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## Abstract

Entrepreneurship courses have been acknowledged as important part of how to develop entrepreneurial mindsets among the students. Each higher education institution has developed their unique entrepreneurship education courses in the hope of developing the mindsets of the students to be more entrepreneurial. Numerous higher education institutions have also provided business incubator as the media to nurture the students' entrepreneurial ideas. This research is proposing a conceptual model based on the theory of planned behavior to develop the mindset of the students in the higher education institution in order to prepare them to be ready to develop the business inside the business incubator. The model shows the continuation process from the entrepreneurship courses to the incubator process.

Keywords: Entrepreneurship Phases, Entrepreneurship Courses, Planned Behavior, Incubation Process

# INTRODUCTION

The development of startups has attracted the youngsters to jump in (Wood, 2019). The data has shown that most of the startup founders were youngsters within 34 to 45 (Azoulay et al., n.d.; Brits, n.d.; McBride, 2021; Scipioni, 2021). It has become the 'alternative' career path to the fresh graduates. Once they graduated, being a professional worker might not be that interested anymore, yet, becoming a startup founder – a part of the business ownership has considered to be something more attractive for the fresh graduates (Nabi et al., 2019; Zwan et al., 2009).

On the other hand, entrepreneurship has been acknowledged as an important matter that could not be separated from the education field. Entrepreneurship, has become an integral part of the curriculum in various levels of education – from the lowest level such as primary schools, to the higher education levels (Elert et al., 2015; Jones & Liu, 2017; Kuratko, 2005; Love Moses & Mosunmola, 2014). Entrepreneurship has been applied as a specific (package) of subjects that would directly impact the students with the entrepreneurial knowledge and experiences (Kolb & Kolb, 2011a; Williams-middleton et al., 2014).

To be specific, in the higher education level, the entrepreneurship has been put into various courses, that would expose the students with the entrepreneurial knowledge and experiences. The goals of the entrepreneurship education in the higher education levels is quite simple: exposing the students with the entrepreneurial knowledge and experiences would give them the different point of view on entrepreneurships. They would be exposed with the activities that relate to the entrepreneurships such as training, expo, pitching, startup contents(Byun et al., 2018). By having the experiences, and possessing the entrepreneurial skills from the entrepreneurship courses, it is expected that the students would have the greater desire to have their own business, or in a shorter statement: offering the students the point of view in their life after they graduated (Grigore & Toma, 2014; Nabi et al., 2019).

Not limited to improve the desire to become entrepreneurs, and to be able to see the entrepreneurship as the plausible future career path, the university also provide the entrepreneurial experiences through the practices that were being done inside the entrepreneurship courses (Byun et al., 2018).

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The effort to develop entrepreneurships in the higher education did not stop in the entrepreneurship courses. To support the development of the startups, from the idea level to the business-ready, the universities decided to provide the business incubators.

The university incubator offers the opportunity for the students who have the business ideas to be develop into the real venture (Hassan, 2020; Saptono et al., 2020; Tristiarini et al., 2020) and to be exposed to the real startups industries environment (Bajmocy et al., 2016; Callegati et al., 2005) by providing the chances for the students tenants (the university incubator tenants which actually are the students) to be able to have encounters with the related parties, for instance; the venture capitals.

The university incubators also provide the chances for the student tenants to be able to take part of the startup industries' activities, such as by joining the startups fairs, business match, or by having the speed dating activities with certain parties (Byun et al., 2018). By having those chances, it was expected that the student tenants would have the better possibilities to be developed into a mature venture, that would be ready to be invested in the future by the venture capitals (Bajmocy et al., 2016; Byun et al., 2018).

This paper is going to propose the conceptual model of the entrepreneurship path of students in the higher education. This path would be started in the entrepreneurship courses and would be ended in the incubation session within the university incubator.

# Entrepreneurship Education and Learning

(Kolb & Kolb, 2011b) stated that experiential learning theory (ELT) has been widely apploed in management for over than 35 years. The ELT gives the dynamic theory based on a learning cycle driven by the resolution of the dual dialectics of action/reflection and experience/abstraction. These two dimensions define a holistic learning space wherein learning transactions take place between individuals and the environment. Furthermore, it was stated that to them, ELT can be used to serve as framework – and it is very useful, to design and implement the education program in the higher education institution. Therefore, given the research was taken in the higher education institution – the university-based incubator, the ELT would be a useful framework to design the correct program for the startup to develop their business.

Referring to (Drucker, 2014), innovation is monitoring seven sources for innovative opportunity. These seven sources are divided into two; within the enterprise or in a specific industry – the internal factor, and the other would involve the factors that can be found externally. Drucker continues by explaining those first four sources: *the unexpected* – referring to exploiting the phenomena that happen in the business; *incongruities* – it is disguised as macro-phenomena, which is shown within a company; *process need* – a process need should be understood to have effective condition; *market structure* – the change in the industry structure might bring opportunities – therefore it should not be seen as threats.

The next three sources of opportunity by (Drucker, 2014); *demographics* – there would always be changes in the populations – age structure, composition, employment, educational status, income etc; *changes in perceptions, meaning and mood* – knowing the general perception and mood is a must because not being able to see what is happening would not be beneficial for the business entity; and *new knowledge* – it is more about major innovations and breakthrough that happened along the way.

Design thinking is considered as an analytic and creative process, that enggages a person in opportunities to experiment, create and prototype the models and gain some feedbacks to refine the product, and then redesign when it was necessary (Razzouk & Shute, 2012). Furthermore, it is not a linear process, but it is an iterative process, which might require to return in the prior steps to refine the outcome. It is also considered as a comprehensive customer-oriented innovation approach that aims to generate creative ideas, applicable to all kinds of business ideas (Müller-roterberg, 2019), and it is being used to develop a design orientation to problem solving (Mabogunje et al., 2016).

