



The Role of Business Incubators in Developing Local Digital Startups in Indonesia

Muhammad Rehan Anwar¹, Muhamad Yusup², Shofiyul Millah³, Suryari Purnama⁴

¹Computer Science, University of Agriculture Faisalabad, Pakistan

^{2,3}Digital Business, University of Raharja, Indonesia

⁴Economics and Business, Esa Unggul University, Indonesia

Email: rehan749@gmail.com¹, yusup@raharja.info², shofiyul@raharja.info³, suryari.purnama@esaunggul.ac.id⁴

Article Info

DOI:

10.32812/jibeka.vXiX.XXXX

Article history:

Received month dd, yyyy

Revised month dd, yyyy

Accepted month dd, yyyy

Keywords:

Inkubator Bisnis

Digital Startup

Industri Kreatif

ABSTRACT (10 PT)

The development of the internet causes the flow of information to move quickly without knowing geographical boundaries. Likewise with the development of the digital industry, although the condition of the digital industry in Indonesia is still in its early phase, where infrastructure and ecosystem support is still very minimal, the optimism from digital industry players in Indonesia is very strong, both from the startup side and from investors. Problems arise when investors, both local and foreign, wish to invest in local digital startups in Indonesia, namely the unpreparedness of local startups to receive relatively large amounts of funding for business development. This raises doubts for investors whether startups can manage the funds raised and generate future profits for investors. Therefore, an initiative was born from investors and stakeholders in the digital technology industry to activate business incubators, with the aim of being able to prepare local startups to be able to develop more optimally. The results of this study reveal various tangible benefits received by local startups to increase their capacity.

This is an open access article under the [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/) license.



Corresponding Author:

Digital Business, University of Raharja, Indonesia

Email: shofiyul@raharja.info

1. INTRODUCTION

As time goes by, most of the local startups that have been busy since 2011 have started to fall. The reason for the downfall of Calyptra: University of Surabaya Student Scientific Journal Vol.4 No.1 (2015) These 3 local startups did not have adequate funding sources, both from income and from external funding, to continue their operations [1]. This has made stakeholders in the Indonesian digital industry aware that it takes more than brilliant business concepts and ideas to bring a startup into a stable company level, and can even compete in the international, even global arena [2]. To help local startups not wither

before they develop, several digital industry stakeholders such as telecommunications operators and investors (both individuals and venture capitalists) agreed to work together and build various incubation and acceleration activities [3]. The hope of this incubation and acceleration activity is to develop the capacity of local startup founders so that they have the modern business and management understanding needed to establish and develop a startup [4].

Thus, the Indonesian digital industry ecosystem will be filled with entrepreneurs and founders who are not only creative in thinking about business ideas, but understand business execution so that their startups are able to survive the increasingly fierce competition [5]. If we look further, the development of the digital industry in Indonesia also has a positive impact on the national economy [6].

