this relationship by engaging interactively with social and psychological capital. This study aimed to develop a structural model to form the entrepreneurial intention of polytechnic students which involves the interplay of entrepreneurial attitude orientation, social capital, and psychological capital. Data were collected randomly through an online questionnaire completed by 215 polytechnic students in Indonesia. Structural equation modelling analysis was used to examine the structure model of developing entrepreneurial intentions and bootstrap confidence intervals were estimated to test the mediating role. The results reveal that entrepreneurial attitude orientation, social capital, and psychological capital collaboratively and interactively influence the entrepreneurial intention of polytechnic students. Psychological capital was shown to have a positive partial mediation effect on the relationship between entrepreneurial attitude orientation and entrepreneurial intention. Finally, psychological capital was also found to fully mediate the impact of a social capital on entrepreneurial intention. The findings of this study are discussed and some proposals with implications for vocational education practitioners are provided.

© 2019 AEDEM. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Entrepreneurship is one of the main driving aspects of socio-economic development (Coulibaly, Erbao, & Mekongcho, 2018). Entrepreneurs play an essential role in economic development because of their tremendous contributions to economic growth. Thus, it is not surprising that the field of education, especially vocational education, is invested in preparing mature and competitive entrepreneurial human resources.

The Indonesian government gives special attention to the implementation of entrepreneurship education in vocational education (Wiratno, 2012); the goal is to prepare graduates to start new, creative businesses. Scholars have showed that intention plays a significant role in the decision to start a new entrepreneurial activity (Barba-Sánchez & Atienza-Sahuquillo, 2018), and have highlighted the importance of attitude, social and psychological aspects in developing entrepreneurial intentions (Ajzen, 2011; Ghani, Hooshangi, & Hassan, 2013; Liñán & Santos, 2007).

However, to this point, we have a limited understanding of the antecedent factors necessary for developing successful entrepreneurial intentions among vocational students. In particular, little is known about how the hierarchical structure of antecedent factors—including attitudes, social factors, and psychology—combine to foster entrepreneurial intention in Polytechnic students.

The issue of unemployment is a vital consideration in higher education. Through February 2018, the unemployment rate of university graduates, especially the level III Diploma, was the second largest after that of vocational high school graduates, at 7.92% (Central Bureau of Statistics, 2018). Clearly, graduates' qualifications have not met the needs of the job market (Wiratno, 2012). One possible solution is to support graduates in creating business opportunities in line with their interests. However, most graduates prefer to work as employees rather than being employers (Republika, 2016).

The development of entrepreneurial intention is a crucial issue if entrepreneurship is to provide a solution to the unemployment problem. Thus, it is essential to establish a mechanism for developing entrepreneurship intention in students enrolled in

* Corresponding author.

E-mail address: tuatul.mahfud@poltekba.ac.id (T. Mahfud).

<https://doi.org/10.1016/j.iedeen.2019.12.005>

2444-8834/© 2019 AEDEM. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

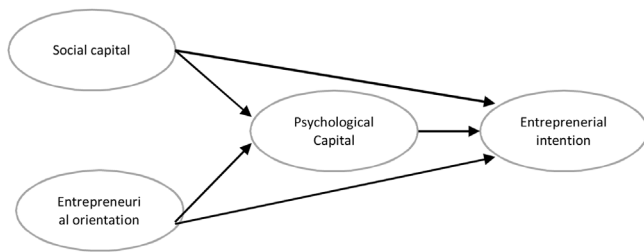


Fig. 1. The conceptual model.

vocational education. To do so effectively, the factors leading to this intention must first be understood. The Theory of Planned Behavior (TPB) reveals that behavioural intentions are determined by three aspects, namely (a) attitudes towards behaviour, (b) perceived behavioural control and (c) subjective norms (Ajzen, 2011). Another theory that is often used to predict entrepreneurial intention is the Entrepreneurial Event Model (EEM) (Shapero & Sokol, 1982). Similar to TPB, the EEM model offers three antecedents to predict entrepreneurial intention which consists of perceived desirability, perceived feasibility and propensity to act. Both of these theories have contributed significantly to the study of entrepreneurial intentions, and both have links and similarities. Schlaegel and Koenig (2014) state that the two theories are partially integrated, and some even mention that they are both mutually integrated. The two models do have differences; notably, the EEM model does not consider the role of social factors, though Krueger and Kickul (2006) state that personal and social aspect influence entrepreneurial intention. Based on these two models, TPB and EEM, it can be seen that the antecedent factors of entrepreneurial intention comprise three factors: attitude, social, and psychological dimensions.

Previous studies have highlighted that an entrepreneurial orientation is significantly related to entrepreneurial intention (Do & Dadvari, 2017). Meanwhile, other antecedents, such as social capital, also play an essential role in shaping entrepreneurial intentions (Liñán & Santos, 2007). Also, psychological capital is a strong predictor of successful entrepreneurship (Jin, 2017) and is positively associated with entrepreneurial intention (Ghani et al., 2013). These findings show, theoretically and empirically, that psychological capital is positively associated with increased performance and positive attitudes.