# **Entrepreneurship Process**

(Gemmel, 2017) stated that the process of the entrepreneurial recognition and new product ideation have been mapped into the Kolb Learning Cycle. (Secundo, Del Vecchio, et al., 2017; Secundo, Schiuma, et al., 2017)

proposed the phases for entrepreneurial development. Those phases are: 1) inspiration – this is the phase where ideas were being generated; 2) exploration and exploitation – this is the phase to develop the innovative projects and; 3) acceleration and growth – this is the final phase of the project.

Customers have the most important role for the entrepreneurs in term of decision making. This concept is being proposed by (Mansoori, 2017) in the two learning modes; the vicarious and expriential learning for entrepreneurs.

Furthermore, (Mansoori, 2017) also proposed five steps for the entrepreneurs (in the learn laerning mode) in term of business develoing; 1) having contact with customers – which means put the customers as the most crucial information sources; 2) all changes are plausible – in the early stages of the business development processes, frequent changes are expected, where there might be some minor or even major revisions should be applied; 3) not only focus on the techological aspect of the business – entrepreneurs should understand that though technological aspects are considerably the most important part that would be offered to the customers, the customers rarely pay their attention to this aspect – unless it directly impact to the problem solving; 4) selling is not everything, but learning comes first – customer should not be seen only as the income source, but more as the source of information and inspiration.

Entrepreneurs should focus on learning – to refine the product/service, instead of focus on selling; and 5) focus on searching (and developing) the business model, instead of focus on executing the business plan – entrepreneurs should validate their business model from time to time by using the information that were gained from the customers.

(Mahmoud-jouini et al., 2017) developed a framework that consists of ten entrepreneurial learning opportunities. Those ten opportunities are: 1) answering requests from clients; 2) producing, executing – which consists of business plan development and prototyping;3) training – development for the entrepreneurs; 4) information screening and curating – documents and information screening, which could be related to researching (markets, etc); 5) discussing the project informally – to get insights from closest circles such as friends, famiy member etc; 6) resource searching – could include financial, competencies or material resources; 7) answering closed questions as a predetermined format – joining into business plan competition, grant competition etc; 8) presenting formally – partners, clients/customers, venture capitals; 9) participating in seminars, fairs, working groups – network development; and 10) asking questions or advices – from legal or financial consultants, business coaches, etc.

(Ferrandiz et al., 2017) have set the curricullum-based entrepreneurship education into two phases; the validation of idea and developing the project. Each phase consists of two set; entrepreneur skills and development the business model. In the 'validation of idea' phase – the first set; entrepreneur skills; it consists of entrepreneurial mindset, development of equipment and sales tools. The second set of the 'validation of idea phase'' – the development the business model set consists creativity, generating of ideas, strategic diagnosis, and market research. In phase II – the 'development the project' phase, there are two sets: the 'entrepreneur skills' set which consists of leadership, and the 'development the project' set which consists of marketing and commercial, people management, supply chain, integration in society and legal responsibility, and accounting and finance.

(Ndou et al., 2018) divided entrepreneur education into four phases that they called as the four 'common pillars. Those pillars are:1) inspire and create awareness; 2) idea generation and design; 3) turn idea into business; and 4) grow and sustain. The first pillar – inspire and create consists of understand, sense, inspire, analyze, become aware, discuss/reflect, and acquire knowledge on technology. The second pillar – idea generation and design covers the area of recognize, explore, analyze opportunities and develop knowledge, skills, competencies, capabilities for the entrepreneurial process "technology based".

The third pillar – the 'turn idea into business' covers the area of design, apply, build, launch, develop, implement business ideas, new ventures, and new business models for technology intensive business. The last pillar – grow

and sustain, covers the area of accelerate, support, lead, coach, counsel, take off, innovate, grow, and sustain the venture 'technology intensive".

(Linton & Klinton, 2019) put design thinking concept as the basic idea for the entrepreneurship education. They have developed a design-thinking-based entrepreneurship education concept that consists of five steps as what we saw in the design thinking concept. The steps are: 1) discovery of challenge – where students got out of the classroom to gain information on the potential users; 2) interpretation of challenge – this is the part where the students did the analysis of the collected information; 3) ideation of solutions – based on the analysis of the prior step, the students should generate solutions of the challenges; 4) protoytping of solutions – this is the moment to put the chosen solution from the concept onto something real - could be seen and touch and; 5) solution and future – it is time to pitch the solution, and also, develop the future plan.

Another study on entrepreneurshup education set a seven-steps framework. This study is conducted by (Susilo, 2019). It was stated that the entrepreneurship education should be set into seven steps. Those steps are: 1) theoretical learning; 2) observation of entrepreneurial conditions; 3) business/entrepreneurial internship; 4) making business plans; 5) business plans consultation; 6) entrepreneurial practices; and 7) program reflection and evaluation. The whole processes would cover the initiative and innovation in seeing opportunities; being able to develop a business plan; able to execute the business plan being able to manage finance; able to socialize with the environment; and able to evaluate the whole processe.

(Marhamat et al., 2019) proposed three steps of entrepreneurship learning. The first step is about learning opportunity recognition, which is specified to learning new opportunities by using two channels: internal and external knowledge. The second step is learning opportunity discovery, which would be done by analyzing the market gaps, technological development and social changes. The third step is learning opportunity creation. This step is about launching new service or new types of older version product, developing new business model and opening new market.

(Wu et al., 2019) conducted a research on the impact of using the response classroom system to the students experiences in the entrepreneurship classrooms. These researchers proposed two learning activities context; 1) education about entrepreneurship and; 2) education for entrepreneurship.

