Studies Into the Potential Replacement of Swift with Digital Currency: Technology, Regulation, and the Market

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Abstract

With the rapid development of digital currency and blockchain technology, digital currency has attracted widespread attention as a new payment method. As a traditional cross-border payment and settlement method, SWIFT has significant advantages in its market position and technical capabilities. However, as a new payment method, digital currency has the advantages of speed, low cost, and no geographical restrictions, so it may become a substitute for SWIFT. This paper aims to study the possibility of a digital currency replacing SWIFT, focusing on the challenges and opportunities of digital currency in terms of technology, regulation, and market.

In terms of technology, this paper would analyze the advantages and disadvantages of digital currency and blockchain technology and explore the technical application of digital currency in cross-border payment and settlement. In addition, this paper would also analyze technical issues, such as the security and scalability of digital currency, and propose corresponding solutions.

In terms of regulation, this paper would analyze the regulatory framework and compliance requirements of digital currencies and the status and role of digital currencies in the international financial regulatory system. This paper would also explore the regulatory and compliance issues of digital currency and propose suggestions and solutions for digital currency regulation.

In terms of market, this paper would analyze the competitiveness and application potential of digital currency in the international trade and cross-border payment markets, as well as the market prospect and business model of digital currency. In

addition, this paper would also analyze the advantages and disadvantages of digital currency and traditional payment methods, as well as the challenges of digital currency in marketing and application.

Through the analysis and discussion of technology, regulation, and the market, this paper aims to provide a theoretical and practical basis for digital currency to replace SWIFT and a reference for relevant policy formulation and practice.

This paper provides a comprehensive and in-depth analysis and research on the possibility of a digital currency replacing SWIFT, covering technical, regulatory, and market issues. The structure of the thesis is clear, the logic is rigorous, the argument is clear, and it has innovation and practical value. This paper has important theoretical and practical significance in the continuous development and application of digital currency and blockchain technology. It has specific references and inspiration for research and practice in related fields.

At the same time, this paper also has some limitations. First, predicting the combination of Swift Go and its technology with blockchain is impossible. Secondly, it is impossible to predict the extent to which regulation would affect the development of the digital currency. It is also impossible to predict whether distributed ledger or blockchain technology can maintain their advantages in the long run. Finally, it is impossible to predict whether the development of CBDC would replace Swift, especially in the United States. In addition, in the research and analysis of the paper, there may be some subjectivity and prejudice, and it is necessary to strengthen objectivity and comprehensiveness.

Therefore, conducting further research in the future would enhance our understanding of both digital currency and SWIFT. This would help combine what is happening now with how things are changing, make the technical, legal, and market issues of a digital currency replacing SWIFT even better, encourage more people to use digital currencies instead of SWIFT, and promote the practice of a digital currency replacing SWIFT. At the same time, it can explore the impact and role of a digital currency replacing SWIFT on the international financial system and international relations and strengthen research and analysis on the development trend and application prospects of digital currency and blockchain technology.

In addition, the research focus of this thesis is on the following directions:

Technical research. Further explore the technical differences, advantages, and disadvantages of digital currency and SWIFT and conduct in-depth research on various technical characteristics and security issues of digital currency to promote safe and efficient operation.

Regulatory research. From the perspective of law and supervision, discuss the regulatory issues and risks that digital currency may bring about instead of SWIFT and put forward corresponding regulatory policy suggestions to promote the healthy development of digital currency.

Market-level research. Conduct an in-depth study on the market prospects and potential risks of a digital currency replacing SWIFT. Propose corresponding market strategies and development directions to enhance the market competitiveness and value of the digital currency. In general, research should strengthen the role of digital

currency and SWIFT in international trade and cross-border payments, as well as national supervision and technological development, and explore the possibility of digital currency replacing SWIFT.

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Chapter 1 Introduction

With the continuous development of digital currency and blockchain technology, more and more people are considering whether digital currency may replace SWIFT (The primary means of paying and settling for foreign currencies is through the Society for International Financial Telecommunication. This issue involves many aspects, such as technology, regulation, market, and international relations, and requires comprehensive and in-depth research and analysis.