Psychological capital is a new paradigm in developed countries, but it is believed to be an essential contributor to entrepreneurial practices (Yousaf, Hizam-Hanafiah, & Usman, 2015). Although the role of positive psychology has been widely known, the empirical literature about how psychological capital can be applied to entrepreneurs is still limited. Besides that, some studies have individually examined the role of attitude, social capital, and psychological capital to develop the intention to start a new business, but few empirical studies have examined interaction between these factors. Therefore, this study sought to explore the mechanism of developing student entrepreneurial intention (see Fig. 1). Its purpose was to develop and examine the structural model of the development of entrepreneurial intention. Specifically, the study first investigated the compatibility of the conceptual model of entrepreneurial intentions with empirical data; second, examined the influence of entrepreneurial attitude orientation, social capital, and psychological capital on student entrepreneurial intentions; third, tested the mediating effect of psychological capital on the relationship between entrepreneurial attitude orientation and student entrepreneurial intention; and finally, examined the mediating effect of psychological capital on the relationship between social capital and the entrepreneurial intentions of polytechnic students.

2. Literature review

2.1. Entrepreneurial intention and entrepreneurial attitude

Entrepreneurial intention is considered to be the most critical aspect for future formation of new businesses (Nguyen, Do, Vu, Dang, & Nguyen, 2019). Human behaviour is either stimulus-response or planned (Krueger, 2009); entrepreneurship can be considered planned behaviour (Krueger, Reilly, & Carsrud, 2000; Liñán, Rodríguez-Cohard, & Rueda-Cantuche, 2011). All planned behaviours must have been intended (Krueger, 2009). Thus, considering entrepreneurship is a multistep process that can lead to business creation, intention is the first step to consider (Krueger et al., 2000).

Entrepreneurial intention is an individual's state of mind that directs their attention and personal experience to planned entrepreneurial behaviour (Do & Dadvari, 2017). The intention is explained as motivational factors that influence behaviour, indicating an individual's proposed effort to practice planned behaviour (Liñán & Santos, 2007). So, the higher the intention to perform an act, the higher the probability of its performance.

The intention to start a new business depends on a person's desire and feasibility to start an entrepreneur (Shapero & Sokol, 1982). Perceived desirability explains the level of interest a person feels towards certain behaviours, such as being an entrepreneur. Meanwhile, perceived feasibility is the perception of their capacity to take specific actions (e.g., becoming an entrepreneur). Similarly, Ajzen's (2011) Theory of Planned Behavior (TPB) explains that attitudes towards behaviour shape entrepreneurial intention, perceived behavioural control, and subjective norms. The first two features are the same as those put forward by Shapero and Sokol—perceived desirability and perceived feasibility—whereas the third, subjective or social norms, describe the influence of others in their environment regarding support for their planned behaviour. These norms contribute to the strength of intention towards the performance of a given behaviour. TPB's theoretical framework is often applied in entrepreneurial research and is the most established and successful framework for analysing behavioural intentions (Liñán et al., 2011). This theory highlights that the intention to perform certain behaviours is shaped by the desire of individuals to carry out their behaviour and beliefs in their ability to do so.

The antecedent structure of entrepreneurial intentions is generally influenced by personal and situational factors (Altinay, Madanoglu, Daniele, & Lashley, 2012). According to Ajzen (1988), attitudes are different from traits because of their evaluative character toward specific targets. Further, attitude affects individual intentions and simultaneously influences behaviour (Ajzen, 2011). That means is, attitudes have an essential role in creating intentions and become determinants factor in forming behaviour (Nguyen et al., 2019). Robinson, Stimpson, Huefner, and Hunt (1991) have explained that an entrepreneurial attitude orientation consists of personal characteristics such as innovativeness, risk-taking, need for achievement, self-confidence, and locus of control.

Scholars have often associated entrepreneurial intention with entrepreneurial attitude orientation, stating that entrepreneurial attitude can influence entrepreneurial behavior through entrepreneurial intention (Krueger, 2000). Attitude, intention, and behavior all appear to interact to affect the development of entrepreneurial behavior. Thus, we put forward the following hypothesis:

Hypothesis 1. Entrepreneurial attitude has a positive effect on the entrepreneurial intention of polytechnic students

2.2. The mediating role of psychological capital: Entrepreneurial attitude and entrepreneurial intention

Psychological Capital (PsyCap) is a condition of positive individual psychological development characterized by four psychological attributes: self-efficacy, optimism, hope, and resilience (Çavuş & Kapusuz, 2015; Luthans, Avolio, Avey, & Norman, 2007). The first, self-efficacy, is a construction synonymous with self-confidence in one's ability to perform specific tasks (Çavuş & Kapusuz, 2015). The second, optimism, can be defined as the psychological intentions and expectations to expect the best/most positive results that can positively affect human mental and physical health (Çavuş & Kapusuz, 2015). The third, hope, is an expectation that gives people "internalized determination and willingness to invest energy" to achieve their goals (Luthans & Youssef, 2004). Finally, resilience is the ability to adapt to facing risks or significant difficulties (Luthans & Youssef, 2004).

