

# Embedding Entrepreneurial Competence in Higher Education Institutes: An Entrepreneurship Mind-Set Value

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Job seeking competition in today's disruption era is increasing rapidly. Higher Education Institutes (HEI) need to prepare their graduates to be able to compete in this era. The focus of entrepreneurship in theory is to develop and flourish business throughout invention and exploitation of good and services. This study acts as basic guidance for HEI senior management and their staff in its managerial structure as a reference and based on developing a framework to create an improved curriculum, so that students can meet employment requirements. This study applies content analysis to understanding curriculum compatibility by adapting entrepreneurship competence dimensions in a management undergraduate study program. The result reveals that in the existing curriculum the expected learning outcomes (ELO) still have incompatibility with the second and third entrepreneurship competences; the 'resources' and 'into action'. This result will lead to a framework for curriculum adjustment in order to enhance students' employability towards the 4.0 industry. There are gaps in the existing ELO that can be identified using the entrepreneurship competences and which need to be resolved. The current curriculum in the Department of Management needs to be addressed. Entrepreneurship competences need to be embedded in individuals, especially students in Indonesian HEIs. The entrepreneurial competence, which is embedded in the student, will enable improving their skills when they enter the real world. This research also contributes in enhancing HEIs' students' entrepreneurial competence, by providing a framework to modify the current curriculum.

**Keywords:** *Entrepreneurship, Mindset, Curriculum, Graduates, HEIs, Employability.*



## Introduction

The theory of entrepreneurship is primarily focussed on how to create and develop business through discovery and opportunities identification to produce goods and services in the future, and how to achieve the goals without any failure (Shane & Venkataraman, 2000; Venkataraman, 1997; McGrath, 1999). Recently, entrepreneurship education is experiencing a rapid growth which will increase its contribution to economic growth and opportunity creation (Solomon, 2007). However, not all entrepreneurship-based businesses will generate positive results. Furthermore, in the 4.0 industrial revolution era, disruption and enormous changes are in continuous existence. Higher Education Institutions (HEIs) are required to produce graduates who are tenacious, resilient, and have appropriate enterprise and industry specifications. A business that fails will cause someone to have a variety of attitudes, and failure can be a valuable lesson to starting a new business (Minniti & Bygrave, 2001). Along with the development of theories and knowledge which concern entrepreneurship philosophies, it is crucial HEIs develop their curriculum to incorporate entrepreneurship competencies. Curriculum improvement aims to produce graduates who are ready to encounter and handle various problems in business. Furthermore, the graduates need to perform innovatively, resiliently, persistently, and quickly to promote remarkable business. Regarding the need to produce graduates with these criteria, an application of entrepreneurship competencies framework in the higher education curriculum is required (Shepherd, 2004; Bacigalupo et al., 2016).

The present curriculum needs to adapt to market demands in facing the industrial revolution 4.0. Disruption in the economy will cause many potential risks, one of which is failure. In dealing with failure or risk, an individual or a business organisation requires time to recover from these failures. Furthermore, emotion may cause someone to use the failure as a learning tool for success in seizing the next opportunity (Shepherd, 2003). In the existing curriculum, students are asked to study theories and courses by adding elements of 'feeling' to complement the element of 'thinking', by using an entrepreneurship competency framework (Bagicalupo, et al., 2016). The complementing element creates a contribution that is essential to produce HEI graduates who meet business criteria. This research attempts to answer questions on whether the current curriculum already inhere a sufficient amount of entrepreneurship competence, and investigate alternative solutions for HEIs in accommodating entrepreneurship competence.

The purpose of this research is to foster entrepreneurship spirits and attitudes among students in the management undergraduate study program at the Universitas Negeri Semarang, Indonesia, so that they can be more innovative, resilient, adept at seizing opportunities in the era of industrial revolution by integrating the characteristics of entrepreneurship competencies into the existing curriculum (Mayhew et al., 2012). Furthermore, this study responds to a call

for research on how to embed entrepreneurship elements in higher education (Dickson et al., 2008).

## **Literature Review and Theory Development**

### ***The Entrepreneurship Learning Process in Higher Education Institutions***

The entrepreneurship learning process is perceived as something extraordinary, which contains several unique characteristics in an organisation and therefore, has a significant impact on students' future business careers (Toding & Venesaar, 2018). Some researchers (Fayolle & Gailly, 2008) argue that it is almost impossible to teach entrepreneurship to an individual; entrepreneurship is nothing more than a set of personality and psychological characteristics. This is supported by other experts, such as Thompson (2004), who stated that characteristics such as talent and behaviour are also impossible to teach. These characteristics apply in various disciplines and lines of work. For instance, students can undertake study in medical science, law or engineering, however the learning output that produces doctors, lawyers and engineers, shows that not all of them are talented enough to execute their responsibility according to their job description (Hindle, 2007).

