



The Evolution of Financial Technology in Indonesia

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ABSTRACT

Financial technology has its origins in industrialized nations with well-established infrastructure, cutting-edge technology, and a more digitally-oriented populace. Fintech has had trouble entering poor countries and enhancing their financial inclusion, even if this is not the case for emerging nations. This study attempts to identify global fintech best practices and examine how they could enhance the economic well-being of those living in poor nations. We categorized the issues into three categories: a lack of infrastructure, a society that is less digital, and an unorganized and informal culture. Then we looked at Microfinancing, Crowdfunding, Digital payment system as the three fintech's that best embody the three categories. The development of financial technology began in industrialized countries with advanced infrastructure, cutting-edge technology, and a population that was more accustomed to using digital devices. Even while this is not the case for rising countries, fintech has difficulty reaching poor countries and improving their financial inclusion. This study looks for global fintech best practices and considers how they could improve the economic security of people in developing countries. We divided the problems into three groups: a dearth of infrastructure, a society that uses less technology, and an unstructured and disorganized culture. The three fintech's that most closely represent the three categories were then examined: Micro Financing, Crowdfunding, Digital payment system.

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1. INTRODUCTION

Digital technological advancements over the past ten years have been called the Industrial Revolution 3.0. (third). Since the 18th century, when the first industrial revolution began in England, this change in the industrial order has had an impact on practically every sector, either favorably or unfavorably. Similar to how digital technology has drastically changed (disrupted), it all starts with information technology, which hastens the flow of information and makes it very simple to acquire information. On the other side, information then turns into the most valuable and even the costliest commodity. The information in question is quite enormous in quantity (big data), and if correctly processed, it may be used successfully for certain goals.[1]

From an economic standpoint, the term "economics" arises as a notion of activity for a digital technology-based economy (the "digital economy"). The term "digital economy" was first used by Tapscott (1994) to describe how technology and business strategy are changing not only how businesses operate but also how goods and services are produced and marketed, how organizations are structured and why they exist, and how the dynamics of market competition. Additionally, economics digital takes us to the hub of technology for computers, communications, and entertainment. The phenomena of online electronics sales (e-commerce) and markets for services, such as travel and lodging, is by far the source of the most digital economy. [2]

The service sector of finance, sometimes known as fintech or technology finance, is the next to be disrupted (Financial Technology). Finance-related jargon refers to a mix of financial services and information technology that has the power to alter company models and ease of entry. The four areas listed by the FSB as covering fintech are: 1) deposits, lending, capital raising, 2) market provisioning, 3) payment, clearing, and settlement, and 4) investment and risk management (Bank Indonesia, 2016). Fintech is not restricted to institutions or financial instruments by its language or scope. As a result, fintech players might include traditional banking, which is led by banks, and fintech startups, which are customer-driven.[3]

Because there are so many options and resources available, industrialized nations and some emerging ones are still the focus of most fintech advances. financial services and goods. This makes sense since industrialized nations have the necessary infrastructure for the growth of fintech, such internet access, for instance. As a result, they had quite high levels of financial literacy and access to financial institutions that are widespread in industrialized nations. Therefore, using fintech is an option that offers society ease and efficiency. Economically speaking, the marginal gain is not very large. Meanwhile, inadequate infrastructure in regions and nations seldom receives attention. As a result, there is a growing divide between towns and villages in terms of financial knowledge and inclusion. Fintech growth nowadays mainly depends on the availability of modern technical infrastructure in order to maximize the advantages of cutting-edge fintech goods and services. For instance, a faster internet connection and better mobile specifications are needed for application-based payment systems on mobile devices.

Due to managers' better access, fintech in the loan industry only requires risk analysis of potential borrowers who are situated in cities. Therefore, this form of design innovation will not be able to stimulate economic growth in underdeveloped regions that have insufficient infrastructure from the start. Fintech growth nowadays mainly depends on the availability of modern technical infrastructure in order to maximize the advantages of cutting-edge fintech goods and services. For instance, a faster internet connection and better mobile specifications are needed for application-based payment systems on mobile devices. Due to managers' better access, fintech in the loan industry only requires risk analysis of potential borrowers who are situated in cities. Therefore, this form of design innovation will not be able to stimulate economic growth in underdeveloped regions that have insufficient infrastructure from the start. As a result, there is a non-formal financial services void that the middle class below may readily fill. The interest is typically fairly high when borrowing and borrowing. A profit-sharing mechanism was used to carry out

beneficial investments in the agricultural sector, which is sometimes onerous for farmers. Society significantly relies on cash payments in terms of payment systems since non-cash payments are either nonexistent or difficult to get, which restricts economic activity. If this goes on unchecked, it will result in high-cost economic activity and serve as a deterrent for the lower middle class in society to engage in productive activities. And ultimately, the economy won't be able to be driven by this ineffective economic activity. It's possible that not all of the fintech innovations that have so far been created, had their origins in rich nations, and are currently reaching their market potential can be used in underdeveloped nations and left behind.

