

FINTECH STUDIES IN INDONESIA: A SYSTEMATIC LITERATURE REVIEW

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#### Abstract

The advancement of information technology has brought digital transformation on many aspects of human life, including in financial activities. This leads to the emergence of financial technology (fintech) has proved to be one of the most significant phenomena for the last decade. Thus, scientific studies in this field are important for the literature development to provide evidence in the field as well as contribute to the development of fintech innovations, regulations, and practices. The study explores the available research publications in fintech topic in Indonesian literature using systematic literature review method. Based on our analysis, we conclude that the studies in the area of fintech have covered most of the available topics for all of the existing fintech products and potential issues. However, several topics still requires further research as they are considerably less explored. Further, the quality of studies also needs to be improved as there are a lot of studies with quality issues. Finally, the fintech studies in Indonesia can enrich the Indonesian fintech literature with good quality paper publications in reputable publishers. Keywords: financial technology, fintech, Indonesia, systematic literature review.

#### INTRODUCTION

Technology-based financial innovations that are reflected in various financial activities such as payments, financing, investment, and other financial fields have grown massively around the world along with the penetration of the internet and smartphones. The digital revolution has opened a series of possibilities for innovation in service delivery mechanisms and financial transactions which became known as financial technology (fintech) (Wang et al, 2021). Broadly speaking, fintech involves the application of various advanced technologies to support the development of the financial industry (Darolles, 2016). Fintech includes digital innovation and technology-based business model innovation in the financial sector. The business model developed by fintech is able to facilitate strategic disintermediation and change the way companies create and deliver their products and services to consumers, provide new gateways for business financing, and democratize access to financial services (Admati & Hellwig, 2013).

Fintech has spawned a number of new businesses in the financial services sector, both in the form of online loans, digital payments, crowdfunding, and in other areas of the financial services sector. On the other hand, digital transformation is also implemented massively and very quickly in the formal financial industry (banking) that has been reflected in various forms including mobile banking (Hanafizadeh et al., 2014; Malaquias et al., 2018; Baabdullah et al., 2019; Sharma and Sharma, 2019; Hamidi and Safareeyeh, 2019), internet banking (Takieddine and Sun, 2015), and branchless banking (Kurila et al., 2016).

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Like in many other countries, fintech development has also arising very highly in Indonesia (Oxford Analytica, 2021a). Indonesia is a big country with the fourth largest population in the world. The country also has a large amount of internet users and considerably sufficient facilities that support the rise of fintech (Riyanto et al., 2018). Various fintech products have received positive reception in the market that leads to the rapid and massive growth that is reflected in terms of statistics. For fintech lending, there have been 102 legal platforms registered in the Financial Service Authority (OJK). As of January 2023, the total assets of these firms have reached 6,415 billion rupiahs with total amount of borrowers of 15,936,359 accounts and 18,737 billion rupiahs of total loans distributed (OJK, 2023). In regards with e-money product, there have been a total of 219.17 millions of registered account in Bank Indonesia as of January 2023 with total transaction of 131 trillion rupiahs (Bank Indonesia, 2023). As for crowdfunding, public interest also increases that finally leads to the growth of crowdfunding activities and nominal amount (Lukita et al., 2022). There is also crypto currency that has attracted a large amount of people to participate in cryptocurrency mining and trading so that the product also experiences significant growth (Handoko et al., 2021).

The emergence of fintech followed by its rapid and massive growth has brought significant attention by various parties. It is mainly considering the financial industry as the area where fintech emerges in which the nature of this industry involves a very large number of stakeholders (Sumarta et al., 2021). Moreover, the financial industry in nature is also a very highly regulated industry that requires a strict regulations and compliance (Park & Kim, 2020). As a consequence, the rapid development of fintech in Indonesia has been the subject of significant interest and research in recent years. A literature review of this topic reveals a number of key themes and trends that have emerged in the academic and industry research. To our knowledge, there are still limited studies that explore and discuss to what extent has the fintech studies in Indonesia has developed in a comprehensive literature review. Therefore, the study aims to fill the research gap by exploring the current state of research in the area of fintech in Indonesian context. Finally, the study is expected to provide a clear illustration of the state of the art of fintech studies in Indonesia and discuss the potential improvement that can be addressed in future studies.