A similar argument is relevant and applicable in entrepreneurship and entrepreneurs (Toding & Venesaar, 2018). Previous studies confirm that it is possible to grow and develop entrepreneurship behaviour at universities (Harte & Stewart, 2012), with some supporting factors such as the environment and the learning concepts provided for students. Entrepreneurship learning is a learning process based on experience and application through practice or commonly called experiential learning (Simbolon & Silalahi, 2019). The student is directed to apply learning principles, and moreover, the student is driven to focus on social interaction among colleagues (Nabi et al., 2017; Pittaway & Cope, 2007; Täks, 2015). Experiential learning theory is adopted in entrepreneurship learning (Kolb, 1984). Furthermore, learning theory or socio-constructivist learning theory is also employed to understand entrepreneurship (Tynjälä, 1999). The purpose of entrepreneurship learning is providing environment or circumstance that resemble authentic business activity, where uncertainty or ambiguity may arise (Gibb, 2010; Pittaway & Cope, 2007).

Entrepreneurship learning is associated with an unplanned and unpredictable situation. Hence, the student requires the creation of new ideas to solve problems (Toding & Venesaar, 2018). Pittaway and Cope (2007) reinforce that entrepreneurship learning accommodates students by overcoming, experimenting, solving, and learning from their own mistakes as the decision-maker. The challenge that establishes opportunities and overcoming difficulties is important in entrepreneurship learning. Gibb (2010, p.154) emphasised that entrepreneurial learning is a form of education in a specific context:

"... behaviors, skills and attributes are applied individually and/or collectively to help individuals and organizations of all kinds to create, cope with, and enjoy change and innovation involving higher levels of uncertainty and complexity as a means of achieving personal fulfillment and organizational effectiveness. Entrepreneurship education is the process by which these behaviors are practiced and supported".

Gibb's (2010, p.154) statement interprets that entrepreneur learning is the behaviour, skills, and attributes that are inherent within a person, and makes an individual able to create, overcome, and appreciate changes and innovation in a highly uncertain and complex situation, as a means for personal and organisational achievement. Entrepreneurship learning is processed by those behaviours which are put into practise.

The aim of entrepreneurship learning is not only as a locomotive of the economic growth of a nation by initiate new jobs and businesses, but also, forms an individual with entrepreneurial-knowledge and skills as well as way of thinking. The entrepreneurship skills include several items, such as 'how to overcome problems', 'ability to negotiate-sell-plan-think strategically', 'owns a business network', 'do business management thoroughly', 'make decisions both intuitively and creatively in the uncertainty condition', and 'become someone who is personally effective and resilient and able to survive failure' (Sarasyathy, 2001; Fayolle & Gailly, 2008; Gibb, 2002, 2010; Gibb, 2005; Pittaway & Cope, 2007). To learn these skills, an individual requires a combination of theoretical and practical knowledge, ethical values and a willingness to learn (Rugarcia et al., 2000; Tynjälä, 2008; Tynjälä & Gijbels, 2012). Toding and Venesaar (2018) stressed that the process of being an entrepreneur is mainly in an uncomfortable zone, and he or she has to deal with emotional issues and the continuous information flow of communication in managing people.

### ***Entrepreneurship Education in Higher Education Institutions***

Entrepreneurship education plays an important role in the economic growth of the world and has become an economic force. It is also a source of innovation for entrepreneurs in economic growth, especially in a western country, such as the United States (Kuratko, 2005; Mayhew et al., 2012). In other parts of the world, such as Europe, the important role of entrepreneurship has been the main priority in promoting economic growth, and there is political support and a high commitment to further promoting entrepreneurship education, as declared in the Lisbon Declaration, in 2000 (European Parliament, 2000; European Commission, 2006a in Anne Storen, 2014, p.796). Further research in this area is also needed in various parts of the world, relating to the topic of how to embed entrepreneurship elements in higher education (Dickson et al., 2008). Mayhew et al. (2012) suggested that the need for innovative entrepreneurship is prioritised compared to replicating existing businesses. With optimal innovations, it will obtain 'new' businesses and services, and existing start-up businesses nowadays are more focussed on