The first context containts of lecturing that would deliver three topics: 1) introduction to entrepreneurship; 2) Guess speeches; and 3) future trends and business opportunities. The second context contains more complex contents. The second contexts consists of: 1) entrepreneurship self identification; 2) creativity for new ventures; 3) developing new ideas; 4) transforming ideas into reality and business plan development.

The much simpler phases of entrepreneurship learning were shown in two universities in Italia, as it was stated by (Secundo et al., 2020). In study, the universities were chosen to put two phases on their entrepreneurship learning processes; 1) idea development and 2) idea presentation. In the second universities, the ideas should be the innovative solutions that were being developed through an interdisciplinary teamwork – guided by professors and mentors.

(Vias & Rivera-cruz, 2019) offers three thematic blocks of awareness in their entrepreneurship education framework. Those three thematic blocks are:1) objective; 2) skill set; and 3) suggessted learning tools. It has two main goals: apply creative thinking for the business problem solutions and develop the prototype for the solutions. Those goals would be executed by various experiential learning methods; from self-assessment, business model canvas, to prototyping.

(Haneberg, 2019) divides entrepreneurship learning into three dimensions. The first dimension is activity, which consists of action oriented, experimental-experiential, and reflective. Action oriented is the phase where the venture takes some further steps like prototyping, approaching external actors and resources – such as partners, or supporting human resources. Experimental-experiential is having some actions – which being done iteratively such as idea testing, prototype validation and having market research. Reflective is interrelated with both prior aspects.

The second dimension of (Haneberg, 2019)'s entrepreneurship learning is multple actors. It contains of four characteristics: interactive, network, social and collective. The interactive character is representing the

interactions between all parties inside the process – users, coaches, parners. The network character is representing the interactions between actors within the networks, where actors taking the deeper role in the process. The social character represents the informal interactions between the actors, and the last charecter, the collective character represents the collective effort of the team int he venture creation proces.

The third dimension the the entrepreneurship learning (Haneberg, 2019) is context-dependent. This dimension consists of two characters; contextual and dynamic-adaptive. The contextual character represents the uncertainty and expected situations that might should be faced by the team, and how they got adapted to it; and the dynamic-adaptive character represents the flexibility, the agility of the team inside the process – in term of resources, emerging opportunities and how the deal with the input of the network, which might put them into the position to be able to adapt. By 'adapt', it means the capability of the business entity to deal with any possible changes from the outside such as regulations or law.

Another perspective came from (Politis et al., 2019). According to their research, they divided the entrepreneurship learning into six themes; 1) cognitive preparedness (consists of start-up experience and entrepreneurship education experience); 2) embeddedness (familiarity with entrepreneurial eco-system); 3) product/concept maturity (too early in thinking of idea, not made-up mind about the business); 4) investment readiness (capital requirements and scalability); 5) broadening competence pool (finding partnerst to team with, exploring possible subcontractors, and seeking contact for expert advice); and 6) market exploitation (looking for new customers, interest in doing business abroad, and repacking market offer).

(Breslin, 2019) has another idea on entrepreneurship learning. He, based on his research, considered entrepreneurship learning as a four steps that are related one to the other, consists of intuiting, scanning, internalizing, and routinizing. Intuiting is about recognizing the opportunities, that in the process, would require the works of the team, and encounters with other parties to be interacted with inside the network. This is the creative process which would involve the intuition to initiate the whole process (of a business). It is safe to put this as identical with the ideation process of a business idea.

The next step of (Breslin, 2019) is scanning. This step is putting the team into a deep investigation to the market – which is done continuously, to scan and gathers all kinds of insight that would support the information that they have gathered earlier in the intuiting phase. This phase is identicall with the idea analysis and idea validation. This process would be continued with internalizing, which is basically the validation of the scanneing process. The scanning process was the process of gathering any insights, whatever the insights be, and then, furthermore, it would be questioned and discussed inside the team, in term of evaluating and assessing the viability and future potential actions.

The last step – which might go back to the previous phases of (Breslin, 2019) is routinizing. This process is basically putting all the things that have been found and analyzed in the previous actions into the routine activities of the organization – the team. The argument of why routinizing is necessary is based on the fact that routinizing facilitates the process – not limited to discovery process, but furthermore, the opportunity exploitation.

Another perspective stated by (Packard & Burnham, 2021). Inside their research, they found that the emphaty is one of the crucial aspect inside of entrepreneurship. They proposed the empathic model inside the entrepreneurship learning – which represents a mental model to think with other's mind. This mental model would change the facts that anyone would think at the beginning – which is stated as the Factual Knowledge (FK). The factual knowledge consists of three aspect: 1) FK about the customer; 2) FK about the experience of the customer; and 3) opportunity recognition (FK about the unsatisfied needs of the customers. By using the empathetic mental model, those FK would be changed into emphatic phenomenal knowledge (PK) and predictive PK. Both would lead anyone (the business founders) into the opportunity evaluation. The empathic PK represents what the experience is like to the customers. The predictive PK represents what it would be like for the customers. The empathic mental model could be seen as how an entrepreneur saw the opportunity in the market. It is could be considered as the idea generation phase, which would cover the market recognition,

user persona recognition, and defining the opportunity in the market, and then analysis the idea – which could be identified as opportunity evaluation, before they went to the validated business idea phase.

Different perspective on entrepreneurship learning is stated by (Aboytes & Barth, 2020). They divided entrepreneurship learning into three phases. The first phase, awareness of niche – covers the prior learning experiences of the entrepreneur. The second phase is entry into the niche – which refers to the learning process and outcome, relate with the project/business. The last phase is development of niche that related to applying the social learning process onto the projects. Citing (Lopolito et al., 2013; Markard & Truffer, 2008), this research of (Aboytes & Barth, 2020) defined niche as a domain for the entrepreneurs to: 1) identify; 2) experiment; 3) develop; and 4) mature a particular innovation. Sequently; (Aboytes & Barth, 2020)'s entrepreneurship learning consists of these for phases.

