



Research article

Identifying Students' Entrepreneurian Mindset for the Bachelor of Business Administration Program, Faculty of Humanities and Social Sciences, Prince of Songkla University

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Abstract.

University graduates today are facing uncertainty in employment due to economic recession, the COVID-[19]pandemic, and job replacement by artificial intelligence. Building an entrepreneurial mindset can help students to overcome unemployment and have a successful careers. Therefore, universities are increasingly focusing on fostering the entrepreneurial mindset of their students. Certain elements of entrepreneurial mindset must be identified at the curriculum and career design level to meet the requirements of stakeholders and prepare students for their careers after graduation. According to the principles of outcome-based education, a study program must establish its expected learning outcomes which the students must be encouraged to achieve. However, the extent to which the elements of an entrepreneurial mindset are necessary to support learning outcomes and career success can be different among students from different fields of study. This study identifies the elements of students' entrepreneurial mindset that are necessary for the Bachelor of Business Administration Program (B.B.A. Program), Faculty of Humanities and Social Sciences, Prince of Songkla University (Pattani Campus) located in Southernmost Thailand. The past studies of entrepreneurial mindset have been revealed, and then the elements of entrepreneurial mindset related to the expected learning outcomes of the B.B.A. Program were selected. The elements of an entrepreneurial mindset presented in this article could be utilized for curriculum and course design, not only for the B.B.A. Program but also for others with similar expected learning outcomes.

Keywords: course design, curriculum design, entrepreneurial mindset, entrepreneurship

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Published: 28 September 2022

Publishing services provided by Knowledge E

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Selection and Peer-review under the responsibility of the ICESRE 2021 Conference Committee.

1. Introduction

The rapid economic and technological changes have an impact on the availability of jobs for graduates and on the mindset required for pursuing their future jobs [1]. Entrepreneurship has been recognized as a potential predictor of graduates' employment because of its ability to create jobs and enhance living standards [2]. Therefore,

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universities worldwide have demonstrated an increasing interest in building students' entrepreneurial mindset to upgrade their competence to meet the needs of firms and to develop their own businesses [3][4].

Entrepreneurial mindset refers to "the constellation of motives, skills and thought processes that distinguish entrepreneurs from non-entrepreneurs and that contribute to entrepreneurial success" [5]. Every company should have entrepreneurial mindset (e.g. ability to think and create innovation) to differentiate from others and achieve a competitive advantage [6]. Likewise, managers especially at the top management positions who have good entrepreneurial mindset will be able to predict market demands and develop product (or service) to meet customers' needs [6].

The past studies agree that entrepreneurial mindset can be developed through teaching and learning process at universities [1]. Since entrepreneurial mindset is viewed as a way of thinking about opportunities under uncertain conditions or rapid changes, the development of students' skills should not focus on general management skills but on innovative skills and ability to seek opportunities [7]. Building entrepreneurial mindset through curriculum design, course design, teaching and learning processes need to concern with their potential to serve 21st century careers that will allow students to effectively deal with the complexity of the current and future careers [8].

Similar to other industries that can be evaluated the performance by the certain standards, the study programs that are unable to reach educational standards may lose market share to their competitors unless they integrate entrepreneurial mindset into teaching and learning approach to meet stakeholders' needs [9]. Consequently, the curricula of universities place more emphasis on fostering students' entrepreneurial mindset [10]. According to the concept of outcome-based education that has been used as a basis of international standards of education (e.g. the ASEAN University Network Quality Assurance: AUN-QA, and the Association to Advance Collegiate Schools of Business: AACSB), the essential elements of entrepreneurial mindset to accomplish learning outcomes of a particular program can be different from others [11] [12].

Most studies indicate the components of entrepreneurial mindset in general whereby the expected learning outcomes are not specified [10][13], but this paper revealed and selected the elements of entrepreneurial mindset relevant to the expected learning outcomes of the Bachelor of Business Administration Program (B.B.A. Program), Faculty of Humanities and Social Sciences, Prince of Songkla University, Pattani Campus in Southernmost Thailand. The B.B.A. Program should equip students with the elements of entrepreneurial mindset needed to achieve learning outcomes. The key elements



of entrepreneurial mindset presented in this paper could be applied to those B.B.A. curricula with similar learning outcomes.