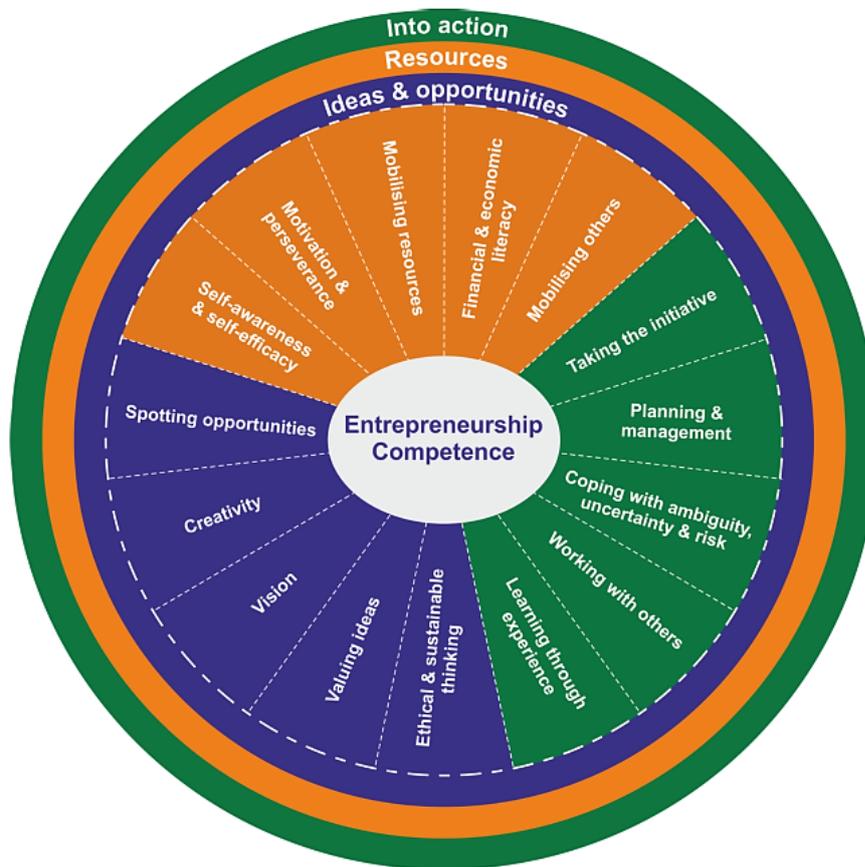


innovation. By optimising innovation, business start-ups will be based on the so-called 'customisation' or modification of ideas. This will have a positive impact on business sustainability (Wilson, 2008; Anne Støren, 2014). Studies on entrepreneurship topics deserve more rigorous attention in terms of research and curriculum because of the basic economic and social values that lead to a free-enterprise culture (Maranville, 1992; White & Moore, 2016). Therefore, a curriculum that can adopt entrepreneurial values is needed so that it can produce independent graduates economically and create successful and highly efficient business start-ups.

In order to improve an individual's capability to be able to develop his or her ability to actively participate in society, be independent in terms of career and business and take initiative in creating value, European entrepreneurship competencies provide a basis or framework for improving individual entrepreneurship competencies (Bagicalupo et al., 2016). The study of Bagicalupo et al. (2016) also emphasised that entrepreneurship or entrepreneurship as competency can be applied in all aspects. These competencies can make an individual develop personal improvement, so that he or she can start a business or be able to overcome problems in an innovative way.

An entrepreneur potentially able to develop a business based on three aspects, namely "ideas and opportunities", "resources" and "into action", meaning that when an individual has an idea, it should develop and implement into action. The individual action based on resources that are possess. Potential ideas can be an individual driver to start an action and become a profitable business. Individual resources are not only interpreted as capital, however also motivation which is important to create a business. Capital is an important aspect of creating a business, however it is not solely factor that influences business failure. New entrepreneurs must pay attention to some important things, motivation, and being able to recognise consumer desires through understanding market orientation should understand clearly. New entrepreneur capital constraints should consider the government grant schemes that can be utilised with certain conditions. New entrepreneur's problems in the financial sector are reduced by a loan, another option that arises is to establish joint venture. European entrepreneurship competence, also known as the EntreComp, consists of two main dimensions. Namely, the competency area in three areas, and the competency itself can consist of 15 competencies (Bagicalupo et al., 2016). Entrepreneurship competence can be seen in Figure 1.