The review and analysis of many pieces of literature discuss the technical, regulatory, and market issues of a digital currency replacing SWIFT and provide specific references and suggestions for relevant research guides.

This paper mainly includes the following parts: First, it introduces the basic concepts and development process of digital currency and SWIFT. Analyze the background, practical significance, and theory of digital currency replacing SWIFT; secondly, discuss the digital currency and SWIFT from a technical point of view, Technical differences and advantages and disadvantages, analyzing the technical characteristics and security of digital currency in terms of payment and settlement; then, from a regulatory perspective, exploring the regulatory issues and risks that digital currency may bring in place of SWIFT, and proposing related regulatory policies Suggestions; then, from a market perspective, analyze the market prospects and potential risks of a digital currency replacing SWIFT, and propose corresponding market strategies and development directions.

Through the research in this paper, we would have a deeper understanding of the

possibility of a digital currency replacing SWIFT and related issues and provide specific guidance and references for the future development and application of digital currency. We would introduce the basic concepts and development history of digital currency and SWIFT. First, the origin and evolution of digital currency would be reviewed, and the characteristics and advantages of digital currency would be analyzed. And analyze the critical role of SWIFT in international currency payment and settlement. Finally, the background and practical significance of digital currency replacing SWIFT would be discussed, and the possibility and necessity of digital currency replacing SWIFT would be analyzed.

From a technical point of view, we would analyze the technical differences, advantages, and disadvantages of digital currency and SWIFT. First, the technical characteristics of digital currency would be introduced, including decentralization, blockchain, encryption algorithms, etc. The technological benefits and drawbacks of digital currency regarding settlement and payment would next be examined. The technical differences and competitive relationship between digital currency and SWIFT would be compared. Finally, the security issues of digital currency in payment and settlement would be explored, and corresponding solutions would be proposed.

From a regulatory point of view, we would analyze the regulatory issues and risks that digital currencies may pose in place of SWIFT. First, it would introduce the regulatory status and regulatory model of digital currency and analyze the challenges and impact of a digital currency replacing SWIFT on regulators. Next, it would examine the regulatory issues of digital currency in anti-money laundering and anti-terrorist

financing and put forward corresponding regulatory policy suggestions. Finally, the compliance and sustainability issues of digital currencies would be analyzed, and the status and role of digital currencies in the global regulatory system would be explored.

Examine the potential hazards and market opportunities associated with digital money taking the place of SWIFT. First, it would introduce the status and trends of the digital currency market and analyze the impact and role of a digital currency replacing SWIFT on the market. Then, the market prospect and potential risks of digital currency in international trade and investment would be demonstrated, and the corresponding market strategy and development direction would be proposed. Finally, the advantages and disadvantages of digital currency and SWIFT in market competition would be analyzed, and the status and role of digital currency in the international monetary system would be studied.

From the perspective of international relations, we introduce the impact and role of a digital currency replacing SWIFT on the global financial system and international relations. First, in terms of the international monetary system, replacing SWIFT with digital currency may significantly impact international payment and settlement mechanisms. SWIFT is currently the world's principal cross-border payment and settlement mechanism, but it has some shortcomings, such as slow transaction speed, high fees, and insufficient security. The emergence of digital currency may solve these problems and improve cross-border payment and settlement efficiency and safety.

However, replacing SWIFT with digital currency may also cause challenges in the international financial system. First, the value of the digital currency fluctuates wildly,

which could put cross-border payment and settlement at risk for value changes. Second, the regulatory framework for digital money still needs sound, which may lead to regulatory issues. In addition, as a new type of financial tool, digital currency may also impact international monetary policy and increase the complexity of global monetary policy.

The possibility of a digital currency replacing SWIFT needs to be explored and studied from multiple angles. From the perspective of international relations, replacing SWIFT with digital currency may significantly impact the global financial system and international relations. A comprehensive assessment and analysis of its potential implications and challenges are required.