The lauded fintech, however, is referred to as a financial technological innovation focused on consumers (consumer based), and as such, it must be able to adapt to local conditions. Consumers who are not served by traditional financial institutions must be addressed by it. What is the best practice (best practice) that has ever existed in the field of fintech that may stimulate the economy in emerging and underdeveloped nations is therefore an essential research subject that has to be addressed? In the context of Indonesia, a developing nation becomes a stand-in for undeveloped areas globally. If it is determined experimentally that fintech can significantly improve the economy of developing nations, as shown below, then this can serve as a model for applying fintech to other underdeveloped regions. A favorable fintech environment may be developed with the assistance of the government, all stakeholders, and the backdrop.[4]

2. LITERATURE REVIEW

The word "fintech" simply describes a fusion of technology and financial goods that makes things easier for customers. Fintech is, nevertheless, often and inconsistently applied in the corporate sector in actual practice. Due to the lack of a consensus definition, fintech is either seen as too wide and unlimited or as being too restricted to be fully comprehended. Conducted literature research on 354 scholarly articles about Tekfin to ascertain the term's precise definition. There are just 13 Islamic articles out of the total number of articles in question that define Tekfin in a clear and concise manner. By doing a semantic analysis, came to the conclusion that the definition of Tekfin is: *"Fintech is a new financial industry that applies technology to improve financial activities."*[5]

This definition offers a fairly broad scope for including disruptive technologies like Chat Bots, Block Chain, and artificial intelligence (artificial intelligence), etc., as well as those that have incrementally improved financial services like APIs, device technology Mandiri (device independent technology), sign scanners, and device independent technology. However, this definition obviously excludes financial services that are paper-based and frequently done in person. Before the 21st century, when technology was being used in financial services, this term was also able to encompass all types of financial innovation and boost financial activity. The final part of the definition, "to improve financial activities," is a generalization of several definitions that refer to the goal of Tekfin, which includes, among other things, facilitating financial activities, increasing the efficiency of financial services as well as providing infrastructure and operating a financial institution [6].

A *"phenomenon of mixing technology with features of financial developments that affect business models and decrease the barrier to entry,"* according to Bank Indonesia, is what is meant by "Fintech." Two key consequences of Fintech advancements are identified by this concept, namely:

1. Modifying the business model; in the past, financial services have been provided using various concepts and models.
2. Lower entry barriers to business due to the advent of actors and service providers in the unregulated finance sector that can offer financial services similar to those offered by players who are para-regulated.

There is no reference to or restriction on the idea of institutional/institutional or specific financial/payment instruments in this fintech phrase from Bank Indonesia. A fintech business model can fit into more than one category, making the scope quite broad (along with examples from Indonesia) and open to everyone, whether they are established financial institutions or start-up businesses creating cutting-edge financial technology business models.[7]

The following are the Fintech categories (Bank Indonesia, 2016):

1. Deposit, Lending, Capital Raising

- *Crowdfunding: IndieGoGo, Kickstarter, dan RocketHub, dll.*
- *Peer to peer lending: investree, Uangteman, Danamas, Tanifund*

2. Market Provisioning

- *E-Aggregators: Cekaja, Cermati, KreditGogo dan Tunaiku*


3. Payment, Clearing, & Settlement




- *Mobile payment (P2P transfer): dana, Gopay, ovo dll.*
- *Web-based payment: Dompetku, paypal, Kudo*
- *Digital currency: Bitcoin*

The Development and History of Financial Technology

According to the previous definition of fintech, the first telegraph was invented in the 19th century, which marks the beginning of fintech's history. Since then, the financial sector has continued to evolve as a result of the advancement of technologies available at the time. and fintech has continued to advance and change to this day. Fintech advancements from 2010 to the present are shown in the table below.[8]