**Figure 1.** The EntreComp Model



**Source:** Bagicalupo et al., 2016, p.1

Entrepreneurial learning for students encourages their skills, including organisational skills, time management, leadership development and interpersonal skills (Stamboulis & Barlas, 2014). Entrepreneurship is not only related to selling, but the skills that support the success of an individual to establish a business. Therefore, a student not only opens a business, but moreover, is able to develop sustainability. Entrepreneurial learning requires student motivation. Hence, the success of learning depends on students' desire to master existing skills to build a business (Vanevenhoven & Liguori, 2013). In addition to motivation, there is a process that must be passed by a student because entrepreneurial learning cannot be obtained instantly, so that the process can provide experience to an aspiring entrepreneur to design a business. The current university continues to develop efforts to create competitive resources through entrepreneurial stimulation for students with the business incubation model (Jansen, van de Zande, Brinkkemper, Stam, & Varma, 2015). The development seeks to increase the self-efficacy of students to develop the courage to create a business. That support comes from the efforts that have been carried out at the university.

**Table 1: Framework of The EntreComp**

Areas	Competences	Hints	Descriptors
<b>1. Ideas and opportunities</b>	<b>1.1 Spotting opportunities</b>	Use your <sup>s</sup> Imagination and abilities to identify opportunities for creating value	<ul style="list-style-type: none"> <li>Identify and seize opportunities to create value by exploring the social, cultural and economic landscape</li> <li>Identify needs and challenges that need to be met</li> <li>Establish new connections and bring together scattered elements of the landscape to create opportunities to create value</li> </ul>
	<b>1.2 Creativity</b>	Develop creative and purposeful Ideas	<ul style="list-style-type: none"> <li>Develop several Ideas and opportunities to create value, including better solutions to existing and new challenges</li> <li>Explore and experiment with Innovative approaches</li> <li>Combine knowledge and resources to achieve valuable effects</li> </ul>
	<b>1.3. Vision</b>	Work towards your vision of the future	<ul style="list-style-type: none"> <li>Imagine the future</li> <li>Develop a vision to turn Ideas into action</li> <li>Visualise future scenarios to help guide effort and action</li> </ul>
	<b>1.4 Valuing ideas</b>	Make the most of Ideas and opportunities	<ul style="list-style-type: none"> <li>Judge what value is in social, cultural and economic terms</li> <li>Recognise the potential an Idea has for creating value and identify suitable ways of making the most out of it</li> </ul>
	<b>1.5 Ethical and sustainable thinking</b>	Assess the consequences and impact of Ideas, opportunities and actions	<ul style="list-style-type: none"> <li>Assess the consequences of Ideas that bring value and the effect of entrepreneurial action on the target community, the market, society and the environment</li> <li>Reflect on how sustainable long-term social, cultural and economic goals are, and the course of action chosen</li> <li>Act responsibly</li> </ul>
<b>2. Resources</b>	<b>2.1 Self-awareness and self-efficacy</b>	Believe in yourself and keep developing	<ul style="list-style-type: none"> <li>Reflect on your needs, aspirations and wants in the short, medium and long term</li> <li>Identify and assess your individual and group strengths and weaknesses</li> <li>Believe in your ability to influence the course of events, despite uncertainty, setbacks and temporary failures</li> </ul>
	<b>2.2 Motivation and perseverance</b>	Stay focused and don't give up	<ul style="list-style-type: none"> <li>Be determined to turn Ideas into action and satisfy your need to achieve</li> <li>Be prepared to be patient and keep trying to achieve your long-term individual or group aims</li> <li>Be resilient under pressure, adversity, and temporary failure</li> </ul>
	<b>2.3 Mobilizing resources</b>	Gather and manage the resources you need	<ul style="list-style-type: none"> <li>Get and manage the material, non-material and digital resources needed to turn Ideas into action</li> <li>Make the most of limited resources</li> <li>Get and manage the competences needed at any stage, including technical, legal, tax and digital competences</li> </ul>
	<b>2.4 Financial and economic literacy</b>	Develop financial and economic know how	<ul style="list-style-type: none"> <li>Estimate the cost of turning an idea into a value-creating activity</li> <li>Plan, put in place and evaluate financial decisions over time</li> <li>Manage financing to make sure my value-creating activity can last over the long term</li> </ul>