1.1 Research Background

Financial institutions worldwide can perform cross-border transfers via the communications network known as SWIFT. There is no physical money that goes to the bank—the remittance is solely completed through communication. SWIFT is one of the global financial system's most crucial international payment settlement networks. However, SWIFT's operation needs to rely on intermediary banks for clearing. At the same time, it requires the exchange of multiple currencies, which makes cross-border remittances take a long time, have high costs, and be cumbersome operations. Digital currency has the advantages of fast cross-border payment, low cost, and programmability, which makes it a possible alternative to SWIFT. In addition, the decentralized nature of digital currency can also reduce the participation of intermediaries, further reduce transaction costs, and improve security. These factors

have prompted people to start researching the application and prospects of digital currency replacing SWIFT.

With the development of blockchain technology, the application of digital currency in international payments continues to increase. Digital currencies like Bitcoin and Ethereum, which are programmable and decentralized, can potentially displace SWIFT. Some countries and regions have also begun to explore the application of digital currency in international payments. For example, China has launched a digital yuan and plans to use it for cross-border payments. Sweden is also experimenting with its digital currency to assess its use in international prices.

Nevertheless, digital currencies still need help in their attempts to displace SWIFT. These include issues of regulation, stability, liquidity, and more. In addition, the widespread application of digital currency still needs to be popularized and promoted, and it would take time to establish sufficient infrastructure and market acceptance.

In general, the prospect of applying a digital currency to replace SWIFT is worthy of attention, but it also needs time and further technical development to improve and solve related problems. Another potential advantage of replacing SWIFT is that digital currencies can make cross-border payments more convenient and transparent. Since blockchain technology enables fast and cheap peer-to-peer payments, digital currencies can make cross-border remittances quicker and more affordable. In addition, digital currency transaction records can be made public and recorded on the blockchain, which helps prevent fraud and combat money laundering. The widespread use of digital currency can also aid in resolving the financial issues that certain

developing nations encounter; many people need help to obtain reasonable financial services due to the lack of economic infrastructure and the imperfect regulatory system. Digital currency can provide these people with a new payment method and enable cross-border payments without traditional financial institutions, thus bringing more opportunities and convenience to them.

In short, as an alternative to SWIFT, the digital currency has potential advantages and opportunities but must also deal with related technical and regulatory challenges. At the same time, it needs to gain market acceptance and popularization to realize its application in international payments. As the market gradually recognizes digital currency, some large institutions and companies have also begun to explore the application of digital currency in global prices. For example, some multinational companies have started to use digital currency for cross-border payments, and some international trade institutions are actively exploring the application prospects of digital currency.

In addition, some digital currency projects actively seek cooperation and integration with SWIFT. For example, Ripple is a digital currency project focused on cross-border payments, and its collaboration and competition with SWIFT have attracted much attention. Ripple's XRP digital currency is an alternative to SWIFT, enabling fast, cheap, and transparent cross-border payments. In addition, some centralized digital currency exchanges also provide convenient cross-border payment services, which allow people to transfer assets quickly and safely between different countries and regions.

The development of digital currency technology and the market's acceptance

determine whether a digital currency can eventually replace SWIFT. Although digital currency has many advantages in cross-border payments, there are risks and uncertainties in the digital currency market. Therefore, replacing SWIFT with digital currency still needs time and further technical development to improve and solve related problems.

1.2 Significance

The significance of digital currency replacing SWIFT is that it can bring more convenience, transparency, and security to international payments and help promote innovation and progress in the global financial system.

First, cross-border payments may be made more quickly and affordably using digital currency. Since digital currency can realize direct peer-to-peer amounts without going through an intermediary agency, cross-border remittance can be faster, cheaper, and more efficient. This helps to promote the development of international trade and investment while also bringing more opportunities and convenience to individuals and businesses.

