

Investigating the Determinants of Academic Entrepreneurial Intention: Evidence from Indonesia

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This study explores the impact of university environmental factors and personal factors of faculties on academic entrepreneurial intention. We contend that entrepreneurial orientation and entrepreneurial culture as part of the university environment affect the attitude and intention of faculties to involve in academic entrepreneurial activities. We also investigate the effect of entrepreneurial self-efficacy on academic entrepreneurial intention. This study involved 130 faculty members of a public university in Indonesia as the respondents. To analyse the association among variables, SEM-PLS was employed. The results supported the argument about the role of orientation, culture, attitude, and self-efficacy as the determinants of academic entrepreneurial intention. The implication of the results is also discussed.

Key words: *Entrepreneurial University, Entrepreneurial Orientation, Entrepreneurial Culture, Attitude, Entrepreneurial Self-Efficacy, Academic Entrepreneurial Intention.*

Introduction

Attention towards the university's involvement in entrepreneurial activities besides teaching and research as their main missions has increased recently (Laukkanen, 2003). Universities now are required to recognise opportunities and to generate additional income (Shane & Stuart, 2002). Most of the opportunities lie in establishing a mutual partnership between industries and the universities (Mowery & Shane, 2002).

Djokovic and Souitaris (2008) have classified the academic entrepreneurship studies into macro-level studies (studying the role of government and industry), meso-level studies (focusing on the university and the technology transfer office) and micro-level studies (studying firms and individual entrepreneurs). Despite abundant studies at the macro-level

and the meso-level, there is a lack of studies focusing on the individual-level (Prodan & Drnovsek, 2010).

One crucial factor which determines the success of entrepreneurial university development is the behaviour of individual entrepreneurs (Wright, Mosey, & Noke, 2012). The involvement of academics in the entrepreneurial effort has been conceptualised as ‘academic entrepreneurship’ (Davey, Rossano, & van der Sijde, 2016). Wood (2011) argues whether academic entrepreneurship is initiated by the efforts of a technology transfer office, concluding only if the faculty are actively interested in commercialisation or they have to do so by the policies.

Attitudinal factors have been proven as reliable predictors of individual behaviour. The theory of planned behaviour (Ajzen, 1991) is the most famous theoretical framework utilised to capture the relationship between attitude and behaviour. According to the theory, a particular behaviour of an individual can be predicted by intention, while the attitude towards the behaviour shapes the intention.

Besides attitudinal factors, we believe environmental factors also play a significant role in shaping individual behaviour. Scholars have investigated the effect of perception about the environmental factors in individual intention and behaviour. Lüthje and Franke (2003) developed the entrepreneurial intention model which proposes attitude towards entrepreneurship and environmental factor as the determinants of entrepreneurial intention. The model splits contextual factors into perceived barriers and perceived support factors. In green marketing literature, Aghelie (2017) identified elements of contextual factors that affect the intention of SMEs to adopt a green business model, among others are government support and organisation culture.

However, the explanation of how environmental factor affects academic entrepreneurial intention is under research. Our research fills this gap by utilising university culture and orientation as the elements of the environmental factor to predict the faculty's intention to conduct entrepreneurial activities.

Despite the growing concern of universities in academic entrepreneurial activities, the term ‘entrepreneurialism’ in the academy has been ill-defined, causing inconsistency in defying what actually represents ‘an entrepreneurial activity’ (Audretsch, Thurik, Verheul, & Wennekers, 2002). Furthermore, the concept of academic entrepreneurship has been used in restricted interpretation (Abreu & Grinevich, 2013); it is identical with commercialisation through university spin-off creation and academic start-ups (Davey et al., 2016). For example, Prodan and Drnovsek (2010) state that academic spin-offs have been recognised as an essential element of the entrepreneurial university concept.

Regardless of the significant contribution of spin-offs on commercialisation opportunities for universities, other sorts of academic entrepreneurial activities must also be taken into consideration (Jain, George, & Maltarich, 2009). A similar suggestion was brought by Ozgul and Kunday (2015), which propose that academic entrepreneurship should not be limited to spin-off formation activity, and intention scales should address different types of activities.

The second contribution of our research to fill the gap is by extending the measurement of entrepreneurial activities. The novelty of teaching methods (Etzkowitz, 2001; Laredo, 2007), patent or license, contract research, and consulting (Huyghe & Knockaert, 2015) is employed to capture a full dimension.

