

# Impact Analysis of Digital Mutual Fund Platform on Investment Growth in Indonesian Capital Market

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**Abstract**—Digital revolution is transforming the way customers access financial products and services. Since 2017, the number of investors in the Indonesian capital market, based on Single Investor Identification (SID), has increased significantly. This is due to the emergence of digital platforms in mutual funds trading. This study aims to determine the impact of the Digital Mutual Fund Platform on the development of investment in the capital market which includes the number of investors, values and volume of investment, and the number of companies listed on stock exchange. Analytical method used is descriptive qualitative by analyzing, describing, and summarizing the data obtained. The results showed that in December 2021, number of capital market investors was 7,489,337 investors, an increase of 569% compared to 2017, and trading volume reached 5.096 billion shares. The number of companies listed on IDX at the end of 2021 are 766 companies. More than 73.99% of Single Investor Identification (SID) have investment accounts in fintech selling agents, that used digital mutual fund platforms in running their business. This shows that the Capital Market growth is affected by the development of digital platforms in mutual funds trading.

*Keywords*— capital market, mutual funds, investors, digital platform, stock, investment, financial technology

## I. INTRODUCTION

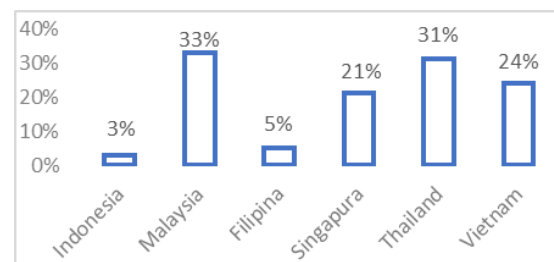
Today, investment has begun to be in demand and practiced in community. It is shown in the emergence of various kinds of investments such as savings, gold, land, valuable certificates (stocks and bonds), and so on [1]. Investment is also one of development instruments needed to improve people's welfare. Investing in the Capital Market is an investment alternative that is easily accessed by the public. In Indonesia, public's contribution to investment in the capital market has begun to develop since the opening of the Indonesia Stock Exchange (IDX) [2]

Indonesia is the largest economy in ASEAN, with an average GDP (Gross Domestic Product) growth of 5% per year (2014-2019). As income per-capita increased, Indonesia has also entered the upper-middle income country class. This condition is great potential for the growth of a conducive

investment. However, until now, most Indonesians still keep their wealth traditionally, such as savings and deposits, and have not been allocated in capital market investments or mutual funds. Penetration rate of Indonesian public mutual funds is the lowest in ASEAN (Figure 1). The penetration rate of Indonesian public mutual funds in 2020 is 3% of GDP. This shows that awareness of the Indonesian people about investment is low. Whereas investment is the main motor of a country's economic growth. Investment will encourage growth and development of the business because business needs capital. Advanced business will bring a positive influence on the economy. Unfortunately, Indonesian people are not familiar with investing in stocks yet. People have perception that stocks, capital market, and stock exchange are complicated, seem expensive, and have a high risk [3].

Various efforts have been made by the government and related parties to increase public interest in investing in the capital market. One of the efforts to attract public interest in investing in the capital market is through slogan :“Yuk Nabung Saham” campaign which was launched on November 12, 2015. This campaign was organized by the IDX to invite the public as potential investors to invest in the capital market by buying shares regularly and periodically. This is an effort to develop capital market industry in Indonesia. In addition, IDX also constantly educates public and seeks to develop the industry in a better direction [4].

FIGURE 1. ASEAN MUTUAL FUND PENETRATION LEVEL (% OF GDP)



Source: PwC Asset and Wealth Management Report: Emerging Markets: Tigers and Titans, 2020.

In this communication and information technology era, technological advance have provided a very broad source of information and communication. The world has shifted from the era of industrialization to the information age which then switches to an information society. Rogers stated that information society is a society in which most people are employed in information sector, and information has become the most important element in life [5]. Development of information technology has had a broad impact on various aspects of people lives, including trade and the payment system. Rapid growth of information technology has made it easier for people to do business and transactions. This technology has also helped to bring together investor and business actors who need funds, so that investors can invest through various digital platforms.