Ajzen's TPB suggests that attitudes, perceived behavioural control, and social norms influence entrepreneurial intention (Zaremozhzabieh et al., 2019). This implies that the stronger are individuals' perceptions of their behaviour controlling towards the goals they want to achieve, the more likely it is that their behaviour will achieve success. Control of individual behaviour is very closely related to aspects of psychology, so we interpret this as meaning that psychological capital is a form of perceived behavioural control.

According to Ajzen (2011), perceived behavioural control refers to the perceived ease or difficulty of performing a behaviour. Psychological capital, in addition to relating to the perceived behavioural control in TPB (Ajzen, 2011), also applies to the concept of feasibility (Shapero & Sokol, 1982). The model development carried out by Zaremozhzabieh et al. (2019) in the theory of social entrepreneurial intention states that perceived desirability and feasibility mediate the relationship of attitude toward behaviour and entrepreneurial intention. Psychological capital is also part of the study of motivation theory, which examines optimistic variables, hope, self-efficacy, and resilience. Therefore, in our understanding psychology capital has the same function as perceived desirability and feasibility and is believed to mediate the relationship between attitude toward behaviour and entrepreneurial intentions.

Empirically, a study conducted by Ghani et al. (2013) of university students in Tehran showed that psychological capital, including its attributes (self-efficacy, optimism, hope, and resilience), correlated positively with entrepreneurial intention. Another study (Jin, 2017) also had similar findings—that hope, resilience, and self-efficacy have a positive effect on start-up intentions, whereas, optimism does not have a significant impact on this intention. This finding confirms that positive psychological capital among beginner entrepreneurs is closely related to the intention of starting their business.

As a result, an increase in psychological capital will directly influence entrepreneurial orientation and simultaneously improve performance (Esfandabadi, Abdolvahab, Akbari, & Esfandabadi, 2018). Case and general studies have revealed that individual career attitudes and entrepreneurial traits are positively related to positive psychological capital (Rasyid & Bangun, 2015). Thus, we believe that psychological capital is a good mediator in attitude orientation and entrepreneurial intention.

Hypothesis 2. Psychological capital mediates the effect of entrepreneurial attitude orientation on the entrepreneurial intention of polytechnic students.

2.3. The mediating role of psychological capital: Social capital and entrepreneurial intention

Social capital has been described as the level of altruistic tendencies and the level of mutual trust between people in a community (Guiso, Sapienza, & Zingales, 2004). In either case, social capital is formed and conceptualized through social relations (Seibert, Kraimer, & Liden, 2013). Thus, for the purposes of this study, social capital is the value obtained by individuals through social interactions to develop their social capacity. Individuals with high social capital tend to be more trustworthy, more cooperative, and less selfish (Hasan, Hoi, Wu, & Zhang, 2016). In some studies, scholars consider social capital a valuable resource that opens access to various other resources such as finance, market information, and customers (Sengupta, 2010).

In the context of education, student social capital is formed through social interactions in the school environment, such as those with lecturers, friends, and parents. Previous studies have described social capital with the characteristics of cohesion schools, school friendships, neighbourhood social cohesion, and trust (Paiva et al., 2014). Also, Chia and Liang (2016) investigated the effect of creativity and social capital on entrepreneurial intentions in 213 tourism students in a metropolitan area revealed that creativity and social capital are essential factors in developing entrepreneurial intentions.

Zaremozhzabieh et al. (2019) proposed the application of the TPB model to the formation of intentions for social entrepreneurship, stating that social capital could influence social entrepreneurial intention through perceived behavioural control. Similarly, modification of the TPB model by Malebana (2016) stated that perceived behavioural control mediates social capital in entrepreneurship intention. In the TPB theory, perceived behavioural control refers to the control beliefs function, beliefs about the existence of factors that facilitate or complicate the conduct of behavior, and perceptions about the strength of these factors. The concept of perceived behavioral control is the same as the psychological capital concept which includes self-efficacy, optimism, hope, and resilience.

The importance of the role of psychological capital was also examined in entrepreneurial event models (EEM) (Shapero & Sokol, 1982) by using other terms, namely perceived desirability and perceived feasibility. EEM proposes that intentions to create a new venture are supported by perceived desirability (perceived attitude) and high perceived feasibility (enabling factors, such as self-efficacy) (Mair & Noboa, 2006). However, the EEM theory does not explicitly discuss the role of the social aspect of developing entrepreneurial intentions, unlike TPB's theory. Referring to the two theories, namely TPB and EEM, it appears that attitude, social, and psychological aspects are important to foster entrepreneurial intentions. So it makes sense if psychology capital is believed to be able to mediate effect social capital to entrepreneurial intention. Thus, we propose the following hypothesis:

Hypothesis 3. High social capital has a positive effect on the entrepreneurial intention of polytechnic students.

Hypothesis 4. Psychological capital mediates the effect of social capital on the entrepreneurial intention of polytechnic students.

