Value Orchestration Platform, Innovation and Knowledge Sharing in Developing Entrepreneurship: A Case Study of Entrepreneurship-Based *Pesantren*

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Abstract. Currently, the development of information and technology has brought a lot of changes in the business world. Businessmen are required to become more innovative to improve their competitiveness. It is a challenge and opportunity for Islamic educational institutions (known as *Pesantren)* in Indonesia to create new innovation to compete with other educational institutions. Some *pesantrens* produce a new innovation by adding entrepreneurship concept in their educational system. The students are equipped with entrepreneurship skills with the hope that they can be entrepreneurs in the future. To achieve this goal, effective knowledge sharing becomes important in the process. Not only qualified human resources, an appropriate platform is also needed in creating the process of effective knowledge sharing. Through an exploratory research with a semi-structured interview and the implementation of value orchestration strategies (involvement, curation, and empowerment strategy), the authors try to identify and determine an appropriate platform to be used as media of knowledge sharing in *pesantren*. The result shows that there are two types of platforms, which are real platform (seminar, forum) and digital (web-based or apps). Those platforms help students, teachers, and other stakeholders to share their knowledge and information to develop entrepreneurship in Indonesia.

1. Introduction

The world is changing due to digitization and connectivity. Under such condition, businessmen are required to create new innovation, such as developing products that are not yet offered by the competitors. The product can be a new one or the result of the development of new features in an existing product which would attract the market. The example above shows that the ability to innovate is largely related with the ability to create differentiation with competitors [1].

This phenomenon occurs in Islamic educational institutions in Indonesia (known as *pesantren*). Since the number of conventional educational institutions is increasing, many *pesantrens* in Indonesia try to compete with them by creating new innovations. One of the innovations applied is building an entrepreneurship-based *pesantren* which prepare the students to become entrepreneurs in the future. After they graduate from *pesantren*, they are expected to become young entrepreneurs. It is in line with the Ministry of Industry's program which is to continue carrying out community economic empowerment, especially in developing Small and Medium Industries (SMI). Assessing the high potential of *pesantren* in creating new entrepreneurs, the Directorate General of SMI of the Ministry of Industry creates a new entrepreneurship program for students of *pesantrens*. *Pesantrens* are considered to have a potential as an agent of development which carry an important and strategic role in developing community resources [2]. By developing the entrepreneurship program, *pesantrens* are expected to make a great contribution to economic development in Indonesia.

However, creating an entrepreneurship environment in *pesantrens* needs adequate resources. These resources can be in the form of capable technology, sufficient financial support, and innovative leaders including human resources with appropriate competencies [3]. Another thing to do in innovation is managing the knowledge since it is important and a valuable asset in the organization. Knowledge sharing is an activity used to improve the ability of organizations to create new innovation. Through knowledge sharing, peoples' knowledge can be disseminated, implemented, and developed. Knowledge sharing has been recognized as a significant tool in enhancing the competitive advantage of the organization and a media to increase innovation capability. Knowledge sharing among stakeholders in the business world can be an effective way to co-create new products of innovation [4].

In line with the importance of knowledge sharing, a platform is needed as media of innovation. This platform can help stakeholders like teachers, students, business, government, and others to collaborate, share, and exchange their resources (knowledge and other forms) to develop entrepreneurship program in *pesantrens*. Through this platform, they can create a wide network with several parties without being limited by the time and distance. They can create an effective and collaborative environment to increase the development of entrepreneurship in *pesantrens*.

Through this research, the authors try to identify and design the relevant platform to be used by all of the stakeholders involved in the development of entrepreneurship-based *pesantrens* in Indonesia. By using value orchestration strategy (involvement, curation, and empowerment), each stakeholder is expected to be engaged in and develop the platform. The goal is not merely to enhance the development and sustainability of *pesantrens,* but also to increase the number of entrepreneurship in Indonesia through the implementation of entrepreneurship concept in *pesantrens.*

2. Literature Review
Several theories from previous researches such as knowledge sharing, innovation, collaboration, and value orchestration platform are used to support research analysis.