By increasing sophisticated technology in capital market, especially in mutual fund investments, public interest in investing in mutual fund products is also getting higher. Existence of digitalization has made the stock transaction process very fast and easy, in contrast to previous era which was completely manual. Before digitalization era, investors had to bring stock papers (called scripts) to the IDX if they wanted to buy or sell shares. Nowadays, easiness of making investments is main attraction for community. Investments in Capital Market can be done through online trading facilities that can be accessed using a smartphone [6]. Online trading facilities make it easy for investors to transact anywhere and anytime using devices that can access the Internet. This is very helpful in term of speed and accuracy of making investment decisions [7]. By facilities that provide easy access to Capital Market information, it is hoped that investors or potential investors will be interested to invest. Speed and accuracy in stock exchange transactions is very important to provide convenience to all involved parties, especially investors, to be able to quickly analyze and make decisions. This convenience will have a direct impact on increasing public interest in investing on shares [8].

During 2020, number of Indonesian capital market investors increased significantly, reaching 56.21% year on year (yoy), mainly driven by increase on mutual fund investors, which grew by 78.95% (yoy). This growth rate is the highest growth record in last four years so by the end of 2020, the number of capital market investors reached 3.87 million investors. One of factors that is influencing increasing number of investors is development of financial technology (fintech) (Bank Indonesia, 2021). Based on data from the Indonesian Central Securities Depository (KSEI), in 2021, this growth rate will continue to increase rapidly, reaching 92.99% (yoy), with asset growth reaching 28.44% (yoy) [9].

In 2020, along with increasing number of capital market investors, young people with incomes below Rp100 million per month have dominated the composition of investors, amounting to 83.16%. This number also increased compared to the previous year which was 70.75%. Fintech platforms development in capital market activities also have an important

role in increasing retail investors at the young age. It is hoped that role of younger generation as agents in financing the national economy will be increased [10].

The rapid development of digital technology has also shifted business models and behavior in financial sector. Financial institutions competition is needed to provide convenience for customers in various services available, as well as provide easy access to financial information. Data from the Financial Services Authority (OJK) shows that there are at least 76 online transaction portals provided by dozens of financial industry players, including e-commerce, banks, and securities. Especially in capital market industry, phenomenon found of emergence of startup companies that specifically provide mutual fund investment products for investors began with the emergence of digital investment platforms in Indonesia that began to develop in the mid-2000s. One of pioneers is PT Indo Premier Sekuritas by launched a technology-based financial ecosystem, IPOT (Indo Premier Online Technology) in 2007. Other platforms then emerged were Bareksa, Bukalapak, Bibit, Pluang, to Nanovest which was launched at the end of 2021 [11]. PT Bareksa Investment Portal or better known as bareksa.com is the first integrated financial and investment marketplace in Indonesia, which has been officially licensed as a Mutual Fund Selling Agent by the Financial Services Authority since 2016. Although the existence of companies that sell mutual fund securities has previously been carried out by financial institutions that were previously established such as banks and securities companies. These companies came to be known as Mutual Funds Selling Agents (APERD).

This study aims to determine the effect of existence of a digital mutual fund platform on development of investment in the capital market, which is determined by number of investors, number of investment assets, and number of companies listed on the IDX. Therefore, effectiveness of digital platforms, as one of digital products in encouraging development of investment climate in Indonesia, can be proven. The results of this study can be considered by stakeholders to make decisions regarding usage of fintech in increasing public investment interest.

## II. LITERATURE REVIEWS

Capital market plays an important role in economic development because the capital market is one of the sources of long-term external financing for business, especially for companies that go public as well as a vehicle for investment in community [12]. For public necessities, especially investors as parties who have excess funds, capital market is an alternative to invest.

According to Husnan [13], factors that influence success of the capital market consist of 1) availability of securities, 2) demand for securities, 3) political and economic conditions, 4) legal and regulatory issues, 5) existence of institutions that regulate and supervise activities of capital markets and various institutions that enable efficient transactions on the political and economic conditions of a country. Capital market is sensitive to information, and market will be efficient if it can reflect all available information into prices accurately and quickly.

Investment is an in-depth analysis to ensure safety of our capital and obtain satisfactory returns. Actions that do not meet these requirements are speculation [14]. Investment is a setting back in current consumption to be used in efficient production for a certain period[15]. Tandelilin defines investment as a commitment to funds or other resources carried out at this time, intending to obtain benefits in the future. Investors buy shares today in order to get profit from increasing share prices or dividends in the future, in return for time and risk related with investment [16].

