Financial Technology and Business Performance among Small Medium Enterprises (SMEs) in Indonesia

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Abstract

Business performance is one of the most significant metrics when it comes to hitting the targets set by business owners. Business performance refers to how well a company performs at a given time based on its activities. Micro, Small, and Medium Enterprises have become a driving force of economic activity both in the creation of employment opportunities, but also as an integral growth of business local economic and community empowerment, the generator of new markets, as well as the source of innovation. The share of SMEs is much bigger than the share of large enterprises. Small and Medium enterprises (SMEs) have helped generate job creation, create a gross domestic product, and offer a safety net mainly for low-income individuals to participate in productive economic activities. Competitive SMEs generally contribute towards improving the economy of the state as well as contributing to the development of the global economy. In addition, the operation of financing services is significantly improved for SMEs by using financial technology (Fintech), which enhances the scalability and accessibility of financial services. Fintech solutions for SMEs include digital payments and peer-to-peer lending.

Keywords: Financial Technology, Business Performance, SMEs

Introduction

Public Access Financial Technology (Yigitcanlar et al., 2021), various financial products are readily available. Financial technology is also related to information innovation that transforms financial services into a new form. a) It is easy to do business. (b) Reinventing the 'wheels', selling stuff on the web. c)Traders without conventional outlets to sell their wares can hawk their goods or services to consumers via a range of media including social media or sites with explicit purposes.

Fintech has greatly assisted financial services by modernizing them (Shadrack Obeng et al., 2024). These are just a few of the ways Fintech is transforming the financial services industry. a) Easy access: Fintech services allow consumers easier and faster access to financial services (banking, loans, investments, payments) through digital applications and platforms. The digital app allows for convenience, particularly in underbanked areas. b) Service automation, At present, most financial services can be accessed without the direct interaction of bank officers. Chatbots and virtual assistants, for instance, can assist customers instantly through a range of transactions and queries. c). Better security, Fintech combines multiple sophisticated security technologies, including data encryption, two-factor authentication, and biometrics, to protect users' financial information. The force behind increasing the transparency and security of finances is also blockchain technology. d) Cost and time savings, automated processes and technology have helped operational costs to be more efficient and given over to consumers in lower service costs. On top of that these days in completing financial transactions. e) Innovation of financial products, Fintech has enabled a range of new products, including peer-to-peer lending, Robo-advisors, and micro-investment services that allow even those with low capital to invest in the financial markets. f) Financial inclusion, Fintech enables more people, even those without access to traditional banks, to access financial services. Fintech can enhance financial inclusion for the underprivileged, particularly in remote regions and low financial capabilities. g) Personalisation of service: Fintech can tailor services more closely to the specific needs of the clients because of the discipline of advanced data analytics.

Rapid growth, development, and modernization have transferred financial technology into a more mature state (Ikromov, 2024). The paradigm shift to be better in financial technology brings in new opportunities, and challenges. Regulatory by the regulator is a better financial technology. The prospect of innovation is heightened by regulators and the people who partake in the market. Before the industry becomes too big to regulate, we need regulatory(body) intervention, aimed at helping SMEs, business people, (small businesses), and financial technology development. The government gets involved in the process of arranging transactions in a way that maximizes the function of financial technology in financial institutions and commercial entities.

Regulatory interventions that regulate financial transactions are the role of the government to optimize the role of financial technology in financial institutions and the business community (Astriawati, 2024). Regulating financial technology through government intervention enables a safe, fair, and of course sustainable ecosystem in creating wide opportunities for Fintech to sustain economic development and inclusion in society.

Moreover, financial technology refers to payment systems and peer-to-peer lending (Hidayat et al., 2020). Building the payment system is a challenge with a lot of transactions done by the community. Fintech has been known to disrupt traditional financial systems, providing consumers with faster, cheaper, and more accessible alternatives to traditional banking and/or financial services (Kumar et al., 2023). Fintech has been a game-changer for the SME sector, serving many of the SME sector challenges like extreme credit access, expensive transaction systems , and inefficient payment systems. The payment system has, traditionally, separated creditors from debtors. The cash payment system is developed from the noncash payment system where the documentation is settled (checks, current accounts, and debit records) based on electronic (Electronic Cards or Electronic Money) (like the one this article is) The payment systems are essential (De Luna et al., 2019; Akanfe et al., 2020). In the payments community, transactions happen. Payment system economic transaction patterns have developed continuously. However, human advancement through technology can create excellent financial estimations.

Digital payments mean payment transactions carried out through digital platforms such as mobile wallets, online banking, and payment gateways (Calderon, 2025). These systems allow SMEs to receive payments from clients quickly, minimizing the need for cash payments and enhancing cash flow management. For SMEs, the effect is enhanced efficiency: digital payments speed up transactions, saving time and cost in managing cash. SMEs can reach out to global markets by allowing payments from customers across the world. Digital payment systems such as Mobile money have empowered small and medium businesses (SMEs) in underprivileged areas to be part of the formal economy.

Then, peer-to-peer lending/ P2P is a financial innovation originating from Indonesia's long-existing financial technology (Girsang & Piva, 2017). Peer-to-peer lending refers to individual-to-individual loans. All of these lending have been in various shapes, and forms, for a long time, through informal arrangements. Just like e-commerce has progressed with technology, lending activities also evolved on online platforms. Funding can be obtained from numerous parties by a borrower. Peer-to-peer lending is accomplished online via a website platform (from different peer lending companies: numerous platforms, products, and credit analysis technologies (Dong et al., 2020)).

The basics of P2P lending can support crowdfunding. Crowdfunding can be described as borrowing money from debt securities. Crowdfunding can be further broken down into another segment where an individual, organization, or business borrows money directly from an investor (through an online platform) without going through conventional financial intermediaries (like Banks). The consequence for SMEs is credit access (Del Sarto, 2024). P2P lending serves as an alternative funding source for SMEs who may have difficulty obtaining loans from traditional banks due to inadequate collateral or credit history. Lower interest rates P2P platforms bypass intermediaries, meaning they can offer lower interest rates than traditional lenders. The algorithms and data analytics make it possible to approve loans much faster which is very important in the case of SMEs as they may require capital very immediately.

The broader Impact of Fintech on SMEs more financial inclusion. Fintech has democratized access to financial services, allowing small to medium enterprises (SMEs) in remote or underserved areas to take part in the global economy (Baltgailis et al., 2023). For instance, mobile banking and digital wallets enable SMEs to access financial services without visiting a physical bank branch. Better management of cash flow there are as well digital tools including the upon that assist SMEs oversee the exceeding increase financially, subsequently decreasing the risk for cash flow issues. This reduces reliance on intermediaries resulting in Cost reduction, by automating processes and Fintech solutions lowering operational costs for SMEs. Digital payment systems, for example, eliminate manual reconciliation and paperwork. Depending on data, Fintech platforms use big data and analytics to offer SMEs a better understanding of customers' behavior, market trends as well as financial performance. The ability to visualize this data makes it possible for SMEs to make better decisions and streamline their processes.

The Fintech regulatory agency in Indonesia, the Financial Services Authority stated that P2P lending is an information technology-based money lending service. A comprehensive definition refers to POJK No 77, the year 2016, which states that the services of borrowing money based on information technology are a realization of financial services. Borrow in currency rupiah can be directly from a lender through the electronic system, the electronic system Internet network. They are not having the borrowers and lenders meeting face to face and largely not recognizing. Peer lending is different and can not be used as a collection of deposits, investments, or insurance of traditional financial institutions.