2. LITERATURE REVIEW

Entrepreneurship is involved in a complex process of pursuing business in dynamic and uncertain business environments [14]. There are several theories that can be applied to the study of students' entrepreneurial mindset such as human capital theory and signalling theory.

2.1. Human Capital Theory

Human capital theory considers an individual's ability as a form of capital that is similar to those physical assets in the industry [15]. Human capital refers to an individual's knowledge, skills, and abilities (KSA) [16]. From entrepreneurial perspective, human capital is required for being successful entrepreneurs [17]. There is the relationship between human capital and business success [18]. It can be assumed that higher KSA leads to higher productivity [15]. Business performance is influenced by an individual's KSA gaining through formal education and training as well as informal experience (e.g. socialization process) [18]. Furthermore, KSA can develop through an individual's experience [19]. Individuals who have higher education and longer business experience will be successful than others with low education and less experience [19].

Universities generally encourage students to acquire human capital which consists of general human capital and specific human capital [8] [20]. The study program that provides students with specific human capital will develop students' knowledge, skills, and abilities that differentiate them from those students of other programs of study [20]. To develop students' entrepreneurial ability, universities may provide them with learning through their own experience [19].

Considering the definitions of the two terms "entrepreneurial mindset" and "human capital", entrepreneurial mindset is the part of human capital that can be developed through teaching and learning activities [5] [16].

2.2. Signaling Theory

Signaling theory has been applied to the past research in the areas of entrepreneurship and human resources [21]. According to signaling theory, educational attainment is



considered by employers as a predictor of individuals' certain valuable innate traits [22]. Thus, education is used by employers as a signal for individuals' productive capabilities [22]. In an organization's recruitment and selection process, the signal influences applicant attraction outcomes [23]. From employer perspective, an organization's ability to select the most qualified applicants who have appropriate knowledge, skills, and abilities is important to accomplishing a competitive advantage in the current business environment [23].

In the same vein, educational institutions and their students can observe the organization's signals to screen qualified job applicants [24]. Henceforth, universities will equip students' KSA relevant to such signals. This may include developing students' entrepreneurial mindset that is viewed as a predictor of career success [2].

While this paper aims to find out the elements of entrepreneurial mindset related to learning outcomes of the B.B.A. Program, these elements encompass relevant KSA and they are used as the signals to verify students' capabilities. It can be concluded that both human capital theory and signaling theory are applicable to developing students' entrepreneurial mindset.

3. Students' Entrepreneurial Mindset

Mindset refers to "the internal lens through which an individual sees and navigates through life" [10]. Entrepreneurial mindset includes an individual's thinking process and ability to act under uncertain conditions [10]. The past studies confirm the link between entrepreneurial mindset and learning outcomes [25] [26]. There are the expectations of stakeholders (e.g. policy makers and employers) placed on university curricula to produce the certain outcomes [26]. To ensure that students will reach such outcomes, educational system has shifted from knowledge-based education to outcome-based education [25].

This paper identifies the elements of entrepreneurial mindset that are related to the expected learning outcomes at program level (also referred to as program learning outcomes: PLOs) specifically for the B.B.A. Program, Faculty of Humanities and Social Sciences, Prince of Songkla University (PSU), Pattani Campus in Southernmost Thailand. The latest B.B.A. curriculum revised in 2020 consists of nine PLOs as shown in table [1][27]. The PLOs are derived from the needs of stakeholders (including internal and external stakeholders). These PLOs are congruent with PSU's vision and mission, PSU's student identity (I-WiSe: Integrity, Wisdom, Social engagement) [27].



In 2021, PSU initiated "PSU Student Competency" that consists of five domains: 1) critical thinking and complex problem solving, 2) innovative thinking and entrepreneurial mindset, 3) technology literacy and communication skills, 4) emotional intelligence and professional behavior, and 5) social engagement [28]. Accordingly, the B.B.A. Program must support the university's policy by promoting "PSU Student Competency". The elements of entrepreneurial mindset presented in table 1 are expected to strengthen the attainment of PLOs and they are consistent with "PSU Student Competency".

