

The Evolution of FinTech and its Effects on Financial Decision Making: A Systematic Literature Review

Evolusi FinTech dan Pengaruhnya terhadap Pengambilan Keputusan Keuangan: Systematic Literature Review

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ABSTRACT

The development of FinTech technology has changed the financial landscape, having a significant impact on individual and corporate financial decision-making. Through a systematic literature review, this research investigates the evolution of FinTech and its effects on financial management behavior, product preferences, investment decisions, and consumer confidence. FinTech has improved accessibility, product innovation, data analysis, competition in the market, and security, while also raising challenges such as data security issues and the risk of bias in decision making. With a deeper understanding of this relationship, steps can be taken to maximize the benefits of FinTech while minimizing the risks.

Keywords: Financial Technology, Financial Decision Making, Financial Innovation, Data Analysis, Market Competition, Financial Security

ABSTRAK

Perkembangan teknologi FinTech telah mengubah lanskap keuangan, memberikan dampak signifikan pada pengambilan keputusan keuangan individu dan perusahaan. Melalui peninjauan literatur sistematis, penelitian ini menyelidiki evolusi FinTech dan efeknya terhadap perilaku pengelolaan keuangan, preferensi produk, keputusan investasi, dan kepercayaan konsumen. FinTech telah meningkatkan aksesibilitas, inovasi produk, analisis data, persaingan di pasar, dan keamanan, sementara juga memunculkan tantangan seperti masalah keamanan data dan risiko bias dalam pengambilan keputusan. Dengan pemahaman yang lebih dalam tentang hubungan ini, langkah-langkah dapat diambil untuk memaksimalkan manfaat FinTech sambil meminimalkan risikonya.

Keywords: Financial Technology, Pengambilan Keputusan Keuangan, Inovasi Keuangan, Analisis Data, Persaingan Pasar, Keamanan Keuangan.

Introduction

The evolution of FinTech (Financial Technology) has significantly impacted financial decision-making, transforming the way individuals and businesses interact with financial services. This transformation has been driven by technological advancements, increased competition, and changing consumer preferences. Key aspects of FinTech's influence on financial decision-making include (Kou,2021) (Alt,2018) (Arner,2015): (1) Accessibility and convenience: FinTech has made financial services more accessible and convenient, allowing users to manage their finances from anywhere at any time. Mobile banking, digital wallets, and peer-to-peer payment systems have made it easier for people to make transactions, save money, and manage their investments. (2) Innovative financial products: FinTech has led to the development of innovative financial products, such as robo-advisors, which use algorithms to provide personalized investment advice, and crowdfunding platforms, which allow individuals to invest in startups and other projects. (3) Improved data analysis: FinTech has enabled the use of advanced data analysis techniques, such as machine learning and artificial intelligence,

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to improve financial decision-making. These technologies help financial institutions to better understand their customers' needs and preferences, and to provide more personalized financial products and services. (4) Increased competition: FinTech has disrupted traditional financial institutions, leading to increased competition and innovation in the financial services sector. This competition has driven down costs and improved the quality of financial products and services, benefiting consumers. (5) Enhanced security: FinTech has led to the development of more secure financial products and services, such as biometric authentication and multi-factor authentication. These technologies help to protect consumers' financial data and reduce the risk of fraud and cybercrime. (6) Improved financial inclusion: FinTech has helped to improve financial inclusion by providing access to financial services to people who were previously excluded, such as those living in remote areas or with low incomes. (7) Challenges and risks: While FinTech has brought many benefits, it has also introduced new challenges and risks. For example, the use of artificial intelligence and machine learning in financial decision-making raises concerns about bias and fairness. Additionally, the rapid growth of FinTech has led to increased regulatory scrutiny and the need for stronger consumer protection measures. In conclusion, the evolution of FinTech has had a profound impact on financial decision-making, making financial services more accessible, convenient, and innovative. However, it has also introduced new challenges and risks that must be addressed to ensure the continued success of the financial services sector (Soni,2022).