In Capital Market Law No. 8 of 1995, article 1 paragraph (27), mutual funds are defined as a forum to collect funds from the investor community to be invested in securities portfolios by investment managers. There are three important things that are included in the fundraising activity, namely: 1) existence of funds from the investor community; 2) funds are invested in a portfolio of securities; and 3) fund is managed by an investment manager. Thus, the funds in the Mutual Funds are investors's property, and the investment manager is the party who is trusted to manage them. Base on investment portfolio, Mutual Funds can be divided into Money Market Funds, Fixed Income Funds, Equity Funds, and Discretionary Funds.

Fintech is a dynamic section at junction of financial services and technology sectors where technology-focused start-ups and new market initiate to innovate products and services currently provided by traditional financial services industry [17]. Fintech refers to the using of technology to deliver financial solutions [18].

Existence of fintech companies can increase community involvement as investors in the capital market. Based on data released by KSEI, there has been a significant increase in number of capital market investors in the last three years (2017–2020), where contribution of the APERD fintech in that increasing is 54.52% [4]. The growth of digital technology is very influential on people's interest to invest in the capital market. This is due to availability of facilities and infrastructure that have made it easy for public to invest in the capital market. Another impact of this technological development is ease of obtaining information about investment knowledge in the capital market. High public interest in investing in the capital market makes community's economy better [19].

Das & Ali, in their research, stated that digitalization adaptation in mutual funds shows a very positive sign of increasing investor participation. With digitization, investors can make direct investments, without involvement of any broker or distributor, e-commerce platforms will make it easier for investors to invest in mutual funds. Technologies such as robo advisory can help customers to have access to a lot of information and they can get personalized advice according to their wishes. However, there are several challenges, which can be overcome with active involvement of regulators, in bringing about the necessary regulatory changes in order to attract investors, while maintaining the interests of investors [20].

Previous research conducted in Indonesia mostly only examined the impact of fintech on increasing the number of

investors. The novelty of this research is that apart from examining the impact of fintech on the number of investors, it also analyzes the impact of fintech on the number of investments and companies listed on the IDX.

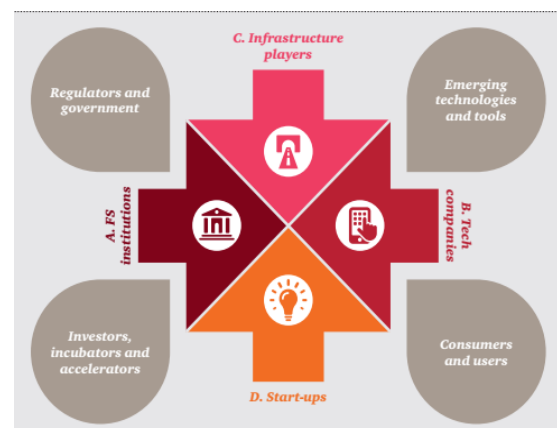
### III. RESEARCH METHOD

This study uses a descriptive qualitative analysis method using secondary data derived from literature studies relating to materials that support this research. Data used were obtained from various sources such as books, newspapers, magazines, journals, articles, government websites, and stakeholders in the Indonesian financial industry and capital market. Data types that will be used in this study is secondary data obtained from the Financial Services Authority (OJK), the Indonesia Stock Exchange, the Central Securities Depository, and the Bank Indonesia, as well as other official websites, which are then reprocessed according to the needs and ease of analysis. Conclusions are drawn through a complete description of the capital market after combining all data and information that has been processed and analyzed.

### IV. RESEARCH RESULT

Internet and mobile devices have become core elements of people's lifestyles and have brought a high degree of disruption to virtually every area of business, including financial services industry. Digital revolution is transforming the way customers access financial products and services. Technology-driven applications constantly penetrate nearly every segment of financial services. At the intersection of finance and technology lies a phenomenon that has been accelerating pace of change at a remarkable rate and is reshaping industry's status quo. Fintech is gaining significant momentum and disrupting traditional value chain. Funding of Fintech start-ups more than doubled in 2015, reaching \$12.2 billion, up from \$5.6 billion in 2014 [17]. Cutting-edge new market activities and Fintech companies are not only redrawing competitive landscape but also blurring lines that define players in financial service area (Figure II).

FIGURE II. FINTECH ECOSYSTEM



Source: PwC, 2016.

In supporting its business activities, IDX always provides information to public regarding stock price movements, both through print and electronic media. One of the pieces of information submitted is the movement of the composite stock price index (JCI) which is a combination of all shares listed on the Indonesia Stock Exchange. Thus, investors can find out whether market condition is exciting or sluggish through the movement of composite stock price index. According to Kendal in Samsul, information received by investors will affect investors in managing their investments [21]. Through digital platform, investors not only get information about the JCI but also individual stock price movements. Existence of the faster and more open information will increase investor’s interest to invest in the capital market because of their higher control over their investments. In addition, this digital platform also reduces information asymmetry between investors and company’s internal parties.