The past studies regarding entrepreneurial mindset have been revealed and the key elements related to the expected learning outcomes of the B.B.A. Program were selected. Overall, students' entrepreneurial mindset (EM) is composed of [15]elements and the definitions are shown below.

EM1: Integrating information from various sources [29]. It is an individual's ability to evaluate and make a combination of information from different sources of information [30].

EM2: Critical thinking [31]. Critical thinking is an individual's ability to reasonably seek, predict, and transform knowledge [32].

EM3: A person's self-efficacy [33]. It refers to a person's belief about his or her capability to produce desired outcomes [34].

EM4: Opportunity identification [7] [33]. It is a person's capacity to see and identify opportunities [35].

EM5: Exploring a contrarian view of accepted solutions [29]. It is defined as an individual's ability to explore multiple solution paths from multiple viewpoints [29].

EM6: Complex problem solving skills [1]. Complex problem solving skills include a person's ability to identify a significant problem under uncertain conditions, seek for efficient solutions, make a judgment, and effectively deal with such problem [36].

EM7: Effective communication [2]. It is the ability to share or exchange the information aligning with the purpose [37].

EM8: Negotiation skills [2]. An individual's demonstrates his or her negotiation skills by implementing negotiation strategies to reach the goal [38].

EM9: Ambiguity tolerance [3]. It is the way an individual interprets and responds to the information about complex and unclear situations [3].

EM10: Dispositional optimism [3]. It is defined as a person's belief about one will experience good and bad outcomes in life [3].

EM11: Creativity skills [33]. Creativity skills demonstrate different thinking to explore and apply new approaches [39]



EM12 Learning from failure [29]. It is a person's ability to interpret feedback from his or her failure [40].

EM13: Alertness to opportunity [3]. It is an individual's ability to actively search and connect to the information of opportunity [3].

EM14: Risk propensity [3]. Risk propensity is an individual's willingness to take risk [3].

EM15: Exploring information from various sources [29]. It refers to an individual's ability to gain access to the information through various sources [30].

4. Discussion

Developing students' mindset for entrepreneurship affects students' intention of being entrepreneurs [41]. At university level, students' entrepreneurial mindset should be established at the stages of curriculum design and course design. The university's curriculum should pay attention to the suitable teaching and learning approach that allow students to gain entrepreneurial mindset [42].

Based on literature, this paper identifies the elements of entrepreneurial mindset relevant to expected learning outcomes of the B.B.A. Program. However, the extent to which the elements of entrepreneurial mindset are important to the achievement of learning outcomes and future careers may differ among students from different fields of study (e.g. engineering students, nursing students, and business administration students) [43].

In line with the principle of outcome-based education, entrepreneurial mindset of a particular program should be in accordance with PLOs [11]. As PLOs often reflect the requirements of stakeholders [11], developing an appropriate students' entrepreneurial mindset will assist them to accomplish such PLOs and to serve the needs of stakeholders. Furthermore, it can be noticed that the particular elements of entrepreneurial mindset are needed to achieve each PLO. In this paper, PLO7 "Be an entrepreneur both in the local and non-local areas" requires more features of entrepreneurial mindset than other PLOs. This is because it focuses on being entrepreneur in different areas that will face more complex business conditions and then more features of entrepreneurial mindset are involved.

Entrepreneurial mindset of the B.B.A. Program is consistent with employability skills in the 21st century addressed by the past study (including basic literacy and numeracy skills, critical thinking skills, management skills, leadership skills, interpersonal skills, information technology skills, systems thinking skills, and work ethics disposition) [44]. These skills are essential to be successful at all levels of employment in the 21st



century [44]. Likewise, the B.B.A. graduates who acquire the elements of entrepreneurial mindset will probably be successful in their careers.