(Marvel et al., 2020) put coachability into an additional in the entrepreneurial learning. According to their research, the innovation is a very important matter in the entrepreneurship development, and the coachibility of the founders of a venture relate to exploiting product innovations. The main aspects of coachibility are searching for new information and exploring the new knowledge. It is allowing the founders to have iterative knowledge updates; helping to identify missing information and adapting and refining the product. Coachability also helpful for accumulating missing information, and engaging in experiments – for instance, testing different prototypes.

Referring to (Van der Lingen et al., 2019) adapting from (Kolb & Kolb, 2011b), they have designed an experiential learning cycle, which consists of concrete experience (feeling), reflective observation (observing), abstract conceptualization (reasoning) and active experimentation (doing). Those cycle could be identified as information gathering vs concrete experience (feeling and observing) – where the entrepreneurs tried to feel their surroundings to find information, observe and listing the information; information analysis vs conceptualization (reasoning) – where the entrepreneurs have managed to define and then ideate the solution, and; prototyping vs active experimentation (doing) – where the results of the prior phase were finally being executed to be able to be touched, feel, and seen.

(Ali & Negasi, 2021) stated that in their perspective, experiential-entrepreneurship learning has more significant impacts to the higher education students, mainly in entrepreneurial intention, which may lead to the bigger chance on creating new ventures. Yet, within the experiential-entrepreneurship learning, they did not specify it into a deeper consideration and only emphasis three aspects; experiantial learning, project based learning, and problem solving. Within these three aspects, the students would have the bigger chances to enhance their capability to analyze and synthesize information.

# **Business Incubator**

The business incubator term refers to "a shared office-space that seeks to provide the tenants with a strategic, value-adding intervention system (for instance; business incubation) of monitoring and business assistance (Hackett & Dilts, 2004).

Furthermore, Hackett & Dilts (2004) incubator could be considered as the entrepreneurial firm that sources and manages the innovation process within emerging organization (which we know as startups), infusing those organizations with the resources for their development process – which on the other hand, having the chances – huge potential chances to lose their cost due to the potential failure of the incubators.

Alongside with the statement of Hacket & Dilts (2004), the discussion on incubators are rooted to the market failure theories. To discuss this, we could refer to the theories of Watson et al (1998) and Zacharakis et al (1999). Both research agreed on a term of the failure of startups. For them, the failures of the newly founded startups are considered as common occurence.

(Hausberg & Korreck, 2018) proposed two types of how to define business incubators. First, incubator as a business incubating-organizations. This is defined as the organization that supports the foundation and /growth of a new business as a central element of their (the incubator) organizational goal. Second, business incubator as business incubator. It is a business incubating organization that support the establishment and growth of a

new business with tangible resources such as space, shared equipment and administrative service and intangible resources such as knowledge and network access during a certain flexible amount of peripod and they were funded by sponsors such as government or corportaion. They might also taking rent from the incubatees.

In their research, Ketchen at al (1993) stated that the structural contingency theory would be the other theoretical basis to discuss the process inside the incubator. This theory suggests that the configuration of the incubator must be able to be fit with the needs of the environment, therefore the incubation process would be successful. By successful means that the tenants of the incubators could work along side by side and managed to "fit" their startups to the requirement of the market.

Mubarak & Busler (2013) offer their classification of incubators, based on types, goals and services, respectively. The incubators were divided into technology incubators, incubation of services, incubation of mized-used type, manufacturing incubation, web-relatid business incubation and incubation of community revitalitasion, that each of them has its own specific goals.

Jorgensen (2014) stated that there are types of business incubators. Inside his dissertation, citing the work of Aernoudt (2016) stated that there are five types of incubator; mixed incubator which is going to focus on business gaps to create startups; economic development incubatos – focus on regional or local disparity for the regional development; technology incubator that focus the entrepreneurial gap to create entrepreneurship; social incubators which is focusing in the social issues; and basic research incubator that would focus on discovery gap.

According to von Zedtwitz (2003), business incubators provides five types of services; 1) access to physical resources such as office facilities, furniture and everything inside; 2) office support such as reception and secretarial assistance, copy and fax service etc; 3) access to financial support such as business angel or venture capitals; 4) entrepreneurial startup support such as organizational, managerial and legal skills; and 5) access to network.

## **Conceptual Analysis**

(Corbin & Strauss, 1990) in (Jabareen, 2008) stated that there are two main points that are related to the difference between theory and descriptions. Those two main points are: 1) theory uses concepts – which similar data are being grouped and given the conceptual labels, and 2) the concepts are related by means of statements of relationships.

Furthermore, data could be organized based on the themes. The themes might be the conceptualization of the data, but more would likely to be the summaries of words that were being taken from the data. Not much data interpretation would be made, nor attempts to relate the theme to form a conceptual scheme.

(Misler, 1990) stated that, "qualitative studies ultimately aim to describe and explain a pattern of relationships, which can be done only with a set of conceptual categories. This paper used the conceptual analysis in order to synthesize a theory of entrepreneurship phase in the higher education. A set of qualitative tactics in generating meanings from different texts and documents was suggested by (Miles & Huberman, 1994). The conceptual analysis was designed to trace the major concepts of entrepreneurship phase in the higher education.

This paper was composed using these following steps:

*First*: reviewing literatures on entrepreneurship development, which then it was found out that it relates to entrepreneurship course and incubators.

Second: recognizing the patterns of the random information that were taken from the review results.

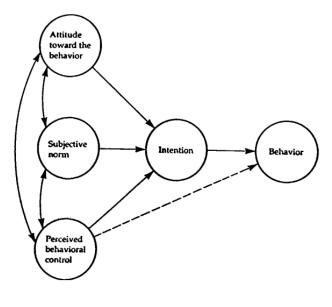
*Third*: Synthesizing the categories with similar meanings and themes and then, creating the independent concepts, which each concept has certain meanings and represents close ideas.