Table 1. History of the Development of Financial Technology in Indonesia

Tahun	Company	Logo Company
2010	Gopay	
2011	Kartuku	
2013	Cekaja	
2015	Cermati	
2017	Investree	

2017	Danamas	
2018	Dana	
2019	Linkaja	

Based on the table above, it is evident that from time to time fintech will continue to evolve and continue to grow, from the beginning using the telegraph now you can scan a qr to make transactions.[9]

2.1 The Relationship between Financial Technology and Growth Economy

Conceptually, Fintech—an abbreviation for finance and technology—encourages economic progress. Fintech has profound theoretical foundations. The financial system plays a crucial function in directing surplus cash from parties to those in need, allowing for the efficient and successful running of economic activities. The following diagram may be used to simply illustrate the movement of funds within the Finance system:

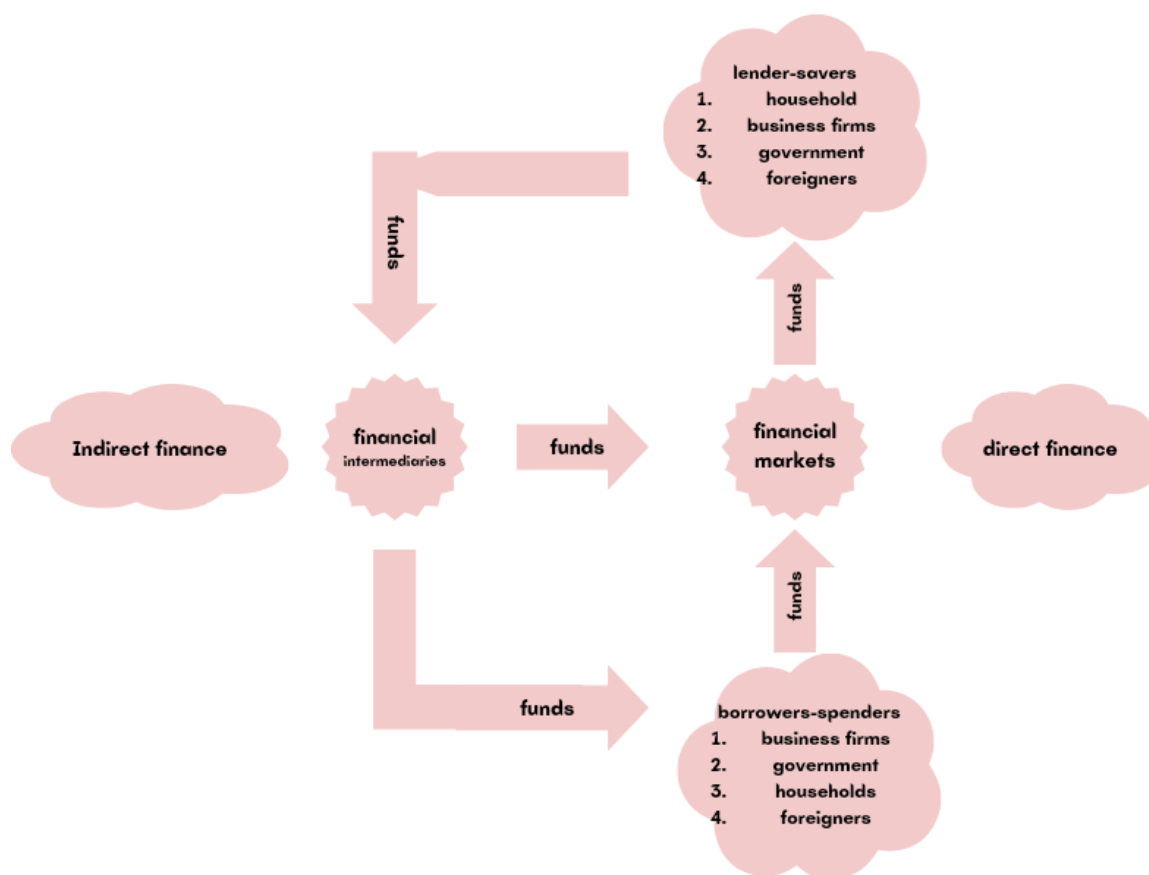


Figure 2. Flow of Funds in the Financial System

Direct financing (direct finance) and indirect financing (indirect finance) are two ways to operate the financial markets. The existence of financial intermediary institutions on indirect financing, which influences the method of channeling money, is the fundamental distinction between these two types. Financial intermediaries play a crucial role in the process of moving money around because they may lower transaction costs, facilitate risk sharing within a system, eliminate moral hazard and adverse selection, and provide symmetrical information.