	<b>2.5. Mobilizing others</b>	Inspire, enthuse and get others on board	<ul style="list-style-type: none"> <li>• Inspire and enthuse relevant stakeholders</li> <li>• Get the support needed to achieve valuable outcomes</li> <li>• Demonstrate effective communication, persuasion, negotiation and leadership</li> </ul>
<b>3. Into action</b>	<b>3.1 Taking the initiative</b>	Go for it	<ul style="list-style-type: none"> <li>• Initiate processes that create value</li> <li>• Take up challenges</li> <li>• Act and work independently to achieve goals, stick to intentions and carry out planned tasks</li> </ul>
	<b>3.2 Planning and management</b>	Prioritize, organize and follow-up	<ul style="list-style-type: none"> <li>• Set long-, medium- and short-term goals</li> <li>• Define priorities and action plans</li> <li>• Adapt to unforeseen changes</li> </ul>
	<b>3.3 Coping with uncertainty, ambiguity and risk</b>	Make decisions dealing with uncertainty, ambiguity and risk	<ul style="list-style-type: none"> <li>• Make decisions when the result of that decision is uncertain, when the information available is partial or ambiguous, or when there is a risk of unintended outcomes</li> <li>• Within the value-creating process, include structured ways of testing ideas and prototypes from the early stages, to reduce risks of failing</li> <li>• Handle fast-moving situations promptly and flexibly</li> </ul>
	<b>3.4 Working with others</b>	Team up, collaborate and network	<ul style="list-style-type: none"> <li>• Work together and co-operate with others to develop ideas and turn them into action</li> <li>• Network</li> <li>• Solve conflicts and face up to competition positively when necessary</li> </ul>
	<b>3.5. Learning through experience</b>	Learn by doing	<ul style="list-style-type: none"> <li>• Use any initiative for value creation as a learning opportunity</li> <li>• Learn with others, including peers and mentors</li> <li>• Reflect and learn from both success and failure (your own and other people's)</li> </ul>

Source: Bagicalupo et al., 2016, p12–13

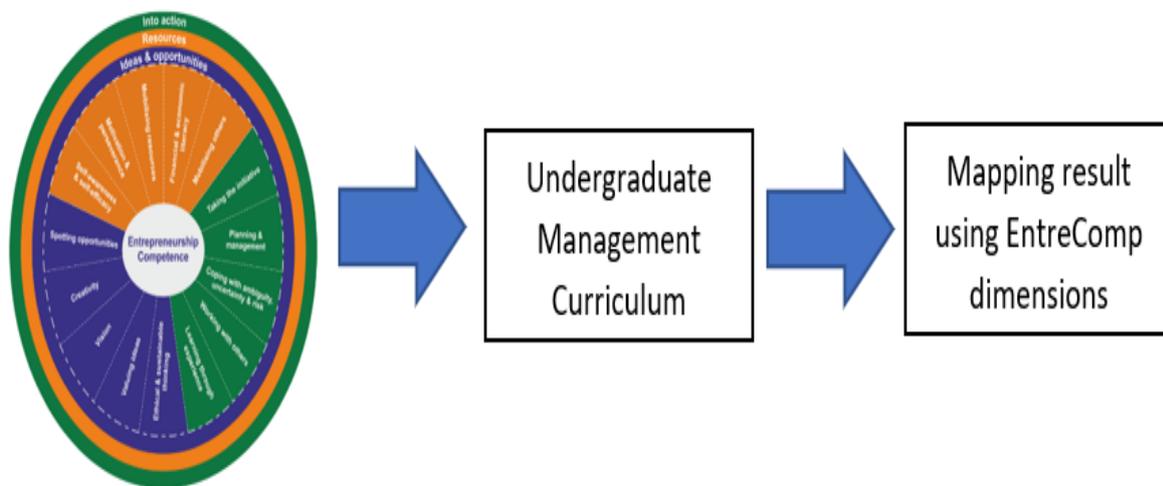
## Material and Methods

This study attempts to observe the curriculum of the management undergraduate study program at the Universitas Negeri Semarang, in Indonesia, by using three main dimensions adopted from the EntreComp (Bagicalupo et al., 2016). The qualitative analysis is based on non-participant observation and conducting document analysis-content analysis (Crotty, 1998) which will present an overview of whether the current learning outcomes of the courses or subjects have the dimensions of the EntreComp. This ethnography case study applies document analysis, which covers main activities in this study in the form of document analysis activities, such as skimming (apparent examination), reading (in-depth examination), and interpretation. This iterative process combines elements of content analysis. Content analysis is the process of organising information into categories related to the central questions of this research (Bowen, 2009). This study analyses all subjects or courses in the undergraduate study in the Department of Management at the Universitas Negeri Semarang.