Second, using digital currency can also improve the transparency and security of payments. Since the transaction records of digital currency can be recorded on the blockchain and cannot be tampered with, it can prevent fraud and combat money laundering. In addition, digital currency can also realize the disclosure and traceability of payment information, which helps to improve the transparency and supervision of payments.

Lastly, adopting digital money instead of SWIFT can further advance innovation and

development within the international financial system. As a new payment and value storage method, digital currency can bring new ideas and possibilities to the financial system. It can also promote the development and application of blockchain technology, thereby promoting further development and innovation in the global financial system.

The significance of digital currency replacing SWIFT is that it can bring more convenience, transparency, and security to international payments and, at the same time, help promote innovation and progress in the global financial system. Although digital currency replacing SWIFT faces challenges and problems, it is still a direction worthy of attention and exploration.

1.3 Research Theory

It is a theory and trend that digital currency would replace SWIFT. Its main idea is cryptocurrency and blockchain technology to realize cross-border payments and international settlement. This approach has many potential advantages, such as being faster, having a lower cost, and being more secure. Here are some ideas and justifications for why digital currencies might replace SWIFT: Faster transaction speed: traditional cross-border remittances take days or weeks, while digital currency transactions can be completed in seconds. This means that cross-border remittances would be quicker and more efficient, allowing funds to flow more freely and quickly.

Lower transaction costs: There are various costs associated with traditional cross-border remittances, including exchange rate differences, intermediary fees, bank fees, etc. The cost of digital currency transactions is relatively low because they do not require intermediaries' participation or support from traditional financial institutions.

Higher security: Digital currency transactions adopt advanced encryption technology and blockchain technology, which can provide higher transaction security and prevent the risk of fraud. In addition, since digital currency transaction records are kept on the blockchain, it has higher traceability and transparency, which can improve the reliability of transactions.

Eliminate the need for currency conversion: Digital currencies can circulate freely worldwide, eliminating the need for exchange rate conversion and making cross-border remittances more convenient and efficient.

To verify whether this theory is established, it is mainly necessary to judge whether the digital currency can replace Swift through five factors: price change, transaction speed, transaction fee, acceptance, and supervision. The theory that digital currency replaces SWIFT is gradually becoming a trend and has attracted the attention and exploration of global financial institutions and governments. However, digital currency and blockchain technology still face many challenges and obstacles, such as regulatory issues, technical security, popularity, etc., which need further research and exploration.

1.4 Research Problems and Questions

1.41 What are the technological capabilities of digital currencies, including blockchain technology, scalability, security, and interoperability, and how do they compare to the faculty of Swift?

1.42 What are the current digital currency regulatory frameworks, and how do they differ from the Swift regulatory framework? What possible dangers are connected to virtual currencies, and how can regulations lessen such risks?

1.43 What is the current market for international payments, and what is the potential demand for digital currencies as a replacement for Swift? How would adopting digital currencies impact existing payment systems, and what are the competitive implications for financial institutions?

1.44 What are the potential benefits and drawbacks of using digital currencies to replace Swift, and how can these be weighed against each other? What are the key challenges that must be overcome for digital currencies to become a viable replacement for Swift, and what are the potential solutions to these challenges?

1.45 What impact would a digital currency have on international trade, cross-border payments, and financial stability if it were to replace Swift?

1.5 Chapter Summary

The background of the research is the increasing use of digital currencies and the potential impact they may have on traditional financial systems. According to the introduction, the SWIFT system and other conventional economic practices could be superseded by digital currencies.

The significance of the research lies in its potential impact on the financial industry and the need for further exploration of the topic. The study aims to contribute to understanding the feasibility of a digital currency replacing SWIFT by examining the technology, regulation, and market factors involved.

The theory part briefly explains the ideas around digital currencies, covering their types, history, and benefits. It also discusses the challenges and potential risks of adopting digital currencies.

The research problem and questions section identify the main research problem: figuring out if a cryptocurrency can take the role of SWIFT. The research questions explore the technology, regulation, and market factors that may impact the feasibility of this scenario.

