Developing Students’ Intellectual Capital Based on Virtues with Workplace Spirituality

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Abstract

Students in Indonesia who aspire to become entrepreneurs must understand the importance of their intellectual capital. Entrepreneurship education is usually carried out through the transfer of knowledge and business skills from outside the students (outside-in). Meanwhile, to build an entrepreneurial spirit in students, virtues (inside-out) stimulants are needed, which reflect wisdom, knowledge, and fortitude to encourage the development of students' intellectual capital. Thus, entrepreneurship development is an effort that synergizes these two aspects simultaneously to become the strength of students' intellectual capital. Studies conducted on students at several universities in the province of West Nusa Tenggara, Indonesia, show that wisdom, knowledge, and fortitude effectively build students' intellectual capital. The internal environment of economic and business education, as a place for learning and practical work, is perceived as a workplace spirituality capable of accelerating the role of virtues in building students' intellectual capital. Workplace spirituality shows an academic atmosphere that reflects the meaningfulness of strengthening virtues stimulants in developing students' intellectual capital as prospective entrepreneurs, in being creative, and in generating new and different ideas. Developing intellectual capital does not mean mastery of competence and material resources becomes less critical. All must be designed synergistically to improve the quality and effectiveness of Indonesian student entrepreneurship.

Keywords: Entrepreneurship Development, Virtue, Wisdom and Knowledge, Temperance, Workplace Spirituality

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1. INTRODUCTION

University students in Indonesia must have a high degree of entrepreneurship to face liberalization in ASEAN. Therefore, Indonesian university graduates from various study programs must be more prepared to be independent and competitive than graduates from other countries. Among the challenges university graduates face in Indonesia is the expectation of being job seekers instead of job creators. Meanwhile, in Indonesia, the lack of job opportunities due to the weakening of the real sector and regional and international competition has caused a surplus in the number of educated job seekers. This is because “many fresh graduates leave universities without the required skills such as attitudes, skills, and understanding needed to succeed in the working field” (Rahim et al., 2015). This has caused inconsistency between the skills of university graduates and the criteria required in the job market. This challenge requires special attention from various parties and, therefore, the development of youth entrepreneurship to increase youth employment, which must be taken into account in the current situation by Kazakhstan's experience (Buitek & Kaliyeva, 2022).

It is expected that education and teaching process Indonesian universities in the future should develop an entrepreneurial mindset in students as entrepreneurship is now considered a significant contributor to global economic growth (Saeedsiddiq & Nor, 2012). This is in line with experts’ opinion that a country will be prosperous if at least two per cent of its population comprises entrepreneurs (Xavier & Clayton, 2014). Based on its population of approximately 250 million, Indonesia will need at least 5 million entrepreneurs. An entrepreneur will be able to create and grow a business, dream of a successful future, and have the innovation ability and courage to take calculated risks as entrepreneurial capital. One of the most important functions of an entrepreneur is to bring together the resources required to start and grow a business. Another key function is to innovate and bring new or different products and services to the market (Fuller-love & Gorman, 2011). Education and teaching put an understanding of entrepreneurship theory as a priority (to know) and, to the highest degree, provide entrepreneurship training (to do). However, both elements do not guarantee to build off a heightened innate sense of entrepreneurship that can encourage students to actualize their entrepreneurial careers. For this reason, authentic learning is needed based on the experience of foreign countries in innovating, such as the benefits of recycling waste into gifts (Ausharipova & Kulumbetova, 2022).

Therefore, to produce students with a high entrepreneurial spirit, the author argues that an initial step is needed to cultivate an entrepreneurial spirit from within students (inside-out). This study shows that entrepreneurship education involves the synergy of the two patterns simultaneously, starting with students and continuing with entrepreneurship material. These patterns must be supported by an academic environment that stimulates entrepreneurial mindset of students and turns them into entrepreneurial intellectual capital.

2. LITERATURE REVIEW

Many myths are preventing the development of students' virtue in doing and managing the business. These hindrances must be eliminated and replaced with
assertions and contentions that can convince related parties to produce a highly innate sense of entrepreneurship in university students and graduates in Indonesia. Universities’ management, lecturers, staff and students need to collaborate and co-create an integrated and favorable environment to develop and optimize students’ virtue in business.