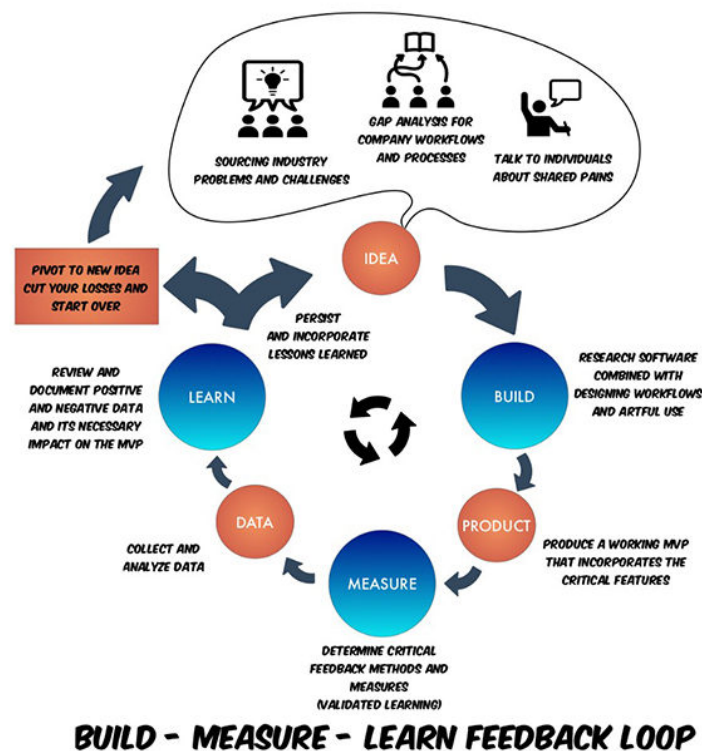


Figure 1. Siklus Feedback Loop Lean Startup

The digital industry is one of the sub-sectors of the creative industry which is increasingly showing significant growth as a contributor to the national economy [7]. Therefore, if the digital industry can develop well and be able to become the basis for innovation in other industries [8], then the national economy will also experience extraordinary growth in the end [9].

2. LITERATURE REVIEW

Several previous studies have provided a definition for the incubator business, namely:

- Is a term that describes all organizations that provide access to affordable office space for startups and provide shared administrative services. (Allen and McCluskey, 1990).
- A place that is used as a shared office with various facilities that seek to provide a value-added system, strategic additions and business support, with the aim of facilitating development of a new business. (Hackett and Dilts, 2004).
- An innovative form of organization aimed at generating value by combining the entrepreneurial spirit of business startups with sufficient resources available for business medium to high scale. (Hamdani, 2006).
- A new and popular form of organization created through assistance of economic development agencies to support and accelerate the development and success of a business to achieve certain economic goals (Scillitoe and Chakrabarti, 2010)

3. METHOD

This research is an exploratory type of research because it aims to find out what activities have been carried out during the business incubation process and what benefits and added values support a startup's business after participating in business incubation activities [10]. The approach used for this research is interpretivism approach because it assumes that understanding a social phenomenon can be obtained by studying a text in detail [11]. The data sources used in this study are top management from business incubators and startup founders who have graduated from incubation activities [12].