Overall, Chapter 1 introduces the research topic and lays the foundation for the subsequent chapters. It highlights the potential impact of digital currencies on traditional financial systems. It sets out the research problems and questions that would be explored in more detail in the following chapters.

Chapter 2 Literature Review

2.1 PESTEL analysis

PESTEL analysis: PESTEL analysis can evaluate the political, economic, social, technological, environmental, and legal factors of a digital currency replacing SWIFT to determine market impact and trends.

Political Factors: Political factors are essential in the competition between digital currency and SWIFT. Changes in government regulation and policy may have an impact on digital currencies and SWIFT. The government may increase regulation to protect the interests of consumers and may also adopt policies that support digital money, such as reducing taxes on digital currencies.

Economic Factors: Economic factors are another essential factor in the competition between digital currencies and SWIFT. Economic factors include interest rates, inflation, exchange rates, and the job market, which may affect the market share and consumer usage patterns of digital currencies and SWIFT.

Social Factors: Social factors include culture, population, education, and health. How digital currencies and SWIFT are used may be influenced by social factors. For example, younger people may be more inclined to use digital currencies, while older people may be more inclined to use SWIFT.

Technical Factors include the security, reliability, and usability of digital currencies and SWIFT. New technological developments could influence SWIFT and digital currency. For example, developing blockchain technology can improve digital currencies' security and reliability, attracting more consumers.

Environmental Factors: Environmental factors include weather, natural disasters, environmental protection, and climate change. These factors may have an impact on digital currencies and SWIFT. For example, natural disasters may cause disruptions in digital currency and SWIFT transactions.

Legal Factors: Legal factors include regulations, legal procedures, and legal standards. Regulators and governments can control digital currency and SWIFT through rules. International laws and regulations may also restrict digital currencies and SWIFT.

Through PESTEL analysis, it is possible to evaluate the market impact and trends of a digital currency replacing SWIFT and identify the opportunities and challenges facing digital currencies and SWIFT.

2.1.1 Political Factors:

"The Role of Blockchain Technology in International Trade and Supply Chain Finance" (The University of St. Gallen, 2018)

This document mainly discusses the application and role of blockchain technology in international trade and supply chain finance. The author believes blockchain

technology can bring many benefits to international business and supply chain finance, such as improving transaction efficiency, reducing costs, increasing transparency and traceability, etc. Specifically, blockchain technology can optimize cargo tracking, contract management, payment settlement, and more. In addition, the literature also discusses the challenges that blockchain technology may face in international trade and supply chain finance, such as technical standardization, data privacy protection, laws, and regulations. The authors argue that addressing these issues would require close collaboration and coordination among government, business, and academia.

This document systematically analyzes the application and role of blockchain technology in international trade and supply chain finance, which is of great significance to the research in this field. The shortcoming of this literature is that its research perspective is relatively theoretical and needs more empirical research. In addition, due to the earlier publication of this document, there may be specific differences between the current blockchain technology development level and market conditions.

"Blockchain Technology and Digital Currency: Possibilities and Challenges for Cross-Border Payments" (The ECB, 2018):

The main topics of this literature are the promise and difficulties of blockchain technology and cryptocurrencies in cross-border payments. The author pointed out that blockchain and cryptocurrency can provide cheaper, faster, safer, and more

convenient cross-border payment services than traditional. However, they face some challenges, including regulation, compliance, stability, and privacy protection issues.

This literature makes valuable suggestions for applying cryptocurrencies and blockchain technology to cross-border payments, especially regulation and compliance, which require strengthening international cooperation and standard setting. Furthermore, the literature emphasizes the importance of privacy protection and stability, which is crucial for the widespread adoption of cryptocurrencies and blockchain technology. This document provides an in-depth analysis and discussion on the application of cryptocurrency and blockchain technology in cross-border payment and points out related challenges and difficulties. Its suggestions and viewpoints have important guiding significance for policymakers and practitioners.