Entrepreneurial Characteristics. Anyone can become an entrepreneur if the entrepreneurial characteristics are essential and can be realized. Virtue is a contemporary approach in philosophy to the strength of character. This is much more interesting than the law, at least to psychologists, because virtue is concerned with people and their lives (Peterson & Seligman, 2004). According to experts, these characteristics generally include the ability to create, the ability to innovate, and the ability and courage to take risks. For example, social entrepreneurship combines three main elements: innovation, proactiveness, and risk-taking in seeking new opportunities to create positive social impact (Helm, 2007; Rahim et al., 2015). Thus, students can be considered entrepreneurs if they consistently understand and build entrepreneurial characteristics. Stimulation of virtue, in the form of wisdom, knowledge and temperance, is expected to build the intellectual capital that a young entrepreneur needs. Changes in problem-solving methods are required at the macro and micro levels through different behaviors and modern technologies (Lodhi et al., 2022).

Entrepreneurial characteristics tend to reflect an individual's spirit to create new or different ideas and readiness and ability to innovate, materialize the ideas in the form of works appreciated by people, and carry them out boldly by managing the risks (Embi et al., 2019). Entrepreneurial characteristics indicate a high intention to do useful activities with added value and in a considerate manner. An individual with an entrepreneurial mind intends to be a creative and innovative human being and is bold to take calculated risks (Lee et al., 2017).

To become university graduates with a high innate sense of entrepreneurship, they need to understand and bring out their business potential (positive entrepreneurial characteristics) and simultaneously build and optimize their competencies. Entrepreneurial characteristics may be developed through the maximum actualization of the students' virtue in business and the continuous development of their business competencies (Hamzah, 2019). The support of a favorable academic climate is expected to expedite and facilitate the development of the students’ entrepreneurial characteristics. Entrepreneurship can be enabled through innovation and new-venture creation via four major dimensions (individual, organizational, environmental and process) that are aided by collaborative networks in the government, education and institutions (Yusof et al., 2009; Siagian, 2011).

Challenges in the global business world nowadays require high, creative and efficient adaptive ability to develop continuous excellence. Observation of the successes made by businesspeople in overcoming their limitation of physical capital ownership proves that they have exceptional potential power. The concept of invisible intellectual capital, whose existence is sensed by stakeholders, should be utilized. Intellectual capital is an intangible value that drives future benefits for an organization (Abdulaali, 2018). Effective intellectual capital management can be critical in determining an organization’s performance. Companies that want to thrive in today's business
environment must invest the right intellectual capital to ensure they have employees with better skills than their competitors (Hasan, 2021). Research on intellectual capital is evolving using an intellectual capital third-stage approach to investigate intellectual capital practices within universities, and new research also focuses on outcomes (Secundo et al., 2018).

3. METHODOLOGY

This research focuses on developing a business entrepreneur model with university students as a unit of analysis. The observation object comprises students who have completed entrepreneurship subjects in their programs. This research was conducted using the causative method by studying unexpected variables estimated to develop a business sense of entrepreneurship in university graduates. The research focused on a group of university students in state universities in West Nusa Tenggara. They include students from various study programs who had attended the entrepreneurship course. The student respondents were assumed to be able to share their perceptions on entrepreneurship issues in universities. The students were also deemed able to express their perceptual attitude correctly and objectively. The research took place in state universities in West Nusa Tenggara. The academic population consisted of registered students. Meanwhile, the respondents were those who were registered and had taken the entrepreneurship course, taken randomly, totalling two hundred students in each study program.

Research measurement objects were the attitude and behavior tendency of students of Mataram University and Institute Agama Islam Negeri Mataram (State Islamic Institute of Mataram) and students' agreement on the academic climate as institutional support they experienced within their respective campus environment or during the daily learning process. Attitude measurement was conducted based on the verbal expressions of the students by selecting the statements that best fit their perceptions and feelings. The measurement technique used in this research was the application of the Likert scale with an interval measurement scale. The measurement was conducted by observing respondents' data characteristics that met the requirements of interval data processing. Next, construct validation was conducted using Factor Analysis and causative relation study using Multiple Regression.

Based on the initial concept and entrepreneurship experts’ support, a hypothetic model was built, depicting two main variables (independent variables), covering virtues actualization and students' business competencies, which was integrated into human capability, which was predicted to be able to build business entrepreneurs. Further, this was strengthened with other moderating variables, i.e. academic climate and institutional support from the State Universities. The basic model of the Business Entrepreneur is described in a diagrammatic model as follows:

Business entrepreneurship is an expression of someone's attitude that reflects a strong intention to become a real entrepreneur. An intention to behave as a business entrepreneur may be built by first evoking maximum volition to do business, supported by all understanding and ability of business that someone has (personality). Volition as the basis of building the intention to become an entrepreneur may be strengthened by
supporting factors, both physically (means and infrastructure) or non-physically (psycho-social). Students’ attitude was conceptualized by the business virtue concept ability formulated by students’ competency level. Model is shown in Figure 1.