3. Methods

This study involved diploma level III polytechnic students as respondents. Online questionnaires were randomly distributed to polytechnic students at Balikpapan City, East Kalimantan, Indonesia. A total of 465 students were targeted for this study, including those in the culinary arts, hospitality management, and banking and finance. An acceptable final sample consisted of 215 students

(Yamane, 1967). Participants (55 male and 160 female), students in the culinary arts, hospitality management, and banking and finance study programs (128, 45, and 42, respectively) completed an online questionnaire. These students were in the first, second and third years of their studies (58, 109, and 48, respectively).

We collected study data using instruments validated in previous studies. Students' perceptions of entrepreneurial attitude were measured using entrepreneurial attitude orientation instruments (Robinson et al., 1991). The original scale of entrepreneurial attitude orientation consists of three components: (1) affect, (2) cognition, and (3) conation. The reported internal consistency for the three components is 0.84, 0.84, and 0.84 respectively. This study uses the affect component to measure entrepreneurial attitude because it is considered to be the most suitable for research purposes. This instrument consists of 27 items (for example, "I get my biggest thrill when I work is among the best there is").

Meanwhile, students' perceptions of their social capital were measured using the Social Capital Questionnaire (Paiva et al., 2014). This instrument consists of 12 items (for example, "students at my school have fun together"). This instrument as a whole has a Cronbach alpha value of .71. The Psychological Capital (PsyCap) Questionnaire (PCQ) (Luthans et al., 2007) was used to measure psychological student capital. PCQ consists of 24 items which include measurement of self-efficacy, optimism, resilience, and hope (for example, "I feel confident analyzing a long-term problem to find a solution"). The internal consistency of self-efficacy, optimism, resilience, and hope were 0.75, 0.79, 0.72, and 0.76, respectively. Finally, we used the Entrepreneurial intention Questionnaire to measure student entrepreneurial intentions (Liñán & Santos, 2007). This instrument consists of 6 items (for example, "I am ready to do anything to be an entrepreneur"). The measure in this instrument used a five-point Likert scale (strongly disagree to agree strongly), with a Cronbach alpha value for the instrument of .93.

Data analysis was conducted using structural equation modelling (SEM). The use of a maximum likelihood approach in SEM allows researchers to test the hypothesis that some factors can describe intercorrelations between variables. The Amos 18 software SEM analysis tool was used in this study, which requires a minimum sample size of 100 to develop a good model, although some experts suggest requiring a minimum of 200 samples (Kline, 2011).

4. Results

4.1. Validity and reliability of instruments used in this study

Cronbach's alpha and correlation tests were conducted to test the validity and reliability of the instruments used for measuring entrepreneurial attitude orientation, social capital, psychological capital, and entrepreneurial intention before proceeding to the subsequent analysis (correlation and structural path analysis). The instrument for measuring the four variables showed valid results (.194** ~ .932**) and was reliable (entrepreneurial attitude orientation = .925; social capital = .818; psychological capital = .925; entrepreneurial intention = .954). This result showed that the four measuring instruments are accurate enough to measure polytechnic students' perceptions of entrepreneurial attitude orientation, social capital, psychological capital, and entrepreneurial intentions.

4.2. Correlations among the variables

The correlation between entrepreneurial attitude orientation, social capital, psychological capital, and the entrepreneurial intention was analysed using bivariate correlation. The results showed a moderate (.300 ~ .500) correlation (Wilson, 2009) between

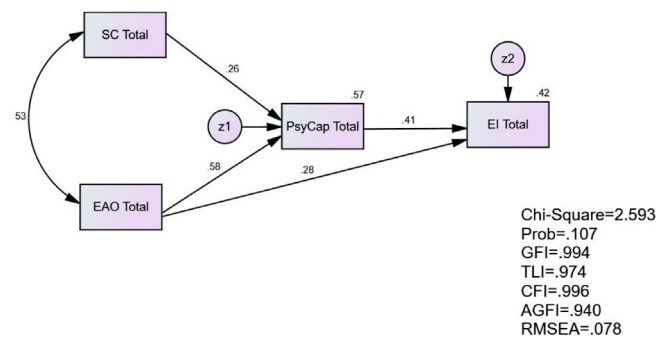


Fig. 2. Measurement model of entrepreneurial, social capital, psychological capital, and entrepreneurial intention.

Note: SC Total = social capital; EAO Total = entrepreneurial attitude orientation; PsyCap Total = psychological capital; EI Total = entrepreneurial intention.

social capital and entrepreneurial intention (.319). Furthermore, high correlation (>.500) was shown by the relationship between entrepreneurial attitude orientation with social capital, psychological capital, and entrepreneurial intention (.530, .723, and .528, respectively). High correlation was also shown in the relationship between social and psychological capital (.571) and psychological capital with entrepreneurial intentions (.618).