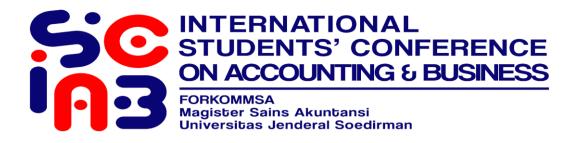
## **RESEARCH METHOD**

#### **Research Question**

The research question in this study is "How is the development of fintech research in Indonesia?" In attempt to answer the research question, we identify the need for a literature review. This research uses a systematic literature review study. Systematic literature review is an approach within in a literature study that is widely used for research in the field of business, economics, accounting, and finance. Systematic literature review is useful for determining the state of the art of a research topic.

## **Article Search and Identification**

In order to build a comprehensive literature review, we collect numerous published articles in fintech studies in Indonesian context. First, we determine the journal portals to be used as it will determine the quality of the articles used as references. The journal portal used in this study is Science and Technology Index (Sinta) developed by the Ministry of Higher Education of the Republic of Indonesia. The use of Sinta journal portal is relevant to collect the related fintech studies in Indonesian context. We use article search features provided in the journal. Then, we formulate a protocol review to formulate research questions by classifying the article search keywords. The keywords need to be relevant to represent the title of studies related to fintech. The relevant keywords can be identified considering the kind of fintech products and the topics investigated in the fintech research field. Therefore, the researchers firstly conduct a comprehensive exploring using the keyword of the fintech product names such as "financial technology", "fintech", "fintech lending", "e-money", "crowdfunding",



"cryptocurrency", etc. Then, the researchers use the keywords of the potential fintech research topics such as "determinants of fintech adoption", "the impact of fintech", "regulation of fintech, "fintech marketing", etc.

## **RESULTS AND DISCUSSION**

This section presents the discussion of the results of the analysis and synthesis of fintech research literature. The discussion includes the thematic analysis of by fintech product and topics followed by content analysis for every topic studied in the literature. We begin the presentation with the results of the thematic analysis. We summarize the areas of fintech that are discussed by products and general topics. Further, we also discuss the content of the previous studies referred such as the methodologies used, general findings, implications, recommendations, etc.

## **Thematic Analysis based on Fintech Products**

We start the thematic analysis by classifying the previous studies based on the fintech products that are examined. We break the classification of fintech products into six categories, namely: Fintech Lending, E-money & Mobile Payment, Crowdfunding, Cryptocurrency, Aggregator, and Risk and Investment Management. The result of the thematic analysis based on fintech products is presented in the following Table:

Fintech Product	Total Number of Published Papers	Percentage
General (Not Studying Specific Product)	46	36.8%
Fintech Lending	30	24.0%
E-money & Mobile Payment	21	16.8%
Cryptocurrency	14	11.2%
Crowdfunding	10	8.0%
E-Aggregator	2	1.6%
Risk and Investment Management	2	1.6%
Total	125	100%

Source: Elaborated by the authors

Many studies in in the field of fintech in Indonesian context have examined the topics in fintech in general, not focused on specific product. These studies aims to provide insights about fintech in several aspects such as the growth of fintech in Indonesian financial industry (Safitri, 2019; Riyanto et al., 2018; Sjamsudin, 2019; Handoko et al., 2021), the implication of fintech implementation in general including its benefits and disadvantages (Rangkuti et al., 2020; Putri et al., 2019; Sumarta et al., 2022; Yudaruddin, 2022; Hudaefi, 2020; Legowo et al., 2021; Sapulette 2021; Asmarani & Wijaya, 2020), the issues fintech implementation faced by the industry players and regulators (Disemadi, 2021; Hidajat, 2020; Suryono et al., 2021; Noor et al., 2022; Herdiansyah & Himawan, 2022), and the opportunity and challenges of fintech implementation (Suryono et al., 2020).