In the first phase, using structured tables, the researchers identify and analyse each learning outcome of the subjects and identified whether they inherent EntreComp competencies or not.

The next phase is to classify them into three categories: important-urgent; important-not urgent; and not important-not urgent. These classifications will be identified using three colours: red (important-urgent), yellow (important-not urgent), and green (not important-not urgent). Finally, the results and conclusion based on the analysis will provide a framework for identifying alternative solutions or action plans based on curriculum mapping using the EntreComp.

**Figure 2.** Research Analysis Stage



## Result

Generally, based on the analysis, and starting from the first year and until the fourth year, the concentrations of subjects that require further evaluation of their learning outcome are in the second and third years. Regardless of their track records of being succeeded throughout these years, the study implies that there is a need to improvise and do more and innovate to develop a much better curriculum. The results of this study indicate that by using specific competence indicators (Bagicalupo et al., 2016), there is a lack of expectation to learn outcomes on several indicators of entrepreneurship competence. This can be used as a reference for the program managers to innovate in developing specific learning outcomes to foster entrepreneurship spirits that will later create the entrepreneurship spirit that meets the competency indicators. The existing learning objectives (LO) in each subject are represented by 'LO' (LO<sub>1</sub>-LO<sub>6</sub>). In this curriculum for the management undergraduate study program, each subject has approximately one to six LOs. The colour schemes in Table 2 below provide the classification of priorities in which subjects should be evaluated in the first instance. The classifications are red for 'important-urgent'; yellow for 'important-not urgent'; and green for 'not important-not urgent'.

**Table 2:** Curriculum in First Year

Programme Title: Undergraduate Programme			SPECIFIC COMPETENCE														
			1.0 Taking the initiative					2.0 Resources					3.0 Ideas and opportunities				
Code	CATS	Course Title : Management Bachelor Degree	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	3.4	3.5
			Taking the initiative	Planning and Management	Coping with ambiguity, uncertainty and risk	Working with others	Learning through experience	Self-awareness and self-efficacy	Motivation and perseverance	Mobilising Resources	Financial and economic literacy	Mobilising others	Spotting opportunities	Creativity	Vision	Value Ideas	Ethical and Sustainable thinking
15U0000(1-6)		Religion Education															
15U00008		Citizenship						LO2									
15U00010		English	LO3				LO2										
15F00035		Introduction on Economics			LO3		LO4				LO5						
15F00038		Introduction on Business		LO1	LO2			LO3					LO4				
15F00036		Introduction on Management		LO1,LO4	LO6		LO5				LO2					LO3	
15F00037		Introduction on Accounting		LO2							LO1						
15F00040		Mathematics for economics			LO3						LO1,LO2						
15U00012		Conservation Education		LO2			LO4	LO1						LO3			
15U00007		Pancasila (Five principles) Education						LO3							LO1	LO2	LO4
15J03855		English for Business	LO1				LO2,LO3										
15J00490		Statistics		LO4	LO3						LO1,LO2						
15J00477		Financial Management		LO1	LO3		LO4				LO2						
15J00481		Marketing Management		LO1	LO2								LO3,LO5	LO4			
15J00483		Human Resource Management		LO1,LO3	LO2									LO4			
15J00480		Operational Management		LO1	LO2		LO4						LO3				
15U00009		Indonesian Language					LO2,LO3										LO4
15U00011		Entrepreneurship		LO1	LO2					LO5			LO4	LO3			

Table 2 shows that for resource competencies, there are many vacant courses in the first year of lectures. It is evident in the first group of specific competence, namely taking initiative. In the second specific competence of resources, there are also many vacancies. Meanwhile, in the third specific competence, ideas and opportunities, the results of the mapping show that several subjects provide competencies for several competencies. In the first competency, it can be seen that the current learning outcome complies with several competencies, which are taking the initiative, planning and management, coping with ambiguity, uncertainty and risk, working with others, learning through experience initiates, plans and regulates, face ambiguity, uncertainty and risk working together, and learning through experience.

Whereas, in the first year, a few subjects achieved the specific learning outcome of the second specific competence. For motivation and prestige or motivation and resilience under pressure, almost none of the subjects had learning outcomes that comply with the specific competence. The same issue also occurred for specific competencies in mobilising resources. Based on the colour scheme classifications, there are two subjects that need to be evaluated. These subjects are introduction to business and entrepreneurship. The evaluation in the learning objectives of the two subjects is in three competencies. The students who take this subject need to further observe in terms of taking initiative, managing resources, and obtaining ideas and opportunities.