Thus, owners and borrowers of tiny sums of money can engage in financial markets, which can improve the economy's overall efficiency. The targeted efficiency enables the allocation of scarce resources to worthwhile endeavors that can considerably boost economic growth. Meanwhile, according to growth theory, the only thing that can sustain economic growth over the long term is innovation and technology [10]. More particular, this theory emphasizes positive externalities and the knowledge-based economy's spillover effect, which fosters innovations that can fuel economic growth. Theoretically, the economy would be more affected by the financial system's incorporation of technology aspects. The availability of technology (particularly technological information) has raised the bar for financial services and increased their efficiency.

The formal financial system alone is capable of reducing the existence of asymmetric information between participants in finance. The present advancements in information technology allow for unrestricted access to data and encourage the generation of value added from previously underutilized data. The likelihood of asymmetric

information will be considerably reduced by the amount of precise and real-time data. Fintech solutions, especially for micro, small, and medium-sized businesses, have a huge potential for company growth (SMEs). By making financing choices more accessible and varied, fintech can offer effective and efficient solutions for MSMEs.

3. METHOD

This study employs a qualitative methodology with the aim of being able to comprehend the phenomena that serves as the research question in depth by gathering substantial data from several sources that may be accessible. With this approach, researchers start with data that is already available, utilize current theory and empirical data as explanations, and then come to conclusions about a phenomenon.[11] A case study is a sort of research that thoroughly examines one backdrop, one topic, one document repository, or one specific event.[12]

The methods for gathering data in this study include library studies, namely gathering and examining scholarly literature about fintech. This literature study intends to learn more about the best ways to use fintech in places with weak infrastructure, as well as gather actual data to support such claims.[13] These are the data analysis methods applied in this study:

1. DATA REDUCTION

Data obtained from the results of the undergraduate study, Observation and careful attention to the most important details. In the course of collecting data and analyzing gathered evidence, disseminated data will provide more clear and simple illustrations.

2. DATA DISPLAY

The methodical process of gathering complicated material into a form that is both basic and easy to grasp. Presentation of data may be done in qualitative writing in the form of descriptive briefs, charts, connections between categories, and the like, but the text that narrative is most usually utilized.

3. CONCLUSION DRAWING

Inductive conclusion-making is a method used in qualitative research that starts with a narrative about the phenomena in the case studies that have been given before being transformed into a concept, model, or theory that is more general in character.

4. RESOLUTION AND DISSCUSION

Fintech's success in upending and bolstering the economies of industrialized nations may not necessarily be able to achieve this in emerging nations. Fintech was created as a consequence of innovation as a result of the development of knowledge and ecosystems in developed nations, which are hard to locate in developing nations.[14]

Consequently, understanding the elements that contribute to fintech success generally (in rich nations) might assist emerging countries recognize the need for fintech innovation and not only a total duplication, but may be followed with alterations.[15] In order to learn more about service quality and the business models used by fintech businesses, Drummers et al. (2016), through McKinsey, undertook an examination of 1,500 fintech companies worldwide, particularly success[16]–[18]

The following traits apply to the fintech business:

1. a fintech business that is nimble, lean, and creative. Through the use of cutting-edge technology, highly skilled human resources, and dynamic work systems, fintech companies are able to cause disruption in the financial services industry by meeting consumer expectations through a streamlined process and by becoming more consumer-oriented. They are also able to accelerate their rate of innovation.

2. Fintech businesses concentrate on the in-depth individual value chain sector. The majority of fintech businesses worldwide concentrate on providing payment services since they directly address the demands of individual customers. Other services include loans, asset management, and investment finance.
3. Private clients have been the focus of fintech startups thus far (and not MSMEs or corporations). The main factors are the low entry barrier and the expertise required to establish a fintech business that offers services to individual clients. Additionally, high mobile phone ownership contributes to the advancement of fintech.

Few of the aforementioned factors exist in underdeveloped nations and the majority are state features. Meanwhile, the growth of fintech in developing nations was hampered by three primary issues: a lack of adequate infrastructure (cloud service), users who were "less digital" than those in developed nations, and users whose economic lives were unstructured and dependent on the unorganized sector [19]. With these traits, the most cutting-edge fintech may not always be suitable to the way a country is developing. Instead, a trustworthy fintech should be able to offer relevant solutions in accordance with these criteria thanks to its human resources.