2.1. The Concept of Innovation
Over the years, the concept of innovation is always interesting to be studied for. Innovation can be defined as the application of new value into the business aspects (products, process, method or other management aspects) in the organization [5]. Meanwhile, Greenhalgh and Rogers [6] defined innovation as the implementation of new value to the products, services, processes, or other management aspects in the company to increase their competitive advantage. The definition is also supported by Valente [7] who defined innovation as a process to create new or improved product, service, or process to fulfill market demand. While according to Van de Van [8], there are several forms of innovation which are technological innovation (related to innovation in terms of technology, products, or services) and administrative innovations (related to innovation in the process, organization policies, forms, or procedures). Based on the definitions above we can make a conclusion that innovation should contain a certain degree of novelty, either in technological aspects (new technology, product or process) or non-technological aspects (new policies, procedures, organization, or other management aspects).

2.2. Knowledge Sharing
There are many kinds of literature discuss knowledge sharing [9]. Most of them stated that knowledge sharing has a crucial and important role in the organization [10]. According to Jacobson [11], knowledge sharing (KS) is a process of knowledge exchange between two people or more, in which one person has a role as the source of knowledge while the other receive that knowledge. Meanwhile, according to Ireland, Hitt and Vaidyanath [12], knowledge sharing is the process of developing, transferring, integrating and using knowledge effectively and efficiently. Other definition of knowledge sharing according to Tangaraja et.al [13] is the "key process" that allows the transfer of knowledge from one individual to another, which probably bring the career success for each individual. From these various understandings, it can be concluded that knowledge sharing is a process

of sharing knowledge between individuals and/or organizations to reach common goals by using knowledge as their major assets to enhance the competitive advantages.

2.3. Entrepreneurship in Pesantren

In order to get a better understanding of entrepreneurship concept, various studies have been conducted by several researchers around the world and resulted in many explanations and statements about the entrepreneurship concept. Entrepreneurship involves an opportunity exists in the market [14] to attract more customers. Muhardi and Cintyawati [15] defined entrepreneurship as a process of innovation created by the organization to fulfill market demand. Mokaya et al. [14] said two important things in the process of entrepreneurship are creativity and innovation. They further explained that to make a profit through entrepreneurship, entrepreneurs need to create new innovation by identifying, taking, and evaluating the opportunities exist in the market to develop their business in the long-term. Currently, many *pesantrens* have added entrepreneurship concept in their educational system to help encourage their students to become young entrepreneurs. Students are required to run a business during their study in *pesantren.* They learn about the management, entrepreneurship concept, and how to build and grow their businesses. To give a better experience on how the real world of business works, *pesantrens* has set up a collaboration with businessmen and let the students actively involved in the businesses. It is expected that the students can build their own businesses after they graduate from *pesantrens.*

2.4. Value Orchestration Platform Strategy in the Development of Entrepreneurship in Pesantren

The concept of value orchestration platform is largely related with the concept of value co-creation. In co-creating the value, there are four processes used to produce a new value among stakeholders in the ecosystem, which are co-experience, co-definition, co-elevation, and co-development [16, 17]. Co-experience and co-definition are the initial stages in which customers have the experience of using the products so that they can co-define the problems and share their expectations. Next is the co-elevation stage where providers or customers attempt to increase their capabilities to reach other parties' expectations [17]. Meanwhile, in co-development process, the focus is placed on gathering all the stakeholders to collaborate in co-creating (to create innovation); in this case, is creating innovation to enhance the development of entrepreneurship in *pesantren.* To reach all of the stages above, an appropriate platform is needed to put all the stakeholders in the same place and time; that way it may help to create a collaborative environment among stakeholders involved in the development of entrepreneurship in *pesantren.*

However, it would take several strategies to entice the stakeholders to get into the platform. One of which is value orchestration platform strategy, a considered-appropriate strategy applied to gain stakeholders' attention and intention to use the platform. This platform can help the stakeholders to create a beneficial networking [17] to enhance the development of entrepreneurship in *pesantren.* According to Kijima et al. [16], the concept of value orchestration platform consists of three important strategies used to involve all stakeholders in the platform. Those strategies are involvement, curation, and empowerment [17].