In the second year of the learning process in the undergraduate management study program, it can be seen that the learning achievements of existing courses still have large gaps to meet the EntreComp competencies. These competencies are working with others (working together), motivation and perseverance (motivation and resistance to pressure), and mobilising others. Also, in relation to the third specific competence, especially for vision, value ideas or assessing ideas and sustainable thinking, there are only three courses that can meet the achievements of learning. They are international business, business ethics, and global marketing.

**Table 3: Curriculum in Second Year**

Programme Title: Undergraduate Programme		Taking the initiative	Planning and Management	Coping with ambiguity, uncertainty and risk	Working with others	Learning through experience	Self-awareness and self-efficacy	Motivation and perseverance	Mobilising Resources	Financial and economic literacy	Mobilising others	Spotting opportunities	Creativity	Vision	Value Ideas	Ethical and Sustainable thinking
15F00039	Business Law		LO1,LO2	LO4		LO5						LO3				
15F00041	Statistiks for Economics					LO2,LO3,LO4				LO1						
15J00489	Business Planning		LO1	LO2								LO3	LO4			
15J00478	Financial Institution Management		LO1	LO3						LO2,LO4						
15J00471	International Business		LO1									LO3	LO4	LO2		
15J00474	Communication for Business		LO1	LO2		LO3							LO4			
15J00475	Macro Economics			LO2		LO3				LO1,LO4						
15J00473	Business Ethics			LO2		LO3				LO4						LO1
15J00486	Micro Economics			LO2		LO3				LO1,LO4						
15J00470	Computer Application					LO1,LO2						LO4	LO3			
15F00042	Indonesian Economy									LO1,LO2,LO3		LO4				
15P03153	Econometrics			LO5		LO2,LO3,LO4				LO1						
15J00479	Total Quality Manajemen		LO1,LO2									LO4	LO3			
15J00482	Risk Management		LO1	LO2,LO3						LO4						
15J00487	Global Marketing		LO1									LO2,LO4			LO3	
15J00476	Cost Management		LO1							LO2		LO3	LO4			

In the third years' specific competence of value ideas, there is no subject of which the learning achievements can meet the specific competence. Table 3 shows that there are six subjects that need urgent treatment. They are business planning, international business, communication for business, total quality management, risk management, and cost management. These subjects need to be addressed as a first priority due to their nature as backbone subjects in the curriculum. These subjects provide students with the ability to manage their departments, businesses, and offices. Innovation in managing businesses is pertinent due to the dynamic changes in recent business globalisation.

**Table 4: Curriculum in Third Year**

Programme Title: Undergraduate Programme		Taking the initiative	Planning and Management	Coping with ambiguity, uncertainty and risk	Working with others	Learning through experience	Self-awareness and self-efficacy	Motivation and perseverance	Mobilising Resources	Financial and economic literacy	Mobilising others	Spotting opportunities	Creativity	Vision	Value Ideas	Ethical and Sustainable thinking
15J00484	Strategic Management		LO1									LO4	LO3	LO2		
15J00472	Managerial Economics		LO1			LO4				LO2,LO3						
15J00469	Financial Report Analysis									LO1,LO2,LO3,LO4						
15J00488	Budgeting					LO2				LO1,LO3,LO4						
15J00491	Decision Making Theory	LO1			LO4			LO2				LO3				
15J00485	Research Methodology in Business		LO2			LO3,LO4								LO1		LO5
15P03154	Islamic Economy					LO4				LO2,LO3				LO1		
15P03182	Information System Management		LO1			LO4						LO3	LO2			
15P03151	English for Manager	LO1			LO3	LO2,LO4										
15P03174	Consumer Behaviour	LO1		LO2								LO3	LO4			
15P03167	Advanced Marketing Management		LO1	LO2		LO3							LO4			
15P03171	Services Marketing		LO1	LO2								LO3	LO4			
15P03178	Marketing Research		LO1			LO4	LO2						LO3			
15P03179	Marketing Management Seminar	LO1			LO2				LO3				LO4			
15P03152	E-commerce		LO1										LO3,LO4	LO2	LO5	
15P03172	Marketing for Retail Business		LO1									LO2	LO3,LO4			

In the third year of this undergraduate management study program — see Table 4 above — it can also be seen that the lack of learning outcomes that can meet the specific competencies is still found in motivation and resistance to stress, mobilising resources, and even in self-awareness and self-efficacy to understand one's own character and self-confidence in achievement. Both specific competencies indicate that there is still a need for a formulation of learning outcomes for students who can develop these attitudes. This is considered important

to be able to spur students in increasing their confidence as one of the big capitals to realise innovation and the ability to produce something that is highly efficient in the form of activities or later in products. Based on the colour scheme criteria, there are eleven subjects that conclude in the red criteria, important-urgent. These subjects are lacking entrepreneurial competencies, especially for the second criteria. These subjects mainly involve students being able to mobilise resources and understand and implement their self-awareness and self-efficacy. The eleven subjects are strategic management, decision-making theory, information system management, English for managers, consumer behaviour, advanced marketing management, services marketing, marketing research, marketing management seminar, e-commerce, and marketing for retail business.