5. Conclusion

This paper indicates students' entrepreneurial mindset for the B.B.A. Program. Based on literature review, the link between the elements of entrepreneurial mindset and the expected learning outcomes of the B.B.A. Program were justified by the researchers. These features of entrepreneurial mindset may lack the potential to represent a real-world task. Henceforth, the elements of entrepreneurial mindset presented in this paper should be approved by both educators and entrepreneurs in order to gain insight into what kinds of entrepreneurial mindset need to be trained and to provide students with effective entrepreneurial learning process [17]. Future research should pay attention to investigating the supportive features of entrepreneurial mindset for the particular program learning outcomes.

Authors' Contributions

The authors' contributions to the paper are as follows: reviewing the literature and preparing the manuscript: Phathara-on Wesarat; selecting relevant articles: Parichard Benrit, Warrapojn Panrod, Kanyaprin Tongsamsi, Nursahida Useng, Rudsada Kaewsaeng-on, Daranat Tansui. All authors approved the final version of the manuscript.

Acknowledgments

We would like to express a special thanks to Faculty of Humanities and Social Sciences, Prince of Songkla University (Pattani Campus) for good support.

References

- [1] Secundo G, Mele G, Sansone G, Paolucci E. Entrepreneurship education centres in universities: Evidence and insights from Italian "Contamination Lab" cases. International Journal of Entrepreneurial Behavior & Research. 2020;26(6):1311-1333. https://doi.org/10.1108/IJEBR-12-2019-0687
- [2] Jabeen F, Faisal MN, Katsioloudes MI. Entrepreneurial mindset and the role of universities as strategic drivers of entrepreneurship: Evidence from the United Arab



- Emirates. Journal of Small Business and Enterprise Development. 2017;24(1):136-157. https://doi.org/10.1108/JSBED-07-2016-0117
- [3] Cui J, Sun J, Bell R. The impact of entrepreneurship education on the entrepreneurial mindset of college students in China: The mediating role of inspiration and the role of educational attributes. The International Journal of Management Education. 2021;19(1):1-16. https://doi.org/10.1016/j.ijme.2019.04.001
- [4] Lindberg E, Bohman H, Hulten P, Wilson T. Enhancing students' entrepreneurial mindset: A Swedish experience. Education+ Training. 2017;59(7-8):768-779. https://doi.org/10.1108/ET-09-2016-0140
- [5] Lindberg E, Bohman H, Hultén P. Methods to enhance students' entrepreneurial mindset: A Swedish example. European Journal of Training and Development. 2017;41(5):450-466. https://doi.org/10.1108/EJTD-10-2016-0078
- [6] Ejupi-Ibrahimi A, Ramadani V, Ejupi D. Family businesses in North Macedonia: Evidence on the second generation motivation and entrepreneurial mindset. Journal of Family Business Management. 2020;11(3):286-299. https://doi.org/10.1108/JFBM-06-2020-0047
- [7] Gillin LM, Gagliardi R, Hougaz L, Knowles D, Langhammer M. Teaching companies how to be entrepreneurial: Cultural change at all levels. Journal of Business Strategy. 2019;40(2):59-67. https://doi.org/10.1108/JBS-09-2017-0138
- [8] De Carolis DM, Litzky BE. Unleashing the potential of university entrepreneurship education: A mandate for a broader perspective. New England Journal of Entrepreneurship. 2019;22(1):58-66. https://doi.org/10.1108/NEJE-04-2019-0022
- [9] Nayyar J, Naqvi SS. Proposed model of entrepreneurial mindset for the state government higher education institutions in Pakistan. Journal of Enterprising Communities: People and Places in the Global Economy. 2013;7(2):167-182. https://doi.org/10.1108/17506201311325814
- [10] Yatu L, Bell R, Loon M. Entrepreneurship education research in Nigeria: Current foci and future research agendas. African Journal of Economic and Management Studies. 2018;9(2):165-177. https://doi.org/10.1108/AJEMS-08-2016-0120
- [11] Chee-Bin JO. Guide to AUN-QA assessment at programme level version 3.0. Available from: http://aun-qa.org/Guide%20to%20AUN-QA%20Assessment%20at%20Programme%20Level%20Version%204.0.pdf, ASEAN University Network, October 2015
- [12] Association to Advance Collegiate Schools of Business, 2020 Guiding principles and standards for business accreditation. Available from: https://www.aacsb.edu/-/media/aacsb/docs/accreditation/business/standards-and-