4.3. The systematic and hierarchical structure of variables influencing entrepreneurial intention

Structural equation modelling was done to identify the impact of student perceptions on entrepreneurial attitude orientation, social capital, and psychological capital on their entrepreneurial intention. Before examining the model, we tested the effect of entrepreneurial attitude orientation and social capital on entrepreneurial intention separately. The results of simple regression tests revealed that entrepreneurial attitude orientation directly and significantly influences entrepreneurial intention (.582***); the same results also were shown in the social capital effect on entrepreneurial intention (.319***) (Table 1). The results of the first model were tested by adding psychological capital as a mediator, and show that the model did not fit; there is one insignificant path, namely the direct effect of social capital on entrepreneurial intention (−104). In other words, Hypothesis 3 was not supported. Next, the model was modified by eliminating the social capital path to entrepreneurial intention.

The results of this modified model (Fig. 2) revealed that the structural model has conformity (Chi-square = 2.593; GFI = .994; AGFI = .940; CFI = .996; TLI = .974; RMSEA = .078), which indicates the hypothesis of the modified model was supported (Byrne & Campbell, 1999). Comparing the simple regression results, the direct influence of entrepreneurial attitude orientation on entrepreneurial intention decreased, to .283***, but remained significant at the level of .001, supporting Hypothesis 1. Meanwhile, entrepreneurial attitude orientation was found to directly and significantly affect psychological capital (.584***), while social capital was found to have a significant effect on psychological capital (.262***), and simultaneously affect entrepreneurial intention (.413***).

Up to this point, the significance of psychological capital mediators was not present in the study model. Further, it was followed by testing the mediation role. Mediation analysis was used to test how much influence mediation (psychological capital) has on the relationship between the independent and dependent variables. The most effective testing of the mediation role is by using bootstrapping confidence interval estimates (Cheung & Lau, 2008). This study used 2000 bootstrap samples with a confidence level

Table 1

The results of the path analysis among variables.

	Estimate	S.E.	C.R.	P	Result
SC → EI (Simple regression)	.319	.053	4.927	***	Significant
EAO → EI (Simple regression)	.582	.021	10.475	***	Significant
SC → EI (1st model)	−.104	.052	−1.615	.106	Not significant
EAO → EI (2nd model)	.283	.028	3.763	***	Significant
SC → PC (2nd model)	.262	.108	4.964	***	Significant
EAO → PC (2nd model)	.584	.050	11.084	***	Significant
PC → EI (2nd model)	.413	.030	5.483	***	Significant

***Correlation is significant at the 0.001 level; EAO, entrepreneurial attitude orientation; SC, social capital; PC, psychological capital; EI, entrepreneurial intention.

Table 2

The result of bootstrapping in testing the mediator psychological capital.

	Path	SC → EI	EAO → EI	SC → PC	EAO → PC	PC → EI
Standardized direct effect	Estimate		.283	.262	.584	.413
	P-value		.002	.001	.002	.001
Standardized indirect effect (PC mediator)	Estimate	.108	.241			
	P-value	.001	.000			
Standardized total effect	Estimate	.108	.524	.262	.584	.413
	P-value	.001	.002	.001	.002	.001

EAO, entrepreneurial attitude orientation; SC, social capital; PC, psychological capital; EI, entrepreneurial intention.

of 90%. The results (Table 2) revealed that the mediator role of psychological capital was significant in the entrepreneurial attitude orientation and entrepreneurial intention relationship (.241, $p = .000$, $CI = .160 \sim .345$), representing partial mediation; thus, Hypothesis 2 was supported (Preacher & Hayes, 2008). In addition, psychological capital also significantly mediates the social capital effect on entrepreneurial intention (.108, $p = .001$, $CI = .054 \sim .187$) and fully mediates the relationship between social capital and entrepreneurial intention, so Hypothesis 4 was supported.

These findings indicate that psychological capital, which includes self-efficacy, optimism, hope, and resilience, is an important mediator to increase the effect of entrepreneurial attitude and social capital on the intention of polytechnic students to start new businesses. Entrepreneurial attitude, social capital, and psychological capital are essential antecedents to increase the intention of entrepreneurial polytechnic students.

5. Discussion

Preparing prospective entrepreneurs through education is considered one important aspect of addressing the problem of unemployment in Indonesia. The root of the problem of unemployment lies in limited employment opportunities; the increasing number of education graduates has not been balanced with expansion or addition of jobs. The limited number of jobs has been caused by a lack of new companies. Some scholars believe that the intention of entrepreneurship can encourage the creation of new companies (Altinay et al., 2012; Barba-Sánchez & Atienza-Sahuquillo, 2018). Thus, it is essential to understand the mechanism behind this decision in order to better foster the entrepreneurial intention of vocational students at polytechnics.

Polytechnics prepare students to master specific technical skills, which are the primary capital of individuals to start entrepreneurs in their fields of expertise. Basically, vocational education provides individuals with specific skills, intended to lead render them capable of creating new businesses that use their expertise. Building upon TPB (Ajzen, 2011) and EEM (Shapero & Sokol, 1982), it is understood that the entrepreneurial intention of these graduates is influenced by entrepreneurial attitude orientation, social capital, and psychological capital.

