

Twitter Public Sentiment on Fintech by Using Drone Emprit

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Public trust is the main key to the success of a company's product. Businesses can find out how much their products are trusted by the community through reviews as well as various public opinions that are poured on social media. This research aims to map the sentiments of people in the world towards Fintech recorded on social media platforms Twitter. The results of this study are that people show negative sentiment towards fintech. as much as 9,324 mentions negative twitter users and as many as 2,708 mentions positive towards fintech. The fintech industry especially in Indonesia, in this case, needs to respond well to things that are weaknesses so that public trust can be earned.

Keywords: Fintech, Sentiment, Drone Emprit, DEA

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INTRODUCTION

The rapid development of technology disrupts various aspects of life in order to seek efficiency and convenience in all things. One of them is in the financial sector which is the main need of the community. The birth of Fintech as a new innovation in the field by introducing easy access, practicality, convenience, and economical costs (Bower & Christensen, 1995). Bank Indonesia defines Technology Finance in BI Regulation number 19/12/PBI/2017 as a financial system that uses technology and produces new products, technology services or business models and can have an impact on monetary stability, financial stability and efficiency of the payment system.

Early history of the birth of fintech was in the 1980s, banking in the world made use of technology as a data recording system that was accessed through a computer system. Then in 1982 the appearance-trade bringing fintech to a more advanced level, namely by enabling the banking system electronically for potential investors. Then In 1998 the banks began to introduce online banking to customers. And until now various innovations in fintech have begun to develop to provide convenience to the community.

The development of Fintech has expanded throughout the world, including in developing countries. Fintech in developing countries occurs due to the need for development from the inefficiencies of the existing financial system and combined with the emergence of new technologies (Asaba, Aiba, Hirano, 2016). With the birth of Fintech in developing countries like Indonesia, it is becoming easier for people to access financial services, which are currently controlled by banks. According to OJK data, until 2022 the number of fintech peer-to-peer lending providers in Indonesia who are licensed at the OJK is as many as 103 companies. The development of fintech has also increased Indonesia's financial inclusion to 85.10 percent in 2022 from a value of 76.19 percent in 2020.2019.

Even though the level of financial inclusion in Indonesia is quite high, the level of public trust in Fintech tends to be low. Based on a survey conducted by the Financial Services Authority (OJK) in 2021, it shows that the level of public trust in fintech is still 37% compared to consumer trust in banks which reaches 60%. This trust needs to be increased, because public trust is very important for the progress of fintech.

The emergence of fintech offers an update to make it easier for people, but not all people immediately believe and move. Communities have their own judgment and have different levels of risk management. The community has the freedom to choose and express opinions. Along with the development of today's technology, a social media platform has been created that accommodates the freedom of expression of the community, named Twitter. This platform gives people around the world a voice as free as possible to think and discuss everything that is trending at the time. This includes when Fintech emerged, people around the world gave their opinions about Fintech, which became a new innovation in the world of financial services. Therefore, the author aims to map the sentiments of people in the world who interact via Twitter regarding Fintech in order to find out the views and alignments of the community in addressing the current existence of Fintech.

LITERATURE REVIEW

Technology Finance

In general, financial technology can be interpreted as a technological innovation in financial transaction services. According to Bank Indonesia Regulation Number 19/12/PBI/2017 concerning the implementation of financial technology, the purpose of implementing financial technology is to encourage innovation in the financial sector by implementing consumer protection and risk management and prudence in order to maintain monetary stability, financial system stability, and an efficient, smooth, secure and reliable payment system.

Competition between fintech and traditional banking services is relatively more intense every year due to the continued development of information technology. Simultaneously, fintech is increasing interest in modern financial services from progressive financial institutions aiming to maintain and strengthen their leading role in the field (Webster & Pizzala, 2015). There are three types of financial technology, namely: 1) Payment systems through third parties (Third-party payment systems), 2) Peer-to-Peer (P2P) Lending, and 3) Crowdfunding (Hsueh & Kuo, 2017).