- tables/2020{%}20business{%}20accreditation{%}20standards.ashx?la=en&hash=E4B7D8348A6860B3AA9804567F02C68960281DA2
- [13] R Lombardi R, Lardo A, Cuozzo B, Trequattrini R. Emerging trends in entrepreneurial universities within Mediterranean regions: An international comparison. EuroMed Journal of Business. 2017;12(2):130-145. https://doi.org/10.1108/EMJB-10-2015-0052
- [14] Rahman MM, Adedeji BS, Uddin MJ, Rahaman MS. Entrepreneurship mindset for students' entrepreneurship build-up: A review paper. International Journal of Multidisciplinary Advanced Scientific Research and Innovation. 2017;1(1):26-34.
- [15] Bayon MC, Vaillant Y, Lafuente E. Initiating nascent entrepreneurial activities: The relative role of perceived and actual entrepreneurial ability. International Journal of Entrepreneurial Behavior & Research. 2015;21(1):27-49. https://doi.org/10.1108/IJEBR-11-2013-0201
- [16] Solesvik MZ, Westhead P, Matlay H, Parsyak VN. Entrepreneurial assets and mind-sets: Benefit from university entrepreneurship education investment. Education+Training. 2013;55(8-9:748-762. https://doi.org/10.1108/ET-06-2013-0075
- [17] Zheng W, Xu M, Chen X, Dong Y. Who is shaping entrepreneurial experience? A multiple case study of Chinese entrepreneurial learning. Management Decision. 2017;55(7):1394-1409. https://doi.org/10.1108/MD-06-2016-0370
- [18] Adom K, Asare-Yeboa IT. An evaluation of human capital theory and female entrepreneurship in Sub-Sahara Africa: Some evidence from Ghana. International Journal of Gender and Entrepreneurship. 2016;8(4):402-423. https://doi.org/10.1108/IJGE-12-2015-0048
- [19] Lee B. Human capital and labor: The effect of entrepreneur characteristics on venture success. International Journal of Entrepreneurial Behavior & Research. 2018;25(1):29-49. https://doi.org/10.1108/IJEBR-10-2017-0384
- [20] Overstreet RE, Skipper JB, Huscroft JR, Cherry MJ, Cooper AL. Multi-study analysis of learning culture, human capital and operational performance in supply chain management: The moderating role of workforce level. Journal of Defense Analytics and Logistics. 2019;3(1):41-59. https://doi.org/10.1108/JDAL-11-2018-0017
- [21] Presley A, Presley T, Blum M. Sustainability and company attractiveness: A study of American college students entering the job market. Sustainability Accounting, Management and Policy Journal. 2018;9(4):470-489. https://doi.org/10.1108/SAMPJ-03-2017-0032
- [22] Rospigliosi AP, Greener S, Bourner T, Sheehan M. Human capital or signalling, unpacking the graduate premium. International Journal of Social Economics. 2014;41(5):420-432. https://doi.org/10.1108/IJSE-03-2013-0056