![Figure 1: Model of Students’ Intellectual Capital](image)

**FIGURE 1.** Model of Students’ Intellectual Capital

*Note: compiled by the author*

Both form the concept of Human Capability, which may build business entrepreneur characteristics reflecting an intention to have a particular behavior. Studies on academic environment variables, both physical in the forms of institutional support and non-physical or conducive environment, may be integrated due to similarity in meaning according to students' perception of the teaching and learning process in the university environment. The objectives of this research include: simultaneously developing a sense of business entrepreneurship in the students based on business virtues (positive characteristics) and business competencies (knowledge and skills) in the university, which begins with volition to materialize students' entrepreneurship goal and spirit (inside-out), and then followed by the ability to compete (outside-in) in the form of up-to-date and contextual business knowledge; to motivate more effective and ethical educational development and entrepreneurship training for students in universities in Indonesia; and to develop open cooperation climate and culture for related parties (university graduates, business people, regional government and community), based on mutual trust and to create young entrepreneurs from universities to meet the nation's expectation to continue developing excellent competitive advantage.

It also aims in the short term to create understanding (*to know*) of up-to-date and contextual entrepreneurship; in the mid-term, to develop the ability to execute (*to do*) ethical business and later ability to create those who (*to be*) are inspired as competitive entrepreneurs; to compile applicative text book and to make an effort to obtain copyright, and to produce a scientific publication and social engineering/public policy paradigmatically to develop young entrepreneurs in Indonesia.
Wisdom, Knowledge, Temperance and Intellectual Capital. Intellectual capital is a dynamic system that develops and produces knowledge supported by codified tacit knowledge (Latilla et al., 2019). Students' intellectual capital is the ability to understand the development of business information on an ongoing basis—intellectual capital positively affects student interest (Ulum et al., 2019). The formation of student intellectual capital can be driven by the values of wisdom, knowledge, and temperance. Wisdom and knowledge are forms of the human intellect, whose existence is hated by no one and appreciated by all (Peterson & Seligman, 2004), which can be a strong stimulant in building student intellectual capital. Wisdom is expected to be a key asset for entrepreneurs who must constantly adapt to a dynamic environment (McNally et al., 2018). Likewise, with temperance, temperance is a form of self-denial that ultimately results in being generous with oneself and others (Peterson & Seligman, 2004). Students who can use the value of temperance will find it easier to build their intellectual capital. Thus, it can be concluded as follows:

H1: Students with wisdom, knowledge, and temperance can build their intellectual capital.

Virtue and Academic Climate of Higher Education. The acceleration of the formation of student intellectual capital, apart from being stimulated by virtue, in this case, wisdom, knowledge, and temperance, is also primarily determined by strengthening the university's internal environment. In this case, the academic climate is conducive to developing virtue values that can encourage students to build their intellectual capital. Thus, the following hypothesis can be formulated:

H2: The conducive climate of higher education can accelerate the influence of wisdom, knowledge and temperance in building their intellectual capital.

Internal environment support is also needed to build students' intellectual capital apart from being a stimulant of the strength of virtue in the form of wisdom, knowledge and temperance. To encourage the tendency of students and researchers in the university environment, the role of the academic climate needs to be considered (Bergmann et al., 2018). Following recent developments in the world of higher education, including in Indonesia, it appears that the trend of the academic climate is felt to be increasingly meaningful as a place for learning and practical work for students. The work environment can also be understood as values that shape attitudes, behavior, and performance. Among these values, trust is accepted as an organizational environment rich in spirituality. Trust has been shown to mediate workplace spirituality in building work performance (Bienstock & Daniel, 2019). However, the unique concept of spirituality has not yet been agreed upon. Spirituality can also be considered religious (Geaquinto et al., 2020). Trust in government and other institutions has proven vital for self-efficacy (Hassan et al., 2022). Trust and user experience factors influence user satisfaction and can mediate stimulants on user satisfaction (Hossain et al., 2020). It is realized that cooperation between universities and the business world can encourage co-creation among students. This research is interesting on how students view their university in the Indonesian context and the extent to which the university can promote an entrepreneur through and spiritual perspective by our research objectives. Empirical findings show that workplace spirituality positively and significantly impacts lecturer engagement, commitment, workforce agility, trust, and empowerment (Soliman et al.,
2021). Academic discussion about workplace spirituality in higher education is increasing (Brucaj & Karci, 2013). It can maximize the emergence of values and virtues that require the support of a conducive environment. The recent emergence of spirituality on campuses in the United States reports the potential benefits and challenges of addressing spirituality in higher education (Waggoner, 2016). Strategies to increase workplace meaningfulness in the higher education system by focusing on the spiritual needs and spiritual growth of students and staff are increasingly needed (Soliman et al., 2021). Therefore, workplace spirituality moderates intellectual capital achievement for students with wisdom, knowledge, and temperance. Proposes the final hypothesis as follows:

H₃: Workplace spirituality will moderate the relationship between wisdom, knowledge, and academic climate in building students' intellectual capital.