The use of FinTech (Financial Technology) services offers numerous benefits to individuals, businesses, and the financial industry as a whole. These benefits include (Chakraborty,2018) (Gomber,2018): (1) Accessibility and convenience: FinTech services make financial services more accessible and convenient, allowing users to manage their finances from anywhere at any time. Mobile banking, digital wallets, and peer-to-peer payment systems have made it easier for people to make transactions, save money, and manage their investments. (2) Innovative financial products: FinTech services have led to the development of innovative financial products, such as robo-advisors, which use algorithms to provide personalized investment advice, and crowdfunding platforms, which allow individuals to invest in startups and other projects. (3) Improved data analysis: FinTech services enable the use of advanced data analysis techniques, such as machine learning and artificial intelligence, to improve financial decision-making. These technologies help financial institutions to better understand their customers' needs and preferences, and to provide more personalized financial products and services. (4) Increased competition: FinTech services have disrupted traditional financial institutions, leading to increased competition and innovation in the financial services sector. This competition has driven down costs and improved the quality of financial products and services, benefiting consumers. (5) Enhanced security: FinTech services have led to the development of more secure financial products and services, such as biometric authentication and multi-factor authentication. These technologies help to protect consumers' financial data and reduce the risk of fraud and cybercrime. (6) Improved financial inclusion: FinTech services have helped to improve financial inclusion by providing access to financial services to people who were previously excluded, such as those living in remote areas or with low incomes. (7) Cost savings: FinTech services often offer lower costs for financial products and services, as they eliminate the need for physical infrastructure and reduce operational expenses. (8) Time savings: FinTech services can save time for users, as they allow for quick and easy transactions, such as peer-to-peer payments and instant transfers. (9) Personalized financial advice: FinTech services, such as robo-advisors, can provide personalized financial advice and investment management services at a lower cost than traditional financial advisors. (10) Increased transparency: FinTech services often provide greater transparency in financial transactions, allowing users to better understand fees, interest rates, and other financial terms. In conclusion, the use of FinTech services offers numerous benefits to individuals, businesses, and the financial industry as a whole. These benefits include increased accessibility, convenience,

innovation, security, financial inclusion, cost savings, time savings, personalized financial advice, and increased transparency. FinTech continues to evolve, and its influence on the financial industry is expected to grow in the coming years (Goldstein,2019).

Technological developments in the financial industry, or what is known as Financial Technology (FinTech), have changed the financial landscape significantly in the last few decades. With constant innovation and the increasing speed of technology, FinTech has become a fundamental phenomenon, influencing how financial decisions are made and implemented (Sampat,2024). Through a systematic literature review, this article aims to understand the evolution of FinTech and its impact on financial decision making. Research on the evolution of FinTech and its impact on financial decision making is important for many reasons. Firstly, FinTech has sparked drastic changes in the way financial transactions are conducted, enabling easier, faster and cheaper access to a wide range of financial services. However, the full impact of these changes on financial decision-making behavior is still not fully understood. This phenomenon raises the need for a deeper understanding of changes in consumer behavior and preferences and their impact on financial stability.

The research gap that emerges in this research is the lack of a comprehensive understanding of changes in financial decision-making behavior due to the evolution of FinTech. Although there is a wealth of research on FinTech innovation and its impact on the financial industry, there is still a gap in the literature to adequately understand how FinTech specifically influences individual and corporate financial decisions. Thus, this research will make an important contribution to filling this knowledge gap and provide better insight into the evolution of FinTech and its implications for financial decision making.

Research Methods

The research method used in this systematic literature review begins by searching for relevant keywords such as "FinTech evolution", "financial decision making", and "impact of technology on finance" in various academic databases such as Google Scholar, Web of Science, IEEE Xplore, ScienceDirect, and Google Scholar. After that, articles that were relevant and related to this research topic were filtered based on predetermined inclusion and exclusion criteria. Inclusion criteria included articles that discussed the evolution of FinTech and its impact on financial decision making, while exclusion criteria included articles that were irrelevant or not in English. The number of articles obtained after the initial search was around 64 articles. Then, the articles were filtered again based on relevance to this research topic, and finally around 20 articles were selected which will be studied in depth to gain a more comprehensive understanding of the evolution of FinTech and its impact on financial decision making.

Results and Discussion

In a systematic literature review on "The Evolution of FinTech and its Effects on Financial Decision Making", several important factors and points were found that provide an in-depth understanding of the impact of FinTech on financial decision making. The following are the results and discussion:

1. Accessibility and convenience

Accessibility and convenience in financial services has been one of the most visible impacts of FinTech developments. FinTech has changed the traditional way financial services are accessed by individuals, expanding access and increasing ease of use. With FinTech, individuals can now manage their finances from anywhere and at any time, without having to rely on a physical location or bank operating hours. This is primarily realized through the emergence of mobile banking applications, digital wallets, and peer-to-peer payment systems that provide easy and fast access to financial services (Mention,2019).

Mobile banking apps allow users to access their accounts, make fund transfers, pay bills, and even manage investments directly through their phones, without having to go to a physical bank. Meanwhile, digital wallets facilitate electronic payments in various places, reducing dependence on physical cash and credit cards. Peer-to-peer payment systems have also enabled individuals to make direct transactions between each other quickly and cheaply, without needing to go through traditional banking networks (Giglio,2021).

With the emergence of FinTech, it is expected that accessibility and convenience in financial services will increase significantly, allowing individuals to manage their finances more efficiently and flexibly. It is also hoped that with this easier access, people will be increasingly encouraged to use financial services more actively, helping to increase financial inclusion and overall financial well-being (Lagna,2022).

Hypothesis: The use of FinTech increases accessibility and convenience in financial services.

2. Product Innovation

Resulting in innovations that are changing the way individuals and companies manage their investments. One example of an innovative financial product produced by FinTech is a robo-advisor. Robo-advisors use algorithms and artificial intelligence technology to analyze an individual's risk profile and investment goals, and then provide personalized investment advice. By leveraging this technology, robo-advisors can provide investment portfolios that are more diversified and tailored to each investor's specific needs, while also reducing costs and the need for human intervention (Gomber,2017).