The paper aims to investigate the role of personal and environmental factors on a faculty's entrepreneurial academic intention. The modified theory of planned behaviour employed as the theoretical framework. A more comprehensive understanding is needed of what role is played by personal factors and environmental factors to create the intention of entrepreneurial academics. This study will contribute to the literature in a way: by building on the theory of planned behaviour for entrepreneurial behaviour by academics as well as highlighting the role of environmental factors in academic entrepreneurship.

Literature Review

Theory of Planned Behaviour

The employment of the theory of planned behaviour as the theoretical framework based on the large numbers of evidence of the theory's effectiveness in predicting behavioural intention in a wide area. According to the theory, the behaviour of a person is immediately determined by the intention of the person to perform that behaviour. In turn, this intention to perform a behaviour depends on three fundamental elements: attitude towards behaviour; the subjective norm, a social pressure on them to perform or not perform behaviour (Ajzen, 1991); and the perceived behavioural control, an individual's perceived ease or difficulty of performing the behaviour (Ajzen, 1991).

We exclude the subjective norms of our model for two reasons. First, previous research has found that subjective norms is the weakest element (Armitage & Conner, 2001; Sheppard, Hartwick, & Warshaw, 1988; Van den Putte, Hoogstraten, & Meertens, 1991); therefore several scholars removed the element from their model (Bamberg & Möser, 2007; Sparks, Shepherd, Wieringa, & Zimmermanns, 1995). Second, the social influence, which is represented by social norms, has been captured by entrepreneurial culture, another construct in our model. Guerrero and Urbano (2014) argue that culture represents subjective entrepreneurial norms.

We also use entrepreneurial self-efficacy instead of perceived behavioural control in our model. Armitage and Conner (Armitage & Conner, 2001), in their meta-analysis study, quoted Ajzen's (1991) argument that the PBC and self-efficacy constructs are interchangeable. Previous research (de Vries, Dijkstra, & Kuhlman, 1988; Dzewaltowski, Noble, & Shaw, 1990) argues that self-efficacy, rather than perceived behavioural control, is a better predictor of intention.

Wood and Bandura (1989) define perceived self-efficacy as “people’s beliefs in their abilities to mobilise the motivation, cognitive resources, and courses of action needed to exercise control over events in their lives”. Self-efficacy plays an essential role in predicting entrepreneurial intention and behaviour (Boyd & Vozikis, 1994). Self-efficacy is one’s perception of their own ability to successfully undertake entrepreneurship (Huyghe, Knockaert, & Obschonka, 2016).

Jain et al. (2009) find that most academic entrepreneurs see themselves first as scientists and, second, entrepreneurs. This finding implicitly demonstrates that faculties hold entrepreneurial self-efficacy.

Academic Entrepreneurship

Academic entrepreneurship is “any activity that occurs beyond the traditional roles of teaching and research, which is innovative and comprises an element of risk, and may lead to financial rewards for the individual or the institution” (Huyghe & Knockaert, 2015, p. 4). Klofsten and Jones-Evans (2000) conceptualise academic entrepreneurship as “all commercialisation activities outside of the regular university duties of basic research and teaching.” Jain et al. (2009) suggest that any technology transfer, which implies that commercial benefit is academic entrepreneurship.

Other scholars have used the term to cover a more extensive array of knowledge transfer activities (Klofsten & Jones-Evans, 2000). These authors defined ‘academic entrepreneurship’ as the academic's engagement in entrepreneurial activities in addition to their regular academic duties and as the introduction of novelties to teaching (Etzkowitz, 2001; Laredo, 2007) outside of their usual research activity. To broaden the concept of academic entrepreneurship, scholars attempt to use a wider measurement of academic entrepreneurship. For example, Huyghe and Knockaert (2015) put a patent or license, contract research, and consulting.

Environmental Factors

Entrepreneurial university ecosystems consist of interaction among the elements involved; the actors include government and industry, institutional support structures, and the built environment (Etzkowitz & Leydesdorff, 2000; Johnson, Bock, & George, 2019; O'Shea, Allen, O'Gorman, & Roche, 2004). Based on this understanding, the exploitation of new opportunities must take into account the broader institutional context. Contextual factors include organisational frameworks and environment designed to promote collaboration between universities and business.