Fintech adoption trend in Indonesia, technology as a catalyst Indonesia (Rafsanjani et al., 2025). Indonesia is a country with a population of more than 270 million people and the digital economy continues to grow, therefore a hot spot for Fintech innovation. A young, tech-savvy population, rising smartphone penetration, and favorable government policies underpin the country's Fintech ecosystem. Fintech has become one of the emerging markets in Southeast Asia, with Indonesia at the forefront when it comes to digital payments, peer-to-peer (P2P) lending, and more financial technology. Both are considerable drivers of Fintech adoption in Indonesia Mobile and Internet Penetration are high. Indonesia has 250 million people, and more than 200 million internet users, Such widespread connectivity has created a hotbed of Fintech activity. Even underserved populations now have access to digital financial services thanks to the proliferation of cheap smartphones and data plans. Indonesian Government Support & Regulation Frameworks The Indonesian government has also attempted to promote the growth of Fintech, such as by issuing the National Digital Finance Strategy and creating a regulatory sandbox through the Financial Services Authority (OJK).

Only 53% of Indonesia's population holds a bank account, with a large section being unbanked or underbanked. These Fintech solutions are filling the gap by making financial services available to the unbanked and underbanked populations through mobile services and micro-lending platforms. Trends in Fintech adoption in Indonesia are Digital payments and mobile walletsGoPay, OVO, and Dana are at the top of the domestic digital payment expansion, enabling seamless transactions across e-commerce, ride-hailing, and offline merchants (Widjojo, 2020). QR Code Payments: The standardization of QRIS (Quick Response Code Indonesian Standard) has accelerated wide-scale QR-based payment adoption, enabling interoperability within different payment providers. Growth of E-Commerce: The emergence of e-commerce platforms such as Tokopedia, Shopee, and Bukalapak has facilitated the adoption of electronic payments among SMEs and consumers. Peer-to-Peer (P2P) Lending. One of the critical sources of funding for SMEs is P2P lending, which is very dominated by PT Akseleran Keuangan Indonesia, PT Pendanaan Sinergi Nusantara, and PT Koinworks Indonesia. P2P lending platforms use alternative credit scoring models, relying on non-traditional data (targeting things like social media activity, and transaction history) to measure borrower creditworthiness.

Indonesia's Fintech regulation framework has continued to make rapid progress, but the country still lags behind the global leading markets such as the UK, Singapore, and the EU. Indonesia would benefit from adopting global best practices to build a more resilient and inclusive Fintech ecosystem that spurs economic growth and enhances financial inclusion (Rahadi et al. 2023). Relevant authorities under Indonesia's Fintech regulatory framework OJK (Otoritas Jasa Keuangan) is the financial services authority that regulates and supervises Fintech companies., which supervises payment systems and digital banking. Kominfo regulates data protection and cybersecurity.

Recognize International Benchmarks in Fintech Regulation The UK's Regulatory Body, Proactive Sandbox by Financial Conduct Authority (FCA) Data. High emphasis on consumer protection and anti-money laundering (AML). Singapore has Regulator Monetary Authority of Singapore (MAS). Comprehensive Payment Services Act (PSA). Makes its low focus on cybersecurity and data protection evident.

Indonesia has adopted a sandbox approach similar to the UK and Singapore. Open Banking, Indonesia has no open banking framework at all whereas the EU and UK have already moved towards having one. This stifles interoperability and innovation in finance. Data protection Indonesia does have a data protection framework, but it is less stringent than the GDPR in the EU. The adoption of a unique data protection law would increase consumer faith and ensure global benchmark compliance. Cybersecurity Indonesia has taken steps on cybersecurity but it still leans behind the strong framework of Singapore. Lack of financial literacy and inclusion in rural areas Call to strengthen the data protection laws. Tremendous opportunities, harnessing Indonesia's massive unbanked population to promote the adoption of Fintech. To follow the global best practices for foreign direct investment. Strengthening partnerships between regulators, Fintech firms, and traditional banks

How will Fintech support sustainability1) make finance more accessible for individuals who have been excluded by traditional banks, digital financial services like mobile wallets, or even P2P lending. Sustainability link and financial inclusion a key enablers of the United Nations Sustainable Example in Indonesia, Fintech platforms like GoPay and OVO are expanding access to financial services for the unbanked. Green Finance. Fintech can facilitate green investments by connecting investors with sustainable projects (e.g., renewable energy, and eco-friendly startups) through crowdfunding platforms or digital asset exchanges. Example: Platforms like Trine (global) and eFishery (Indonesia) enable investments in sustainable agriculture and renewable energy. Digital payments and reduced carbon footprint. Digital payments reduce the need for physical cash, lowering the carbon footprint associated with printing, transporting, and disposing of currency For example, trine (global) and fishery (Indonesia) empower investments in sustainable agriculture and renewable energy. Digital payments and minimized carbon footprint. Digital payments also cut back on cash physical cash, and shrink the carbon footprint linked with producing, transporting, and discarding bills and coins. For example, the QRIS system in Indonesia promotes cashless transactions, reducing the need for physical cash. Microfinance, sustainable Lending P2P lending platforms offer opportunities for these platforms to originate small business and individual microloans, especially with sustainability in mind. For example: Indonesian P2P lending platforms such as Amartha address support for women-led micro-enterprises.

Issues with aligning Fintech and sustainability objectives without clear regulations surrounding green finance and sustainable Fintech initiatives. Risks related to awareness and education, lack of awareness about sustainability among Fintech users and providers. These Fintechs also face challenges in rural areas, where infrastructure limitations, poor internet connectivity, and limited digital literacy hamper Fintech adoption. Data privacy balance between transparency and data protection challenges.

Literature Review

SME: Small and Medium Enterprises

SME definition varies from country to country and other factors as well. As such outstanding reviews on such definitions could only acquire the right feeling about SMEs, that is the correct quantitative measures of economic sustainability. SMEs Definition, In Indonesia, the definition of SMEs varies according to the institutions. This is the definition of SMEs, a) The Ministry of Cooperatives and small-medium businesses (Act No. 9 of 1995). It characterizes SMEs as small businesses, a business entity with the greater total assets at Rp 200 million, excluding land and buildings of stagnant business, and annual sales at most Rp 1 billion. A medium business, meanwhile, is a business entity belonging to a citizen of Indonesia with between Rp 200 million and Rp 10,000,000,000 in net assets, excluding land and buildings. b) Small-medium enterprises are classified by labor, according to the National Central Bureau of Statistics (BPS). A small business is a company through which the whole workforce has a labor of 5 to 19, and in addition to that, a medium-sized business is an institution through which work is done with 20 to 99 laborers.

SMEs' Characteristics

According to UU No. 20 of 2008 about small and medium enterprises (SME), an SME is a company or industry that is characterized by 1) Capital is less than Rp 20 million. 2) The business just needs a capital of Rp 5 million. 3) Maximum asset of Rp 600 million (excluding land and buildings). 4) The annual turnover is Rp 1 billion. 5) Issued No. 16/1994: SME is a company with a maximum net worth of $400 million. 6) The Ministry of Industry and Trade can also define small-medium enterprises if a company has the greatest assets of Rp 600 million outside the ground and buildings. Its working capital is under Rp 25 million. 7) Department of Finance SMEs is a company with a maximum annual turnover of Rp 600 million and a maximum asset of Rp 600 million excluding land and buildings. Small business refers to economic productive activity that is carried out by independent business people or business entities with no branches or subsidiaries. SMEs are either the direct or indirect owners and managers of the business. 8) the medium business is what makes its economy so prolific. A small business is a small and independently owned business that services a limited market. SMEs own and manage the business either directly or indirectly.

Table 1. Criteria Small Medium Enterprises according to UU No. 20-year 2008

No	Criteria	Asset (Rp)	Turnover (Rp)
1	Micro	Maximum 50,000,000	Maximum 300,000,000
2	Small	> 50,000,000 – 500,000,000	> 300,000,000 – 2,500,000,000
3	Medium-sized	> 500,000,000 - 10,000,000,000	2,500,000,000 -50,000,000,000

(Source: Ministry of Cooperation and SMEs, 2008)

The small-medium enterprise sector is different from large-scale enterprises which is characterized by some criteria contained in UU No. 20 of the year 2008 As for the capital and human resources, its impact is classified into small-medium enterprise with large-scale efforts. Small and medium enterprises fairly need more minor capital as compared to large-scale businesses. Thus, as SMEs have limited resources and recent means of financing, they negotiate with the informal sector. Small-medium enterprises are classified into four (4) (BPS, 2015) Group 1 Activities to finance life, small-medium enterprises are using opportunities to work for a living. This is known as the informal sector. 2) A small-medium company that is a professional craftsman. 3) A small dynamic enterprise has an entrepreneurial spirit and potential for subcontracts and exports. 4) Soul entrepreneurship, moving enterprises Small and medium enterprises (SMEs) that evolve into larger businesses will ultimately evolve toward corporations.

