Digital Identity And Digital Signature As A New E-Bussiness Innovation In Indonesia (System Found By Privy.Id Indonesia)

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Abstract

Fintech startup companies become viral conversations in Indonesia. Minister of Research, Technology and Higher Education, Mr. Mohamad Nasir in his remarks at the opening of the 2018 Innovation Innovation-Based Technology Innovation Expo (I3E) in 2018 said that in the last four years the growth of startups had increased rapidly. According to data from the Minister of Research, Technology and Higher Education, in 2018 there are 956 startups that are managed from the initial target of 850 and in 2019 it will develop again (Dailysocial, 2018). Privy.ID is one of the startups engaged in digital signature and digital identity, the first in Indonesia. The vision of the company is to present a single identity that universally integrated in the digital works for their users by providing the most advanced digital signature and digital identity technology. It believed that Trusted Identity and Digital Signature are the foundations of a healthy online transaction ecosystem. In collaboration with The Department of Population and Civil Registration, the company provides all the basics data needed for KYC process. This collaboration is needed to make it easier for the Privy.ID to obtain a trusted user identity so that it can speeds up the KYC process. Privy.ID obtains data for free because this collaboration actually benefits the government because it reduces the number of bad loans and business constraints.

*Keywords***:** *Fintech, E-Business, Digital Identity, Digital Signature*
JEL Codes: M30, O33

INTRODUCTION

The value of the digital economy in Southeast Asia in the next 2025 is predicted to reach US$ 240 billion. Indonesia as the country with the largest economy in Southeast Asia is certain to be one of the main contributors, with estimated contributions reaching almost fifty percent of the digital economy Gross Merchandise Value (GMV) (Kominfo, 2018). This development is directly proportional to the development of the fintech business in Indonesia as Catcha Group estimates that the total value of fintech transactions in Indonesia will more than double from US$ 22 billion (around Rp 308 trillion) in 2018 to US$ 54 billion (around Rp758 trillion) in 2025 (Kominfo, 2018).

Nowadays, in Indonesia there are a lot of new fintech startups, e-commerce website, and ride hailing apps being released in various parts. Minister of Research, Technology and Higher Education, Mr. Mohamad Nasir in his remarks at the opening of the 2018 Innovation Innovation-Based Technology Innovation Expo (I3E) in 2018 said that in the last four years the growth of startups had increased rapidly. According to data from the Minister of Research, Technology and Higher Education, in 2018 there are 956 startups that are managed from the initial target of 850 and in 2019 it will develop again (Dailysocial, 2018).

To generate business in Indonesia, they are competing to acquire:

Figure 1. Business Competition Diagram

➢ Seller and Buyer diagram shows digital company that becomes a facilitator between sellers and buyers online or through an application. The example of the platforms are : Lazada, Zalora, Tokopedia, Shopee, etc. Those platforms competing to get both seller and buyer as many as they can.
➢ Driver and Passanger diagram shows digital company work in online transportation. The example of the platforms that facilitate between driver and passangers are Gojek, Grab, Uber, and etc.
➢ Lender and Borrower diagram shows is a digital company work in online cash loans. The example of the platforms in Indonesia that become online lender are : DanaKini, AwanTunai, AkuLaku, etc

But, the most problem faced by this starup business is performing a costly and time wasting consuming verification process. Every digital business company requires its users to register to use the applications. The registration process requires consumer data so the transactions between service owners and service users are safe and reliable. Online transactions are not face-to-face transactions, so they need verification process. The first step of verification process is knowing as Know Your Customer Process (KYC Process). To comply with Indonesia's KYC regulations, businesses spend an average of US$20 to acquire a new customer across the country's challenging population distribution by:
1. Establishing customer service branches in multiple locations:
2. Purchasing facial recognition and national verivication services
3. Employing frontline agents to perform face to face meeting, pickup and deliver registration forms.