**Table 5:** Curriculum in Fourth Year

Programme Title: Undergraduate Programme			Taking the initiative	Planning and Management	Coping with ambiguity, uncertainty and risk	Working with others	Learning through experience	Self-awareness and self-efficacy	Motivation and perseverance	Mobilising Resources	Financial and economic literacy	Mobilising others	Spotting opportunities	Creativity	Vision	Value Ideas	Ethical and Sustainable thinking
Year 4	15U00020	Internship					LO1,LO2						LO3				
	15U00019	Student Community Service					LO1	LO3				LO2					
	15J03857	Comprehensive Examination (Oral Test)						LO1	LO2					LO3			
	15U00021	Essay (completed with Viva)		LO3	LO1		LO2			LO4							

In the fourth year of the undergraduate management study program, no theoretical courses were provided. However, it can also be seen in the mapping in Table 5, that learning achievements are still required in practical subjects to be able to meet the specific competencies that exist. In practical courses, such as fieldwork practice and thesis, it can also be added to the formulation of specific entrepreneurship competencies, which at the end of the course, can give students the momentum to face the work environment. It can also be seen from the mapping in Table 5 above, that the third specific competence of vision, value ideas, and sustainable thinking, has an important role in relation to implementation. Students need to fulfill these specific competencies in order to be able to implement and create from learning outcomes that meet these specific competencies, especially when they have begun to be independent in the final stages of learning. In this final year, there is single subject which needs further modification in its learning outcomes, which is internship. HEIs need to address issues in placing students in the work environment. They need to apply what they have obtained in class, perhaps by commencing projects in marketing, promotion, budgeting, and/or employee placements which will form their minds and knowledge to a solid-state.

## Conclusions

Based on the results shown in the mapping, it is necessary to modify the existing curriculum by adding specific learning outcomes that can meet the specific competencies that have not been fulfilled earlier. There is no need for changes to the curriculum, but there is a need for developing the expected learning outcomes in each subject which can foster an



entrepreneurship mindset in students. The fostering of an entrepreneurial mindset among students can assist them to work in groups, collective processes in decision making, and in interaction with one another in problem-solving (Rasmussen, 2016). This study needs to be expanded in terms of its scope. In the future, the curricula gathered from several HEIs in a region can be examined with the EntreComp competencies. This should be undertaken in an effort to shed more light on how the curricula in an emerging country, like Indonesia, should be developed to prepare its graduates in coping with the disruption era.

In regard to the results of the curriculum mapping using the EntreComp in the previous discussion, there remains a requirement for improvement in formulating the learning outcomes in the curriculum, and especially in the context of specific competence entrepreneurship. It also needs to be stressed that entrepreneurship is not only related to realising business, but in a deeper and holistic context, entrepreneurship is a mindset or way of thinking that contains the elements of innovative creativity and survives in mental pressure that will increase the quality of the graduates from a study program. This result is in line with previous research conducted by Rasmussen (2016), noting that students need to learn from their own mistakes, become resilient, and find innovative solutions to resolve any issues, particularly in business management.

The results show in that the curriculum in the undergraduate study program of management, the existing learning outcomes are still unable to meet the specific competencies that exist in the EntreComp equally. This study provides the basic framework for developing a curricula in HEIs. The results of this study will act as a base for curriculum design, which is based on competencies and fosters variation in teaching methods. It aligns with the previous study by White and Moore (2016), and Toding and Venesaar (2018). The curricula acts as a tool to accumulate the students' learning achievements that can meet the specific competencies of the EntreComp. Furthermore, there is a need to obtain an innovative way of compiling learning achievements (Wilson, 2008) that can meet the competency specifications of the EntreComp. Furthermore, a cyclical process is also required, in which evaluation and measurement are needed to identify the extent to which the application of learning outcomes has been formulated to meet the specific competencies of the EntreComp.



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