Indeed, the findings of our study indicate that these are important antecedent factors in developing the entrepreneurial intention of polytechnic students. In particular, entrepreneurial attitude ori-

entation has a significant direct effect on students' entrepreneurial intention. Thus, vocational educators in polytechnics should promote positive attitudes towards entrepreneurship to students to support their intention to start new businesses in their fields. These results are consistent with those of previous studies (Krueger et al., 2000), which discuss the role of attitudes. An entrepreneurial attitude directly affects the individual's intention to start a new business; the positive attitude of students towards entrepreneurship (such as student perceptions of achievement, self-esteem, personal control, and innovation) should be developed during the learning process on campus. Previous studies about entrepreneurship learning in vocational education (Mahfud & Pardjono, 2012) have revealed that "real" learning, that involves students in business activities, can help instil individual entrepreneurial attitudes and increase students' intention to create opportunities for entrepreneurship.

Our study revealed that psychological capital partially mediates the effect of entrepreneurial attitude orientation on entrepreneurial intention. This means that entrepreneurial attitude orientation has both a direct and indirect influence on the intention of students to start a new business. The immediate effect is shown in the impact of entrepreneurial attitude orientation on entrepreneurial intention, while the indirect effect is shown in the impact of entrepreneurial attitude orientation on entrepreneurial intention through students' psychological capital. The presence of positive psychological attributes such as self-efficacy, optimism, hope, and resilience was shown to increase students' entrepreneurial intentions. These results reinforce those of a previous study (Jin, 2017), which showed that hope, resilience, and self-efficacy positively influence the intention to start a business, but optimism does not. It also indicated that entrepreneurial intention requires not only strong desire, shown in a positive attitude toward entrepreneurship, but also needs to strengthen personal feasibility to start a new company through increasing their psychological capital. These empirical results reinforce previous theory stating that entrepreneurial intention is influenced by the desirability and feasibility of the business plan (Shapero & Sokol, 1982).

Different results in this study show that social capital does not have a direct influence on entrepreneurial intention. These findings indicate that the student social environment is not fully supportive of entrepreneurship; their social interactions are mostly with family, friends, other students and lecturers, not entrepreneurs. Of

course, does not fit with optimal conditions for entrepreneurship described by previous studies, which showed that the intention to start a business is more likely to form if it receives support from the people closes to the entrepreneur, an attitude of appreciation from the community, and trust from business people (Malebana, 2016).

Thus, vocational education practitioners need to develop a teaching model that involves businesspeople in teaching on campus. This may include guest lectures from successful entrepreneurs. This type of program provides benefits to students in the form of unique experiences, lessons learned, and problems and challenges experienced by entrepreneurs in real-life situations. Thus, students will add to their social interaction with businesspeople, and hopefully, will also be motivated to become successful entrepreneurs in their fields.

Although we found that social capital does not have a direct influence on entrepreneurial intention, our study shows that psychological capital mediates the full effect of social capital on entrepreneurial intention. The lack of social interaction of students within a supportive environment to start a business needs to be balanced with psychological investment. That is, students' social support has more influence and significance in the development of psychological capital, and it will influence student entrepreneurship.

Support from friends, family and lecturers was not found to influence the intention of student entrepreneurship. Social perceptions of entrepreneurial feasibility need to be supported by personal features such as self-efficacy, optimism, hope, and resilience, the major drivers for realizing a new business. This finding is in line with those of previous studies (Snyder, 2000) that showed individuals who have good self-efficacy, optimism, hope, and resilience will integrate motivation, cognition, and actions to achieve the success they plan.

Finally, the results of our study have implications for increasing the entrepreneurial intention of polytechnic students by paying attention to the role of entrepreneurial attitude and social and psychological capital. These three aspects need to be involved collaboratively to allow students to start businesses. Although polytechnic graduates have the necessary capital of skills to start a business in their area of expertise, that is not enough; vocational education practitioners need to promote positive entrepreneurial attitudes, build social networks with entrepreneurs, and instill students with positive psychological capital. These three aspects can be addressed experience-based learning processes, including through student involvement in campus business management or the form of other activities, such as open discussions with successful businesspeople.

6. Conclusions

The results of the study revealed that entrepreneurial attitude orientation, social capital, and psychological capital collaboratively and interactively influenced the entrepreneurial intention of polytechnic students. Psychological capital also plays a role in mediating the relationships between these variables. First, psychological capital mediates the effect of entrepreneurial attitude orientation on entrepreneurial intention partially. Second, psychological capital mediates the full impact of social capital on entrepreneurial intention; this finding reinforces the theory that was building entrepreneurial intentions are influenced by attitudinal, social, and psychological aspects. Finally, it is suggested that practitioners of vocational education instill their students with entrepreneurial attitudes, social capital, and psychological capital through on-campus activities intended to build their entrepreneurial intentions. Entrepreneurship learning must be synchronized with the development of specific vocational skills

so graduates of polytechnics—besides being qualified to work in industry—are also qualified to create new business opportunities leveraging their vocational expertise.