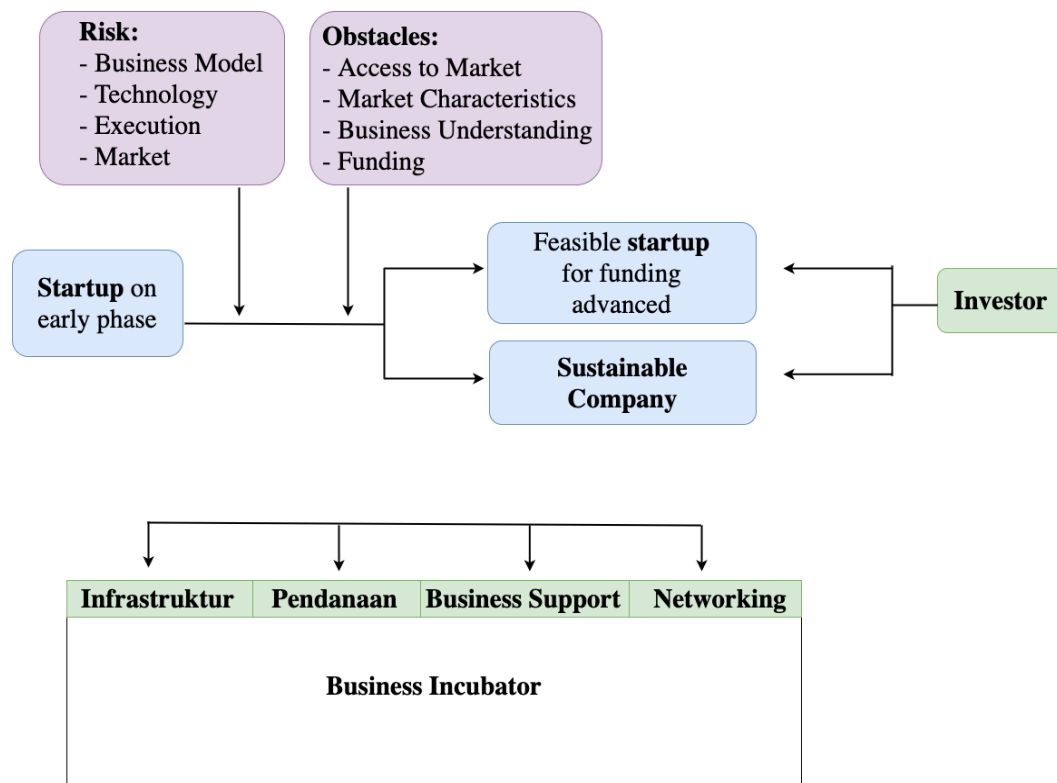


Figure 2. Research Framework Flow

The data collection process was carried out through interviews and direct observations in the field. To minimize bias, triangulation of methods was carried out where the authors compared the two methods used at the time of data collection.

4. RESULTS AND DISCUSSION

The following are the results of the discussion of the data obtained during the author conducting this research. Risks and Constraints faced by local digital startups. Due to the high level of innovation, startups are very attached to risks that must be faced during their operations.

Based on interviews from resource persons, there are four risks that must be faced by startups, namely:

1. Business model risks. This risk arises when a startup company tries to introduce a business model that has never existed before [13]. Therefore, the level of acceptance of potential customers towards the business model cannot be known in the initial phase and must go through a series of trial-and-error to gain an understanding of the customer.
2. Calyptra technology risks: University of Surabaya Student Scientific Journal Vol.4 No.1 (2015)) 12 This risk arises when a startup company uses new technology that has never been implemented before.

3. Business execution risk This risk arises when a startup company enters the execution stage, such as marketing products, making sales, etc. The reason for this risk is that the startup does not have experience executing similar business ideas, so it cannot benchmark.
4. Market risk This risk arises because the market which is assumed to need the product/service does not exist.

In addition to the risks above, there are several obstacles that have been clearly felt by local startup actors in Indonesia, namely:

1. Regulation and protection from the government The information technology industry in Indonesia can still be said to be very young, especially for internet-based creative industries that are just emerging 3- last 4 years. Therefore, the government has not yet fully prepared regulations that can properly regulate the digital creative industry, one of which is the internet-based creative industry. Let alone talking about regulations, the government still seems confused, who should be responsible for protecting the digital creative industry. Apart from regulatory issues, what the Indonesian government feels is lacking is protection against the entry of foreign startups that are eyeing the huge Indonesian market. With the support of larger investors and experience in their home country, foreign startups feel so free to operate in Indonesia. AZ said that this is quite worrying because local Indonesian startups will not be able to compete to host in their own country if foreign startups are not given a barrier by the government. For example, the major e-commerce players in Indonesia are currently dominated by foreign startups, either by Calyptra: Universitas Surabaya Student Scientific Journal Vol.4 No.1 (2015) 13 opening direct branches in Indonesia or acquiring local startups that already have traction. good in the eyes of the customer [14].
2. Characteristics of the Indonesian Market for Digital Products As a developing country, consumers of digital products in Indonesia have unique characteristics and have the potential to hinder the development of commercial startups in Indonesia. The characteristic is that most consumers always feel that various digital creative products are cheap goods, even if they can always be free. They seem less appreciative of intangible products because they feel that there is no physical form that costs money to make. This is what some of the startup sources of this research found.
3. Access to the market Access to the market will determine the survival of a startup company. No matter how good the products and services produced, if they cannot be delivered or are affordable by the market, then the startup will not be able to earn sufficient income to become a sustainable company. This obstacle seems to be an obstacle that almost all local startups in Indonesia experience [15]. Access to the market becomes difficult when bootstrapped local startups have to compete with established companies, even foreign startups that have strong capital support to compete for market attention. Therefore, support from incubators who already have access is a major concern for startups who want to participate in the incubation program. Platforms are another problem in efforts to distribute digital products in Indonesia, as stated by one of the sources [16]. At first, the startup considered its product to be included in two mobile app platforms, namely Google Play and Apple Store as a paid product. However, when it comes to launching its products, there is an obstacle that at that time Google Play had not issued a license for Indonesian developers to publish paid applications, while the Apple Store was able to. In Calyptra: University of Surabaya Student Scientific Journal Vol.4 No.1 (2015) 14 Indonesia, this is a problem because users of Google's Android operating system are far more dominant than Apple's iOS operating system. The next problem in terms of market access is the lack of market access. use of credit cards in Indonesia. In fact, credit cards are the most efficient payment media for digital products. As a result, customers are too lazy to buy digital products because they don't have a credit card. Until now, the number of credit card users in Indonesia has only reached 2% of the