Social Network Analysis

Social Network Analysis is a mapping of relationships between people, organizations, topics,

locations, and other information entities. SNA can be used to obtain information such as interactions and friendships between users which are described as graphs. According to (Danny K., A. Indriyani, Danny M. 2020), Social Network Analysis (SNA) is an analytical method in a study that has a concentration on relationship research and is often used in measuring a relationship and describing some information individually.

Drone Emprit Academic (DEA)

Drone Emprit is a system that functions to monitor and analyze social media and online platforms based on big data technology. Drone Emprit itself uses Artificial Intelligence and Natural Learning Process (NLP) skills. Drone Emprit is able to present a Social Network Analysis map of how a hoax originates, spreads, who were the first influencers, and who is the group. In practice, Drone Emprit requires social media such as Twitter, which is often used to analyze public sentiment. In social media, Twitter provides an Application Program Interface (API) that allows us to get their data. One way to get data on social media (twitter) is by crawling. Crawling data on Twitter is a process of retrieving or downloading data from the Twitter server with the help of Twitter's Application Program Interface (API), both in the form of user data and tweet data (Sembodo, 2016).

Furthermore, the Emprit Academic Drone application will carry out conversation analysis through several stages, namely, (1) Analyzing all clusters of Twitter citizen conversations based on Fintech keywords. (2) Analyze sentiment based on keywords and determine the trend timeframe. (3) Analyze keywords through Social Network Analysis and then describe them based on influencers, buzzers and followers. (4) Sorting conversations based on the number of retweets, mention, use of content and hashtags. (5) Identify netizens based on the age of the users. (6) Determine the territory of the participating netizens.

Previous Research

There is a study on public sentiment towards fintech, namely by Sri Handika Utami et.al, with research entitled "Fintech Lending in Indonesia: A Sentiment Analysis, Topic Modelling, and Social Network Analysis using Twitter Data". This research examines how the sentiment of the Indonesian people towards a fintech P2P Lending application is starting to spread widely in Indonesia. This study uses a quantitative analysis method

with an approach Social Network Analysis using Twitter data. The results of his research are that Indonesian fintech still has negative sentiment from the public because there are many cases of people being deceived by many unlicensed fintechs in Indonesia. Therefore, strict and precise regulations are needed to prevent various unlicensed fintech from developing in Indonesia.

In another study, it shows that fintech is in demand by the public. A study by I Gusti Ayu Agung Pradnya Dewi examines "People's intention to invest in fintech P2P Lending through an analysis approach. "Theory of Planned Behavior". The results of this study are that 100 community respondents in the city of Badung Indonesia have a high intention to invest and the supporting factors for these people wanting to invest through P2P Lending fintech are the convenience of transactions and the responsibility of the P2P Lending management company.

Another study that was examined by Mahmud, K et.al., with research entitled "Customer Fintech Readiness (CFR): Assessing customer readiness for fintech in Bangladesh". The research method used is qualitative analysis and obtains data from primary data by distributing assessments to the community. The aim of his research is to examine the readiness of the people of Bangladesh in accessing fintech. The results of this study state that Bangladeshi society is lagging behind in readiness to master fintech. Several indicators causing lagging behind are financial literacy and financial health which are still low.

METHOD

In this study, researchers chose to use a qualitative descriptive research method. According to Mukhtar (2013), research that uses a qualitative descriptive method is a method used to find knowledge or theoretical views about research at a certain time. This study collects data from Twitter using the technique Twitter Crawling by the Drone Emprit Academy (DEA) engine (<https://dea.uin.ac.id/>) developed by Media Kernel Indonesia (UII, 2020). Drone Emprit is a big data system that functions to capture and monitor conversations on social media and online platforms. The author analyzes the frequency and trend of selected keywords related to "Fintech". DEA provides a variety of features including Twitter crawling, training and learning, analytics, reporting, demographic analysis, etc. (Fahmi, 2017).

The author collected Twitter conversations from October 2019 to March 2020. The DEA system uses the serviceApplication Program Interface (API) from the Twitter platform to collect conversations in real time using the streaming method (Laagu, 2020). Twitter developers provideTwitter search API to get almost real-time access to the latest collection of tweets published in the last 7 days filtered through a specific query (Fahmi, 2017; Jurnal Aparatur Vol. 6 No. 1, 2022 37 Fahmi, 2020).