A number of studies have focused on the environment in which academic entrepreneurship takes place (Davey et al., 2016). Studies into the organisational context, including culture (Kenney & Goe, 2004) and top-level commitment (Anderson, Daim, & Lavoie, 2007).

Culture

Schein (1985) defines organisational culture as "a pattern of basic assumptions invented, discovered or developed by a given group as it learns to cope with its problems of external adaptation and internal integrations that have worked well." Organisational culture delivers meaning and context (Schein, 1985) and affects how a decision is made by an organisation. (Huyghe & Knockaert, 2015).

Clark (1998) proposes that entrepreneurial culture is a crucial driver for the university to transform into entrepreneurial universities. Similarly, O'Shea et al. (2005) also claim that universities need to nurture an entrepreneurial culture for academic entrepreneurship to develop. Along these lines, in order to encourage research scientists' in entrepreneurial activities, universities could create a supportive culture (Guerrero & Urbano, 2014). Furthermore, the entrepreneurial culture of universities directly impacts commercialisation efforts (Huyghe & Knockaert, 2015).

The disclosure of the entrepreneurial university has required universities to emphasise the role of organisational culture, including the legitimisation of entrepreneurial behaviour as an expected outcome of scientific research (Wright et al., 2012).

Entrepreneurial Orientation

The emergence of entrepreneurial universities leads to some changes, and an entrepreneurial orientation within the university is starting to be formed (Kalar & Antoncic, 2015). However, the concept of the entrepreneurial orientation of academic institutions and how such an

orientation might foster commercialisation activity is under research (Todorovic, McNaughton, & Guild, 2011).

The study of entrepreneurial orientation has its roots in the strategic research area, particularly the writings of Mintzberg (1973), which identified three strategy types, entrepreneurial, planning, and adaptive. Entrepreneurial orientation research was started when Miller's (1983) study conceptualised the three principal dimensions of entrepreneurial orientation; innovativeness, risk-taking, and proactiveness. Since then, these dimensions have become the primary references in the literature.

Hypotheses Development

Attitude, Entrepreneurial Self-Efficacy, and Intention

Schwarz et al. (2009) found that attitude toward entrepreneurship significantly affects entrepreneurial intention. This finding aligned with Goethner et al. (2012), who argue that attitudes and perceived control were key determinants of entrepreneurial intentions in an academic context. Using the dark triad model in their study, Do, and Davari (2017) also found that attitude plays an important role in shaping entrepreneurial intention.

Boyd and Vozikis (1994) developed a theoretical model in which self-efficacy was proposed as an important antecedent of entrepreneurial intentions. Prodan and Drnovsek (2010) found that entrepreneurial self-efficacy is the most important antecedent of entrepreneurial intentions.

Based on those arguments and findings, we propose hypotheses as follows:

H1: Attitude toward entrepreneurial academic is positively related to academic-entrepreneurial intentions

H2: Entrepreneurial self-efficacy is positively related to academic-entrepreneurial intentions.

Entrepreneurial Orientation and Intention

Using 100 faculty members and 300 students of the university in Malaysia, the study of Ismail et al. (2015) found that entrepreneurial orientation has a strong influence on the commercialisation of research. The study results of Kalar and Antoncic (2015) indicate that perceiving the university department as highly or lowly entrepreneurial orientation may have a significant effect on whether academics engage in some entrepreneurial activities. Referring to those findings, we propose the hypotheses as follows:

H3: Entrepreneurial orientation is positively related to academic entrepreneurial intention.

Entrepreneurial Orientation and Attitude

Siguaw, Brown, & Widing (1994) and Mengüç (1996) found that the market orientation of the firm was found to influence the job attitudes and customer orientation of the salesperson significantly. The next hypothesis is then:

H4: Entrepreneurial orientation is positively related to attitude towards entrepreneurial academic

Entrepreneurial Culture and Intention

Entrepreneurs who are exposed to a given cultural or institutional environment will implement their intentional differently (Powell & Colyvas, 2008). In their comparative study between Swedish and Germany faculties and students, Huyghe and Knockaert (2015) found that university mission as a representation of university culture has a significant effect on spin-off intention, IPR intentions, and ISR intentions as the components of academic entrepreneurial. Davey et al. (2016) also found that the differences between academic and business culture have a significant effect on the extent of academic entrepreneurship. Based on these previous studies, we advance the argument that:

H5: Entrepreneurial culture is positively related to academic entrepreneurial intention.