4.1 Solutions for Cloud Service Infrastructure Limitations

The fact that cloud computing infrastructure constraints are opening up possibilities for the growth of fintech businesses that concentrate on the supply of infrastructure services (infrastructure as a service, or IaaS) and regulation technology (retch). IaaS is a sort of cloud computing in addition to platform as a service and software as a service (SaaS) (PaaS).[20]

The range of services provided by each kind and its management privileges are what set the three categories apart from one another. SaaS provides comprehensive services and solutions that are entirely handled by the service provider, with the customer acting solely as an end user (beginning with applications, data, runtime, middleware, operating system, virtualization, server, storage, and network). SaaS-like services are also supplied by PaaS, although they do not include application and data services, which are handled by end users. IaaS provides a smaller range of services and has evolved into the foundation of cloud computing platforms. IaaS kindly offers access to servers, virtualization, data storage, and network.[21], [22]

The usage of cloud computing offers a number of benefits for the growth of financial services, particularly in developing nations [23]):

- cost-effective since it requires less cash to create and maintain the data center alone hardware and software.
- data usage possibility (feasibility), simplicity
- With such a strong security system, data is constantly safe and is readily accessible in a variety of ways.
- Because data storage and utilization are becoming increasingly efficient, productivity (productivity) rises.

Payment gateways, digital wallets, online cash transfers, and secure online payments are just a few of the financial applications that leverage cloud computing. Flutter wave and Tulio are two examples of fintech businesses that use IaaS as their main offering in underdeveloped nations. The specifics of Flutter wave will be covered in the part that follows so that readers can understand how IaaS works and how it might help developing nations[24]

4.2 Flutter wave

Flutter wave is a fintech company with an African base that offers a cutting-edge digital payment system infrastructure capable of integrating all platforms, networks, and payment options (web, mobile, ATM, point of sale (POS)) in countries throughout Africa while remaining directly connected to international payment systems.

There are always two issues with the back end and the primary problem that affects the Flutter wave business model:

1. Infrastructure and the payment ecosystem in Africa are still dispersed. Other payment methods exist, such as mobile money, but each one develops its own infrastructure. Therefore, a merchant must independently integrate all forms of payment if he wants to be able to take them all. In addition to being costly, cross-network payment methods and the process take a long time, and transactions fail frequently.
2. A payment system that was adapted from elsewhere and is card-based (debit and credit) was developed since I believe card-based systems will be effective in Africa just as they have been in developed and emerging nations. On According to Triki and Faye [25], approximately 23% of Africans have accounts with reputable financial institutions, and only around 3% of Africans overall hold credit cards. The introduction of a credit-based payment system has so far not succeeded in enhancing African financial inclusion. Mobile money is a common payment mechanism used by African citizens; in Kenya, 68% of the population uses it, and usage in other African nations is growing due to the convenience of the system. Since financial technology in more developed nations relies on cutting-edge technology, the growth of mobile money use in Africa is not keeping up with progress. As a result, mobile money users may become more and more marginalized in the global payment system.[26]

Given this context, the payment system in Africa is known to be convoluted, wasteful, and costly. For instance, if someone wishes to send money to an African nation, it will take at least a week for the money to arrive even though it is in the nation's native currency on a local banking account. Transferring money from an account to mobile money and vice versa, using a credit card to transfer money to mobile money and vice versa, and using other sorts of inter-payment methods are all extremely challenging in even African nations. Additionally, the fragmentation of the payment system and the high number of unsuccessful transactions make retailers less interested in POS systems and prefer to accept cash payments. Encouragement will have an even bigger influence on those who depend more on money.[27]

Flutter wave, a 2016 startup, is an API (application programming interface) that makes it possible to process payments across networks, platforms, and even across different currencies across African nations [28]With Flutter wave, any user may make and accept payments fast and effortlessly from all around Africa and even the rest of the globe using a variety of cards, mobile money, and bank accounts. Africans may continue to utilize mobile money, and global service providers may also continue to accept their own payment methods (such as credit cards, etc.), as long as they can conduct simple financial transactions. Therefore, Flutter wave connects African citizens to the global payments system while also resolving the issue of Africa's fragmented payment systems.