Involvement strategy is used to draw stakeholders' intention to involve in the platform. To reach this objective, a series of processes called Sympathize, Identify, Participate, and Share and Spread or usually called SIPS process will be applied. At first, the researchers attempt to gain attention from the stakeholders by introducing the platform. They will try to identify the importance of that platform, get interested, and finally join in. The platform can be in a form of physical/real one (seminar, workshop, conference, regular meeting, etc) or virtual (web-based platform). If the platform can satisfy their expectations, they may share and spread the information about the platform to other stakeholders [16, 17] and make them use the same platform to communicate and coordinate with each other.

The second strategy is a curation strategy where stakeholders start to identify the current problems/obstacles faced in developing entrepreneurship in *pesantren.* Using the platform formed, they will collaborate with each other to overcome those obstacles and share their knowledge. The last strategy in the value orchestration platform concept is empowerment strategy. This strategy is focused

on how to motivate the stakeholders to increase their capability and collaboration to fulfill each other' expectation [17] during the development of entrepreneurship in *pesantren*.

3. Research Method

To meet the objective of this research, the authors identify which platform appropriate to be used by stakeholders involved in the development of entrepreneurship in *pesantrens.*

3.1. Research Method and Design

An explorative study using qualitative method is applied to get a deeper and better understanding of the issues faced [18, 19] in the development of entrepreneurship in *pesantrens.* The figure below describes the design of this research.
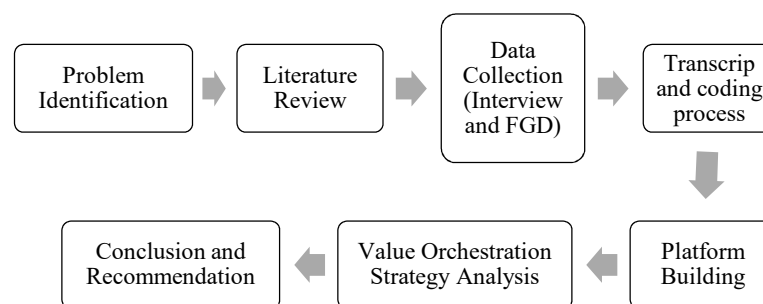

Figure 1. Research Design

3.2. Data Collection

We collect data from entrepreneurship-based *pesantrens* by using an in-depth interview with the stakeholders, i.e., head of entrepreneurship-based *pesantrens*, students, and other stakeholders. There are two entrepreneurship-based *pesantrens* that become the object of this research: Pesantren Dzikir Al-Fath in Sukabumi and Pesantren Ekologi Ath-Thaariq in Garut. Both *pesantrens* have implemented entrepreneurship concept and resulted in a number of graduate students with entrepreneurship skills who later become entrepreneurs.

The source of data collection for this research consisted of depth interview using semi-structured interview, literature review, and focus group. The interview process was conducted in Bahasa Indonesia with the aim to let the informants grasp the whole concept and avoid misunderstanding during the interview. It was held in a relaxed/comfortable situation for 1 to 1.5 hour for each informant. From this interview, the researchers obtained the primary data to be transcribed, coded, and then analyzed. Focus Group Discussion (FGD) was held to get more insight about the issues or problems occurred and gather more solutions for those problems. The result of FGD is used as a source of data in identifying the appropriate platform to be used in the development of entrepreneurship-based *pesantrens* in Indonesia.

3.3. Data Analysis

To analyze the data collected, we used a service science perspective to identify the structure and interaction process of knowledge sharing in the entrepreneurship. We try to develop a new platform as media of interaction and collaboration among stakeholders involved to gain competitive advantages to enhance the development of the *pesantren*, as well as to increase the number of entrepreneurs in Indonesia.

4. Result and Analysis

After conducting the interview and FGD, there are several issues derived from stakeholders. Almost all of them agree that resource limitation is the major issue in developing entrepreneurship in

pesantren. The limitation can be found in the fund, human resources, knowledge, and even other resources needed.