1. Twitter Demographics

A. Based on Age

Based on the processed data above, there are 7,549 active users discussing fintech. Meanwhile, only 1,715 users were identified via Drone Empire. The results show that the authorstweet those who discuss Fintech on Twitter are dominated by people aged 19-29 years, namely 704 users. Of these 704 users, they generated 904 posts discussing fintech.

ANALYSIS

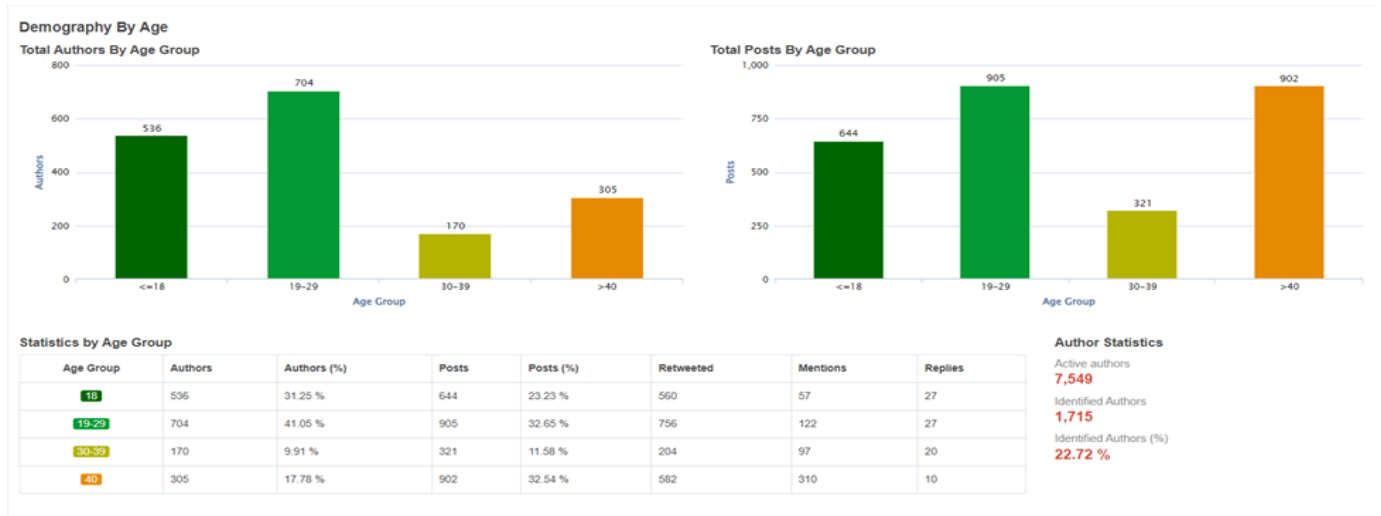


Figure 1: Analysis Based on Age

B. Based on Cities

The mapping of the discussion can be seen based on cities in the world. City whose inhabitants have Mentions or discussion on the most Fintech topics in the world in the period 2019 to 2020 is the city of London

with 540mentions about Fintech. As well as the city that mentions the most other fintech is the city of Jakarta with 399mentions. These two cities are two big capitals which are the centers of government and all activity regarding fintech takes place in these two city