Fourth: conceptualizing a conceptual framework of entrepreneurship phases in higher education and describe the interconnectivity between the aspects of the framework.

## DISCUSSION

Based on the conceptual analysis, the phases are divided into two parts; entrepreneurship courses and incubation process. The entrepreneurship courses, based on the statement of (Marhamat et al., 2019) are going to be divided into three stages; the opportunity recognition, opportunity discovery and opportunity creation.

The whole model is covered under the theory of Planned behavior (Ajzen, 1991). This well-known theory stated that the best prediction of behaviour is given by asking people if they are intending to behave in a certain way. The whole model is directed to modify who the students of entrepreneurship would behave under the coverage of the framework. Therefore, expectedly, the students would have certain mindsets in term of entrepreneurship, that would lead them to be able to recognize the opportunity, and then discover the opportunity before eventually they could managed to create the opportunity.



(Ajzen, 1991)

## Entrepreneurship Courses

### **Opportunity Recognition**

According to (Landström & Lohrke, 2013), opportunity recognition is a theory that explains how individuals and furthermore, business firms and organizations come to identify new opportunities that were not unknown up until that moment, which based on prior knowledge, past experiences, and current market conditions, some individuals may recognize potentially profitable new business ventures.

Opportunity recognition in the entrepreneurship field is the ability to identify a certain situation that could be fulfilled by product, service and new organizational method that is being introduced through the formations of new means, or its correlations (Phillips & Tracey, 2007).

The opportunity recognition mediates the relationship among social capital, entrepreneurial motivations and entrepreneurial career options (Hashim & others, 2017).

### Opportunity discovery

Based on the statement in (Hsieh et al., 2007), opportunity discovery involves two different activities, either intentionally decide or in contrary got stranded by the problems – and should be solved in the future.

Opportunity discovery is considered that opportunity is the existing independently of entrepreneurs and as objective phenomena that is waiting to be discovered, and furthermore, to be exploited (Hsieh et al., 2007).

According to Schumpeter that is being cited by (Lins & Doktor, 2014) based on the Bayesian model, that stated that the concept of probability is defined as the degree to which a person believes that a proposition is true, therefore, opportunity discovery could be considered as the cognitive processes that was being done by innovative entrepreneurs as they engage in knowledge creation through a recombination of resources as the respond to the new information that they have received from the environment.

### **Opportunity** Creation

Related to creating opportunity, we referred to the statement of (Jamali et al., 2018). In their paper, they stated that created opportunities are the opportunities in which none of the supply and demand parties exist clearly, and certainly one or even both of those should be created. By doing so, the opportunity would be created.

Citing the work of (Alvarez & Barney, 2007), (Ojala, 2016) stated that as the reality is socially constructed, therefore the opportunity become meaningful when they are enacted as part of the social reality of entrepreneurs, there would be no opportunity "waiting to be recognized". Instead of doing so, opportunities are created by the actions of the entrepreneurs who are willing to seek deeper, in term to explore new products or services (Alvarez & Barney, 2007).

Citing numerous papers, (Hongdiyanto, 2018) stated that one of the characteristics of entrepreneur is smart to market opportunities. Entrepreneurs be find see must able to and recognize problem in business and seek answer to that problem. Business opportunities can arise from the answers generated from the problems that occur. This means that when there is an opportunity that fits with the financial condition or expertise, then this opportunity can be a profitable business potential. An entrepreneur is trained discover to create opportunities in any business or organizational development. An entrepreneur should be able to see an opportunity or opportunity from different perspective from others, or something that other people do not think of which can be shaped into value.

## Incubation Process

(von Zedtwitz, 2003) stated that there are five types of services that incubator could provide, namely: 1) access to physical resources such as office facilities, furniture and everything inside; 2) office support such as reception and secretarial assistance, copy and fax service etc; 3) access to financial support such as business angel or venture capitals; 4) entrepreneurial startup support such as organizational, managerial and legal skills; and 5) access to network.

This opinion is supported by (Al-mubaraki & Busler, 2011) in their works. They mentioned that a business incubator program is basically a physical activity to promote economic development. It is being done by supporting the startups company development. The programs inside the incubators would allow the startups to have the information and assistance related to the consulting and business planning; legal issue consultation; marketing plan development, access to financing entities, share office services, training and networking.

Another point of view was provided by (Likhacheva et al., 2018). In their research, they view the startup development through the investors' point of view. Based on what they have found, they stated that evaluationg the 'adultness' of a company is a simple process, yet, they also acknowledged, that it is considerably a subjective process as well. There are several indicators to measure startups: 1) the attractiveness of the idea; 2) the quality and effectiveness of the management; 3) the proffesionalism of the team; 4) the innovativeness; 5) a ready prototype; and 6) the cashflow.

(Ayatse et al., 2017) mentioned that the firm performance is greatly enhanced when a firm avail itself to an incubation program. Revenue growth, employment or job creation, venture funding, networking and alliance building are the performance indices most impacted by the business incubation process. It means that inside

the incubator during the incubation process, the startups would have the bigger and better chances to improve its revenue growth, and networking.