*A. Research Findings*

Since 2017, mutual fund transactions, especially retail, have begun to be intensively carried out online in line with increasing use of social media in community. Data from Financial Services Authority show that the number of digital platform-based mutual fund sellers grew 66.67% from 30 platforms in 2017 to 50 platforms as of April 2019. By mid-2022, the number of registered digital platforms had increased to 76 platforms [22]. Number of companies listed on the IDX also increased significantly in 2017 and 2018, by 5.40% and 9.36% (Table I and Figure III). Table I and Figure IV, showed the amount of transaction volume. Transaction volume increased significantly in 2017 and 2019, of 48% and 85%, respectively. The growth of capital market investors can be seen in Table II and Figure V. In 2016 the number of capital market investors, based on Single Investor Identification (SDI) significantly increased, by 105.97%, followed by 2019, where the number of investors increased by 92.99%. Previously from 2013 to 2016, the average increasing of the number of investors was only 15.59%.

Demographically, based on education level, as of the end of April 2022, the number of capital market investors was dominated by high school education investors, reached 60.57% by stock asset value of Rp160.69 trillion and mutual fund asset value of Rp38.08 trillion. Next, followed by Undergraduate education (29.42%), Diploma (7.32%) and Master (2.69%). Based on total assets, investors with an Undergraduate education level have the largest assets, asset values reaching IDR 427.51 trillion and mutual fund asset values of IDR 106.43 trillion. These data prove that many investors with a high school education level have chosen the capital market as an alternative investment. This data shows that today, the capital market is not only for particular groups, but has become the choice of the community to invest. One of the influencing factors is investment in the capital market is accessible by public, one of them is the opening of an online account initiated by KSEI in 2019 [23].

TABLE I. COMPANIES LISTED AND TRANSACTIONS IN IDX (2008-2021).

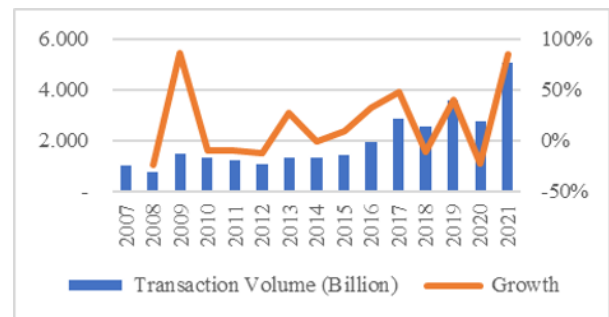
Year	Company	Growth	Transaction Volume (Million Share)	Growth
2007	383		1,039,542	
2008	396	3%	787,846	-24%
2009	398	1%	1,467,660	86%
2010	420	6%	1,330,865	-9%
2011	440	5%	1,203,550	-10%
2012	459	4%	1,053,762	-12%
2013	483	5%	1,342,655	27%
2014	506	5%	1,327,014	-1%
2015	521	3%	1,446,314	9%
2016	537	3%	1,925,419	33%
2017	566	5%	2,844,845	48%
2018	619	9%	2,536,279	-11%
2019	668	8%	3,562,367	40%
2020	713	7%	2,752,471	-23%
2021	766	7%	5,096,450	85%

FIGURE III. COMPANY LISTED IN IDX GROWTH (2008-2021)



Source: BPS, Indonesia Stock Exchange, 2022, Processed.

FIGURE IV. TRANSACTION VOLUME GROWTH (2007-2021).



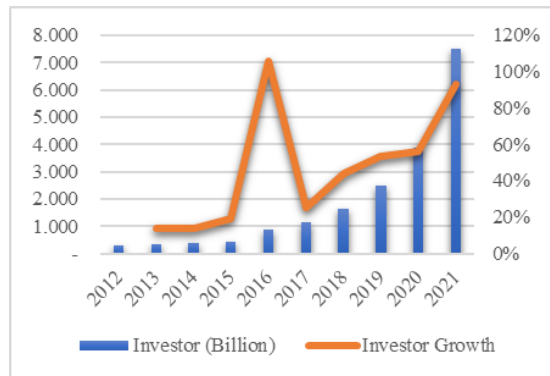
Source: BPS, Indonesia Stock Exchange, 2022, Processed.