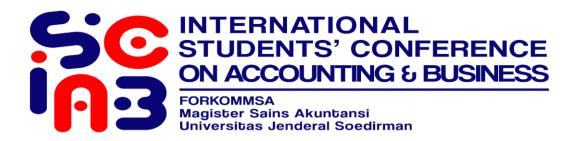
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We further explore the previous studies that focus on specific product. Based on our thematic analysis, we discover that most of the previous studies in the field of fintech in Indonesian context are dominated by the studies in fintech lending product. Among 125 research publication reviewed in this study, there are 30 papers examining the fintech lending products. The topics cover the determinants of borrowers' financing decision from fintech lending (Handarkho, 2020; Urumsah et al., 2022; Najib et al., 2021; Laksamana, 2022; Nugraha et al., 2022), the impact of fintech lending on the industry (Anshari et al., 2019; Rangkuti et al., 2020; Suryanto et al., 2020; Hudaefi, 2020), the regulation of fintech lending (Batunanggar, 2019; Widjaja, 2021; Sudirman & Disemadi, 2022; Kharisma, 2020; Cahyadi, 2020), sentiment analysis on fintech lending (Utami et al., 2022), and the issues emerge in fintech lending implementation (Disemadi 2021; Hidajat, 2020; Suryono et al., 2021; Noor et al., 2022; Herdiansyah & Himawan, 2022; Priskarini et al., 2020). Indeed, fintech lending is one of the products that receive a great amount of reception. Fintech lending has the advantages compared to traditional banking credit such as the ease of use and the ability to reach the underbanked and unbanked people that cannot be reached by traditional banking products (Rangkuti et al., 2020). Fintech lending even has snatched the bank market as there are many borrowers that switched from the bank credit to fintech lending (Afandi & Muta'ali, 2019; Baruna et al., 2023). Going further, the studies examining fintech lending products also consider the sharia fintech lending that becomes an interesting alternative for financing.

E-money and mobile payments are the second most-researched fintech products in Indonesia. Out of 125 research publication that we reviewed, there are 21 research papers that study about e-money and mobile payments products. The topics cover the determinants of e-money and mobile payment usage by the product users (Lesmana, 2019; Handharko & Harjoseputro, 2019), the impact of e-money and mobile payment on the performance of the issuing bank (Yudaruddin, 2022), the relevance of mobile payment product in the future (Iman, 2018; Nelloh et al., 2019), and the development of emoney and mobile payment (Karsen et al., 2019; Oktaviani et al., 2019: Warnars et al., 2021). E-money and mobile payment is one of the most-used fintech products as it is used daily by a large number of people and can be used for various activities from shopping (Handarkho, 2021; Handarkho & Harjoseputro, 2020) to charity (Alam et al., 2022). The number of transactions using mobile payment also keeps increasing (Marginingsih et al., 2019). Not only thanks to its convenience, the high usage of emoney and mobile payment product in Indonesia is also related to the consumptive behavior of the Indonesian people, especially the younger generation that holds the largest contribution to the use of this product (Yudaruddin, 2022). Further, the existence of Covid-19 pandemic also increases the usage of mobile payment thanks to higher reliance on the product (Rafdinal & Senalasari, 2021). Therefore, the existence of e-money and mobile payment support this consumptive behavior.

The rise of cryptocurrency and blockchain also makes this product become a subject for studies by the scholars in Indonesia. Considering the controversy of cryptocurrency in Indonesia, scholars conduct research about the determinants of investment decision in cryptocurrency (Nurbarani & Soeprijanto, 2022; Tjondro et al., 2023) and sentiment analysis on cryptocurrency (Hassan et al., 2021). Studies related to this product also discuss the more practical aspects such as the trading implementation (Soegoto & Ramadan, 2019), prediction of cryptocurrency price (Haryadi et al., 2022). The general topics are also studied such as the development of cryptocurrency (Wijaya et al., 2021), and possibility for its acceptance according to Islamic view (Haizam et al., 2019; Siswantoro et al., 2020).

Crowdfunding is also an interesting fintech product that gains significant attention by Indonesian academicians with several previous studies focusing on it. Previous studies that focus on this product in Indonesia have discussed several aspects such as the determinants of the intention to use crowdfunding (Masrizal et al., 2021; Niswah et al., 2019), the development of crowdfunding (Lukita et al., 2022), the potential and usage of crowdfunding (Indriana et al., 2022; Lestary et al., 2022), the optimalization of crowdfunding model (Muadzan & Nugroho, 2021), and the marketing of the product (Lestary et al., 2022). In addition to the above fintech products that gains significant attention by the scholars in



Indonesia, there are two fintech products that are less studied in Indonesian literature. These products are e-aggregator and risk and investment management. These products are indeed not for everyone, but only for specific users in the financial market that engage in investment activities. The research papers that examine these products discuss about the factors that contribute to the usage of the products (Utomo, 2017; Lemiyana & Permatasari, 2022).