Additionally, FinTech has also driven the emergence of crowdfunding platforms, which allow individuals to participate in investing in new projects or businesses without having to go through traditional channels such as financial institutions or venture capital. These crowdfunding platforms create access to a wider range of funding sources, allowing entrepreneurs to raise funds from a variety of individual investors. This not only provides an opportunity for entrepreneurs to raise capital, but also gives small investors the opportunity to invest in interesting and potential projects, which may previously have been difficult to access (Palmié,2020).

Through the emergence of FinTech, it is hoped that there will be a significant increase in the development of innovative financial products. By effectively leveraging technology and data, FinTech enables the development of products that are smarter, affordable, and accessible to more people. It is hoped that with this innovation, individuals and companies will have better access to investment instruments that suit their needs, increasing the opportunity to achieve their financial goals more efficiently and effectively (Jalal,2023).

Hypothesis: FinTech facilitates the development of more innovative financial products.

3. Enhanced data analysis

The use of FinTech technology has brought significant advances in financial data analysis. One key aspect of this progress is the use of advanced data analysis techniques such as machine learning and artificial intelligence (AI). These technologies enable financial institutions to collect, process and analyze large amounts of data quickly and efficiently, yielding deeper insights into individual financial behavior and market trends (Suryono,2020).

Through machine learning and AI, FinTech can identify underlying patterns and trends in financial data, helping financial institutions to predict customer behavior, investment risks and future market performance. For example, machine learning algorithms can be used to analyze consumer spending patterns and predict future user behavior, which can then be used to tailor financial product and service offerings in a more personalized manner (Ashta,2018).

In addition, advanced data analysis technologies also enable financial institutions to identify specific market segments and customer preferences more precisely, so they can provide products and services that better suit individual needs. By better understanding

customer needs and preferences, financial institutions can optimize marketing strategies, product offerings, and customer service, increasing customer satisfaction and overall business success (Gomber,2018).

With advances in data analysis technology in FinTech, it is hoped that the ability of financial institutions to make financial decisions will increase significantly. By leveraging machine learning and AI technology, financial institutions can analyze data more accurately and quickly, generating deeper insights into customer behavior and market trends. It is hoped that this will help improve operational efficiency, optimize business strategy and increase overall customer satisfaction (Gabor,2020).

Hypothesis: FinTech enhances data analysis capabilities for better financial decision making.

4. Fintech security

The development of FinTech has brought significant changes in terms of financial services security. Using advanced technology, FinTech has introduced a variety of products and services designed to increase the protection of consumers' financial data. One prime example of this is the use of biometric authentication and multi-factor authentication (Ashta,2018).

Biometric authentication uses an individual's unique physical or behavioral characteristics, such as a fingerprint, face, or voice, to identify and authorize access to financial accounts. This technology is not only more secure than traditional password-based authentication methods, but also more convenient for users because they do not need to remember complex passwords (Jalal,2023).

Additionally, multi-factor authentication involves using more than one identity verification method, such as a password combination, SMS verification code, or authentication token, to ensure higher security. By requiring more than one verification factor, multi-factor authentication makes it more difficult for unauthorized parties to access financial accounts (Giglio,2021).

Through the introduction of new security technologies such as biometric authentication and multi-factor authentication, FinTech has significantly increased the protection of consumer financial data. It is hoped that with these security measures in place, the risk of fraud and cybercrime can be reduced, providing users with a greater sense of security in using financial services online. In addition, the use of advanced security technology can also increase consumer trust in FinTech and increase the overall adoption of digital financial services (Lagna,2022).

Hypothesis: FinTech introduces new security measures that increase the protection of financial data.

Through this analysis, it can be concluded that FinTech has brought about significant changes in the way financial decisions are made. As FinTech technology continues to develop, it is important to continue to understand its impact on the financial industry and how it influences financial decision-making behavior. Further research is needed to explore the long-term implications of the evolution of FinTech and to develop appropriate strategies for managing the risks and exploiting the opportunities associated with this innovation.

Research Framework



Figure 1 Research Framework

In this framework, the independent variable influences the dependent variable which then describes the impact of FinTech developments on financial decision making. Research was conducted to understand the relationship between independent variables and dependent variables and identify the most influential factors in financial decision making in the FinTech era.

Conclusion

In an era of rapid technological development, FinTech has become an important force in the world of finance, introducing innovations that change the way we interact with financial services. Through this systematic literature review, we have gained a deep understanding of the evolution of FinTech and its impact on financial decision making. FinTech has increased accessibility, product innovation, enhanced data analysis, market competition, and security, which have collectively changed financial management behavior, consumer preferences, investment decisions, and trust in financial services. However, challenges and risks also arise, including data security issues, potential bias in decision making, and the need for stricter regulations. With a better understanding of this relationship, we can take appropriate steps to optimize the benefits of FinTech while minimizing its risks.

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