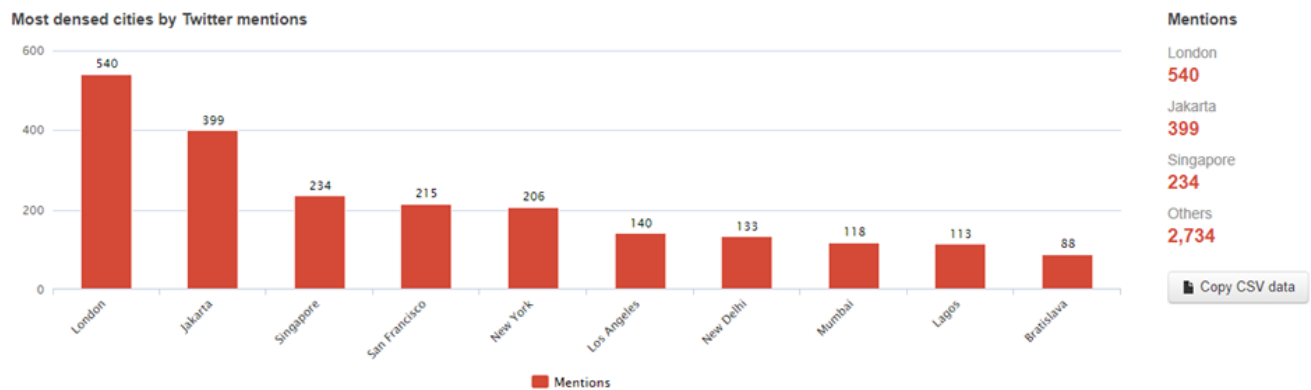


Figure 2: Analysis Based on City

These two cities are the biggest contributors to sentiment about fintech among other countries. Quoted from page Beauhurst that 2019 was the best year in terms of investment from fintech companies in the UK. Evidenced by an investment of 4.5 Billion Poundsterling to the

fintech industry. It's different with Indonesia. The reason why Indonesian people are more concerned with fintech is because based on OJK data that throughout 2019 there were 19,711 cases of complaints about fintech lending, with the majority of cases being serious violations.

2. Twitter Hastag



Figure 3: Analysis Twitter Hastag

During the period from 2019-2020, it was not only fintech that was discussed by the community, but there were several other keys that were also discussed by the community. One of which is "P2P Lending, payments, Banking, Blockchain, etc." All of these keywords are still included in the scope of fintech. There are some interesting keywords such as "Revive" which means to

restore. At that time there was the Covid-19 Pandemic, where all companies had declining performance, but fintech at that time became a medicine or restorer for the people's economy because fintech helped provide digital payment services which became a solution for people's transactions to buy necessities with limited interactions. there because of the pandemic.

3. Twitter sentiment

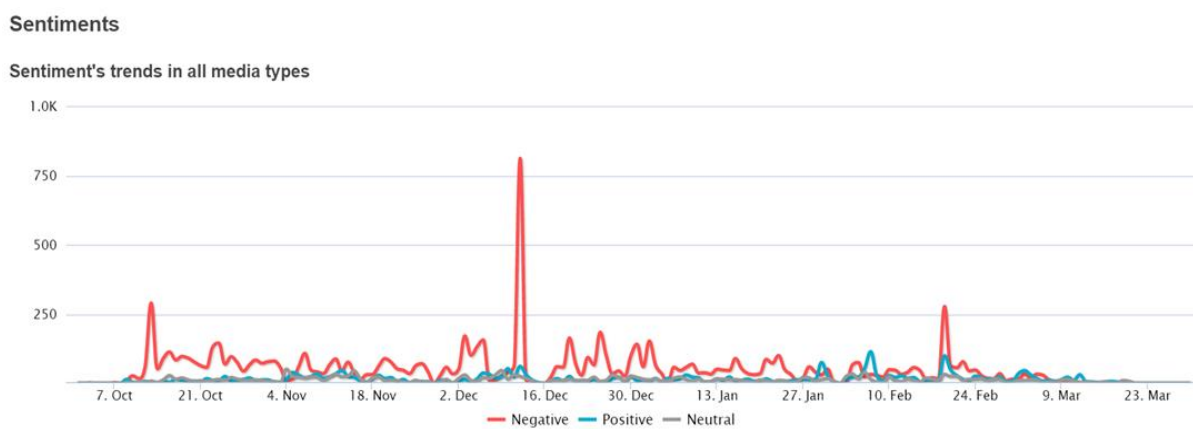


Figure 4: Analysis Twitter Sentiment

Throughout the observation period, there was a fluctuating curve of public sentiment towards fintech.