Concerning market opportunity, most of its products are sold locally/domestically and have export potential. A few of the specialized products have traits that reflect the works of art and culture of the immediate area. Thus, the other characteristics of SMEs are raw materials that are easy to obtain, with simplified technology and simple skills that already have been owned by the hereditary, labor-intensive or absorb labor are well into the equation.

The small-medium enterprise is defined following three factors: number of workers, receivables , and total assets. The SME criteria are (1) World Bank, classification of the small-medium enterprises are three, (2) small-medium enterprise, the restrictions: the highest total number of employees is 300 persons, the receivable an annual profit amounting to US $15 million, and the assets total amount to US $15 million. Small companies can meet the conditions: the number of employees is less than 30 people, a year receivable is no more than US $ 3 million, and total assets do not exceed US $ 3 million. Microenterprise with criteria:

total employees less than ten people, the year receivable does not exceed US $100 thousand, and all the assets do not exceed US $100 thousand

Small-medium enterprise definition varies as the characteristics of enterprise could differ in every country (Adian et al., 2020; Berisha & Pula, 2015). Small-medium enterprises – Businesses consist of owners in at least 30% local stakeholders with provide investment and productive assets that remain under SGD 15 million (similar to the US $ 8.7 million) according to Singapore. There are at least 200 people employed. Small-medium enterprises were defined in Malaysia as businesses that have multiple employees. The number of full-time employees (working at small and medium-sized enterprises, or "SMEs") is less than 75 people a year or capital shareholders no more than $2.5 million. The definition is divided into two, namely: small industry, the number of employees by criteria 5 – 50 people, or the amount of the share capital until some RM 500 thousand. The broad sector for the number of employees (50 – 75 personnel) or the share capital to a maximum of $500 thousand RM 2.5 million.

Japan divided small-medium enterprises into the following: a) Mining and manufacturing has at most 300 employees number of criteria or some US $2.5 million amount of share capital. b) wholesale (limit 100 criteria) or the amount of capital stock in the US ($840 thousand) c) the sector of retail, providing criteria on maximum employees of 54 persons or the amount of capital stock of US $820 thousand. d) The maximum number of employees 100 criteria or the amount of capital stock of $420 thousand US.

Small and medium enterprises in South Korea are defined as companies with less than 300 people, and assets are under US $60 million. European Commission divides small-medium enterprises into three types: 1) Medium-sized business, the criteria: the sum of employees less than 250 people, the receivable a year not exceeding US $50 million, and total assets should not be more than US $50 million. 2) Small-sized enterprise, the criteria: the sum of employees less than 50 people, the receivable a year not exceeding US $10 million. The sum of assets does not exceed US $13 million. 3) Microenterprise, the conditions: total number of employees is less than 10 people, the annual receivable amount does not exceed US $2 million, and total assets can not exceed US $2 million.

SMEs are small holding business entities that are easily prepared because the characteristics of SMEs are also raw materials can be produced quickly, simple technology is easy to simplify and basic skills have become hereditary, labor-intensive, or labor-absorbed quite a lot. Sample market opportunity: Many of its products are focused on the local market/domestic and far from another opportunity to export Some of the specific commodities have a characteristic implying an association with works of art and culture of the local area dependent on weak economic profitability for the local community.

Discussion

Digital Literacy as a Key Area in Fintech Adoption for SMEs

A key enabler of financial inclusion, operational efficiency, and growth (Omokhoa et al., 2024), digital literacy is critical for SMEs to adopt financial technology solutions. Identify and promote barriers to digital literacy through specific initiatives. This would enable Indonesia to reap the full benefits of Fintech for its SME sector, which in turn, would facilitate broader economic and sustainability goals. Digital Literacy is the ability to use digital tools and technologies effectively. Digital literacy is a major enabler of Fintech adoption (and associated benefits) among subject matter experts (SMEs) for the following reasons: If Indonesia invests in targeted, barrier-breaking initiatives to bolster digital literacy, it will pave more pathways for Fintech to flourish as an enabler for its SME sector while simultaneously delivering on economic and sustainability aspirations.

Access to Financial Services Fintech platforms (e.g. digital payments, P2P lending, crowdfunding) allows SMEs to access capital and financial services that are often not offered by traditional banks (Madan, 2020). Challenge: With breaking digital literacy, SMEs might find it challenging to traverse and make use of these platforms for getting funds or handling financial dealings in a precise run. Operational efficiency, Fintech tools such as digital accounting software, invoicing platforms, and supply chain financing can improve operations and lower costs. SMEs with low digital literacy may not be able to harness the full power of these tools, missing the chance to benefit from efficiency gains. Market Expansion, digital payment systems and e-commerce platforms allow SMEs to access larger markets, including global customers. Limited digital literacy prevents SMEs from establishing and managing online stores or payments. Financial Inclusion Fintech can also help to bring unbanked or underbanked SMEs into the formal financial system, allowing them to build credit histories and access loans. Digital literacy percussion is essential to break the barriers of excluded SMEs on these opportunities (Tavip et al. 2024).

There are then barriers to digital literacy for SMEs (Benedicta et al., 2025). Limited Awareness Most SMEs do not even know of the Fintech tools available. The cost of training Investing in digital skills training can be expensive for small businesses Fintech platforms may or may not support local languages, so it's often a question of language & accessibility Infrastructure Challenges, poor internet coverage and access to smart devices hinder adoption. After all, change is one of the most common barriers to success. Traditional business owners may not be willing to adopt new technologies because they fear they could be complex and insecure.

Effect of low digital literacy in the acceptance of Fintech, reduced use of Fintech tools, even SMEs may only access the primary functions of Fintech platforms and fail to maximize advanced functionalities (Mushinzimana et al., 2025). Lack of Increased vulnerability and digital literacy can make SMEs increasingly susceptible to cyberattacks like phishing or fraud. Risk of stunted growth, without exploiting Fintech, small and medium-sized businesses (SMEs) may find it challenging to grow their operations or compete with digitally established competitors. Fear of being left behind SMEs unable to embrace these digital channels risk being shut out of formal finance, and are likely to continue relying on informal means of financing that can be costly and insecure. Strategies need to Improve SMEs.

The first strategy for improving Fintech adoption among SMEs is ensuring digital literacy (Akpuokwe et al., 2024). Here are some strategies a). Fintech and government Initiatives: governments can start national digital literacy programs to help educate SMEs on Fintech tools. For SMEs to participate in workshops on digital skills, may require the subsidization of training. b) Fintech Companies shall design easy-to-access interfaces and make them in vernaculars. Content that educates, provide demos, webinars, and explainer guides to help SMEs learn and navigate their platforms. NGO (Non-Government Organization) and Industry Associations, workshops, and training conduct practical training programs for SMEs on the usage of Fintech tools. These guide SMEs through the adoption process, and pair them with digital mentors (Mentorship Programs). d). Financial Institutions, bundled services, they provide Fintech tools with traditional banking so the transition will be easier.

In Indonesia the Gojek and Tokopedia case studies, platforms enable SMEs to use third-party digital payments, logistics, and e-commerce, but most SMEs don't know how to use them. Indonesia has QRIS (Quick Response Code Indonesian Standard), a national QR code system simplifying digital payments for small and medium enterprises (SMEs), but faced barriers to adoption due to low digital literacy in rural areas.