Entrepreneurial Culture and Attitude

Each culture affects entrepreneurship through social legitimation or encouraging certain attitudes related to firm creation (Etzioni, 1987). In the value-attitude-behaviour framework, the behaviour is ultimately the determination of people's fundamental values and corresponding attitudes (Connor & Becker, 2003). Farrell (2005) found that market-oriented values as part of market-oriented culture are important predictors of sales-force behaviour and attitudes. Sakari Soininen et al.'s study (2013) demonstrated the mediator role of growth attitude in the relationship between intrinsic work values and entrepreneurial orientation. Hence it is argued that:

H6: Entrepreneurial culture is positively related to attitude towards academic entrepreneurial.

Method

Sample and Data Collection Technique

The study involves a cross-sectional survey of faculties in a university in Indonesia. An online questionnaire was used to collect information from respondents. A total number of 200 questionnaires were distributed online, of which 130 responses were obtained, and all the responses obtained were usable. The response rate of 65% is relatively high.

Measurement Development

All the construct's measurement was adapted from previous studies with a slight modification. The questionnaire included thirty-nine questions framing the respondent's profile and variables, which were investigated. Entrepreneurial culture was measured by ten items based on Wong (2014). Entrepreneurial orientation was measured by five items adapted from López (2016). Attitude toward academic entrepreneurship was measured by nine items benefited from Prodan and Drnovsek (2010) and Krueger, Reilly, & Carsrud (2000). Entrepreneurial self-efficacy was measured by six items based on López (2016). The academic entrepreneurial intention was measured by four items adapted from Prodan and Drnovsek (2010). Each construct was measured using the 5-point Likert Scale from "strongly disagree" (1) to "strongly agree" (5).

Assessment of the Measurement Model and the Structural Model

Assessment of outer and inner models was performed by PLS-SEM. PLS-SEM and has an advantage in such situation where the theory has not been adequately validated; as in our case on integrating entrepreneurial orientation as antecedents of the construct of attitude toward academic entrepreneurs. This has not been included in previous studies on academic entrepreneurship.

The two main criteria used in PLS analysis is to assess the measurement model or the outer model to include validity and reliability (Ramayah, Lee, & In, 2011). In order to assess the structural model Hair et al., (2014) proposed a five-step structural model assessment procedure: 1) assess structural model for collinearity issue, 2) assess the path coefficient, 3) assess the level of R^2 , 4) assess the effect size f^2 , and 5) assess the predictive relevance Q^2 .

Results

Table 1 shows the respondent profile based on their demographic factors and their field of disciplines.

Table 1: Profile of respondents

Gender	Male	66	(50.8%)
	Female	64	(49.2%)
Disciplines	Sciences and Technology	48	(37%)
	Economic, Social Science, and Humanities	82	(63%)
Work experience	Less than one year	4	(3.1 %)
	1-2 years	5	(3.8 %)
	3-5 years	9	(6.9 %)
	6-10 years	14	(10.8 %)
	11-15 years	31	(23.8 %)
	16-20 years	22	(16.9 %)
	21-25 years	5	(3.8 %)
	More than 25 years	40	(30.8 %)
Age	26-35 years old	15	(11.5 %)
	36-45 years old	50	(38.5 %)
	46-55 years old	36	(27.7 %)
	More than 55 years old	29	(22.3 %)
Educational degree	Master's degree	64	(49.2%)
	Doctoral degree	66	(50.8%)

Assessment of Outer Model

The first step of outer model assessment in PLS analysis is an examination to ensure that the instrument is reliable and the variables consistently measure what it is intended to measure. Unlike Cronbach alpha, which assumes an equivalency among the measure with the assumption that indicators are equal weight, construct reliability (which is used in SEM-PLS) is more concerned with individual reliability referring to different outer loadings of the indicator variables (Hair, Hult, Ringle, & Sarstedt, 2014). The score between 0.6 - 0.7 indicates good construct reliability (Hair, Hult, et al., 2014).

For validity analysis, construct validity is applied since it is more relevant for the social sciences (Cronbach and Meehl, 1995). Two sorts of validity tests were performed, convergent validity and discriminant validity.

