The iLearning Journal Center: Education Startup to Enhance Lecturer Research

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ABSTRACT

Research is one of the pillars of the College Catur Dharma that contributes to improving the academic atmosphere. Essential capital to enhance the nation's competitiveness is through increasing the ability of science and technology innovation that manifested in research. However, in its application in the era of the development of education 4.0, this is still not running optimally. To embody the vision of the 2014-2045 National Research Master Plan (RIRN), Indonesia, in 2045, which is competitive and sovereign based on research. This research aims to improve the nation's competitiveness through a digital platform iLearning Journal Center (iJC) with focus on online journal management as a step to strengthen research in Indonesia. This program is an original work of Indonesian children, which in the end applied to replace the conventional (printed) journal management system, as well as to provide convenience, speed, and integrity in the management of journals packaged in the digital platform iLearning Journal Center (iJC). The method used in this study is the business model of canvas, vasTmind, and TKT measurements. The result is concluded as an education startup application implemented to improve the academic community research.

Key words: Education startup, ilearning journal center, lecturer research

1. INTRODUCTION

To build an integration that advances and develops technology-based startups, and supports the commercialization of R&D results in Indonesia, support from the nation's children is needed to innovate and create technology-based startups [1]. Policy instruments in the form of incubation funding schemes for startup companies provided through technology-based business incubators for technology-based starters (tenants) to enhance the competitiveness of these startup companies, to be able to survive and thrive in competitive domestic and global markets [2]. Government support through funding programs carried out to increase the commercialization of innovation results that have a mature level of technological readiness—the incubation funding program aimed at bridging startup companies so that they can enter the market optimally. In line with the technology and information that has now entered the era of disruption, the public is not only given a million unlimited access facilities, which also accompanied by many problems that are present in it, not least in the world of higher education. Research is one of the pillars of the College Catur Dharma that contributes to improving the academic atmosphere. Based on ASEAN-level international publications on Scopus, Indonesia ranks 2nd (two) with 8,269 publications [3].
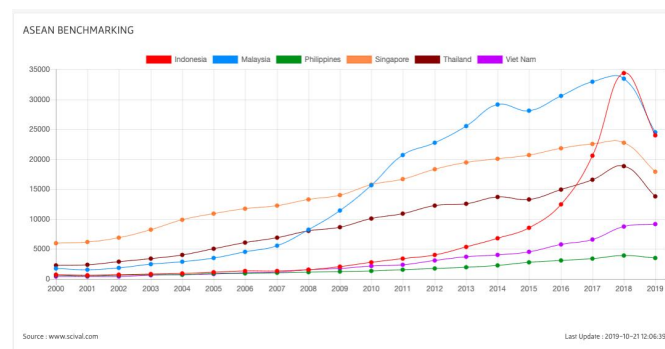
Figure 1: ASEAN Benchmarking pada SINTA Resources: http://sinta2.ristekdikti.go.id/

Based on statistical data in Figure 1 of the SINTA Asean Benchmarking International publication, Indonesia has been ranked 2nd (second) and rated as an increase in international publications for Indonesia. However, the current development has not been matched by an online journal digitalization system or Open Journal System (OJS) in several universities in Indonesia, which results in a gap for researchers who wish to submit articles/papers and enhance the citations [4], [5]. There's 11 (eleven) steps for scientific publications for

researchers to make publications. The first step taken is to search for publications first, follow the writing or style of publication chosen, conduct searches as scientific references that are done via e-resource, reference management such as using the Mendeley, Zotero, etc. Continued again to examine the rules of the scientific substance of research, check grammar and ethics of publications for further delivery of manuscripts. Next is through the article review or editing process, in this step is the determination of whether the article can be published or not. The final step is publishing articles and indexation on the Google Scholar, Scopus, and Science and Technology Index (SINTA) [4]. Next is through the article review or editing process, in this step is the determination of whether the article can be published or not. The final step is publishing articles and indexation on the Google Scholar, Scopus, and Science and Technology Index (SINTA). There are 2,973 journals indexed by SINTA with achievements of 181,137 verified authors. It indicates that the rapid research and publication opportunities for researchers, both lecturers, and students. Requires a container as well as a journal center for researchers to search for publications, with the development of existing journal publisher recommendations technology and the process of submitting articles that are arranged through 1 (one) door. Based on the Science, Technology, and Higher Education White Paper Towards 2045, the more sophisticated the product to be developed, the higher the cost of research and development required, the higher the risk of failure, as well as the greater profits achieved if successful [6]. Seeing these needs, we conducted research starting from the prototype product iLearning Journal Center (iJC), becoming a startup engaged in the field of education and publishing scientific articles for the academic community.

2. LITERATURE REVIEW

Application-based iLearning Journal Center (iJC), as product innovation, is unique in the form of concept solutions from upstream to downstream. The iJC provides the information technology infrastructure needed to carry out the publication process required for researchers, creates digital journal content, recommends journals based on the level of need and ranking displayed on the business intelligence information board, indexation to run and carry out administration as a central journal in Indonesia. Each output and activity achievement to be achieved refers to the iJC innovation framework and 3 (three) methods used in this study, namely the business model of the canvas, vasTmind, and measurement of Technology Readiness Level (TKT). The first method is the specialization of business models for internet service offerings and introducing new frameworks to support the creation of fast alternative business models[7-10]. Business models by pouring ideas on canvas can trigger new ideas.