It enables green financing, lowers cash dependency, and acts as a catalyst for sustainable business. These Contributions can be in line with global sustainability initiatives like United Nations sustainable development goals (SDGs) and support, businesses in adopting more sustainable and efficient operations. In this article, I will provide an overview of how Fintech catalyzes sustainability through green financing and cash-required reduction, examples, and implementable insights.

Contributions of Fintech to sustainable business practices (i.e., green financing, cash-less reduction) would be welcome. 1). Fintech and Green Financing. Green financing is financial products and services designed to support environmentally sustainable projects, such as renewable energy, energy efficiency, and sustainable agriculture. Fintech will leapfrog in this space making green financing more affordable, transparent, and efficient. Crowdfunding for green projects, building on the investment capabilities of Fintech, platforms like Kiva and Trine allow individuals and institutions to invest in sustainable projects, such as solar panels, and other eco-friendly startups. Impact opens democratized access to capital for green initiatives—particularly in the developing world. For example, in Indonesia, Fintech platforms, eFishery (sustainable aquaculture) and Bitex (renewable energy) are connecting investors to green projects. Blockchain for Transparency. Through the utilization of blockchain technology, green financing (or sustainable financing) is made more transparent and traceable, where funds usage and impacts of projects can be tracked. Impact creates trust for the investor and guarantees that the money is used for its intended purpose. Platforms such as Provenance leverage blockchain to trace and verify the sustainability of products along the supply chain, from raw materials to the final consumer. Green bonds and digital assets. Fintech platforms also enable the issuance and trading of green bonds as well as digital assets, like carbon credits. Impact broadens the pool of green investment and supply liquidity for sustainable projects." Socially responsible investing / ESG (environmental, social, and corporate governance). Incentivizes companies to implement environmentally friendly measures to secure investment.

2). Financial technology and cash-plessness another way Fintech plays into sustainability is by reducing cash dependency. They save both time and offer a great reduction in our carbon footprint. Lower Carbon Footprint. Digital payments help to limit the use of physical cash, which is costly to produce, transport, and dispose of. Impact minimizes carbon emissions and waste caused by dealing in cash. Example cashless, QRIS in Indonesia Financial Inclusion. Mobile wallets and e-money are bringing the unbanked into the formal financial system. Impact fosters economic inclusion and reduces inequality in line with SDG 10 (Reduced Inequalities). For example, GoPay and OVO in Indonesia have provided millions of unbanked people and SMEs with access to financial services. Efficiency and cost savings. Fintech role, processing digital payments from any location decreases the era and value of handling cash. Provides better workflow in operation and minimizes theft or fraud.

The importance of SMEs in boosting economic growth

Developing SME business is because the driving force of economic growth requires supporting investment. Under scarcity of investment, investment must be spent on the efforts to form new types of entrepreneurs that are very common in the SME groups of the business. In Australia, more than 90% of the workforce is absorbed by the SME business. The poverty rate of low community groups can be lowered by increasing per capita income. In general, they have local economic resources and are not dependent on imports. Therefore, it is expected that the development of SMEs will enhance macroeconomic stability, and this stems from the fact that the enterprise is based on local raw materials and is exporter potential. That will, in turn, assist in stabilizing the rupiah rate and inflation rate. The linkage between SMEs is high, so the development of SMEs will push the Real Sector. Because of its uniqueness, it is believed that SME development strengthens the foundation of the national economy. One thing that can be used as a reference, is the Indonesian basic will be strong when Indonesia becomes a productive-leading actor and competitive elements of the national economy. Therefore, long-term national economic growth should prioritize the development of cooperatives and SMEs (Kraus et al., 2020).

The small-medium enterprises have functioned as a leading economic activity, create of job opportunities, develope business local economy and community empowerment, creators of new markets, and become a source of innovation, as well as its contribution to the balance of payments (Department of Cooperatives & SMEs, 2017). Indonesia is one of the countries with a large number of unguided small-medium enterprises (Handoyo et al., 2021) They encompass perhaps every enterprise in virtually all parts of this country. Research has shown that small-medium enterprises indirectly strengthen the economy as a whole in Indonesia. It has proven its crucial function as the sector that will hold Indonesia in facing an economic downturn.

Despite the economic and monetary crisis that befalls Indonesia, SMEs are not bankrupt (Tambunan, 2019). SMEs' competitiveness in Indonesia is fairly good. SMEs, are the backbone of the Indonesian economy. Despite these limitations and constraints, SMEs can generate employment for society. Since the economic crisis, Indonesian SMEs have demonstrated their resilience to pay for the national economy. SMEs are surviving unlike other big fortunes. It confirms the number of SMEs that grow every year. With successful SME development, it hopes to lift the community: so far efforts are positive both positively towards the aspiration.

The Indonesian economy is supported by SMEs. SMEs as an essential sector of the economy based on the economic development in Indonesia (Jati et al. 2021). SMEs contribute to economic growth. The aspect of the SME sector that has priority in any planning stages consists of two departments (Tambunan, 2019), The Ministry of Industry and Trade and The Ministry of Cooperatives and SMEs. Indonesian small and medium enterprises are the main actors in most economic activities and employment providers. Local people who are just or exhausted merchants are better able to create and innovate for new markets, which makes them an important commercial function for economic development activities as well. The role of perceived value with payment balance from export. However, this does not fully manifest in the roles described above.

Small and medium enterprises are essential and strategic for the national economy. The development of the national economy is greatly needed by focusing on SMEs. Structured and sustainable empowerment complies with and strengthens the national economic system. Also, increase the speed of the national economy. It impacts the unemployment and poverty ratio positively by ensuring that incomes in society are evenly distributed.

The empowerment of SMEs is directed to the enhancement of productivity, the emergence of new companies, and economic development with productivity, technology, and knowledge level (Solomon & Mathias, 2020). SMEs will need sufficient investment to support this economic growth. Withdrawing large investments is relatively difficult given the current economic conditions in Indonesia. Investment should focus on nurturing the entrepreneurial activities of SMEs. SMEs can grow the national economy immensely and create lots of jobs for a larger population. They can lower the unemployment rate and poverty rate in Indonesia (Department of Cooperation & SMEs, 2017).

Moreover, the premise's raw materials and also the potential to export can make SME empowerment support macroeconomic stability. It will support the exchange rate stability of the Rupiah and a lower inflation rate. These have to be in the real sector, so, the empowerment of small and medium enterprises. The job creation will be getting more from the newly expanded SME support programs. This is growing receivables in favor of developing economic growth.

Due to its major part in the economic growth of a nation, SMEs are crucial for the development of the economy of a country. The following are the major contributions of SMEs in the development: SMEs Create Jobs. In many countries, SMEs are the largest provider of employment. It can absorb a lot of labor, which greatly helps the unemployment rate and improves the living standards of the masses. SMEs for Economic Growth and Environment. Small and medium enterprises are a significant part of a country's GDP. SMEs exist in diverse forms and can intensify local economic ventures alongside diversified sources of income.

Innovation and creativity are carried out by SMEs. SMEs also tend to be more agile and can innovate more quickly than larger companies. This makes them better able to respond to market demands and innovate new products or services able to drive economic growth. Small and medium-sized enterprises can be a factor in regional development, mainly for remote or rural regions. The operation of SMEs strengthens the local economy, which further develops infrastructure and public services.

One of the dimensions of empowerment relates to communities, which SMEs foster, including promoting female and marginalized people empowerment. The role of SMEs is critical because it can enhance a person's skills and living standards with access to training, resources, and markets. Due to their operations, they frequently deliver training and skill development to workers, enhancing the quality of human resources in the community.

The role of SMEs in sustainability and the green economy a lot of SMEs are oriented toward development through sustainable and environmentally friendly business processes, which are consistent with the goals of sustainable development. They are capable of serving both economic and environmental purposes. SMEs encourage the entrepreneurial spirit in the society. They show people that small businesses can succeed and inspire more people to get into business. Through these various contributions, SMEs not only act as economic drivers but also as one of the key pillars of social development and sustainable development.