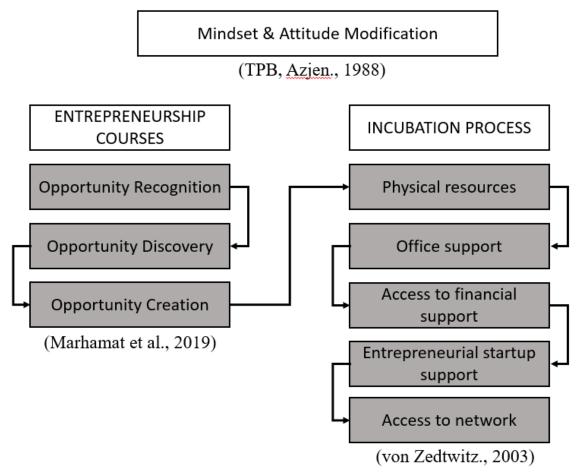


Figure one: Conceptual Model for Entrepreneurship Phases in Higher Institution

# CONCLUSION

As a conceptual model, this proposal is still debatable. Plus, the idea of setting up the mindsets of the students through the entrepreneurship courses, that would give them the chances to have different point of view towards opportunities is not something new. However, by put all the process inline, would give the students of the courses to have the comprehensive mindset on the opportunity recognition – that would set them to have much more capability to recognize the opportunity, opportunity discover – that would lead them to have more courage to discover, and opportunity creation – that could allow the students to see the other opportunity behind the certain conditions.

Hence, the process inside the business incubator would simply the continuation of the entrepreneurship courses that have put the students in the "ready" mindset in term of recognize, discover and create ideas to fulfill the opportunity.

This proposal is developed based on the fact that the debate among scholars on the topic "do entrepreneurs are being created by system or they were created by nature. The entrepreneurship courses were meant to develop the theoretical base, prior jumped in the incubator to get connected with the ecosystem.

## REFERENCES

- Aboytes, J. G. R., & Barth, M. (2020). Learning processes in the early development of sustainable niches: The case of sustainable fashion entrepreneurs in mexico. Sustainability (Switzerland), 12(20), 1–26. https://doi.org/10.3390/su12208434
- Aernoudt, R. (2016). Incubators: Tool for Entrepreneurship? Incubators: Tool for Entrepreneurship? Small Business Economics, February 2004. https://doi.org/10.1023/B
- Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T
- Al-mubaraki, H., & Busler, M. (2011). Critical Activity of Successful Business Incubation. International Journal of Emerging Science, July.
- Ali, Y. M., & Negasi, R. D. (2021). The Differential Impact of the Experiential- Entrepreneurial Learning Method on the Entrepreneurial Intentions of Higher Education Students. International Journal of Learning, Teaching and Educational Research, 20(9), 236–254.
- Alvarez, S. A., & Barney, J. B. (2007). Discovery and creation: Alternative theories of entrepreneurial action. Strategic Entrepreneurship Journal, 1(1-2), 11–26.
- Ayatse, F. A., Kwahar, N., & Iyortsuun, A. S. (2017). Business incubation process and firm performance: an empirical review. Journal of Global Entrepreneurship Research, 7(1). https://doi.org/10.1186/s40497-016-0059-6
- Azoulay, P., Benjamin F, J., J. Daniel, K., & Miranda, J. (n.d.). Research: The Average Age of a Successful Startup Founder Is 45. 2018. Retrieved December 23, 2021, from https://hbr.org/2018/07/research-the-average-age-of-a-successful-startupfounder-is-45
- Bajmoc99y, Z., Kosztopulosz, A., & Szabolcs, I. (2016). VENTURE CAPITAL AND THE INCUBATION OF SMALL. Gazdalkodas, 51(January 2008).
- Breslin, D. (2019). Entrepreneurial learning; intuiting, scanning, internalizing and routinizing. The Learning Organization, 26(6), 604–616. https://doi.org/10.1108/TLO-04-2018-0054
- Brits, A. (n.d.). Age Doesn't Matter. 2021. Retrieved December 23, 2021, from https://startupsavant.com/news/median-age-founders
- Byun, C., Sung, C. S., & Park, J. Y. (2018). A Study on the Effectiveness of Entrepreneurship Education Programs in Higher Education Institutions : A Case Study of Korean Graduate Programs. Journal of Open Innovation: Technology, Market, and Complexity, 4(26). https://doi.org/10.3390/joitmc4030026
- Callegati, E., Grandi, S., & Napier, G. (2005). BUSINESS INCUBATION AND VENTURE CAPITAL . AN INTERNATIONAL Joint IPI / IKED Working Paper (Issue January).
- Corbin, J., & Strauss, A. (1990). Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory (3rd ed.). Sage Publications.
- Drucker, P. F. (2014). Innovation and Entrepreneurship. Routledge.
- Elert, N., Andersson, F., & Wennberg, K. (2015). The Impact of Entrepreneurship Education in High School on Long-Term Entrepreneurial Performance.
- Ferrandiz, J., Fidel, P., & Conchado, A. (2017). Promoting entrepreneurial intention through higher education in entrepreneurship and the participation of students in and entrepreneurship ecosystem. International Journal of Innovation Science.
- Gemmel, R. M. (2017). Learning Styles of Entrepreneurs in Knowledge-intensive Industries. International Journal of Entrepreneurial Behavior & Research.
- Grigore, A., & Toma, S. (2014). Perceptions of Entrepreneurship as a Career Path. International Management Conference, November 2014.
- Hackett, S. M., & Dilts, D. (2004). A Real Options-Driven Theory of Business Incubation A Real Options-Driven Theory of Business Incubation. Journal of Technology Transfer, January 2004. https://doi.org/10.1023/B
- Haneberg, D. H. (2019). Entrepreneurial learning as an e ff ectual process. The Learning Organization, 26(6), 631-647. https://doi.org/10.1108/TLO-04-2018-0064
- Hashim, N., & others. (2017). The role of entrepreneurial opportunity recognition on relationship among entrepreneurship education and entrepreneurial career option. European Journal of Business and Management, 9(30), 99–106.
- Hassan, N. A. (2020). University business incubators as a tool for accelerating entrepreneurship : theoretical perspective. Review of Economics and Political Science, September. https://doi.org/10.1108/REPS-10-2019-0142
- Hausberg, J. P., & Korreck, S. (2018). Business Incubators and AcceleratorsI A co-citation analysis-based, systematic literature review. The Journal of Technology Transfer. https://doi.org/10.1007/s10961-018-9651-y
- Hongdiyanto, C. (2018). Exploration of Opportunity Creation and Calculated Risk Taker Characteristics of Entrepreneur (Case Study of UD X). International Journal of Innovation, Management and Technology, 9(3), 130–134. https://doi.org/10.18178/ijimt.2018.9.3.801
- Hsieh, C., Nickerson, J. A., & Zenger, T. R. (2007). Opportunity discovery, problem solving and a theory of the entrepreneurial firm. Journal of Management Studies, 44(7), 1255–1277. https://doi.org/10.1111/j.1467-6486.2007.00725.x