## Thematic Analysis based on the Topics Studied

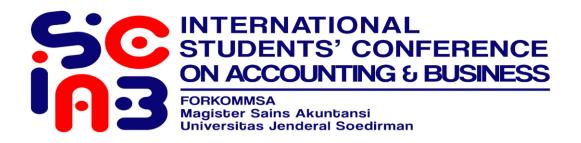
We continue our thematic analysis by classifying the previous studies based on the general topics of fintech that are examined in the literature. We break the classification of the general topics into the following categories: Determinant of Fintech Adoption/Implementation; the Impact of Fintech Implementation (Micro/Firm Level); the Implication of Fintech (Macro/Industry/Social level); Regulation of Fintech; Marketing of Fintech; Fintech Implementation and Strategy; Development of Fintech Product; and Issues in Fintech Implementation. The result of the thematic analysis based on general topics is presented in the following Table:

General Topics of Fintech	Total Number of Published Papers	Percentage
Determinants of Fintech Usage/Adoption	43	34.4%
The Impact of Fintech Implementation (Micro and Macro Level)	20	16.0%
Regulation of Fintech	15	12.0%
Marketing of Fintech	7	5.6%
Strategy of Fintech Implementation	12	9.6%
Development of Fintech Product	6	4.8%
Issues in Fintech Implementation	4	3.2%
Total	107	100%

Table 2. Thematic Analysis of Fintech Studies in Indonesia based on General Topics

Source: Elaborated by the authors

Based on the topics, the studies about fintech in Indonesian literature are dominated with the investigation of the determinants of fintech usage/adoption by its users. Indeed, it is intriguing to figure out what are the factors that matters for the fintech users to finally use fintech product, both for individual users and organizational users. The studies that investigate the determinant of the usage of fintech products by individual users conclude that several factors holds strong contribution such as risk (Fernando et al., 2018; Haqqi & Suzianti, 2020), brand image (Setiawan et al., 2021), ease of use/convenience (Handarkho & Harjoseputro, 2020; Niswah et al., 2019), reliability and security (Rulyfayrizqi et al., 2019), trust (Candra et al., 2020; Fernando et al., 2018; Pratama, 2021), value (Sundjaja & Tina, 2019), user attitude (Niswah et al., 2019), user innovativeness (Handarkho & Harjoseputro, 2020; Niswah et al., 2019), self-behavioral control (Handarkho & Harjoseputro, 2020; Niswah et al., 2019; Tjondro et al., 2023), social influence, and cashback (Warjiyono et al., 2019). Meanwhile, the determinant of the usage of fintech products by organizational users demonstrate the importance of several factors. The first part is from technological context that consist of perceived risk (Handarkho, 2020) and perceived cost (Urumsah et al., 2022).



There are also factors from organizational context that consist of organizational readiness (Okfalisa et al., 2022; Urumsah et al., 2022), top management support (Urumsah et al., 2022), knowledge (Urumsah et al., 2022), performance expectation (Ermawati et al., 2021; Suharyati & Utami, 2022), facilitation conditions (Najib et al., 2021), effort expectancy (Najib et al., 2021). Finally, there are also environmental factors from environmental context, namely consumer attitude (Laksamana, 2022), consumer engagement (Laksamana, 2022), and government support (Nugraha et al., 2022).

The impact of fintech is also a compelling topic that obtains a significant interest from academicians, industry players and regulators for further studies. The rapidly growing fintech surely delivers impact both in micro and macro level. Firstly, this research explores the impact of fintech implementation in micro level (firm level). Prior studies in Indonesian fintech literature are optimistic that fintech adoption will deliver positive impact for the business organizations that implement it (Putri et al., 2019; Utomo et al., 2022). Rangkuti et al. (2020) evidence that the implementation of fintech in banking industry will improve the services quality to customers, reaching broader market segment such as the unbanked people, reduce the level of fraud, and develop online investment products. In line with that, other studies by Putri et al. (2019) and Sumarta et al. (2022) also find that the implementation of digital banking products in banking will result in higher financial performance. Yudaruddin (2022) further find that the collaboration with fintech startups will provide an improvement for Sharia banks in Indonesia. Nevertheless, there are also several studies that evidence that banking and fintech collaboration has not been able to deliver significant impact on bank.