Business Performance Challenges faced by Small Medium Enterprises (SMEs)

SMEs are confronted with numerous performance challenges that are critical to their growth and sustainability. Some of these salient concerns include: The lack of access to financing for SMEs. The fact that small and medium-sized enterprises (SMEs) make a significant contribution to the economy is not new, yet many still face difficulties accessing the funding they require to launch or develop a business. Loan applications and the proliferation of collateral requirements are another reason why this is the bottleneck. One of the top challenges that SMEs face is access to financing.. It is not uncommon for SME loan applications to be highly complicated and time-consuming. Most financial companies have hard requirements and a long verification period.

SMEs supply insufficient collateral to apply for a loan. The collateral that is generally demanded is substantial tangible assets or strong financial papers; however, SMEs typically lack such resources. There are critical issues regarding managerial skills and human resources development from the perspective of SMEs. The owners or managers of SMEs usually do not have a management professional background, which adds challenges in planning, organizing, and controlling business activities. They mostly run businesses that involve SMEs where no budget is laid for employee training or upskilling. Productivity and innovation are also affected, as workers are not allowed to develop their skills.

Low employee motivation has been seen as one of the prime reasons for the lack of performance of the overall team which could happen due to lack of clarity regarding the roles and their responsibilities and lack of incentives. A lot of SMEs rely on a few key employees with specific knowledge or skills. Another challenge is the competition in the market experienced by SMEs. SMEs have strong competitors to private enterprises and imported goods, which can affect competitiveness and profits. Market competition is a significant challenge for SMEs.

Varadarajan (2020) develops a market resources-based approach to strategy, competitive advantage, and performance. The paper provides a model describing the interplay between customer information-based assets of a company and its marketing strategy and performance. Alimuddin et al. (2020) have shown that the study utilizes a balanced scorecard perspective process to assess the environmental perspectives in measuring company performance. Yuniningsih et al. (2018) use financial performance to assess business performance, whereas in this analysis the business performance consists of both financial and non-financial performance.

SMEs can invest in technology or innovate in their product and services. Part of the challenge that SMEs have in adopting the latest technology and innovating is that SMEs are often resource-constrained in terms of finance, people, and infrastructure. SMEs lack the knowledge and skills to adopt the latest technology or innovate in products and services. The high costs associated with adopting the latest technology or innovating in products and services, which micro, small, and medium-sized enterprises (SMEs) cannot bear. SMEs get familiarised with the same old tech, they may never be able to keep pace with the latest technology or innovate and improve their product and services. The technology diffusion problem can also be attributed to the fact that SMEs do not have exposure to the most up-to-date information about the latest technologies and innovations that can aid their competitiveness.

Unsophisticated marketing and branding techniques can be a roadblock to SMEs accessing new customers and retaining their existing customers. Not having an understanding of effective marketing and branding strategies leads to multiple problems for SMEs such as no visibility, no branding without a proper marketing strategy, SMEs have low reach, and their product or services are not known to many. Weak or inconsistent branding can leave consumers confused as to what SMEs are providing, thus making it challenging to create any customer loyalty. A lot of SMEs have failed to use social media and other digital platforms to promote their products. You have lost weeks of being in front of new customers. Undefined target market: if SMEs don't know what market segment they want to target, they can waste resources running campaigns that yield zero results. Beneath is the weariness of SMEs (Small and Medium enterprises) to stay far behind in matching up and pulling in their product/service offerings.

SMEs often find it a challenging task to carry out their operations smoothly due to dynamic policies and complex regulations. Getting licensed and the delays that come with it can similarly be a barrier. Such institutional factors like government policies and regulations might affect SMEs considerably. SMEs may struggle to adapt and anticipate changes when policies change. This is a time and resource-consuming exercise. Regulations may be complex, and this can cause SMEs difficulty in understanding what exactly is being requested, and how to implement it. This results in mistakes and wasted time. This extensive licensing process causes SMEs to struggle with efficient operation. This results in a loss of possible revenue and a negative impact on SMEs' reputations.

Small and medium-sized enterprises (SMEs) often struggle to cover the costs of operations and product or service development. That can force SMEs to cut investments in product or service development. Lack of information access makes it hard for MSMEs to understand the regulations and policies that are applicable. This may result in mistakes and wasted time. SMEs can become dependent on the bureaucracy and this can slow their operations. This often results in wasted time and resources.

As a result, SMEs tend to lack networks, restricting collaborative opportunities and limiting their access to new markets. One of the common challenges faced by SMEs is the limitation of the network. In who don't have access to this information at all, as an effect of limited networks can develop in a variety of ways. The limited scope of narrow networks can restrict SMEs' access to vital information on market trends, consumer needs, and emerging business opportunities. Challenges in establishing partnerships A wider network is critical for SMEs because they may have a hard time finding business partners, suppliers, or distributors. Its network is limited; the a low opportunity to collaborate with other entrepreneurs, whether to share resources or do joint projects. Without networking, it becomes more difficult to access new ideas, best practices, and innovations that may improve products and services. Limited marketing opportunities: Unlike larger corporations, SMEs may lack a robust network which can make it challenging to advertise their products or services to a broader audience. Increased production demands alone make it impossible to maintain product quality. Quality inconsistency is bad for a business's reputation. One of the primary challenges MSMEs face, especially with a rise in demand, is maintaining product quality. Even poor product quality can ruin a business's reputation or lead to the loss of potential customers.

Performance of SMEs in Indonesia

SMEs in developing countries like Indonesia are often associated with economic and social issues. It is, to say the least, poverty rates, unemployment, inequality as well as equitable income. The growth of SMEs is a boon to addressing these issues. The small-medium enterprises in Indonesia are nowadays suffering from an economic crisis because of 4 (four) things (Hertati et al., 2020), such as most small-medium enterprises that produce consumer goods are imperatively not durable, and the majority of these enterprises do not use banking finance in the effort aspect of the funding, SMEs inter starting conducting exact product specialization, and also the fact that their production realizes only certain goods or services.

Therefore, small and medium enterprises in Indonesia have a very big role in the sustainability (maintainability) of the economy. The leading driving force sector of Indonesia's economy is its SMEs (Jati et al., 2021). The long-term government policy on developing SMEs has been to increase the active participation of SMEs in the national development process. Interestingly, economic activities grow through expansion and large receivables. Second, Coaches aimed for medium and free enterprise, code. They can help with the national economy.

Role of Financial Technology to Enhance Business Performance

Financial Technology

Financial technology, which integrates financial services and technology replacing traditional business models through mediation (Gomber et al., 2018). It involves a large amount of cash and long-distance transactions. Financial technology operates on an economic model that generates goods, services, and technologies. If stability is to be monetary, then we require a new business model. The payment system constitutes the stability, efficiency, smoothness, security, and also reliability of the financial system.

The lifestyle of society is said to be transforming including financial technology (Barassi, 2020). It is dominated by the technological user with the pressures of a busy life. The solution to these kinds of transaction issues like payment problems is to use financial technology. Simply put, financial technology makes the processes of buying, selling, and paying more efficient and affordable. Its benefits are Fintech for the consumers. Consumers receive better service, more options, and cheaper prices. Financial technology players are the products or services of merchants. The definition of financial technology promotes the diffusion of economic policy, the increased rotation speed of money, and the promotion of the economy of the whole society. The national strategy to plunder financial technology like payment system and inclusiveness in Indonesia

A payment system is an instrument of any payment, completing, and clearing transactions and this accelerates investment, reduces the risk of the traditional payment systems, and helps in savings, liquidity, lending people, and investment capital. The community's changes in payment system have been influenced by financial technology and the firm has been able to minimize elevated operational costs (Korneta et al., 2017) Similarly, financial technology is also replacing formal financial institutions like banks in the payment system (Candraningrat et al., 2021).