- Jabareen, Y. (2008). A new conceptual framework for sustainable development. Environment, Development and Sustainability, 10(2), 179–192. https://doi.org/10.1007/s10668-006-9058-z
- Jamali, B., Mohammad Kazemi, R., Farsi, J. Y., & Dehkordi, A. M. (2018). Theories of opportunity creation and effective entrepreneurial actions in opportunity creation context. Decision Science Letters, 7(4), 443–454. https://doi.org/10.5267/j.dsl.2018.1.003
- Jones, C. G., & Liu, D. (2017). Information Systems Education Approaches to Incorporating IT Entrepreneurship into the Information Systems Curriculum Approaches to Incorporating IT Entrepreneurship into the Information Systems Curriculum. Journal of Information Systems Education, 28(May).
- Jorgensen, S. B. (2014). Business Incubators and Incubatees A study of the entrepreneurs inside the Growth Factories (Issue September).
- Ketchen, D. J., Thomas, J. B., & Snow, C. C. (1993). Organizational Configurations and Performance: A Comparison of Theoretical Approaches. Academy of Management Journal, 36(6), 1278–1313. https://doi.org/10.5465/256812
- Kolb, A. Y., & Kolb, D. A. (2011a). A Dynamic , Holistic Approach Education and Development. Armstrong: Management Learning, Education and Development, April, 43. https://doi.org/10.4135/9780857021038.n3
- Kolb, A. Y., & Kolb, D. A. (2011b). A Dynamic , Holistic Approach Education and Development in in Handbook of Management Learning Armstrong, S.J. and Fukami, C.V. (Eds). Armstrong: Management Learning, Education and Development, April. https://doi.org/10.4135/9780857021038.n3
- Kuratko, D. F. (2005). E T & P Education : and Challenges Introduction : A Perspective on Entrepreneurship. Entrepreneurship Theory and Practice, 577–597.
- Landström, H., & Lohrke, F. (2013). Opportunity Recognition. Historical Foundations of Entrepreneurship Research, January. https://doi.org/10.4337/9781849806947.00011
- Likhacheva, O. N., Pashtova, L. G., Setchenkova, L. A., & Slepneva, T. A. xandrovna. (2018). The role of startups in Digitalization and innovative develop-ment of economy. International Journal of Engineering and Technology(UAE), 7(4), 314–319. https://doi.org/10.14419/ijet.v7i4.38.24492
- Lins, F. A., & Doktor, R. H. (2014). A Theory of Entrepreneurial Opportunity Discovery, Knowledge Creation, and Decision-Making. Business and Management Research, 3(1). https://doi.org/10.5430/bmr.v3n1p18
- Linton, G., & Klinton, M. (2019). University entrepreneurship education : a design thinking approach to learning. Journal of Innovation and Entrepreneurship.
- Lopolito, A., Morone, P., & Taylor, R. (2013). Emerging innovation niches : An agent based model & Research Policy, 42(6–7), 1225–1238. https://doi.org/10.1016/j.respol.2013.03.002
- Love Moses, C., & Mosunmola, A. (2014). Entrepreneurship Curriculum and Pedagogical Challenges in Captivating Students ' Interest towards Entrepreneurship Education. Research Journal of Economics and Business Studies, 1–11.
- Mabogunje, A. D. E., Sonalkar, N., & Leifer, L. (2016). Design Thinking: A New Foundational Science for Engineering. International Journal of Engineering Education, 32.
- Mahmoud-jouini, S. Ben, Paris, T., & Bureau, S. (2017). Developing knowledge from entrepreneurial actions toward a taxonomy. Journal of Small Business and Enterprise Development. https://doi.org/10.1108/JSBED-10-2016-0155
- Mansoori, Y. (2017). Enacting the lean startup methodology The role of vicarious and experiential learning processes. International Journal of Entrepreneurial Behavior & Research. https://doi.org/10.1108/IJEBR-06-2016-0195
- Marhamat, L. F., Tadayoni, R., & Zali, M. R. (2019). Dimensions of entrepreneurial learning in media companies. International Journal Innovation and Learning, 26(4).
- Markard, J., & Truffer, B. (2008). Technological innovation systems and the multi-level perspective : Towards an integrated framework. Research Policy, 37, 596–615. https://doi.org/10.1016/j.respol.2008.01.004
- Marvel, M. R., Wolfe, M. T., & Kuratko, D. F. (2020). Escaping the knowledge corridor : How founder human capital and founder coachability impacts product innovation in new ventures. Journal of Business Venturing, 35(6), 106060. https://doi.org/10.1016/j.jbusvent.2020.106060
- McBride, S. (2021). The Typical Unicorn Founder Started Their Business at 34. https://www.bloomberg.com/news/articles/2021-05-21/what-s-the-average-age-of-a-startup-founder-it-s-34-study-says
- Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis: An expanded source book (2nd ed.). Sage Publications.
- Misler, E. G. (1990). Validation in inquiry-guided research: The role of exemplars in narrative studies. Harvard Educational Review.
- Mubarak, H., & Busler, A. M. (2013). The Key Successes of Incubators in Developed Countries : Comparative Study. Journal of Economics and Sustainable Development, 4(10), 144–150.
- Müller-roterberg, C. (2019). Handbook of Design Thinking (Issue November 2018). Hochschule Ruhr West.
- Nabi, G., Walmsley, A., & Akhtar, I. (2019). Studies in Higher Education Mentoring functions and entrepreneur development in the early years of university. Studies in Higher Education, 46(6). https://doi.org/10.1080/03075079.2019.1665009
- Ndou, V., Secundo, G., & Schiuma, G. (2018). Insights for Shaping Entrepreneurship Education : Evidence from the European Entrepreneurship Centers. Sustainability (Switzerland). https://doi.org/10.3390/su10114323
- Ojala, A. (2016). Business models and opportunity creation: How IT entrepreneurs create and develop business models under uncertainty. Information Systems Journal, 26(5), 451–476. https://doi.org/10.1111/isj.12078