> "*To enhance the development of entrepreneurship in our pesantren is quite difficult since we have limited resources in funds, human resource, and other resources. As you know we provide a full scholarship for all of our students, so we need to manage our finances effectively. Currently, we get fund from 'zakah and infaq' system, so that we are able to fulfill the needs of all students and run the entrepreneurship concept….*" (KyDF056)

Related to the knowledge sharing process in pesantren, FGD result shows that teachers and businessmen as partners are actively involved in giving the entrepreneurship course to the students.

> "*Teachers give entrepreneurship course to students.....Then, to give a better explanation about the business, we are usually cooperating with some companies to explain about business practices through seminar or workshop. Students are also discussing about their business progress during break time….*" (TcDF87)

From FGD result above, it is shown that recent platform used by stakeholders in entrepreneurship-based *pesantren* ecosystem is a physical/real platform in form of a seminar, workshop, and regular meeting. Whereas, in this digital era, another platform can also be used to enhance the knowledge sharing process among stakeholders; it is not only connecting one *pesantren,* but also many entrepreneurship-based *pesantrens* around Indonesia, and even with other stakeholders (government, academia, business, industry, etc). Therefore, we recommend a virtual platform design for stakeholders in the ecosystem as shown below.
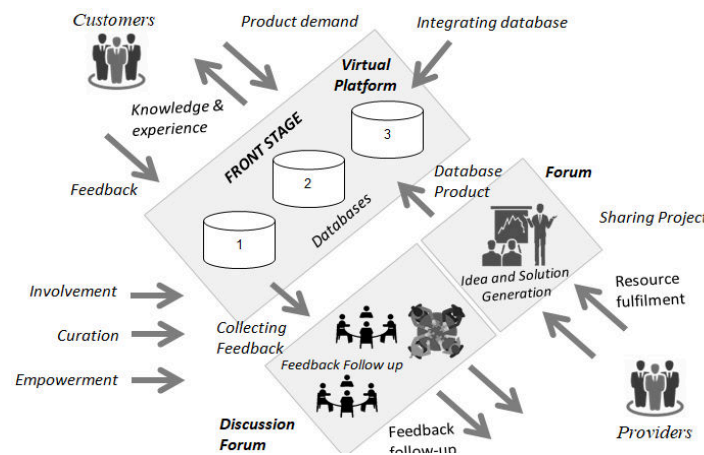

Figure 2. Virtual Platform Design

As seen in figure 2, we divided the platform into two parts: front stage and backstage. A front stage is a place for customers and providers to interact with each other so that they can share their knowledge. While backstage is a place where providers create a forum and discussion about the information to be published in a virtual platform. The information is the knowledge to be shared and what issues faced in the development of entrepreneurship in *pesantrens*. Through the forum, providers can also generate ideas to follow up the feedback from customers. Those three strategies of involvement, curation, and empowerment will be applied to attract the stakeholders to join the platform.

4.1. Two Layered of Service System

In service science concept, the stakeholders are required to collaborate in creating new innovation to fulfill the market demand. Four processes of value co-creation are used to co-create the value among

stakeholders. Those processes are co-experience, co-definition, co-elevation and co-development, as described in the figure below.
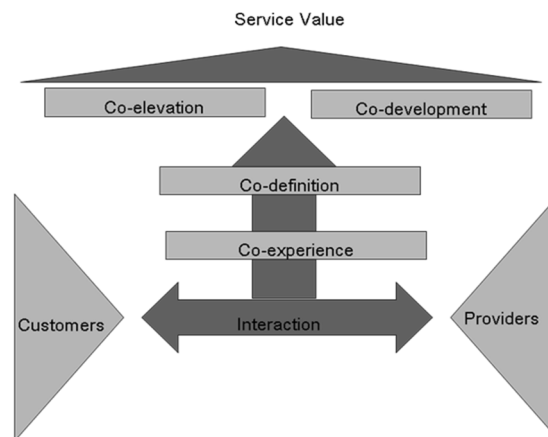

Figure 3. Value Co-creation Model Process in Service System [16]

Figure 3 shows that both sides (providers and customers) use four stages of value co-creation process to fulfill their objectives. To share knowledge in creating new innovation, both customers and providers need to increase their mutual understanding, entering the stage of co-experience and co-definition and share their internal model. To achieve that, they need to understand their capabilities and fulfill their expectations. It is called co-elevation process. After fulfilling those three processes, they will enter the co-development stage where they can collaborate to develop new innovation.