Hence, Bank Indonesia is regulating the payment system. Bank Indonesia is the central Bank of Indonesia; therefore, it has authority as a regulator (Fidhayanti et al., 2020). This has made it harder for regulators to come up with rules governing financial technology. The recent strength of the payment system has incentivized technology innovation in the finance sector. Bank Indonesia said that technology has renewed traffic payment (Fitria & Winata, 2020; Raharja et al., 2020). Temporal services and guarantee consumer protection, Bank Indonesia has a part to play in maintaining traffic orders concerning financial technology payments. Especially the guarantee about retail consumers' data and information on cyber network security.

Bank Indonesia ensures security and order payment traffic as facilitators (Fidhayanti et al., 2020). Through a partnership with the authorities and international agencies, Bank Indonesia monitors and assesses any business activity conducting financial technology payout system. Bank Indonesia was in contact with related authorities to support the Indonesian financial technology payment system. Bank Indonesia also continues to be committed to helping people in Indonesia by providing briefings on financial technology regularly to businessmen in Indonesia.

Technology development is so rapid, not only in Indonesia but the world. Because technology is accelerated it is prominent in the financial industry. Financial technology has developed a lot in several applications in financial services, such as payments of loans and others that began during the famous numerical phase (Fitria & Winata, 2020; Raharja et al., 2020).

Consumers know e-wallets, e-tickets, and e-money (Jia et al., 2020). The financial technology lists financial technology transactions based on a summary of revenues to ensure the company earns the maximum income from the listing. Technology enables a company to run its daily operations better, which means making a company perform better. The knowledge of transaction data before processing system-based online payment methods is precise. This solution helps merchants who wish to initiate a transaction online (cyberspace) to present several payment options without the need to make a shopping portal (e-commerce). Social media is connected with various means of payment, making it simple to give customers a product link or e-mail. Thus enabling customers to make transactions in multiple ways like virtual accounts, online, credit cards, payment codes, and e-money.

Lending money altered perception of financial technology (Ichwan & Kasri, 2019). Before the business loans only came from the bank, and it was a long, painful, exhausting process. Financial technology makes the borrowers in the SME sector accessible (Za'aba et al, 2020). Just list out the documents online, they taking an online loan out.

The payments also can be verified using financial technology. However, this entire process will, in this technological age, be carried out virtually. SMEs can oversee their economic movements clearly and powerfully in minutes. Sometimes the online method benefits the customers (Roethke et al., 2020). This gives a win-win solution for the customer, as well as the business.

This is something new in the digital era of the financial industry, financial technology payment innovations. Banks or non-banks, cross-network transfers, and payment services can be operated by financial technology. (Shim & Shin, 2017). Innovations help financial technology provide quick access to debt and open up investment opportunities. According to Soriano

(2017), Fintech was positively correlated with financial literacy and the performance of the business.

The abundance of financial technology makes it a productive sector that can help SMEs (Azman & Ahmad, 2020) SMEs can also open access to financing among financial business sectors through financial technology. SMEs need capital quickly. The service can be synergized with financial technology banking services.

The penetration level of financial technology is a high range that touches various layers of society, especially for segments with finance access such as small and medium enterprises (Azman & Ahmad, 2020). The financial technology developed by different companies help create and develop SMEs (Chege & Wang, 2020). Some organizations can perform financial technology capital loans with even simpler filing than conventional financial institutions such as banking. Online lending service is an alternative to traditional bank loans or creditor financing. There exists service one digital payment company.

Fintech typically enhances the ease and security of digital payments for business users. It makes the payment process simpler, and safer and draws customers in. This will benefit the businessman. This service has several applications that provide services in arranging finances. It aids SMEs in establishing their business name, like keeping track of financial records expenses, tracking investment power, trading stocks, and financial advisory.

New Fintech trends that impact SME business performance in Indonesia. Here are several emerging Fintech trends that are significantly shaping SME business performance in Indonesia. Not only are these trends increasing access to financial services but they are also improving operational efficiency, helping reach new markets, and stimulating innovation. Major Fintech trends affecting Indonesian SMEs as well as their implications and examples. Digital Payments and Cashless Transactions The adoption of digital payment systems such as e-wallets, QR codes, and mobile banking continues to accelerate, driven by government initiatives (such as QRIS) and private sector innovation. Improved cash flow quickens transactions which increases the time you receive payments. Transaction fees are lower than those of traditional banking. The market expansion allows SMEs to serve customers with cashless payment methods as they prefer. For instance, GoPay, OVO, and Dana are SMEs that widely use payment products and transaction transactions. Peer-to-Peer (P2P) Lending. P2P lending platforms offer an alternative way for SMEs to raise funds, ultimately allowing them to circumvent banks. Impact on SMEs accessibility to capital loans can be obtained rather quickly and regardless of whether the customer has credit. Flexible terms and more customized loan products than traditional banks. Financial Inclusion, penetrates SMEs in rural and underserved areas;

Payment System

Payment systems are rules, institutions, manners, and mechanisms to perform the activities of funds transfer to meet the obligation resulting from the economic event (Al-Okaily et al., 2020). For implementing mandatory, Bank Indonesia refers to four principles, which are the payment system policies in terms of security, efficiency, equality of access, and consumer protection, which has been set by Bank Indonesia (Bank Indonesia, 2015). Secure means that each of the organizations must address and mitigate all risks in payment systems like cross-boar credit risk, liquidity risk, and fraud risk. The efficiency principle provides a basis for making payment systems, but, instead, very comprehensive. Due to greater economies of scale, the public cost of cover will be less. Then, the equality of access principle made Bank Indonesia reluctant to also monopolize organizing a system that would be difficult for other players to penetrate. In the field of consumer protection, all providers of payment systems have to be concerned.

Fintech impacts business performance and credit score. One of the things companies need to do is adjust to the environmental change. Results showed that the period of digital innovation extended its network habits (Ngurah et al, 2017; Scott, Van Reenen & Zachariadis, 2017). According to Abed (2020), the outcome is shocking in terms of SME owners' performance in business. They fill the vital role of providing jobs in the community. But when we look into the business performance of SMEs, we find some unexpected results of it.

Financial technology (payment system) achieves the highest business performance in financial metrics, which can be seen as more successful than startups with lower business performance in the other data sets. Be on a different degree of success, and startups with worse business performance will be considered as the least successful (Miloud et al., 2012; Soriano, 2017). Scott et al. (2017) state that Bank Performance included a case study of Nigerian banks and their adherence to the application of SWIFT, as well as network-based technology infrastructure and collection of interbank telecommunications standards worldwide. Innovation and digital financial network standards SWIFT was designed back in 1970 and gradually became an interbank payment infrastructure all across the globe. For over four decades, SWIFT has stayed at the center of financial infrastructure. The world's most trusted third-party network processing 20 million transactions daily, you provide economic value by delivering information processing services globally.

Indonesia itself faces good economic prospects in which financial technology developments directly or indirectly make the Indonesian economy a better place for business mechanisms (Prawirasasra, 2018). It promotes the well-being of people as a whole. It benefits the domestic financing requirement, promotes the distribution of finances across nations. Digital wallets: Fintech giants offering payment services at scale technology companies extract a share of payment revenues and all of transaction data. This is going to boost business performance. Soto-Acosta et al. (2016), Dong et al. (2020), and Octavia et al. (2020) show that Internet finance development positively affects the profitability (business performance) of the subject.

Role of Policies in SMEs Fintech Adoption

Policies are crucial in determining the level of adoption of Fintech solutions among SMEs on a systemic level. The design and implementation of government regulations, incentives, and frameworks can either accelerate or stifle Fintech ecosystems. Here I will discuss how policies affect the adoption of Fintech by SMEs, through crucial aspects such as regulation, incentives, infrastructure, and education both in Indonesia and the world best practices.