Convergent validity is the extent to which a measure positively correlates with another measure of the same construct. In examining the convergent validity of a measure in PLS, the average variance extracted (AVE) and item loadings are evaluated (Hair et al., 2013). AVE value higher than 0.50 indicates that on the average, the construct explained more than half of the variance of its indicators. As such, the rule of thumb is that an AVE value greater or equal to 0.50 is acceptable (Hair et al., 2013).

To achieve discriminant validity, the loading of the construct must be high on itself and low for other constructs. Furthermore, the square root of AVE coefficient of each construct should be greater than its highest correlation with any other construct. The second assessment of discriminant validity is by using the Heterotrait-Monotrait Ratio of correlation (HTMT). In order to achieve discriminant validity, the HTMT score should be between confidence interval value -1, and 1.

As shown in table 2, the values of CR for each construct range from 0.910-0.959 exceed 0.6-0.7 as cut off score, so the construct reliability is achieved. The convergence validity test results some of the indicators (Att3 and Att6) should be removed due to the items loading lower than 0.7. After the elimination, all the items loading higher than 0.6 and the value of AVE for each construct range from 0.668- 0.784 exceed the recommended value 0.5, so the convergence validity is achieved.

Table 2: Results of Measurement (Outer) Model

Construct	Item	Loading	CR	Cronbach Alpha	AVE
Attitude	Att1	0.813	0.934	0.918	0.668
	Att2	0.808			
	Att4	0.815			
	Att5	0.811			
	Att7	0.807			
	Att8	0.842			
	Att9	0.826			
	UO1	0.790	0.910	0.877	0.668
	UO2	0.841			
	UO3	0.826			
	UO4	0.822			
	UO5	0.808			
	CU1	0.754	0.959	0.952	0.699
	CU2	0.845			
	CU3	0.833			
	CU4	0.790			

	CU5	0.860			
	CU6	0.908			
	CU7	0.857			
	CU8	0.898			
	CU9	0.791			
	CU10	0.811			
	ESE1	0.831	0.932	0.914	0.696
	ESE2	0.848			
	ESE3	0.779			
	ESE4	0.866			
	ESE5	0.870			
	ESE6	0.808			
	INT1	0.893	0.935	0.907	0.784
	INT2	0.939			
	INT3	0.853			
	INT4	0.852			

Discriminant validity is the degree to which items differentiate among constructs or measure distinct concepts, and this was conducted by calculating and investigating the associations among the measures of possibly overlapping variables (Ramayah et al., 2011), and can be assessed by examining the correlations between the measures of potential overlapping construct. The AVE for each component should be greater than the squares of the correlation between the components and all other components (Fitch, Kadyrov, Christmas, & Kittler, 2005). On the other hand, the research model is considered to have a good discriminant when the correlation among the components is lower than the square root of the AVE (Fornell & Larcker, 1981).

Table 3: Discriminant Validity

	A	B	C	D	E
Attitude (A)	0.817				
Entrepreneurial culture (B)	0.316	0.836			
Entrepreneurial orientation (C)	0.280	0.219	0.818		
Entrepreneurial self-efficacy (D)	0.177	0.224	0.210	0.834	
Entrepreneurial academic intention (E)	0.547	0.480	0.365	0.338	0.885

Assessment of Structural (Inner) Model

The measurement model demonstrated adequate convergent validity and discriminant validity. Therefore, the next step in PLS analysis is to develop a structural model by analysing the inner model, which can be used to assess the relationships between construct. All the data were run using 500 bootstrapped samples, through 130 cases.

Collinearity

A common value of problematic multicollinearity may exist when the Variance Inflation Factor (VIF) coefficient is higher than 5.00 (Hair, Hult, et al., 2014). The test results showed that the range of inner VIF is within 1.091 – 1.180. So, there is no collinearity problem existing.