"Bitcoin and Other Virtual Currencies: Opportunities and Dangers" (The FRB of Boston, 2014)

This article is a research paper that focuses on the virtual currency Bitcoin and its possible effects. The report pointed out that although Bitcoin has certain advantages, such as traceability and decentralization, there are still many challenges and risks, such as volatility, a lack of regulation, and illegal use. This article provides a comprehensive discussion of Bitcoin and its potential impact. It introduces the background, characteristics, advantages, and disadvantages of Bitcoin and deeply analyzes its implications for monetary policy and financial supervision. The article also pointed out

the challenges and risks that Bitcoin may face and proposed some policy recommendations to promote the development and regulation of Bitcoin and other virtual currencies.

This article's issues and policy recommendations, published in 2014, still hold specific reference values, particularly about how governments and regulatory agencies in various countries address virtual currencies and their potential impacts.

Inspiration and ideas for "Blockchain and Cryptocurrencies for Financial Crime Compliance" (The Royal United Services Institute for Defense and Security Studies, 2019):

This paper mainly explores the application of blockchain and cryptocurrencies to compliance with financial crime. The article pointed out that financial crimes have become increasingly complex and high-tech, and financial regulators must use advanced technology to enhance their regulatory capabilities. Blockchain and cryptocurrency have great potential as emerging technologies. The article profoundly explores the application of blockchain technology in anti-money laundering, anti-terrorist financing, and other fields. It analyzes the advantages and disadvantages of cryptocurrency as a new payment tool.

This article conducts an in-depth analysis and discussion on the application of blockchain and cryptocurrency in financial crime compliance, which has a particular reference value for financial regulators and practitioners. However, the article does

not conduct a comprehensive discussion on the possible challenges and risks that blockchain technology and cryptocurrencies may face in financial crimes, nor does it provide an in-depth forecast and analysis of the future development of this field, so it is still unclear in these aspects. Additional research is necessary.

"Cryptocurrencies and Blockchain: Legal and Regulatory Challenges" (The European Parliamentary Research Service, 2019)

This document explores the legal and regulatory challenges facing cryptocurrencies and blockchain technology. The literature first introduces the basic concepts and development status of cryptocurrencies and blockchain and then discusses EU and international regulators' legislative and regulatory measures. The literature highlights the need for regulators to take an innovative and flexible approach to the challenges of cryptocurrencies and blockchain technology and calls on regulators to strengthen cross-sectoral cooperation to develop a comprehensive regulatory framework to protect consumer and investor interests while promoting technology development.

This literature provides an excellent reference for understanding the legal and regulatory aspects of cryptocurrencies and blockchain technology. It provides a detailed analysis of regulatory measures taken by EU and international regulators about cryptocurrencies and blockchain technology, explores their impact on markets and technological developments, and raises issues that require further research in the

future. These analyses and discussions have important guiding significance for policymakers, investors, and practitioners.

"Blockchain and Financial Market Innovation" (The International Organization of Securities Commissions, 2019).

This paper mainly explores the impact of blockchain technology on innovation in financial markets. The article points out that blockchain technology can provide more efficient, safer, and transparent financial services and is expected to play an essential role in the financial market. At the same time, the author also pointed out the challenges blockchain technology faces, such as regulatory risks, privacy protection, and standardization issues.

This document summarizes the advantages of blockchain technology, such as decentralization, traceability, intelligent contracts, etc., and the impact of these advantages on financial markets, such as improving efficiency, reducing costs, and reducing fraud. Additionally, the literature raises corresponding questions about regulation, privacy, and standardization and discusses how to address them.

This literature is constructive for us to understand the application and potential of blockchain technology in financial markets. At the same time, the literature also puts forward the challenges of blockchain technology, which provides a reference for us to better understand the application prospects and development direction.