Regulatory frameworks, regulations serve as the pillars on which Fintech ecosystems are built, offering clarity, security, and trust for both Fintech providers and SMEs. Supportive regulations. Having clear, supportive regulations helps to alleviate uncertainty both for innovators and their customers, which in turn encourages adoption. An example is Indonesia’s POJK 77/2016 regarding P2P lending, which created a legal framework conducive to the rapid growth of platforms such as Amartha and Akseleran. Regulation that is too much of a burden. Regulatory burdens that are excessive or unclear can hinder innovation and impede the growth of Fintech by creating entry barriers. In some countries, for example, Fintech companies face stricter licensing requirements, raising barriers to startup and leaving limited options for SMEs.

Incentives from the government can result in high adoption in Fintech as they make it cheaper and more appealing to an SME. Tax detective, tax breaks/reductions for Fintech companies and SMEs that use Fintech solutions can help reduce the cost and foster adoption. For example, the government of Indonesia might introduce tax credits for SMEs that adopt digital payment systems or use P2P lending platforms. Overview of grants and funding for Fintech startups and SMEs While the Fintech industry is full of investment dollars, there are also grants and funding opportunities available.

Fintech adoption of broadband and mobile connectivity requires policies that promote digital infrastructure, including internet access and digital payment systems. Access to reliable and affordable internet is crucial for SMEs to leverage Fintech solutions. For instance, The Palapa Ring Project in Indonesia September 2023 aims to enhance the go-to-market solutions of SMEs by improving the overall internet connectivity across the country so that more SMEs can adopt Fintech tools. Government-sponsored digital payments systems can also bring about a level of standardization and consolidation, which will make things easier for SMEs. Indonesia's QRIS (Quick Response Code Indonesian Standard) is an example of how this promotes cashless payments to ensure ease of adoption of digital payment solutions by SMEs.

Financial Inclusion Policies. Fintech adoption by underserved SMEs could be driven by the policies aiming towards improving financial inclusion. Less-stringent KYC (Know Your Customer) Regulations Impact KYC made easy allow SMEs especially rural SMEs to access Fintech services. For instance, India's Aadhaar system facilitates KYC processes by utilizing biometric identification, and reducing the barriers for SMEs to open accounts and access loans. Regulations on P2P Lending and microfinance. It can have an influence, favorable regulation on microfinance and P2P lending can also give SMEs an avenue towards funding. In Indonesia, for instance, its OJK regulates P2P lending, making platforms like Amartha and KoinWorks operate openly and securely.

Cybersecurity and data protection. Fintech policies are designed to provide cybersecurity and data protection to foster consumer trust in Fintech solutions. Data privacy laws, sensitive data protection laws, such as GDPR create an impact on SMEs to adopt Fintech by ensuring the security of their data. For example: The EU's GDPR (General Data Protection Regulation) becomes a global gold standard for data privacy, leading to similar mandates elsewhere. Cybersecurity standards, this also ensures that every Fintech company follows a certain standard which, protects SMEs from fraud, cyber-attacks, or data breaches.

Education and awareness programs such policies need to promote digital literacy and Fintech awareness to increase adoption among SMEs. Launch National Digital Literacy Campaigns Impact, raising awareness of Fintech benefits among SMEs leads to higher adoption rates. For example, Indonesia's Gerakan Nasional Literasi Digital (GNLD) focuses on increasing digital literacy, empowering SMEs to familiarize themselves with and utilize Fintech solutions. Training and Workshops. SMEs are well-equipped and supported with the tools and necessary insight required to work out the learning curve of adopting Fintech, through Impact, hands-on training programs.

Recommendations for Indonesia streamline regulations, have a simple licensing and compliance regulation to be followed by Fintech and their services. Foster ax breaks/grants for SMEs, Fintech adoption Invest in Infrastructure includes both internet connectivity and digital payment systems, particularly in rural areas. Encourage Fintech awareness, National campaigns to educate SMEs on Fintech. Cybersecurity enhance, implement rigorous data protection and cybersecurity measures to foster confidence.

Payment Systems in Indonesia

These relate to the elements of the payment systems. Until the final settlement, there is a clearing mechanism (Bank Indonesia, 2015). But also probably some other things like the agencies that pay organizing payment systems. In the ancient world, the developed countries may unrealistic continue to lead payment instruments. The first cost, which one can even consider a bartering system, is an exchange of goods. The unit with a payment tool called money is most commonly associated with it. Types of payment cashless best practises payment process, payment methods people are more and more inclined to use cashless payment methods to settle their bills. Moreover, these are also known as paperless payment instruments marshalling electronic funds transfer and payment tool wear of the card (card-based, ATM, credit card, Debit cards, and prepaid cards).

Several companies are part of development for SMEs in financial technology. Digital payment services and financial arrangements (Abad-Segura et al., 2020) are among the multiple aspects penetrated by the role of financial technology. From business, education, health care, financial services and the community, technology development has touched every possible segment of human life. Technological advancements that enable tech products like the Internet and mobile devices.

An advanced user-friendly transaction revolutionizes the payment process, helping to build a solid economy. The world of the financial services enhances the development from checks, electronic cards, and funds transfer systems to electronic money systems (visa, master card), online (internet banking), Mobile banking and digital banking (Wonglimpiyarat, 2017). Thus, payment systems with affect finanical literacy and business performance.

P2P (Peer-to-Peer Lending)

Peer-to-peer lending (P2P Lending practices or methods) offer loans to individuals or businesses. Lending is facilitated between lenders and borrowers, or investors online. Peer-to-peer lending (P2P Lending) gives a loan applications to a personal or company and links lenders with borrowers or investors online (Nisar et al., 2020; Wang et al., 2020). Official financial services are not required for peer-to-peer lending (P2P Lending), which is an individual loan to an individual. It is going to unite the parties which loans borrowers. Instead of applying for a loan through authorized agencies such as banks, cooperative-credible, government services, and so on, which is much more complicated, as an alternative, the community can provide a loan guaranteed by other community members who have the P2P Lending system.

Peer-to-Peer lending is a two-sided market (Klafft, 2008; Bataineh et al., 2020). Some financial technology in companies are specializing within the development of functions for

P2P Lending in Indonesia. The traditional paradigm of the commercial lending states that small banks have comparative advantages over large banks for lending to small businesses because small banks can afford to mitigate the information asymmetry. Empirical evidence supports that the conventional paradigm indicates how banks provide services to their business clients (Berger & Frame, 2007; Altavilla et al., 2020). They show that large banks provide loans almost exclusively to larger companies, which have excellent accounting records of small banks lending to firms.

Credit analysis is not limited to a single venue, product, or technology. With the growing power of e-commerce technology, lending activities are undergoing similar evolution as e-commerce couples who can avail of funding from multiple individuals and can access funding through online and paper platforms. The peer-to-peer lending website developed for conducting activities is based on a website platform used by different peer-to-peer lending companies. The credit grants the money loan facilities to pay the installments at the same time or after the convention (Fendri, 2020). In peer-to-peer lending, fund managers use data from business owners to make credit decisions and to reduce the risk of such recognition.

We classified peer lending as an alternative financial product. Researchers found that peer lending application as shown in the process below (Wang et al., 2020; Hidayat et al., 2020). Borrowers visit the site and register and fill the application form. The Platform then validates and evaluates the loan qualification. Together with those lenders could use funds on the official website to lend it. for example, which works right through peer-to-peer lending systems to area borrowers to be most media lenders.

It is difficult to get bank loans for small and medium businesses (Wille et al., 2017). It is still unrejected at the lending institutions the credit raised. This is a genuine gap in the financing of small and medium businesses, impacting business performance. It should talk about the generation of new companies, lending, and job expansion within small businesses. Technology finance like peer-to-peer lending is a new but fast method of getting loans quickly. They make it easy to contribute online. They benefit from it and enhance their business efficiency.