Path Coefficient

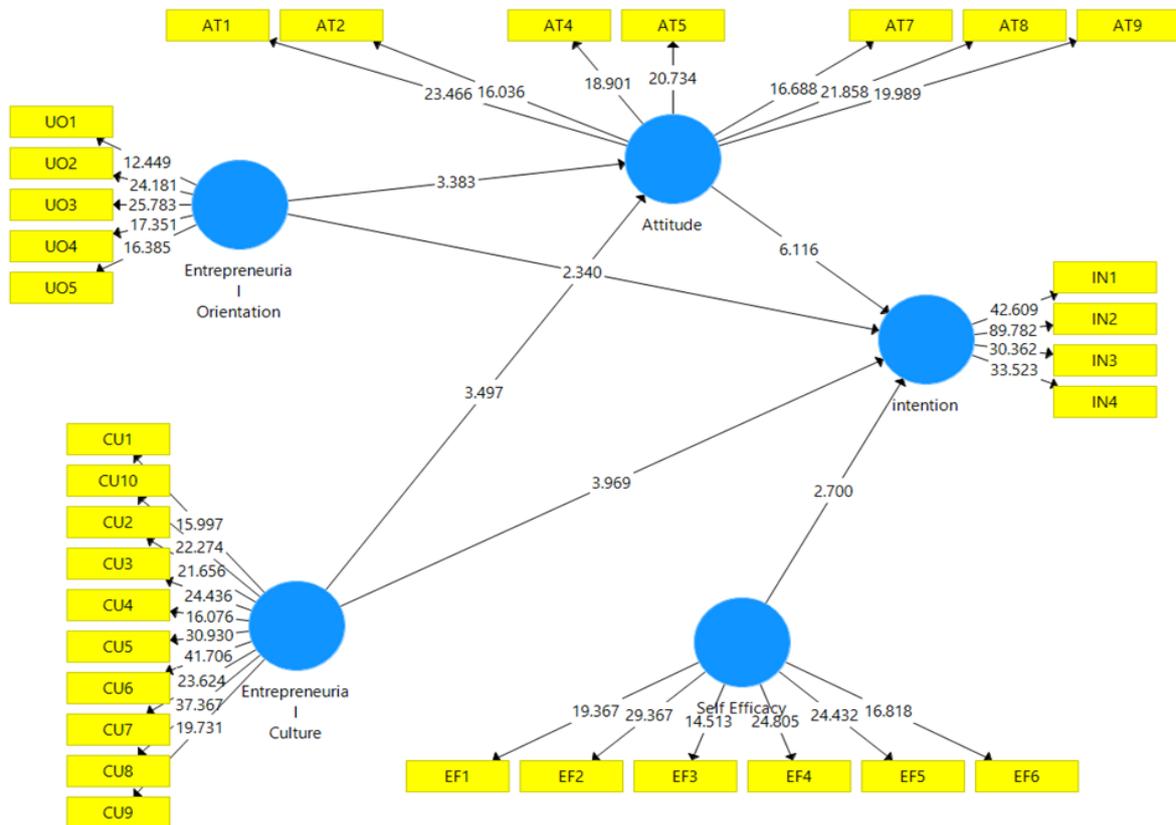
The path coefficients are also used to evaluate the structural (inner) models. The t-statistics were estimated using the bootstrap resampling procedure. The bootstrapping procedure is a non-parametric approach for estimating the precision of the PLS-SEM estimates (Henseler, Ringle, & Sinkovics, 2009). Bootstrapping results suggest the stability of the PLS-SEM estimates. In this study, all the data was run using 500 bootstrapped samples.

As shown in table 4, all of the hypotheses were accepted since the range of p-value for each relationship is within 0.000 – 0.022, less than 0.05.

Table 4: Path Coefficients and Results of Hypotheses Testing

Hypotheses	Relationship	Beta	t-value	p-value	Decision
H ₁	EO → Int	0.159	2.303	0.022	Accepted
H ₂	EO → Att	0.222	3.160	0.002	Accepted
H ₃	EC → Int	0.286	4.011	0.000	Accepted
H ₄	EC → Att	0.268	3.643	0.000	Accepted
H ₅	Att → Int	0.382	6.114	0.000	Accepted
H ₆	SE → Int	0.173	2.725	0.007	Accepted

Figure 1. Measurement and structural model estimation



Model Fit

The model R-square indicates the model’s predictive accuracy (Hair, Hult, et al., 2014). R-square values falling on or greater than 0.75 are considered as substantial, those that fall on 0.50 are considered moderate, and those that are 0.25 are considered as weak (Hair, Hult, et al., 2014). The results showed that 14.7% variance of attitude was explained by culture and orientation, which is a weak level of predictivity. Furthermore, 46.3% variance of intention was explained by culture, orientation, attitude, and entrepreneurial self-efficacy, which is a moderate level of predictivity.