- Packard, M. D., & Burnham, T. A. (2021). Do we understand each other? Toward a simulated empathy theory for entrepreneurship. Journal of Business Venturing, 36(1), 106076. https://doi.org/10.1016/j.jbusvent.2020.106076
- Phillips, N., & Tracey, P. (2007). Opportunity recognition, entrepreneurial capabilities and bricolage: Connecting institutional theory and entrepreneurship in strategic organization. Strategic Organization, 5(3), 313–320. https://doi.org/10.1177/1476127007079956
- Politis, D., Gabrielsson, J., Galan, N., & Abebe, S. A. (2019). Entrepreneurial learning in venture acceleration programs. Learning Organization, 26(6), 588–603. https://doi.org/10.1108/TLO-04-2018-0082
- Razzouk, R., & Shute, V. (2012). What Is Design Thinking and Why Is It Important ? Review of Educational Research, 82(3), 330–348. https://doi.org/10.3102/0034654312457429
- Saptono, A., Suparno, Disman, & Herlitah. (2020). DEVELOPING A BUSINESS INCUBATOR MODEL IN HIGHER EDUCATION : THE CASE OF FACULTY OF ECONOMICS UNIVERSITAS. Humanities & Social Sciences Reviews, 8(4), 1240–1251.
- Scipioni, J. (2021). This is the median age of billion dollar start-up founders, according to new research. https://www.cnbc.com/2021/05/27/super-founders-median-age-of-billion-startup-founders-over-15-years.html
- Secundo, G., Del Vecchio, P., Schiuma, G., & Passiante, G. (2017). Activating Entrepreneurial Learning Processes for Transforming University Students - Idea into Entrepreneurial Practices. International Journal of Entrepreneurial Behavior & Research.
- Secundo, G., Mele, G., Sansone, G., & Paolucci, E. (2020). Entrepreneurship Education Centres in universities : evidence and insights from Italian " Contamination Lab " cases universities. INternational Journal of Entrepreneurial Behavior and Research. https://doi.org/10.1108/IJEBR-12-2019-0687
- Secundo, G., Schiuma, G., & Passiante, G. (2017). Entrepreneurial learning dynamics in knowledge intensive enterprises. International Journal of Entrepreneurial Behavior & Research.
- Susilo, A. (2019). The Entrepreneurial Learning of Generation Z Students in Industrial Revolution Era 4.0 (A Case Study in Tertiary Education of Yogyakarta and Surakarta, Indonesia). International Journal of Learning, Teaching and Educational Research, 18(9), 96–113.
- Tristiarini, Ni., Oktafiyani, M., & Sedayu, A. (2020). Optimalization Model of University Business Incubator Role in New Entrepreneur and MSMEs Development in Indonesia. International Journal of Small Business and Entrepreneurship Research, 8(2), 17–31.
- Van der Lingen, E., Willy Amo, B., & Pettersen, I. B. (2019). The relationship between entrepreneurial experience and preferred learning styles. Education and Training. https://doi.org/10.1108/ET-11-2019-0263
- Vias, M. C., & Rivera-cruz, B. (2019). Fostering innovation and entrepreneurial culture at the business school : A competencybased education framework. Industry and Higher Education. https://doi.org/10.1177/0950422219895209
- von Zedtwitz, M. (2003). Classification and management of incubators : aligning strategic objectives and competitive scope for new business facilitation Maximilian von Zedtwitz. International Journal Entreprenership and Innovation Management, 3, 176–196.
- Watson, K., Hogarth-Scott, S., & Wilson, N. (1998). Small business start-ups: Success factors and support implications. International Journal of Entrepreneurial Behaviour & Research, 4(3), 217–238. https://doi.org/10.1108/13552559810235510
- Williams-middleton, K., Blenker, P., Neergaard, H., & Tunstall, R. (2014). Experience-based learning in Entrepreneurship Education – a comparative study of four programmes in Europe. RENT XXVIII, October.
- Wood, J. (2019). In Indonesia, over a third of young people want to be entrepreneurs. https://www.weforum.org/agenda/2019/08/indonesia-young-people-entrepreneur/
- Wu, Y. J., Wu, T., & Li, Y. (2019). Impact of using classroom response systems on students ' entrepreneurship learning experience. Computers in Human Behavior, 1–12. https://doi.org/10.1016/j.chb.2017.08.013
- Zacharakis, A. L., Meyer, G. D., & DeCastro, J. (1999). Differing Perceptions of New Venture Failure: A Matched Exploratory Study of Venture Capitalist and Entrepreneurs. Journal of Small Business Management.
- Zwan, P. Van Der, Verheul, I., & Thurik, R. (2009). Entrepreneurial Progress : Climbing The Entrepreneurial Ladder in Europe And The US Peter van der Zwan a. Regional Studies, January 2009. https://doi.org/10.1080/00343404.2011.598504