At macro level, prior fintech studies in Indonesian literature also present evidence that the massively growing fintech usage in the financial industry bring significant impact. In practice, the fintech can bring a lot of positive implications both for the industry, the country, and the people. Fintech is considered as an effective media for promoting financial inclusion in Indonesia (Setiawan et al., 2023; Erisna et al., 2020) as it is able to improve the access to finance (Anshari et al., 2019) by effectively reaching the unbanked people that have no access to finance (Rangkuti et al., 2020). Fintech also bring positive implication to the country by contributing to the economy through various way such as poverty reduction, and etc. It is in line with the idea that fintech will transform the microfinance (Oxford Analytica, 2021b). By increasing the microfinancing access through fintech, the Micro and Small Enterprises can have adequate financing (Ardiansyah, 2019) so that they will grow properly (Suryanto et al., 2020) and absorb labor force and reduce unemployment. In a more comprehensive measure, fintech will also help the country in achieving the Sustainable Development Goals (Hudaefi, 2020; Legowo et al., 2021). The usage of fintech by the people also creates digital culture that bring positive implications for the efficiency of daily activities (Guy, 2019).

Nevertheless, the emergence of fintech also brings unexpected consequences. Fintech innovation can disrupt existing industrial structures (Riyanto et al., 2018). Even further, fintech can create blurring between industry boundaries (He et al., 2017) which is considered to have the potential to threaten the survival of the banking industry that runs traditional business models. The emergence of fintech also has had a significant impact on the traditional business of commercial banks (Petralia et al., 2019) in which banks have lost some of their market share due to fintech lending with their various technological advantages (Buchak et al., 2018). Previous studies by Sapulette et al. (2021) confirm that competition with fintech negatively affects bank performance. However, there are also other research articles that find no significant effect of fintech towards bank performance (Asmarani & Wijaya, 2020). In addition to reducing bank performance, the literature also presents negative cases that occur following the implementation of fintech such as the increase of cybercrime and illegal fintech (Disemadi, 2021; Suryono et al., 2021).

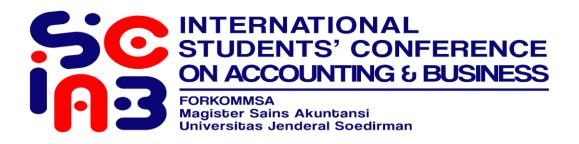
Another theme that emerges from the literature is the role of the government and business regulators in promoting fintech development. The role of government is very crucial in creating a favorable environment for fintech innovation (Batunanggar, 2019; Widjaja, 2021). In practice, the

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growth of fintech in Indonesia outpaces the regulations (Oxford Analytica, 2021a) as the development of fintech products are very quick so that there come many companies entering the market with diverse product variation. As a consequence, the urgency of fintech regulation becomes a significant aspect to pay attention to. A study by Sudirman & Disemadi (2022) mentions that the implementation of fintech still has a lot of deficiencies, especially in legal aspect. Therefore, the existence of robust fintech regulation is urgent in Indonesia (Kharisma, 2020). The improvement of legal aspects is believed to improve efficiency, access, and quality of fintech (Cahyadi, 2020). Several aspects can be regulated and implemented properly such as consumer protection (Noor et al., 2022; Yuniarti & Rasyid, 2019), data protection (Noor & Wulandari, 2021; Priskarini et al., 2020), and digital signature (Cahyadi, 2020). In addition, there are also several studies in the literature that discuss the Islamic law in various fintech products implementation (Akram & Furqani, 2021; Alshater et al., 2022; Aulia et al., 2020; Muryanto et al., 2021; Siswantoro et al., 2020; Sholeh et al., 2022).

Fintech marketing is also an interesting topic examined by scholars in the Indonesian fintech literature. The market of fintech products varies by products. Fintech lending products in general receives a lot of attention by the academicians, industry players, and regulators. Fintech lending market focuses on small credits. Even though the market is limited, fintech lending has been able to compete with traditional bank loans (Iman, 2019; Siek & Sutanto, 2019). Fintech lending has snatched significant market share of traditional bank loans thanks to its advantages. For the e-money and mobile payment, fintech companies have also been able to compete with banks' mobile payment services in the market. Here, fintech companies are able to offer cheaper prices to make them competitive. The fintech marketing topics also cover several other aspects in the Indonesian literature. The market of fintech and its usage has been increasing significantly for the past several years. The Covid-19 pandemic also has increased the market of fintech thanks to the increasing usage due to limited social interaction (Sugandi, 2021), not only for common products but also for investment products such as cryptocurrency (Waspada et al., 2023). The promotion strategy of fintech products holds important role. The marketing communication of fintech products is crucial (Noveriyanto, 2021), especially to make the products receive positive impression in the market (Yusuf et al., 2022). This can be achieved through various ways, mainly through such as social media and influencer (Safitri et al., 2020). For example, the campaign to use fintech is often used for fintech marketing (Saputra et al., 2022). In this regard, understanding the behavior of the customers is also quite important (Fernando et al., 2019). Further, customer satisfaction also attractive for further studies in the literature as it is important to increase the customers' loyalty and make them continue using fintech products (Khusnah et al., 2021).