7. Limitation and suggestion

This study does have some limitations. The major limitation is that this study did not use measurements taken in the context of entrepreneurship on several variables, such as social and psychological capital. The instruments used to measure social (Paiva et al., 2014) and psychological capital (Luthans et al., 2007) were general in their approach. We suggest the development of specific instruments to measure social capital and psychological capital in the context of entrepreneurship. This study also collected self-reported data, introducing the potential for bias. Therefore, subsequent research should involve other respondents, such as lecturers or peers, to get more objective results. In the future, systematic studies need to be carried out on models that review the role of various explanatory variables for social capital and entrepreneurial attitude.

References

- Ajzen, I. (1988). *Attitudes, personality, and behavior*. Milton Keynes: Open University Press.
- Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology & Health*, 26(9), 1113–1127. <https://doi.org/10.1080/08870446.2011.613995>
- Altınay, L., Madanoglu, M., Daniele, R., & Lashley, C. (2012). The influence of family tradition and psychological traits on entrepreneurial intention. *International Journal of Hospitality Management*, 31(2), 489–499. <https://doi.org/10.1016/j.ijhm.2011.07.007>
- Barba-Sánchez, V., & Atienza-Sahuquillo, C. (2018). Entrepreneurial intention among engineering students: The role of entrepreneurship education. *European Research on Management and Business Economics*, 24(1), 53–61. <https://doi.org/10.1016/j.iemeen.2017.04.001>
- Byrne, B. M., & Campbell, T. L. (1999). Cross cultural comparison and the presumption of equivalent measurement and theoretical structure. *Journal of Cross-cultural Psychology*, 30(5), 555–574.
- Çavuş, M., & Kapusuz, A. (2015). Psychological capital: Definition, components and effects. *British Journal of Education Society & Behavioural Science*, 5, 244–255.
- Central Bureau of Statistics. (2018). *Indonesian employment situation in February (Indonesian version)*. Retrieved from. <https://www.bps.go.id/pressrelease/2018/05/07/1484/februari-2018-tingkat-pengangguran-terbuka-tpt-sebesar-5-13-persen-rata-rata-upah-buruh-perbulan-sebesar-2-65-juta-rupiah.html>
- Cheung, G. W., & Lau, R. S. (2008). Testing mediation and suppression effects of latent variables: Bootstrapping with structural equation models. *Organizational Research Methods*, 11(2), 296–325.
- Chia, C.-C., & Liang, C. (2016). Influence of creativity and social capital on the entrepreneurial intention of tourism students. *Journal of Entrepreneurship, Management and Innovation*, 12(2), 151–168. <https://doi.org/10.7341/20161227>
- Coulilaly, S. K., Erbao, C., & Mekongcho, T. M. (2018). Economic globalization, entrepreneurship, and development. *Technological Forecasting and Social Change*, 127, 271–280. <https://doi.org/10.1016/j.techfore.2017.09.028>
- Do, B.-R., & Dadvari, A. (2017). The influence of the dark triad on the relationship between entrepreneurial attitude orientation and entrepreneurial intention: A study among students in Taiwan University. *Asia Pacific Management Review*, 22(4), 185–191. <https://doi.org/10.1016/j.apmr.2017.07.011>
- Esfandabadi, H. M., Abdolvahab, S., Akbari, M. T., & Esfandabadi, A. M. (2018). Investigating the effect of entrepreneurial orientation and psychological capital on the performance. *Case Studies Journal*, 4(9), 47–57.
- Ghani, M., Hooshangi, M., & Hassan, M. (2013). The effect of psychological capital on university of Tehran students' entrepreneurial intention. *Asian Journal of Research in Business Economics and Management*, 3(10), 313–321.
- Guiso, L., Sapienza, P., & Zingales, L. (2004). The role of social capital in financial development. *The American Economic Review*, 94(3), 526–556. <https://doi.org/10.1257/0002828041464498>
- Hasan, I., Hoi, C. K., Wu, Q., & Zhang, H. (2016). Does social capital matter in corporate decisions? Evidence from corporate tax avoidance. *Journal of Accounting Research*, 55(3), 629–668. <https://doi.org/10.1111/1475-679X.12159>
- Jin, C.-H. (2017). The effect of psychological capital on start-up intention among young start-up entrepreneurs: A cross-cultural comparison. *Chinese Management Studies*, 11(4), 707–729. <https://doi.org/10.1108/CMS-06-2017-0162>
- Kline, R. B. (2011). *Principles and practice of structural equation modeling*. New York, NY: Guilford.
- Krueger, N. F. (2000). The cognitive infrastructure of opportunity emergence. *Entrepreneurship Theory and Practice*, 24(3), 9–27.