Figure 2. KYC Process Problems

Fraud is also a big problem for fintech company. Fintech is a term abbreviated as "financial" and "technology", which means an innovation in the field of financial services. Fintech Company is

a company that provides innovation in the financial services business (Finansialku.com). To make online credit is in demand, a fintech businessman makes a credit promotion to get it running y in 15 to 20 minutes. KYC must be done quickly to make disbursement of funds fast. Fast KYC must be supported by a legally strong contract. This certainly creates a lot of risk for the company, for example: identification of fake ID cards is very difficult to do, if consumers are located in a place far from the city would certainly inconvenience the company in conducting KYC. The risk pof fraud or NPL (Non Performing Loan) is high with the unsecure KYK process.

PrivyID Innovation

PrivyID is an authorized provider of legally binding digital signature. Founded in 2016. PrivyiID is Indonesia 1ˢᵗ legally-binding digital signature provider. It started when the CEO Mr. Marshall Pribadi was sick in the hospital and he needs to write so many forms in repeat many times. Then he thought that everyone need a system that simplify in filling the document and the user not need to sign it many times everytime and everywhere. Then PrivyID found. The vision of the company is to present a single identity that universally integrated in the digital works for their users by providing the most advanced digital signature and digital identity technology. It believed that Trusted Identity and Digital Signature are the foundations of a healthy online transaction ecosystem. PrivyID has beem used by over 3.6 million users and 172 companies in Indonesia.
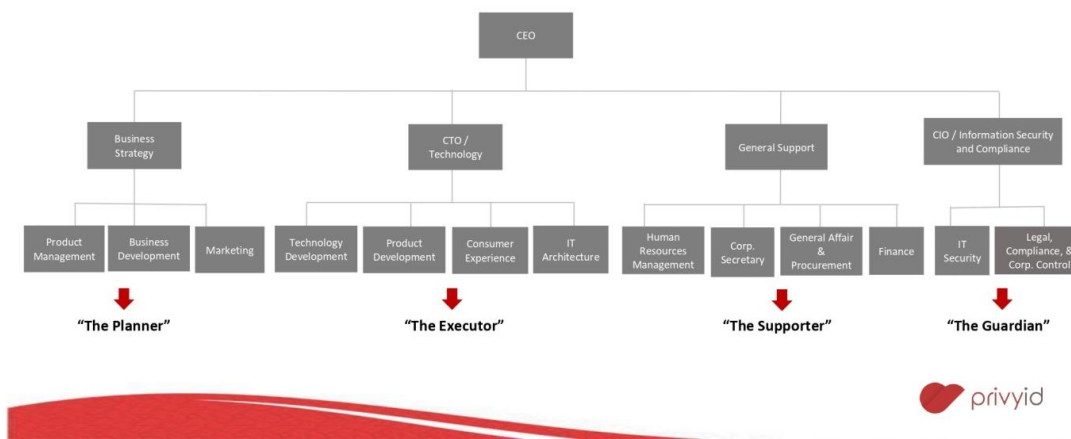

Figure 3. The Company Structure

ŦThe problems stated before, already solved when PrivyID provides trusted identity and digial signature to enable pure digital user onboarding for financial services while still complying with regulatory requirements. PrivyID is the only company in Indonesia that provides those kind of services. The company creates a sharing economy ecosystem where any bussinesses could use the Trusted Digital Identity and Legally-Binding Digital Signature platform to conduct a highly efficient e-KYC process. The purpose of applying KYC are:

1. As consumer personal identity data
2. Help the risk analysis process
3. Enables companies to recognize and understand customers and company intermediaries
4. Fully comply with the laws and regulations against money laundering and counter terrorism
5. To enable companies to have positivity on their customers
6. Provide an internal monitoring system for ongoing activities
7. The information collected from customers is for the needs and interests of customers so the data will be kept confidential

In collaboration with The Department of Population and Civil Registration, the company provides all the basics data needed for KYC process. This collaboration is needed to make it easier for the PrivyID to obtain a trusted user identity so that it can speeds up the KYC process. PrivyID obtains data for free because this collaboration actually benefits the government because it reduces the number of bad loans and business constraints. The Department of Population and Civil Registration will also get additional data completeness of all users who have registered with Privy.ID.