- [23] Celani A, Singh P. Signaling theory and applicant attraction outcomes. Personnel review. 2011;40(2):222-238. https://doi.org/10.1108/00483481111106093
- [24] Ermilina V, Farrell M, Askarzadeh F, Zhang J. Business owners' features and access to entrepreneurial resources: New insights for accelerator acceptance. Review of International Business and Strategy. 2022; 32(2),246-266 https://doi.org/10.1108/RIBS-12-2020-0163
- [25] Morselli D. How do Italian vocational teachers educate for a sense of initiative and entrepreneurship? Development and initial application of the SIE questionnaire. Education+ Training. 2018;60(7-8):800-818. https://doi.org/10.1108/ET-03-2017-0046
- [26] Henry C. Entrepreneurship education in HE: Are policy makers expecting too much? Education+ Training. 2013;55(8/9):836-848. https://doi.org/10.1108/ET-06-2013-0079
- [27] Prince of Songkla University, I-Wise Student. Prince of Songkla University; Thailand; 2020.
- [28] Prince of Songkla University, PSU Student Competency. Prince of Songkla University; 2021.
- [29] Hylton JB, Mikesell D, Yoder JD, LeBlanc H. Working to instill the entrepreneurial mindset across the curriculum. Entrepreneurship Education and Pedagogy. 2020;3(1):86-106. https://doi.org/10.1177/2515127419870266
- of information [30] Derakhshan Μ, Singh D. Integration literacy into curriculum: meta\synthesis. 2011;60(3):218-229. Α Library review. https://doi.org/10.1108/00242531111117272
- [31] Peltier JW, Scovotti C. Enhancing entrepreneurial marketing education: The student perspective. Journal of Small Business and Enterprise Development. 2010;17(4):514-536. https://doi.org/10.1108/14626001011088705
- [32] Gonzalez HC, Hsiao EL, Dees DC, Noviello SR, Gerber BL. Promoting critical thinking through an evidence-based skills fair intervention. Journal of Research in Innovative Teaching & Learning. 2020; 15(1);41-54. https://doi.org/10.1108/JRIT-08-2020-0041
- [33] P Hultén P, Tumunbayarova Z. Building students' entrepreneurial mindsets: Results from an intervention at a Russian university. The International Journal of Management Education. 2020;18(2):1-12. https://doi.org/10.1016/j.ijme.2020.100380
- [34] Bubou GM, Job GC. Individual innovativeness, self-efficacy and e-learning readiness of students of Yenagoa study centre, National Open University of Nigeria. Journal of Research in Innovative Teaching & Learning. 2020; 15(1), 2-22. https://doi.org/10.1108/JRIT-12-2019-0079



- [35] de los Dolores González M, Husted BW. Gender, human capital, and opportunity identification in Mexico. International Journal of Gender and Entrepreneurship. 2011;3(3):236-253. https://doi.org/10.1108/17566261111169322
- [36] Shu EE. A problem-solving process for developing capabilities: The case of an established firm. European Journal of Innovation Management. 2019;23(4):713-727. https://doi.org/10.1108/EJIM-12-2018-0262
- [37] Yen YX, Wang ES, Horng DJ. Suppliers' willingness of customization, effective communication, and trust: A study of switching cost antecedents. Journal of Business & Industrial Marketing. 2011;26(4):250-259. https://doi.org/10.1108/08858621111126992
- [38] Clay-Williams R, Johnson A, Lane P, Li Z, Camilleri L, Winata T, Klug M. Collaboration in a competitive healthcare system: Negotiation 101 for clinicians. Journal of Health Organization and Management. 2018;32(2):263-278. https://doi.org/10.1108/JHOM-12-2017-0333
- [39] Ogbeibu S, Senadjki A, Gaskin J. Organisational cultures and the evoked effects of leader ability on employee creativity. American Journal of Business. 2020;35(3/4):153-173. https://doi.org/10.1108/AJB-09-2019-0068
- [40] Eskreis-Winkler L, Fishbach A. Not learning from failure—The greatest failure of all. Psychological Science. 2019;30(12):1733-44. https://doi.org/10.1177/0956797619881133
- [41] Wardana LW, Narmaditya BS, Wibowo A, Mahendra AM, Wibowo NA, Harwida G, Rohman AN. The impact of entrepreneurship education and students' entrepreneurial mindset: The mediating role of attitude and self-efficacy. Heliyon. 2020;6(9):1-7.
- [42] Saptono A, Wibowo A, Narmaditya BS, Karyaningsih RP, Yanto H. Does entrepreneurial education matter for Indonesian students' entrepreneurial preparation: The mediating role of entrepreneurial mindset and knowledge. Cogent Education. 2020;7(1):1-16
- [43] Kuckertz A, Wagner M. The influence of sustainability orientation on entrepreneurial intentions—Investigating the role of business experience. Journal of Business Venturing. 2010;25(5):524-39. https://doi.org/10.1016/j.jbusvent.2009.09.001
- [44] Rosenberg S, Heimler R, Morote ES. Basic employability skills: triangular design Education+ 54(1), 7-20. approach. Training. 2012; https://doi.org/10.1108/00400911211198869