- Krueger, N. F. (2009). *Entrepreneurial intentions are dead: Long live entrepreneurial intentions*. In *Understanding the entrepreneurial mind-opening the black box*. Dordrecht: Springer.
- Krueger, N. F., & Kickul, J. (2006). Are social entrepreneurs really different? Discrete choice modeling of triple bottom line venture preferences. *SSRN Electronic Journal*, <https://doi.org/10.2139/ssrn.1150490>
- Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5), 411–432.
- Liñán, F., Rodríguez-Cohard, J. C., & Rueda-Cantuche, J. M. (2011). Factors affecting entrepreneurial intention levels: A role for education. *International Entrepreneurship and Management Journal*, 7(2), 195–218. <https://doi.org/10.1007/s11365-010-0154-z>
- Liñán, F., & Santos, F. J. (2007). Does social capital affect entrepreneurial intentions? *International Advances in Economic Research*, 13(4), 443–453. <https://doi.org/10.1007/s11294-007-9109-8>
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60, 541–572.
- Luthans, F., & Youssef, C. (2004). Human, social, and now positive psychological capital management: Investing in people for competitive advantage. *Organizational Dynamics*, 33(2), 143–160.
- Mahfud, T., & Pardjono. (2012). The praxis of entrepreneurship learning in food production units (Indonesian version). *Pendidikan Vokasi*, 2(3), 27–40. <https://doi.org/10.21831/JPV.V2I1.1014>
- Mair, J., & Noboa, E. (2006). Social entrepreneurship: How intentions to create a social venture are formed. In J. Mair, J. Robinson, & K. Hockerts (Eds.), *Social entrepreneurship* (pp. 121–135). <https://doi.org/10.1057/9780230625655.8>
- Malebana, M. J. (2016). The influencing role of social capital in the formation of entrepreneurial intention. *Southern African Business Review*, 20(1), 51–70.
- Nguyen, A. T., Do, T. H. H., Vu, T. B. T., Dang, K. A., & Nguyen, H. L. (2019). Factors affecting entrepreneurial intentions among youths in Vietnam. *Children and Youth Services Review*, 99, 186–193. <https://doi.org/10.1016/j.childyouth.2019.01.039>
- Paiva, P. C. P., De Paiva, H. N., De Oliveira Filho, P. M., Lamounier, J. A., E Ferreira, E. F., Ferreira, R. C., et al. (2014). Development and validation of a social capital questionnaire for adolescent students (SCQ-AS). *PloS One*, 9(8), 1–8. <https://doi.org/10.1371/journal.pone.0103785>
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891. <https://doi.org/10.3758/BRM.40.3.879>
- Rasyid, A. A., & Bangun, Y. R. (2015). The relationship between psychological capital and entrepreneurial traits: A case study of mba sbm itb students in Bandung. *Journal of Business & Management*, 4(3), 297–316.
- Republika. (2016). *Indonesia needs millions of new entrepreneurs* (Indonesian version).
- Robinson, P. B., Stimpson, D. V., Huefner, J. C., & Hunt, H. K. (1991). An attitude approach to the prediction of entrepreneurship. *Entrepreneurship Theory and Practice*, 15(4), 13–31.
- Schlaegel, C., & Koenig, M. (2014). Determinants of entrepreneurial Intent: A meta-analytic test and integration of competing models. *Entrepreneurship Theory and Practice*, 38(2), 291–332. <https://doi.org/10.1111/etap.12087>
- Seibert, S. E., Kraimer, M. L., & Liden, R. C. (2013). A social capital theory of career success. *The Academy of Management Journal*, 44(2), 219–237. <https://doi.org/10.2307/3069452>
- Sengupta, A. (2010). Social capital and entrepreneurship: An analysis of methodological issues. *Sociological Bulletin*, 59(3), 323–344. Retrieved from. <http://www.jstor.org/stable/23620887>
- Shapiro, A., & Sokol, L. (1982). Social dimensions of entrepreneurship. In C. A. Kent, D. L. Sexton, & K. H. Vesper (Eds.), *Encyclopedia of entrepreneurship*. Englewood Cliffs, NJ: Prentice Hall.
- Snyder, C. R. (2000). *Handbook of hope*. San Diego: Academic Press.
- Wilson, L. T. (2009). *Coefficient of correlation* Retrieved November 18, 2019, from. <https://explorable.com/statistical-correlation>
- Wiratno, S. (2012). The implementation of entrepreneurship education in the higher education. *Jurnal Pendidikan Dan Kebudayaan*, 18(4), 453–466.
- Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). New York: Harper and Row.
- Yousaf, S. U., Hizam-Hanafiah, M., & Usman, B. (2015). Psychological capital: Key to entrepreneurial performance and growth intentions. *International Research Journal of Social Sciences*, 4(9), 39–45. Retrieved from. <http://www.isca.in/IJSS/Archive/v4/i9/8.ISCA-IRJSS-2015-173.pdf>
- Zaremozhzabieh, Z., Ahrari, S., Krauss, S. E., Samah, A. B. A., Meng, L. K., & Ariffin, Z. (2019). Predicting social entrepreneurial intention: A meta-analytic path analysis based on the theory of planned behavior. *Journal of Business Research*, 96, 264–276. <https://doi.org/10.1016/j.jbusres.2018.11.030>