The canvas becomes a tool to facilitate dialogue of plans for individuals sketching ideas and developing together group

ideas[11]. The second research method is mind mapping, which aims to enable analysis[12]. Improving study and planning skills, consisting of a network of connected and related concepts and in education, this concept widely recommended for use in a variety of ways[13-15]. Mind mapping is a universal key graphic to unlock brain potential that applied to every aspect of life where increased learning and clearer thinking will improve performance. The benefits of mind mapping have also been explained by previous research, including being able to help regulate the flow of thoughts, increase creativity, speed of learning, and memory [16-18]. vasTmind is not just a mind mapping but also virtualization of the brain, a collaborative learning media, and informative to see the development of projects that are running, or that have been completed [19].

The most recent discussion of research methods is the Level of Technology Preparedness (TKT). The results in this study, an assessment of TKT conducted. The legal umbrella governing TKT explained in Ministerial Regulation No. 42 of 2016, the measurement of the level of technological readiness (TKT) must carry out on technology resulting from research and development activities funded by the government budget or in cooperation with the government [20]. Law Number 3 of 2014 concerning Industry states that the Technology Readiness Level (TKT) is one of the prerequisites in providing technology utilization is assurance [21]. Technology Readiness Level (TRL) is a system of systematic measurement to understand technological maturity so that a result of technological development is ready to be applied [22]. TRL is part of the technology readiness assessment process, along with performance goals and research/development data degrees of difficulty or [23-24]. (TRL) has been used for decades to support decision making regarding technology infusion in complex systems[25-27]. In line with the canvas business model above, it concluded that the business model canvas is a framework that can answer challenges and readiness for new businesses. The synthesis of mind mapping following the study of literature above is the development of a concept of ideas, or ideas that are broad and detailed[28][29][30]. The synthesis of TKT in this study is a series of measurements of new technological innovations to see the readiness of the system.

3. RESULT AND DISCUSSION

iLearning Journal Center (iJC) is an application-based electronic journal management system (e-journal) that is directed to be able to replace conventional (printed) journal management systems. iLearning Journal Center (iJC) uses Open Journal System (OJS) Version 3.1.0.1 of PKP (Public Knowledge Project), which can provide convenience, speed, and integrity in managing journals and presents quantitative information and certain quality from viewboard business intelligence technology. The iJC is now ready to be available on Playstore and included in the Appstore; in the future, iJC

applications and the official site can be developed as innovations and expected to be able to disrupt and compete in the industrial era 4.0. Digitalization and harmonization in the academic atmosphere explicitly created through Catur Dharma Research. There are 3 (three) benefits that see the needs of researchers, both lecturers, and students, to be able to submit a journal through one door or centralized, which is done online so that it can be done quickly anytime and anywhere. Whereas for Outcome is the establishment of a start up in the field of patented information technology, thereby increasing Catur Dharma's research and providing benefitsas a journal center, especially in Indonesia.
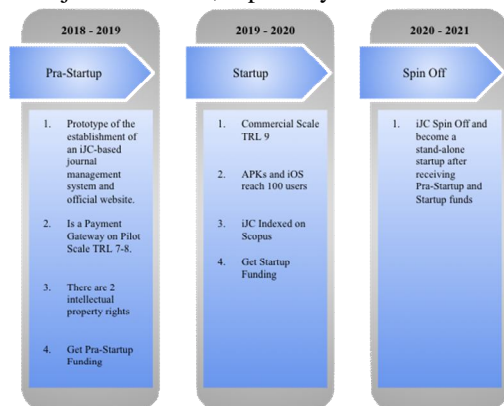
Figure 2: iJC Roadmap

Figure 2 reflects the future business plan depicted through the roadmap with a period starting from 2019 until 2020, where iJC as an initial startup developed by Alphabet Incubator through PPBT funding in the future expected to be able to contribute to research in Indonesia. In addition to the increase from TKT / TRL to level 9, namely commercialization, the final results expected in 2021 iJC can spin-off and become a stand-alone body [31][32][33]. In this study, there are 3 (three) product updates from iLearning Journal Center (iJC) to be able to compete during the rapid startup in Indonesia:

a. An application-based scientific publication system.
b. The official site iLearning Journal Center (iJC), based on the Open Journal System (OJS) can provide convenience, speed, and integrity in managing the journal.
c. Business intelligence viewboard for displaying quantitative information both graphically and in live numbers

4. CONCLUSION AND FURTHER RESEARCH

The results of this study prove that there are 3 (three) positive impacts of the iLearning Journal Center (iJC) system, which means (1) Socio-Economic Impacts. With the existence of the OJS-based iJC system, it improves both for social communities [34][35]. They can enhance the flow of communication if they want to publish a journal and journal accreditation process. OJS has helped academic professionals, research institutes, and Universities and throughout the world to make online journals using Open Journal Systems (OJS) software. Therefore, the presence of

iJC who uses OJS can help various parties on the campus to make it easy to publish their journals and provide for indexing journals. Also, it can save costs because it is paperless and facilitates access to research. (2) Environmental Impact, while for the environment, as previously happened, is a paper that does not need to use much more in journal publications, because the published journal is automatically made online. Thus, other ideas for the environment lack the use of paper (3) Cultural Impacts, build a startup that can help and facilitate one multitude with other parties involved in this matter. These management journals use existing facilities. It used to make products that are useful for anyone.

Further research needs to develop so that the iJC can become a better educational startup by considering developing applications that keep pace with the era of disruption, such as the use of Blockchain technology to improve security systems, smart contracts to certifications for writers.

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