total population of Indonesia. If you count active users, of course that number will decrease again [17].

4. Funding As with other companies, every startup company definitely needs funds to support its operational activities. However, the options for startups are more limited because the risks they face are relatively higher than conventional businesses [18]. Especially for digital startups, the more complicated problem is that startups often do not have tangible assets that can be used as collateral to apply for conventional funding, both to banks and other credit institutions [19]. The main aspect that has high value in digital startups is intangible, namely their business concepts and ideas. This makes funding options from conventional institutions such as banks relatively very difficult to obtain. The first option that startups can and usually takes is to use their own costs to meet their initial operational needs before finding investors [20]. The next option for startups is to look for investors who are specifically invested in high-risk companies such as startups. It is possible that the business incubator will also provide funding in the early stages so that the founder can focus more on developing his ideas and business. Furthermore, this study finds facts about the different characters of startups that fund independently with those that obtain funding from external parties (incubators) [21]. The self-funded startup Calyptra: University of Surabaya Student Scientific Journal Vol.4 No.1 (2015) 15 will tend to be more careful in every expenditure, but also causes expansion measures to often have to collide with funding problems. On the other hand, investor-funded startups have the flexibility to use the funds for startup development more optimally [22]. However, as said by BK, the negative impact is that startups become more aggressive and tend to dare to take higher risks in using these funds, so that they do not provide an optimal impact for startups [23].
5. General business understanding In any business field, business understanding is an absolute must for business people. However, unfortunately, in Indonesia, this is still felt to be lacking by local business people. In the context of the digital industry [24], one of the interviewees felt that entrepreneurs in this field still do not have enough entrepreneurial spirit to build a sustainable business. In the early days of the proliferation of local startups, it was said that the founders did not understand how a good business model was for their startup and how to innovate well. At that time, the founders seemed to be competing to create unique and creative ideas, but had not thought about the business side and the sustainability of their business in the future [25]. Their mindset in forming a startup was to be included in various races to further gain instant publicity and popularity, get funding from investors, but there was never any continuation. In fact, the business understanding in question is things like determining and validating customer problems to be solved, talking directly to customers to get feedback, then starting to make products according to valid ideas to the transaction process. These things escape the attention of founders who focus more on the innovation side, without paying attention to the business side. As a result, startups will often fail to develop in the middle of the road [26].
6. Building a team with one vision Building a startup company to become an established company is quite difficult and has high risk. Without the support of the team and adequate personnel who oversee the startup in its execution process, any good ideas and concepts will not help [27]. One of the interviewees admitted that one of the obstacles he encountered was forming a team with one vision with a strong commitment to jointly develop a startup. In contrast to companies that are mature and have a clear business model, startups (especially those that are independently funded) often have various limitations, including in terms of the benefits that can be offered to potential team members. Not all startups are able to offer high salaries, while they also have a need for superior human resources in order to be able to continue to grow and compete [28]. Therefore, the role of the founder in convincing team members is very important

7. Lack of focus on startup development It must be admitted that very few startups in Indonesia start out as permanent jobs or full-time jobs. Most startups in Indonesia start from hobbies or products developed to fulfill the ideals of their founders [29]. By not working on startups as their main job, local startups experience delays in their development because the founders are not focused on developing further. This is quite acceptable because it is very rare for startups to be able to achieve revenue in the early days of their establishment, while it is undeniable that every team member who works at the startup still has a financial burden that must be met [30].