H₄: Workplace spirituality will moderate the relationship between temperance and academic climate in building students' intellectual capital.

4. FINDINGS AND DISCUSSION

Business entrepreneurship in students indicates absolute character ownership, especially those who have taken entrepreneurship courses in their study programs. Results of factor analysis for Business Entrepreneur characteristics with the two main characteristics, wisdom, knowledge and temperance and the selected component is meant to represent the virtue of building intellectual capital. However, it still reflects the main character of a real business entrepreneur. Indeed, the power of using knowledge and wisdom is to think of new and productive ways to conceptualize and do things; and curiosity [interest, novelty seeking, openness to experience]: Taking an interest in ongoing experiences for its own sake; finding subjects and topics of interest; explore and discover Open-mindedness and weigh all evidence fairly. Love of learning: Mastering new skills, issues, and knowledge pools, either alone or formally; related to the power of curiosity but more so to describe the tendency to add systematically to what is known. Perspective [wisdom]: Able to give wise advice to others; have a way of looking at the world that makes sense to themselves and others. All of those things are explained by Peterson & Seligman.

The power of wisdom, knowledge and temperance has also been proven to have accelerated after being supported by an academic climate that reflects workplace spirituality in building students' intellectual capital. It can be understood that in an atmosphere full of meaning, it is easier for students to bring out their virtues to the fullest, including wisdom, knowledge and temperance. Students manifest the main virtue characteristics by bringing up their wisdom and knowledge of virtue values in stimulating their intellectual capital. Students who realize the importance of positive character will find it easier to bring their wisdom and knowledge in an academic climate reflecting world spirituality. The empirical findings show that workplace spirituality positively and significantly impacts lecturer involvement, commitment, workforce agility, trust, and empowerment (Soliman et al., 2021). Much academic discussion about workplace spirituality to assess spirituality as a positive factor in the higher education system is increasing (Brucaj & Karci, 2013), and maximizing the emergence of intention
requires the support of a conducive environment. The challenge for related parties in higher education today and in the future is to build an academic climate (Rania et al., 2014) that can raise enthusiasm and encourage the emergence of intellectual capital for all students.

The study's result on various valid and reliable manifest variables serves as the basis for multiple regression that includes independent, dependent and moderate variables. With the backward elimination method, the regression in the final model shows the following:

### TABLE 1. Multiple Regression Model

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>B</th>
<th>Beta</th>
<th>T</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.789</td>
<td></td>
<td>3.927</td>
<td>.000***</td>
</tr>
<tr>
<td>Wisdom and knowledge</td>
<td>.317</td>
<td>.426</td>
<td>4.907</td>
<td>.000***</td>
</tr>
<tr>
<td>Temperance</td>
<td>.436</td>
<td>.524</td>
<td>9.952</td>
<td>.000***</td>
</tr>
<tr>
<td>Wisdom and knowledge and workplace spirituality</td>
<td>.029</td>
<td>.191</td>
<td>2.441</td>
<td>.016**</td>
</tr>
<tr>
<td>Temperance and workplace spirituality</td>
<td>.039</td>
<td>.421</td>
<td>4.341</td>
<td>.009**</td>
</tr>
</tbody>
</table>

Note: compiled by the author

Significance level:  * significance with p < 0.10
** significance with p < 0.05
*** significance with p < 0.01

5. CONCLUSIONS

The result of this study shows the students' contribution to developing business entrepreneurship offered by their virtue to improve their excellence, relying on their various business human and competency potentials. This study leads to the following conclusion:

(a) A study of a group of students at a state university in West Nusa Tenggara, Indonesia, shows that entrepreneurial intellectual capital can be built through the stimulation of virtues, namely the integration of student wisdom and knowledge and simplicity.

(b) With the support of an academic climate that reflects the spirituality of the workplace, it can provide a convincing acceleration for the formation of students' intellectual capital. The university's internal climate that reflects the meaningfulness of learning and practical work becomes a conducive habitat for the role of virtue in shaping students' intellectual capital.

(c) Development of student intellectual capital, including the willingness and ability of students to run entrepreneurship according to the challenges of the contemporary business world.

Recommendation. Based on the results of the intellectual capital study above, building students' attitudes and behavior to become entrepreneurs can be recommended. Students need to be given a deep understanding of virtues and positive characters, especially those of wisdom, knowledge, and temperance, on an ongoing basis. To support the acceleration of students' willingness and ability to build entrepreneurial
skills, this role of virtue and spirituality workplaces can be built in a higher education environment.

References


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