TABLE II. INVESTOR AND NET ASSET VALUE (2008-2021).

	Investor (Billion)	Growth	Net Asset Value	Growth
2012	281,256			
2013	320,506	14%	193.57	
2014	364,465	14%	242.46	25%
2015	434,107	19%	272.79	13%
2016	894,116	106%	339.17	24%
2017	1,122,668	26%	456.89	35%
2018	1,619,372	44%	506.91	11%

2019	2,482,354	53%	542.17	7%
2020	3,880,753	56%	573.54	6%
2021	7,489,337	93%	579.96	1%

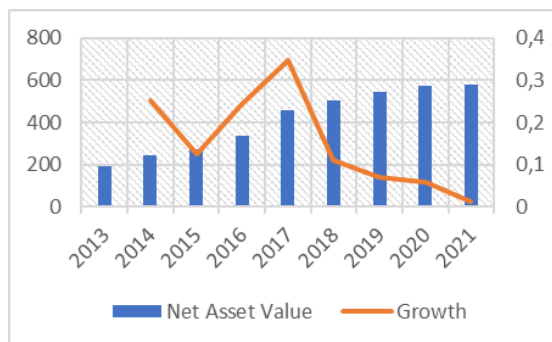
FIGURE V. INVESTORS GROWTH (2012-2021).



Source: BPS, Indonesia Stock Exchange, 2022, Processed.

The growth in total net assets can be seen in Table II and Figure VI, net assets increased significantly in 2016 and 2017, namely 24.33% and 34.17%, but in 2018-2021 the percentage of growth continually declined, although it still remains positive.

FIGURE VI. NET ASSET VALUE GROWTH (2013-2021)



Source: BPS, Indonesia Stock Exchange, 2022, Processed.

### B. Discussion

From the data on the growth of number of companies listed, number of investors, and value of net assets, it can be seen that on average there was a significant increase in 2016-2018. This data is in line with the emergence of digital mutual fund platforms. The increase in the number of investors in the Capital Market is inseparable from the development of digital platforms because as many as 54.25% of SIDs have investment accounts in start-up companies engaged in APERD that have applied digital mutual fund platforms in running their business [4].

Indonesian capital market investors, which are dominated by Millennials and Gen-Z generations, are also one of the reasons for the rapid development of digitalization in the capital market over the past few years. Fintech platforms are increasingly important for investment in the capital market. It can be seen from KSEI data, in December 2021, more than 73.99% of

investors have investment accounts in fintech selling agents. The total volume of subscription transactions by fintech selling agents dominates Mutual Fund transactions with an increase of 125% yoy, from 8,08 million in 2020 to 18.23 million as of December 28, 2021 [23]. It indicates that existence of a digital mutual fund platform has an effect on increasing the number of investors, net asset value, and listed companies number in the capital market.

The result of this research is relevant with Dinandra's [24], investigate marketing strategy of Bibit application. The marketing team of Bibit application believes that digital marketing is the right choice to interact with the target market, and reach Indonesian people who are not yet aware of the importance of investment. The main focus of marketing activities for the Bibit application is a strategy to increase brand awareness. The efforts made by the Bibit application marketing team to increase brand equity are by using social media, both Instagram, Twitter, and Youtube, which are intended for advertisements or organic content for the Bibit application.

Arner [18] finds that the 1990s tech bubble is a clear example of intersection of finance and technology, as is NASDAQ, the dematerialization of securities industry which has followed over succeeding decades and the advent of program trading, high frequency trading and dark pools. Looking forward, in addition to continuing development of alternative financing mechanisms, fintech is increasingly involved in areas such as robo-advisory services.

### V. CONCLUSION

The capital market plays an important role in economic development because this is one of the sources of long-term external financing for the business sector, especially for companies that go public as well as a vehicle for investment for the community. Since 2017, mutual fund transactions, especially retail, have begun to be intensively carried out online in line with increasing use of social media in the community. Data from the Financial Services Authority show that the number of digital platform-based mutual fund sellers grew 66.67% from 30 platforms in 2017 to 50 platforms as of April 2019. From data obtained on the growth in number of companies listed, number of investors and net asset value significantly increased from 2016-2018. This high growth is in line with the rise of digital mutual fund platforms. In December 2021, more than 73.99% of investors had investment accounts in fintech selling agents. It implies that existence of a digital mutual fund platform affects increasing number of investors, net asset value, and listed companies in the capital market.

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