5. CONCLUSION

From the research that has been done, the authors found several important findings including the risks and obstacles that must be faced by local Indonesian digital startups, as well as the benefits of incubation activities for startups. The risks that must be faced include business model risk, technology risk, execution risk, and market risk. For the obstacles faced, in general startups will face external and internal obstacles. In connection with the condition of Indonesia's digital industry which is still developing, some of these external and internal constraints are also quite unique and rarely found in a country with a mature digital industry, such as in the United States. To overcome the various obstacles above and minimize the risks faced by startups, incubation activities can be one of the paths taken by local startups. Several functions of incubation activities described by Bergek and Norman (2008) are infrastructure support, business support, mediation and networking, and support when startups have graduated from incubation. In Indonesia, there are several additional benefits provided by several incubators, such as support for very broad market access (due to collaboration with telecommunication operators), funding from incubators in the early stage phase, as well as improving the company's image in the eyes of investors and customers. In addition to the theoretical implications above, the researcher also suggests several practical recommendations to stakeholders involved in the Indonesian digital industry. First, the government can play a more active role by forming a special work unit involving various ministries related to the creative industry to jointly support the creative industry. Second, the process of educating the Indonesian people to increase appreciation for creative products. Third, increase the quality and quantity of business incubators in Indonesia. Lastly, to encourage the role of the telecommunications industry as a distribution channel for creative products.

ACKNOWLEDGEMENTS

We want to thank to University of Raharja, particularly to Alphabet Incubator, who has helped complete this research.

















REFERENCES

- [1] J. Gikas and M. M. Grant, "Mobile computing devices in higher education: Student perspectives on learning with cellphones, smartphones & social media," *The Internet and Higher Education*, vol. 19, pp. 18–26, 2013.
- [2] R. J. Sipahutar, A. N. Hidayanto, U. Rahardja, and K. Phusavat, "Drivers and Barriers to IT Service Management Adoption in Indonesian Start-up Based on the Diffusion of Innovation Theory," in *2020 Fifth International Conference on Informatics and Computing (ICIC)*, 2020, pp. 1–8.
- [3] W. Zulkarnain and S. Andini, "Inkubator Bisnis Modern Berbasis I-Learning Untuk Menciptakan Kreativitas Startup di Indonesia," *ADI Pengabdian Kepada Masyarakat*, vol. 1, no. 1, pp. 77–86, 2020.
- [4] A. O. Agbeyangi, "Notice of Retraction Attendance Management System using Radio Frequency Identification Technology," *Aptikom Journal on Computer Science and Information Technologies*, vol. 2, no. 3, pp. 117–123, 2017.