Factors that are against merchants generate system payment increase sales mobility are analyze by (Mallat and Tuunainen, 2008). SME owners are positively impacted at the level of the benefits of using payment system technologies applied with payment that causes an increase in sales and revenue/business performance. According to Hayashi (2012), the level of mobility is consistent and the level of benefit is covered in a comfortable taste with the utilization of payment. Desiyanti et al. (2022), stated from their work that the payroll system impacts positively on the measure of income/performance of the parallel. Towards the findings showed that the positive and significant e-commerce on the performance of SME owners (Ningtyas, Sunarko, & Jaryono, 2015; Noviani & Sinarasri, 2017).

According to Prawirasasra (2018) the enhancement of financial technology in Indonesia has a positive impact on the economy. Fintech (Financial Technology) facilitates population welfare flatten, helps SME fund financing, and drives the spread of national finance, improves national financial literacy and inclusion, and drives SME capabilities. Financial technology also has a social impact, such as in thinking patterns in conventional financial institutions. At present, the presence of financial technology can improve the performance of an effort.

People running SMEs wear many hats. So financial technology must be appropriate for more straightforward business processes. For SMEs, financial technology innovates the payment process by facilitating a more seamless and user-friendlier transaction that eventually affects business performance (Amalia et al., 2016). Financial technology can work for not just businesses, but also suppliers and customers. Peer-to-peer lending offers convenience for SMEs since it is comprehensive and effective, and has low cost interest rate (Nisar et al., 2020).

Financial technology lending and financial services assists SME owners who require venture capital to expand their business without the use of collateral. SME owners who need cash will find peer-to-peer lending is there to offer them convenience. The most simple, and more bureaucratic, approach is simple, and can be seen as a quick fix to help the business find its way. Money can be lent on information technological know-how or financial technological know-how peer-to-peer lending. P2P lending is said to be an alternative investment and loan for SME owners. Which makes it able to enhance business impaction and promote the national economy make their claim a lot for the future (Rosavina et al, 2019). The power of technology that promotes peer-to-peer lending serves as a solution to financing by providing a number of facilities for SMEs. P2P lending as a liaison between the parties that need loans (borrowers) and the lender (lenders) can serve as a bridge for the business needs of SMEs and the creative economy to continue to do productive things (Kusharianto, 2018;Irhas, 2021).

Currently, SMEs in Indonesia are considered to be an important component in the development and national economic growth. Cited from CNN Indonesia, the contribution of SMEs has expanded toward gross domestic product within the last five years (Balakrishnan, 2020). It is also a community effort to sustain the productivity gain of SMEs going forward. But in Indonesia, many SMEs still struggling with limited capital problems (Valeriani & Putri, 2020). P2P Loans P2P loans are the ideal solution for the funding needs of SMEs. Small business owners can obtain cash quicker through P2P lending loans.

Peer-to-Peer Lending Benefits for SME Business

One advantage of P2P lending is its lower interest rate (He et al., 2021). P2P lending loans generally offer a lower interest rate than other similar loans. One of the existing P2P lending platform is KoinWorks which has already been registered in OJK. It is able to offer loans at interest rates from 0.75% – 1.67%. This short interest will certainly help owners of SMEs in Indonesia. P2P lending anytime submission (Thakor, 2020). Visit the website of the existing platform to apply for a loan at any place and at any time. The loan file will be liquidated after the commencement of the loan period.

The peer-to-peer lending has processed quickly (Wei et al., 2016). It takes a traditional institution about a month for the money to become liquid after the loan has been filed. The peer-to-peer lending platform is preferred by borrowing parties due to its shorter waiting period and quickness. Typically, the loan is cleared within a few days of the terms. The fund’s loan is backed by thousands of investors on the peer-to-peer lending platform. Different types of facility are being offered for loan needs. You can now do the current loan application. Description of the Financial technology consists of payment system and peer-to-peer lending. Conduct concentrates on the effect of payment system and peer-to-peer lending on the business performance

Weaknesses Chapter

Weakness: The chapter provides examples of actual cases (e.g., Indonesia's QRIS with its POJK 77/2016) yet does not sufficiently analyze their impact and limitations. In the absence of greater insight, readers probably will not come away with a sense of how these policies succeeded or failed in practice, which limits the chapter's applicability. How to fix, Expand on the data provided, highlighting specific adoption rates, challenges encountered, and lessons gleaned from the case studies listed in your evidence. In other words, how many SMEs use the QRIS, and what obstacles still exist?

Narrow attention on challenges with implementation. Chapter barely addresses the gap between theory and practice, and the Fintech companies and governments that need to follow new policies or guidelines. Policies can be well-designed on paper but badly implemented in reality. This flattens the ' chapter response into wishful thinking, making it sound increasingly unrealistic. Talk about challenges in detail, like bureaucratic inefficiencies, lack of coordination among agencies, resistance from the traditional financial sectors, etc.

Focus on only positive outcomes yoking together various elements of the economic-political-machine, the chapter emphasizes the merits of policies while downplaying their potential drawbacks or unintended consequences. This can create a false financial narrative that can lead readers to believe that no policy is any better than another. Where applicable mention risks, e.g. overregulation stifling innovation or SMEs being excluded given high compliance costs.

Lack of adequate global comparison although the chapter does discuss global examples, it does not provide a systematic comparison of how the different countries' approaches have led to varying levels of Fintech adoption among SMEs. The reader will not have a clue about which policy is most effective, without a comparison across experiments. To Improve, Add a table or a framework comparing policies in different jurisdictions (e.g. regulatory sandboxes, open banking frameworks) and how they fared for SMEs.

Absence of SME, centric Point of view outlines policies from the macro level but fails to delve into the experience of SMEs in relation to these policies in practice. SMEs are the end consumers of Fintech solutions, and their views are invaluable for policy evaluation in the real world. Leverage quotes, surveys or interviews of SME owners to show their experiences, challenges and needs.

Not much talking about digital literacy. Although the chapter refers to digital literacy, it failed to mention how crucial it is for the adoption of Fintechs among SMEs. Only 31% use Fintech services especially in developing countries like Indonesia, due to digital literacy becoming an obstacle to Fintech adoption. Neglecting this dimension undercuts that chapter's analysis. Include a subsection on digital literacy, and say how this could be addressed through policies, including education, training, and awareness campaigns.

Conclusion

Small and Medium Enterprises (SMEs) have been a key component in shaping the global economy. In particular, in an emerging market such as Indonesia, it is essential that SMEs are able to measure their business performance effectively and improve that performance. In this context, financial technology (Fintech) plays a critical role as an enabler by facilitating access to financial services and democratizing SME opportunities.

Meanwhile, Fintech solutions like digital payments or peer-to-peer lending help close the financial gaps that SMEs once endured. From improving financial transactions to new ways to raise funds, these technologies have not only made businesses to be smart, but also driven up competitiveness of SMEs. This is a powerful motivator as reduced transaction costs, better handling of cash flow, and easier access to the right funding all play a significant role in enhancing business performance and fostering innovation within SMEs.

Furthermore, the impact of Fintech extends beyond merely boosting business performance metrics but also improving financial inclusion by opening opportunities for marginalized segments of the population and lowering entry barriers to entrepreneurship. Fintech has an opportunity here, by offering financial products and services that are less rigid and better tailored to their needs, perhaps reducing some of the challenges that these enterprises tend to face (for example, difficulties accessing traditional financing or needing to have operational processes streamlined).

The integration of financial technology into SMEs represents a promising pathway toward sustained growth and resilience as SMEs continue to adapt and innovate in response to market demands. The way ahead for SMEs should essentially be digitalized, thus necessitating modern day entrepreneurs and policymakers alike to understand the importance of balancing business efficacy with its technology prowess.

By working hand in hand, Fintech firms, SMEs, and regulatory authorities can create a healthy ecosystem in which businesses can thrive, benefiting both the organizations and the wider economy. Empowered SMEs also have a tremendous macroeconomic importance that reveals their significance in driving the economy forward as engines of growth and as a tool for achieving sustainable development.

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