So it is like symbiosis of mutualism. It provides trusted digital identity and digital signature to enable pure digital user onboarding for financial services while still complying with regulatory requirement. All the KYC process are simplified with one application only. This is brief information about how the solution work:
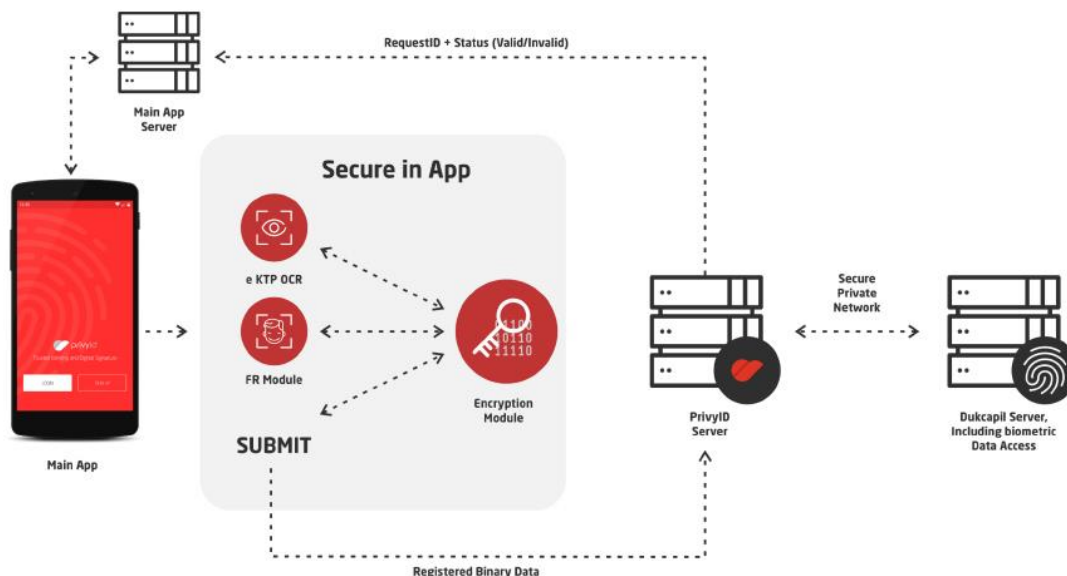

Figure 4. PrivyID sync system with The Department of Population and Civil Registration

The picture above shown that Privy.ID main app completed with encryption module which are e-KTP (electronic digital identity) and FR Module (Face Recognition Module). Then the Privy.ID server will process the KYC System for the customer that already apply registration and it will syncronized with Dukcapil (The Department of Population and Civil Registration) server so it will further proceed to show the digital identity for the customer who already registered in Privy Main App. When the KYC system is success or approved by Privy, the customer will have Privy.ID login user, and they can apply online loan, credit card, and other financial technology who already used privy as their trusted digital identity and digital signature. It is very safe system for both user and company.

This is how a good use of Digital Identity benefits Individuals, goverment bodies, and corporations:

Figure 5. Privy.ID Used

Effectivity for business:
> Higher Productivity: by applying digital signature system, the business will be higher in productivity because it shorten service time allocation, the application of KYC does not require a long time and does not have to be repeated for each product for each consumer. One of the case from Privy.id client is Mandiri Sekuritas (security company). Before they

used privy.id system they need 7 working days to do registration or KYC process, and after they used Privy.d, they only need 2 hours to finish the KYC Process.

➢ Cost Saving: with increased productivity there will certainly be some corporate expenses that can be saved. For axample, banks do not need to open many branch banks just to do a KYC system. Paying for staff, rent a place to have branch or sending documents by expedition. With automatic KYC system provide by Privy all will be solved in just one system. The sample case is in CIMB Bank. Before used Privy.id system, they should spend IDR 200.000,- per applicant. After they used Privy.id system they only spend IDR 3.500,- per applicant.

➢ Fraud Reduction: In manual KYC, bank employees must compare physical ID cards with the real faces of people visiting.Many cases regarding fake ID card. The same ID number and name but the photo has been replaced which is risk for the bank. With the existence of a digital identity provides by privy, the photos and data in The Department of Population and Civil Registration will be compared with the user's selfies photo and ID data that has been registered in the privy account. This will made fraud reduction.