- [5] A. Dudhat, N. P. L. Santoso, S. Santoso, and R. Setiawati, "Blockchain in Indonesia University: A Design Viewboard of Digital Technology Education," *Aptisi Transactions on Technopreneurship (ATT)*, vol. 3, no. 1, pp. 68–80, 2021.
- [6] U. Rahardja, A. N. Hidayanto, T. Hariguna, and Q. Aini, "Design Framework on Tertiary Education System in Indonesia Using Blockchain Technology," *2019 7th International Conference on Cyber and IT Service Management, CITSM 2019*, pp. 5–8, 2019, doi: 10.1109/CITSM47753.2019.8965380.
- [7] N. P. Lestari, Y. Durachman, S. Watini, and S. Millah, "Manajemen Kontrol Akses Berbasis Blockchain untuk Pendidikan Online Terdesentralisasi," *Technomedia Journal*, vol. 6, no. 1, pp. 111–123, Jul. 2021, doi: 10.33050/tmj.v6i1.1682.
- [8] A. Mulyadi, "Upaya Meningkatkan Kinerja Karyawan Melalui Motivasi," *Technomedia Journal*, vol. 7, no. 1, pp. 1–10, 2022.
- [9] S. Purnama, Q. Aini, U. Rahardja, N. P. L. Santoso, and S. Millah, "Design of Educational Learning Management Cloud Process with Blockchain 4.0 based E-Portfolio," *Journal of Education Technology*, vol. 5, no. 4, p. 628, Nov. 2021, doi: 10.23887/jet.v5i4.40557.
- [10] U. Rahardja, T. Hongsuchon, T. Hariguna, and A. Ruangkanjanases, "Understanding Impact Sustainable Intention of S-Commerce Activities: The Role of Customer Experiences, Perceived Value, and Mediation of Relationship Quality," *Sustainability*, vol. 13, no. 20, p. 11492, 2021.
- [11] F. A. Rahardja, S.-C. Chen, and U. Rahardja, "Review of Behavioral Psychology in Transition to Solar Photovoltaics for Low-Income Individuals," *Sustainability*, vol. 14, no. 3, p. 1537, 2022.
- [12] I. Handayani, U. Rahardja, E. Febriyanto, H. Yulius, and Q. Aini, "Longer Time Frame Concept for Foreign Exchange Trading Indicator using Matrix Correlation Technique," *Proceedings of 2019 4th International Conference on Informatics and Computing, ICIC 2019*, 2019, doi: 10.1109/ICIC47613.2019.8985709.
- [13] M. Mastur, "Dampak Efektivitas Pelatihan Kompetensi Terhadap Kinerja Pegawai, Komitmen Pegawai Sebagai Variabel Intervening Pada Pondok Pesantren," *Technomedia Journal*, vol. 7, no. 1, pp. 19–27, 2022.
- [14] T. Ayuninggati, N. Lutfiani, and S. Millah, "CRM-Based E-Business Design (Customer Relationship Management) Case Study: Shoe Washing Service Company S-Neat-Kers," *International Journal of Cyber and IT Service Management*, vol. 1, no. 2, pp. 216–225, 2021.
- [15] U. Rahardja, Q. Aini, and S. Maulana, "Blockchain innovation: Current and future viewpoints for the travel industry," *IAIC Transactions on Sustainable Digital Innovation (ITSDI)*, vol. 3, no. 1, pp. 8–17, 2021.
- [16] Q. Aini, U. Rahardja, and T. Hariguna, "The antecedent of perceived value to determine of student continuance intention and student participate adoption of ilearning," *Procedia Computer Science*, vol. 161, pp. 242–249, 2019, doi: 10.1016/j.procs.2019.11.120.
- [17] Sudaryono, U. Rahardja, and Masaeni, "Decision Support System for Ranking of Students in Learning Management System (LMS) Activities using Analytical Hierarchy Process (AHP) Method," *Journal of Physics: Conference Series*, vol. 1477, no. 2, 2020, doi: 10.1088/1742-6596/1477/2/022022.
- [18] I. Amsyar, E. Christopher, A. Dithi, A. N. Khan, and S. Maulana, "The Challenge of Cryptocurrency in the Era of the Digital Revolution: A Review of Systematic Literature," *Aptisi Transactions on Technopreneurship (ATT)*, vol. 2, no. 2, pp. 153–159, 2020.
- [19] D. Aryani, Q. Aini, and F. S. Armansyah, "Perancangan Android Package Mobile Web pada Sistem Penilaian di Perguruan Tinggi," *Sisfotenika*, vol. 7, no. 2, pp. 155–166, 2017.