The Indonesian fintech literature also shares several studies that focus on the strategies and mechanisms for successful fintech implementation. Collaboration among fintech companies is necessary for successful fintech implementation (Utami & Ekaputra, 2020). Many studies also suggest that collaboration between banks and fintech companies will be a good strategy to bring mutual benefit for both parties in running the business (Ebrahim et al., 2020; Fermay et al., 2018; Fitri et al., 2022; Frederica et al., 2021; Kartawijaya & Hamsal, 2018; Trimulato et al., 2022; Utomo, 2017) and even further contribute together to improving financial inclusion in Indonesia (Erisna et al., 2020). From the point of view of the banks, collaboration with fintech may be a must because the option is either getting disrupted or collaborate to grow together (Subanija et al., 2020). In broader area, collaboration among fintech companies and other companies across business sectors can also support the success of fintech implementation (Subanidja et al., 2020). Meanwhile, Putra et al. (2019) recommend that fintech companies should have a good strategy to monitor the user review as it is very important to know their opinion and thus the companies can improve with their products. On the other aspect, Santoso et al. (2020) discusses about the human resource management strategy in fintech and banking. By employing talent mapping as a strategic approach, fintech companies and banks can identify the required characteristics to improve the individual, group, and in the end, improve organizational performance. In



addition, formulating proper strategies has a great potential for further study for every platform (Dhar & Stein, 2017).

The development of fintech product is also a topic that has been explored in the Indonesian fintech literature. The optimization of fintech implementation becomes a crucial part for fintech development (Hendriadi & Primajaya, 2020). Also, understanding the characteristics of fintech application is also important for further development of fintech (Syarifah et al., 2020). Several potential products are discussed such as the integration of marketplace with public facilities using fintech (Warnars et al., 2021), fintech waqaf (Ryandono, 2018), sharia fintech products management and ecosystems (Hudaefi et al., 2023; Mujiatun et al., 2022), sharia crowdfunding (Hendratmi et al., 2019), and application for cryptocurrency-related activities (Haryadi et al., 2022; Septiarini et al., 2020). For the sake of fintech product development, it is suggested that fintech firms design good application prototypes for reliable application development (Doni et al., 2021).

Another topic in the Indonesian fintech literature is the issues in fintech implementation. It is undeniable that fintech implementation is followed with a lot of issues. In general, it is urgent to improve the compliance in fintech implementation (Muryanto, 2022). Without meeting compliance aspect, issues will always be there. Unfortunately, the fintech regulation in Indonesia is also not fully settled yet and thus several issues still arise. Previous studies by Disemadi (2021) emphasizes that illegal fintech is always present in the market. These illegal fintech companies are not registered in the OJK and have unethical business practices, mostly in fintech lending products (Hidajat, 2020; Suryono et al., 2021). Another issue in fintech lending is about the protection of customers (Noor et al., 2022) in which many borrowers cannot control their behavior that makes them over-indebted so that they need social protection (Herdiansyah & Himawan, 2022). This has implication on the importance of financial literacy and management to avoid such issues. Data protection of the customers also becomes a significant issue in which the customers' data is traded by irresponsible parties (Priskarini et al., 2020). The existence of these issues emphasize that the regulator needs to work hard to tackle the existing issues to create ideal environment for fintech.