In addition to evaluating the R² value, the f² effect size test was employed. The assessment of the effect size f² seeks to evaluate whether exogenous constructs have a substantive impact on endogenous constructs. Based on the guidelines provided by Hair et al. (2014), f² values of 0.02, 0.15, and 0.35 respectively represent the small, medium, and large effect of the exogenous constructs on the endogenous constructs. The range of f² is between 0.042-0.230. Specifically, the effect size of entrepreneurial culture and entrepreneurial orientation on attitude were small (f² values are 0.08 and 0.055). Similarly, the effect size of entrepreneurial orientation and entrepreneurial self-efficacy on academic entrepreneurial intention were small

(f^2 values are 0.042 and 0.051). However, the effect size of attitude and entrepreneurial culture on intention were relatively moderate (f^2 values are 0.230 and 0.131).

Discussion

The findings of the study support the argument that personal factors and environmental factors significantly influence the intention of faculty to involve in entrepreneurial activities. The evidence of the significant effect of entrepreneurial culture on attitude and intention are coherent with Huyghe and Knockaert (2015). The supported hypotheses of the effect of entrepreneurial orientation on intention are in line with Ismail et al. (2015). This study also sought to examine the role of entrepreneurial orientation on attitude. While this path has not been investigated yet in an entrepreneurial university context, the result is similar to Mengüç (1996). Furthermore, the impact of attitude and entrepreneurial-self efficacy are consistent with previous studies (Miranda, Chamorro-Mera, & Rubio, 2017; Miranda, Chamorro-Mera, Rubio, & Pérez-Mayo, 2017).

The findings suggest that in order to transform into entrepreneurial universities, a supportive environment must be established first. Providing necessary facilities and entrepreneurial oriented policy will be the signs university's commitment to faculties. University should initiate to develop a research scheme and research roadmap which accommodates applied research. This scheme and roadmap will be the umbrella for the scheme and road map at the faculty and department level. Since faculties are used to conduct basic research, university, faculty, and department also should improve faculties' research skills relates to applied research. Furthermore, a reward system must be provided so faculties will have a positive attitude towards applied research as well as the confidence to conduct applied research. To date, Indonesian university's effort on research focuses, including reward systems, fund aiding, and on publishing articles in a reputable indexed journal, has mainly focused on mono discipline's writing.

Establishing an entrepreneurial university also requires effort from university to enhance collaboration, which is the collaboration among researchers with different disciplines as well as collaboration between faculty and industry. Collaboration among faculties as a researcher is important for two reasons. First, basic research which has been performed is mono disciplines, while applied research requires cross disciplines and multi-disciplines. Science and technique disciplines will be the main actors, while other disciplines will be the supporting actors. Another crucial collaboration is between universities and industries to optimise the mutual relationship between parties. Industries provide opportunities that can be utilised by universities. As mentioned by scholars, the research capability of universities will be valuable for industry. Integrating this capability with practical knowledge owned by industry will yield a respected contribution for the industry to solve their problems as well as



explore their business opportunities. Not to mention patent as the output of academic research. Another capability of universities which is underexposed is in the teaching and learning area. The human resources division will be benefited from curriculum design formulation and creative and effective teaching or training method developed by universities.

Conclusion

Transforming into an entrepreneurial university is challenging in Indonesia as a developing country. Universities must encourage faculties to become more involved in entrepreneurial activities besides only performing their primary mission in teaching and research. This study discussed the role of entrepreneurial orientation and entrepreneurial culture as the university's environment in shaping the attitude and intention of faculties to involve in academic entrepreneurial activities.

The main contribution of the study is to analyse how environmental factors influence personal factors, which leads to academic entrepreneurial intention. A further contribution of this study is identifying the role of university entrepreneurial orientation in shaping attitudes, which is under-researched in the entrepreneurial university context. Moreover, the present study provides useful insight for the policymakers in formulating the best strategy to boost the implementation of entrepreneurial university in this country.

Limitation and Future Research Recommendation

While the rector, dean, and head of the department as an academic leader play a vital role in determining the university's culture and orientation, their role was not investigated in this research. The differences of attitude, self-efficacy, and intention between science-technique faculties and other discipline background's faculties also beyond the interest of this research while it might enrich the insight of the study.

Regards to the limitation of this study, we suggest future research to investigate the role of leadership as the antecedent of the university's culture and orientation as well for the personal factor. We also suggest future research to include the discipline's background as the focus of the investigation.

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