Figure 5. The Case Study of Privy.id Clients
Figure 6. Case Study

Effectivity for Individuals:

➢ Increase political, financial and social inclusion: Individuals who have registered in a privy account are someone who can be trusted to carry out digital transactions. Even if someone lives in a suburb or far from the city, as long as he has an internet network, that person can continue to do banking or other financial activities remotely and reliably.

➢ Facilitate protection of rights: effectiveness for individual users. individuals need not fear that their identity is used by someone who is not responsible (identity theft). and individuals after registering through the privy system can do many things with the account such as applying for loans, credit cards, applying car leasing, making family cards, etc.)

➢ Promote transparency: data transmission occurs so that individual data is ensured to be safe from sales of data because there is transparency wherever their data will be used and used of

course according to the needs of the user, and for sharing data it is necessary to have user consent

Effectivity for Goverment:

➢ Efficient Goverment E-services: people no longer has to queue at the community service counter. all submissions of state documents can be done online and legally

➢ Greater levels of civil participation: the implementation of the election no longer requires a ballot or must come to the polling station. the election can be carried out via smartphone.

➢ Aid safe imigration: Immigration management can be done online and simply, applying for resettlement can be done without the need to come to the immigration office

The system enables user to sign in to their clients' services without having to leave their own home or repetitively writing their personal data.

The Digital Identity and Digital Signature can be used to:

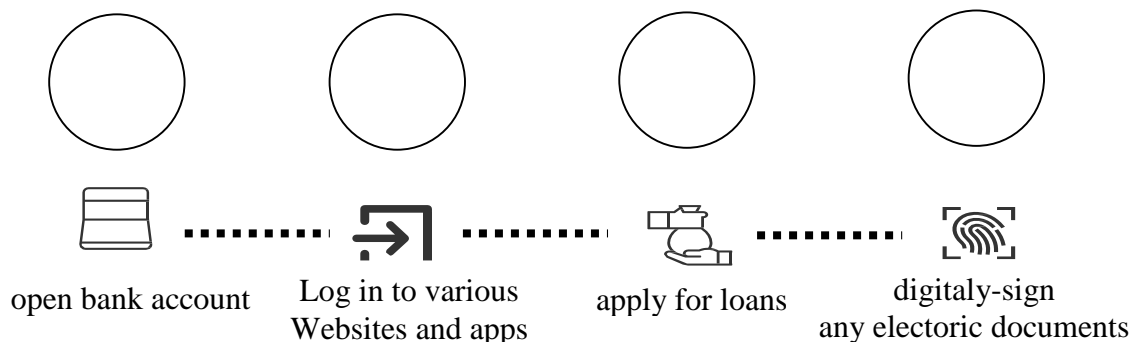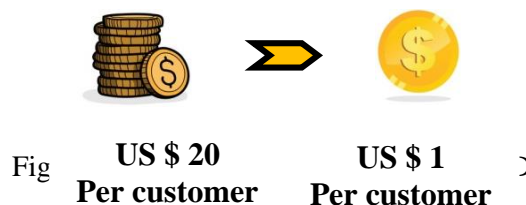| open bank account | Log in to various Websites and apps | apply for loans | digitaly-sign any electoric documents |

Figure 7. The Use of Digital Identity and Digital Signature

By eliminating the use of paper and courier, it allows up to 95% reduction in customer acquisition cost.

Fig   **US $ 20**   **US $ 1**
       Per customer   **Per customer**

This kind of partnership ecosystem help improve financial inclusion and digital economy in a country. Who can used this kind of system?

Figure 9. The Clients of Privy.ID

CONCLUSION

The lack of awareness among Indonesians of data protection has resulted in many unfortunate events, such as the free sale of personal data. jam is also a problem that fraud is very common in digital-based companies. Privy.id is a solution with the e-KYC system where in addition to facilitating individual users in using data for the registration process in online financial activities, also with the privy.id system user data is ensured safe and protected. Besides for indivviduals the tffectivity is also for business itself, the productivity of the business is higher and the fraud number is minimum, also it provides cost saving than using manual KYC. The innovation from Privy.ID is help many interests; individuals, business, and also government.

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