- [20] H. Nusantoro, P. A. Sunarya, N. P. L. Santoso, and S. Maulana, "Generation Smart Education Learning Process of Blockchain-Based in Universities," *Blockchain Frontier Technology*, vol. 1, no. 01, pp. 21–34, 2021.
- [21] H. Nusantoro, R. Supriati, N. Azizah, N. P. L. Santoso, and S. Maulana, "Blockchain Based Authentication for Identity Management," in *2021 9th International Conference on Cyber and IT Service Management (CITSM)*, 2021, pp. 1–8.
- [22] U. Rahardja, Q. Aini, and M. Iqbal, "Optimalisasi Reward Pada Penilaian Absensi Berbasis Gamifikasi Untuk Meningkatkan Motivasi Mahasiswa," *InfoTekJar: Jurnal Nasional Informatika dan Teknologi Jaringan*, vol. 5, no. 1, pp. 40–43, 2020.
- [23] Q. Aini, P. A. Sunarya, and A. S. Bein, "The Implementation Of Viewboard Of The Head Of Department As A Media For Student Information Is Worth Doing Final Research," *IAIC Transactions on Sustainable Digital Innovation*, vol. 1, no. 1, pp. 18–25.
- [24] Q. Aini, U. Rahardja, and A. Khoirunisa, "Blockchain Technology into Gamification on Education," *IJCCS (Indonesian Journal of Computing and Cybernetics Systems)*, vol. 14, no. 2, p. 147, Apr. 2020, doi: 10.22146/ijccs.53221.
- [25] U. Rahardja, A. Moeins, and N. Lutfiani, "Leadership, competency, working motivation and performance of high private education lecturer with institution accreditation B: Area kopertis IV Banten province," *Man in India*, vol. 97, no. 24, pp. 179–192, 2017.
- [26] D. Sapitri and R. Pancasasti, "Efek Moderasi Budaya Organisasi Untuk Peningkatan Kinerja Karyawan," *Technomedia Journal*, vol. 6, no. 2 Februari, pp. 252–262, 2022.
- [27] T. Hariguna, Y. Durachman, M. Yusup, and S. Millah, "Blockchain Technology Transformation in Advancing Future Change," *Blockchain Frontier Technology*, vol. 1, no. 01, pp. 13–20, 2021.
- [28] U. Rahardja, S. Kosasi, E. P. Harahap, and Q. Aini, "Authenticity of a Diploma Using the Blockchain Approach," *International Journal*, vol. 9, no. 1.2, 2020.
- [29] M. Prawira, H. T. Sukmana, V. Amrizal, and U. Rahardja, "A Prototype of Android-Based Emergency Management Application," *2019 7th International Conference on Cyber and IT Service Management, CITSM 2019*, 2019, doi: 10.1109/CITSM47753.2019.8965337.
- [30] P. A. Sunarya, F. Andriyani, Henderi, and U. Rahardja, "Algorithm automatic full time equivalent, case study of health service," *International Journal of Advanced Trends in Computer Science and Engineering*, vol. 8, no. 1.5 Special Issue, pp. 387–391, 2019, doi: 10.30534/ijatcse/2019/6281.52019.

BIOGRAPHIES OF AUTHORS

	<p>Muhammad Rehan Anwar    Experienced Information Technology Support Engineer with a proven work history working in the information technology industry. Can be contacted at email: rehan749@gmail.com</p>
	<p>Muhamad Yusup, M.Kom    is a lecturer in the field of information systems. Obtained his master's degree from Budi Luhur University in 2014. He has 52 research studies in the field of Information Systems, Web Programming, Data Warehouse, E-Commerce published worldwide with reputations from SINTA to SCOPUS. Can contacted at email: yusup@raharja.info</p>
	<p>Shofiyul Millah    (Student Member, IEEE) runs an undergraduate program with the Faculty of Science and Technology at University of Raharja. She has 10 research studies of the reputation of SINTA and SCOPUS. Areas of interest are Information Systems, Business Intelligence, Blockchain and Gamification. Can be contacted at email : shofiyul@raharja.info</p>
	<p>Dr. Dra. SURYARI PURNAMA, MM    (Student Member, IEEE) runs an undergraduate program with the Faculty of Science and Technology at University of Raharja. She has 34 research studies of the reputation of SINTA and SCOPUS. Areas of interest are Economic, Management, Operations Research. Can be contacted at email : suryari.purnama@esaunggul.ac.id</p>