Overall, society shows negative sentiment towards fintech. The highest level of negative sentiment occurred on

December 16 2019. The level of negative sentiment in Indonesia is when people start to give a feeling of distrust of fintech or loans because there are many people who are trapped in loans. Reporting from Kompas News on

December 16 2016, that OJK has blocked 1,898 unlicensed Fintech. The number of fintech victims in Indonesia in 2019-2021 reached 19,711 victims.

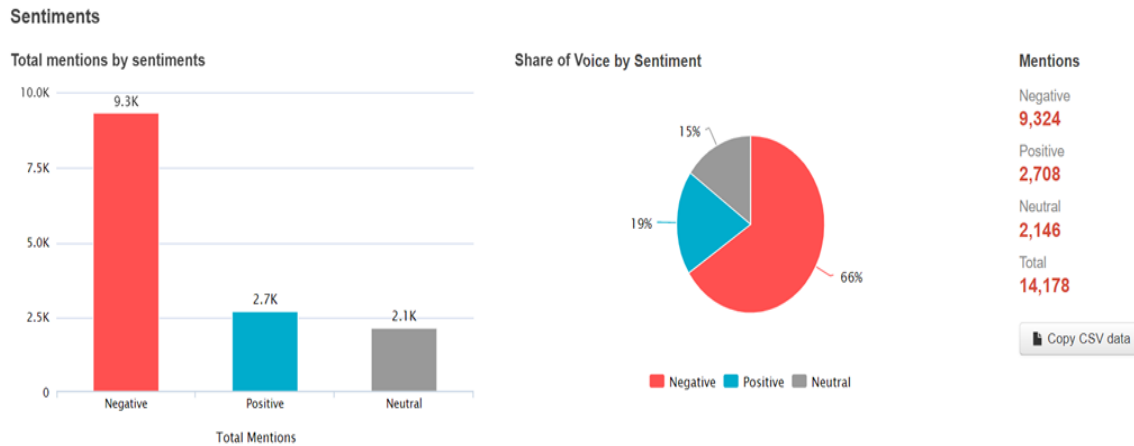


Figure 5: Share of Voice by Sentiment

Overall, it can be seen that there is a lot of negative sentiment towards fintech from the public, namely 9,324 *mentions* while the positive sentiment is only 2,708 *mentions*. This shows that the level of public trust in fintech is still low and needs to be improved.

The fintech sector tries to bridge the gap between the conventional banking sector and people who have not had access to banks, while at the same time making the financial industry more efficient. In line with these goals, fintech companies must carefully consider their marketing strategy and implementation in different countries. The facts show, a weak distribution strategy can cause the presence of fintech to make progress in one country but can fail in other countries.

Fintech is not only transforming the conventional financial industry, but fintech is also in the Islamic finance industry (Rusydiana, 2019). The Islamic finance industry, which is expected to have assets of US\$3.8 trillion by 2022, will provide a big boost for start-up fintech companies, especially in the area of crowdfunding and peer to peer financing. Meanwhile, blockchain-based opportunities have the potential to transform Islamic banking by aligning Islamic finance contract standards on smart contracts and cutting service fees by up to 95% with permanent records of ownership and assets.

The development of sharia fintech has not been in line with its literacy, where there are still many ordinary

people who are not familiar with it so that its benefits cannot be felt optimally, besides that its contribution to society is still not visible. Sharia fintech also needs to re-evaluate what needs to be improved so that it can provide a product that is useful and friendly for all ages. Sharia fintech, which tends to be new in Indonesia, still creates contradictions and differences of opinion in society. Issues related to the security of digitalization of finance, as well as fintech as a means of facilitating 'usury transactions' to reach new customers, need to be an important concern going forward. Several Sharia fintech phenomena in Indonesia can be seen further in the studies of Muryanto et al., (2022), Rusydiana (2018), also Rafiki & Nasution (2021).

CONCLUSION

Public trust is the most important factor for success in a company. Fintech is a solution to all challenges at this time by offering convenience to the community and providing various digital services that are oriented towards a bright future, public sentiment in 2019 to 2020 shows an unfavorable view of fintech. But with more and more fintech developing and continuing to evaluate all errors, fintech and also Islamic fintech industry will gradually gain the full trust of the public.

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