In basic terms, it can be said that an unbanked and credit-card-less worker in the informal sector of Africa who only has access to mobile money is able to conduct financial transactions to and from any location in the world with ease, regardless of the type and mode of payment used by its counterpart. In the other direction, a company's worldwide human resource department may effortlessly pay salaries and wages using Flutter wave without having to visit the appropriate banks for transfers and exchange them into the country's local currency.

Flutter wave's business model has great potential to grow the economies of African nations, and as a result, up until 2018, the company received funding totaling \$10.1 million from a variety of venture capital firms, including Green Visor Capital, Y Combinator, Google Launchpad Accelerator, and Grey croft [29]

Up to August 2018, 10 million transactions totaling \$1.2 billion have been made using Flutter wave[30]). It demonstrates that the Flutter wave solution actually goes to the heart of the issue plaguing payment systems in Africa. Thus, citizens of Africa may conduct financial and other commercial activities conveniently, affordably, promptly, and securely, which will help the economy expand.

4.3 Solutions for a Less Digital Society

Simply put, a digital lifestyle is a way of life that is based online in all aspects—work, leisure, social, educational, financial, and so on. Digital lifestyle penetration is promoted by rising smartphone ownership and information technology advancement. A digital footprint is created by a person's digital lifestyle, which keeps track of all online activities including websites visited, emails sent and received, personal information posted in online media, products purchased, and other personal data. Footsteps

Based on their online actions, each person's profile is created in digital form. To examine behavior and possible danger, this profile is then combined or utilized explicitly. To be able to deliver individualized analyses and offers, many fintech companies rely on data from one's digital footprint. Fintech can thus be a solution for those who live a high-tech digital lifestyle in emerging nations.

The population of developing nations is perceived as leading a less connected existence to the digital world, even if only a very tiny percentage of them are familiar with the digital way of life. According to information from the International Telecommunication Union, 53.6% of homes worldwide had access to the Internet by the end of 2017. However, the statistics for developing nations are just 42.9%, and for undeveloped nations (the Least Developed Country), they are significantly lower at only 14.7%. According to the International Telecommunication Union (ITU), Africa has the lowest population penetration rate (18%) in the globe, followed by Arab nations (47.2%) and Asia Pacific (48.1%). Information on this source text Source text necessary for further translation details Send criticism lateral panels.

Internet censorship results in restrictions or no digital imprint. The impact is negligible, or not even a single piece of data may be used to create a digital profile of a person for a fintech business to study. Thus, they are unable to use fintech goods and services. For instance, if a fintech business enters the credit-granting market, it means that people who are less digitally literate would find it more difficult to access credit. Additionally, individuals like this frequently lack access to formal financial institutions like banks. Therefore, informal financial services, which are far more expensive, are their last option for obtaining loans.

Creditfix, a Pakistani firm, is one example of a fintech business that might offer a solution for a less digital society. Creditfix is a platform for developing a person's creditworthiness profile based on alternative data for those who have not yet or have had access to conventional institutions financing. As a result, both the person and financial institutions can obtain fair and formal credit in a transparent manner.

As a platform, Creditfix helps the formal financial sector reach clients who were previously unreachable and informal customers who lack the formal data needed to receive formal financial services. The formal financial sector will gain significantly as a result of the elimination of the requirement to develop a system and infrastructure for profiling potential consumers who were previously unbanked. Prospective clients gain since it's simple to create a profile, which makes it simple to acquire financial solutions.

Big data is used to create customer profiles based on everyday behaviors of the consumer, including employment history, credit spending history, utility bill payments (such as water and electricity), phone and SMS history, information travel, and social media usage. Predictive modeling was created from this data after machine learning processing. The feasibility score for someone's credit is the outcome of analyzing this data.

Thus, it becomes clear whether or not someone is deserving of formal financial services credit.

These data are more indicative of a person's financial behavior and character than the formal data forms that are often filled out by potential customers when conducting business or submitting a formal credit application at a financial institution. So that credit providers can obtain it each time they do a real-time check of a customer's credit score and adopt the necessary preventive steps to stop late payments and encourage credit repayment.

With the help of this database, people who are less digitally savvy can avoid informal financial services that frequently charge exorbitant fees and raise the risk of default while still having fair and transparent access to formal financial services tailored to their profile.

4.4 Solutions for Communities whose Economic Life is not Regular

The fact that the economies in these nations are chaotic is one of the key features of the lives of those who live on low salaries. Lack of emergency reserves or future savings for children's school expenses is one way that irregularity is reflected in relationships between people.