4.1.1   Co-experience and Co-definition Process
In this process, customers and providers are expected to increase their mutual understanding toward other parties. This process is performed to give each stakeholder a better understanding of their expectations and abilities. For example, in seminar or workshop and sharing sessions, teachers can gather students' insight into their entrepreneurship practices. The students' satisfaction is determined by co-experiencing and co-defining a shared internal model. In the end, they are expected to contribute their knowledge to co-create the value.

4.1.2   Co-elevation Process
Co-elevation is a process that explains the ability of providers to fulfill customers' expectations. In this process, students need more facilities of knowledge, skills, funds, products to be sold, companies as their partners, transportation facility, etc. to run their businesses. To meet those expectations, teachers in pesantrens provide a scholarship for students to finish their study with a condition that they can fulfill the requirements. Students have the obligation to apply entrepreneurship concept in the real world, actualized by having a business experience during their study in pesantren. The pesantrens expect students to give a portion of their income as infaq and zakah to help other students in need. Aiming to increase students' capabilities, pesantren has set up a collaboration with other parties such as businessmen, government, and others to provide knowledge, skill development programs, funds, and other resources to make students capable of running their own businesses.

4.2.3   Co-development Process
In this process, each stakeholder is expected to collaborate in creating new innovation continuously through the knowledge sharing process. Nowadays, the development of entrepreneurship-based of *pesantrens* is increasing and entrepreneurship concept development always shifts based on current demand. To follow the current demand, students need new skills, knowledge, and experiences to make sure they can survive in the business world. By utilizing the platform, students and other stakeholders will share their knowledge and resource to create new innovation.

4.2. Value Orchestration Strategy

To support the process of value co-creation among stakeholders, a platform is used as a media of value orchestration program aimed to enhance the development of *pesantrens* in Indonesia. The utilization of that platform can be optimized by applying three major strategies of involvement, curation and empowerment. The first strategy is **Involvement Strategy.** The application of value co-creation process can be achieved if each stakeholder can reach their own goals using that process. For example, *pesantrens* students expect an improvement in terms of the facility received, and the *pesantrens* along with other parties such as the government improves the facility as they required. In this process, the providers and customers are expected to have a mutual understanding in order to recognize each other's expectations and capabilities.

The second strategy is **Curation Strategy.** This strategy is used to analyze the current issues faced in the development of entrepreneurship in *pesantrens*. For example, the number of entrepreneurs in Indonesia is still limited which encourage the Minister of Youth and Sports to create a program called the Youth Entrepreneurship Development Program in Pesantren or Pesantrenpreneur 2018. This program is expected to create new entrepreneurs from *pesantrens'* students.

The last strategy is **Empowerment Strategy.** The empowerment strategy is related to measuring the effectiveness of the platform being used by all stakeholders to achieve the development of entrepreneurship in *pesantren*. In this stage, stakeholders are expected to maximize their involvement in the platform built.

5. Conclusion

Initialized by a general question about the appropriate platform to increase the effectiveness of knowledge sharing process to develop entrepreneurship in *pesantren*, we find out there are two appropriate platforms that can be used. The first one is a real platform in form of a seminar, workshop, regular meeting, etc. The second one is a virtual platform through the website or social media such as WhatsApp, Instagram, etc. Since stakeholders are used to utilizing the real platform, we recommend the virtual platform to get more effective communication and coordination which can be done at any time and anywhere. Through this research, we also try to build the platform design and suggest the government and businessmen have more collaboration with *pesantren* (in form of providing funds, knowledge, and training for students), so that they can co-develop the entrepreneurship in *pesantrens*. For academia, it expected that they can share their entrepreneurship knowledge in the virtual platform or through workshop and seminar programs. It is also expected there are more incubators who willing to share their knowledge with students in *pesantren* and help them develop their businesses.

We realize that this research has some limitations that may limit the result obtained. Firstly, this paper only uses a case study of *pesantrens* in Indonesia, so that the result might be different if conducted in different institutions. Secondly, to get the simulation result we only used service science perspective in determining the appropriate platform.

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