#### Thematic Analysis based on the Approach and Methodology

Further steps of our thematic analysis are performed by identifying the approaches and methodology that are employed by previous studies in fintech in Indonesia. Firstly, we explore the theoretical approaches that have been adopted by Indonesian scholars in conducting their studies in the field of fintech. Our identification process reveals that there are several commonly used theories or models in the fintech literature in Indonesia. These theories/models consist of Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), Theory of Planned Behavior (TPB), Technological-Personal-Environmental (TPE) Framework, Technology Continuance Theory (TCT), Push-Pull Mooring (PPM) Theory, Disruption Theory, and Resource-Based Theory. The details are presented as follows:

Name of the Theory/Concept	Common Research Topic
Technology Acceptance Model (TAM)	Determinants of Fintech Usage/Adoption
Unified Theory of Acceptance and Use of Technology (UTAUT)	Determinants of Fintech Usage/Adoption
Theory of Planned Behavior (TPB)	Determinants of Fintech Usage/Adoption
Theory of Reasoned Action (TRA)	Determinants of Fintech Usage/Adoption

Table 3. Specific Theories/Models Adopted in Fintech Studies

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Name of the Theory/Concept	Common Research Topic
Technological-Personal-Environmental (TPE) Framework	Determinants of Fintech Usage/Adoption
Social Impact Theory	<ul> <li>Determinants of Fintech Usage/Adoption</li> <li>The Impact of Fintech Implementation</li> </ul>
Technology Continuance Theory (TCT)	Continuance of Fintech Usage
Push-Pull Mooring (PPM) Theory	Switching Behavior of Fintech Usage
Disruption Theory	The Impact of Fintech on Banks
Resource-Based Theory	Strategic Collaboration of Fintech

Source: Elaborated by the authors

In terms of statistical approaches, there are several analysis methods employed in the Indonesian Fintech literature. We made a summary of the usage of every analysis method used and the research question that is to be answered by using the analysis method. The summary is presented as follows:

Name of the Analysis Method	Research Topic
Descriptive Quantitative/Qualitative	<ul> <li>The Impact of Fintech</li> <li>Strategy and Implementation of Fintech</li> <li>Regulation of Fintech</li> <li>Marketing of Fintech</li> <li>Development of Fintech Products</li> </ul>
Regression Analysis Event Study	<ul> <li>Issues in Fintech Implementation</li> <li>Determinant of Fintech Usage/Adoption</li> <li>The Impact of Fintech</li> <li>Marketing of Fintech</li> <li>The Impact of Fintech</li> </ul>
Comparison of Means Test	The Impact of Fintech
Partial Least Square	<ul> <li>Determinant of Fintech Usage/Adoption</li> <li>Marketing of Fintech</li> </ul>
Structural Equation Modeling	<ul> <li>Determinant of Fintech Usage/Adoption</li> <li>Marketing of Fintech</li> </ul>
Sentiment Analysis	<ul> <li>Determinant of Fintech Usage/Adoption</li> <li>Marketing of Fintech</li> </ul>
SERVQUAL	Marketing of Fintech

Table 4. Analysis Method Adopted in Fintech Studies

Source: Elaborated by the authors

## CONCLUSION

As one of the biggest phenomena in the financial industry during the past decade, fintech has grown very massively and rapidly. As a consequence, the existence of fintech studies is very important.



By exploring the available research publications in the fintech literature in Indonesian context, the study provides systematic literature review to illustrate to what extent has the fintech studies conducted in Indonesia. From our analysis, we obtain a conclusion that the studies in the area of fintech in Indonesia have considerably covered the majority of the available topics. The scholars and regulators have given significant attention in regard with fintech implementation, proven with the existence of a number of studies despite many of the studies still have various limitations. Moreover, several research topics in fintech field for certain fintech products and fintech issues still requires further studies as they are still considerably less explored. The study suggests that the academicians, practicians, and regulators keep exploring various potential topics and issues in fintech and conduct comprehensive studies on them. Further, the quality of studies also needs to be improved as there are a lot of studies with quality issues. Research collaborations among academicians, practicians, and regulators can be one of the best methods to do so. Finally, the fintech studies in Indonesia can enrich the Indonesian fintech literature with the good quality paper publications in reputable research publishers. It is expected that the existence of the studies in fintech can contribute to improving fintech implementation from the development of the products, business practices, and regulation.

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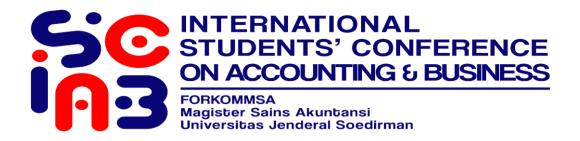
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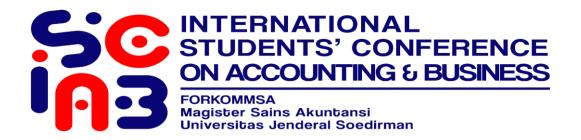
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