Without proper preparation, they go about their everyday economic lives. Even if there is less need to sell goods that may be sold, today's revenue may be depleted for only today. They frequently struggle since they don't have any money to cover urgent or unexpected expenses. Our fieldwork in the Sumbawa region provided confirmation of this.

Due to their low income and poor financial preparation, they are particularly susceptible to unforeseen circumstances that call for large sums of money. Their ability to survive in such challenging economic circumstances will be made more difficult by their restricted access to official financial institutions. Then, as a result of their incapacity to repay the debt on time, they get caught in the service of informal financing with exorbitant interest rates.

A start-up business from Uganda named Malako offers low-income clients flexible and inexpensive microcredit as a solution to this issue. The application, distribution, and repayment processes are all completed through telephone.

The return or interest rate on an affordable loan is the underdog. Being flexible allows borrowers to pay back the loan when they have the necessary finances or only make the minimal payments when they don't.

The creators of Malako were passionate about developing novel ideas that could help society transition from a cash-based economy to a digital one and provide a means of raising living standards. Digital Financial Services (DFS) Lab has invested \$100,000 in Malako, a start-up business.

4.5 Success Formula

Several elements may be evaluated that will allow the three financial technology breakthroughs stated in the preceding section to expand financial inclusion and ultimately benefit the economy:

1. Recognize the ecology of the system's created payments and the nature of its residents. Research and study are necessary for an innovative financial technology to understand how a society lives and behaves financially. It will be challenging for a society with low levels of education and casual employment to access complicated financial technology services, which call for high-end, pricey gadgets. All three companies—Flutter wave, Creditfix, and Malako—were inspired by local issues encountered by citizens in underdeveloped nations. Traditional methods of promoting financial inclusion are ineffective in a culture like this, nor can you properly apply tekfin from the city.

2. the capacity to change technology so that users may easily utilize it despite its sophisticated user interface. Flutter wave provides cutting-edge technology to incorporate all forms of payment, simplifying the user experience. Creditfix makes determining a person's credit score simple to use by using an algorithm that is extremely precise. It requires more ease than is necessary for fintech success in developed areas and nations.
3. There is already a working relationship with official banking institutions. All three of the greatest practices. This study does not dissociate itself from the financial sector, which has been developing a collaborative relationship that benefits both parties since the outset.

5. CONCLUSION

Digital technology advancements have had an impact on the service sector of finance and have given rise to a new industry called financial technology, which can be defined as the use of technology (information) in the financial sector with a stronger user experience focus. With its cutting-edge technology, fintech is designed with the right infrastructure, ecosystem, and community culture. Fintech is widely used in areas and nations with adequate infrastructure (such as an internet network), where people are accustomed to living a digital lifestyle and can access devices to utilize fintech goods and services.

In contrast, emerging and impoverished areas and countries do not include these ideals. Fintech cannot readily join a society with low income levels, inadequate infrastructure, low levels of education, a low level of digitalization, and an unregulated economy. Such traits also restrict their ability to access official financial institutions. Fintech should provide solutions for those who are underserved by the official financial system. The goal of this study is to identify the best practices of fintech businesses whose business models are intended to improve public finance inclusion in disadvantaged regions and nations. In the research, three fintech firms from various nations that provide various solutions are the main topic of discussion.

The first is Flutter wave, a platform that unifies different payment forms, methods, and networks across African nations while also connecting them with a worldwide payment system. The second platform, Creditfix, which links established financial institutions with those who lack a financial history, creates a creditworthiness assessment system (credit score) based on big data from those individuals' regular digital activities. The third is Malako, a platform that makes it possible for communities to get flexible and cheap microcredit. Customers can return when they have enough money or have just enough money to make the minimal monthly payment when they don't. The three businesses all have a similar business strategy, but they also have one feature in common that enables them to be a solution for raising the degree of financial inclusion in the community:

- 1) the capacity to comprehend public demands.
- 2) The capacity to reduce the complexity of business and technological models; and
- 3) Cooperation with official financial institutions.

The first step in further study on the function of fintech in national development might be research. Several of the fintech businesses mentioned in This study includes the newest firms that have been around for at least three years. Consequence: Compared to potential, effect existing may still be extremely minimal. Therefore, it is strongly advised to do more study to examine in the coming years, particularly because start-up businesses frequently fail because their business models are unsustainable.

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