"Risks, Opportunities, and Difficulties for the Financial System Associated with CBDC and Stablecoins" (The BIS, 2021)

From the perspective of a big bank, this essay explores the potential, dangers, and challenges surrounding stablecoins and digital currencies issued by CBDCs.The authors note that stablecoins and CBDCs could significantly impact the financial system and monetary policy and call on central banks to strengthen regulation and monitor the development of these new digital assets.

"Stablecoins: Characteristics, Benefits, and Risks" (The European Parliament, 2019).

This article explores the characteristics, advantages, and risks of stablecoins and discusses the possibilities and challenges of stablecoins as an alternative to SWIFT. The study identified the benefits of stablecoins, including stability, scalability, and programmability, while highlighting the need to address issues such as regulation, transparency, and risk management. The paper also explores the relationship between stablecoins and the traditional financial system and puts forward policy recommendations to promote the sustainable development of stablecoins.

"Central banks issuing digital currency: potential impact on the banking industry" (JIBC, 2020).

The article, published in the Journal of Internet Banking and Business, analyzes the potential impact of a CBDC on the banking sector. The article discusses the impact of

CBDC on the existing banking system, payment system, and monetary policy, as well as the challenges and opportunities faced by banks in the CBDC era.

"International Payments and CBDC: A Review Paper" (Bank for International Settlements, 2021):

This BIS paper discusses the potential impacts of CBDCs on cross-border payments. The article introduces the challenges of cross-border payments and the solutions CBDCs may provide. The report also discusses the technical, policy, and regulatory issues CBDC may face with cross-border payments.

2.1.2 Economic Factors:

"Cryptocurrencies as a Disruptive Factor in Financial Services" (The University of Zurich, 2019).

This paper examines cryptocurrencies as a disruptive factor in financial services. In the article, the author analyzes the advantages and disadvantages of cryptocurrencies and compares the differences between traditional financial services and cryptocurrencies.

Firstly, cryptocurrencies' decentralization and immutability enable them to provide a more secure and efficient transaction method, emphasizing their significance. Cryptocurrencies also feature faster transaction speeds and lower transaction costs, allowing them to play an essential role in the financial services sector.

However, the author also pointed out some cryptocurrency problems, such as high price volatility and inadequate supervision. These issues may affect the application and development of cryptocurrencies in financial services.

In general, the paper objectively analyzes the advantages and disadvantages of cryptocurrencies in financial services, providing readers with comprehensive information. Significant changes have occurred in the cryptocurrency market, necessitating a re-evaluation of views.

"Cryptocurrencies and the Challenge to the Traditional Financial Sector" (Vrije Universiteit Brussel, 2018).

This paper examines the challenges cryptocurrencies pose to the traditional financial sector. The author believes that the development of cryptocurrencies has many potential advantages, such as fast and low-cost transactions, decentralization, anonymity, etc. However, factors such as the instability of cryptocurrencies, regulatory uncertainty, and security concerns also pose challenges.

The article analyzes the competitive relationship between traditional finance and cryptocurrencies and explores how cryptocurrencies compete in the financial market and how to cooperate with conventional financial institutions. The author pointed out that the development trend of cryptocurrencies is decentralization and lack of supervision, which has put pressure on the control and stability of traditional financial services.

This article provides a comprehensive perspective on the development of cryptocurrencies while also exploring how traditional financial businesses respond to this challenge. The report emphasizes cryptocurrencies' potential impact and significance in the economic field and warns about their instability and regulatory risks.

"The Role of Cryptocurrencies in International Trade and Cross-Border Payments" (The University of Kent, 2018): This paper mainly explores the role and potential of cryptocurrencies in international trade and cross-border payments. The authors argue that cryptocurrencies can improve the efficiency and security of cross-border payments, reduce costs, and provide financial services to emerging market countries. In addition, the author also analyzes the potential applications of cryptocurrencies in international trade, such as reducing exchange rate volatility and trade costs. This paper provides some valuable insights into the potential applications of cryptocurrencies in cross-border payments and international trade. The authors also offer some illuminating ideas for using cryptocurrencies in conjunction with traditional financial institutions to take full advantage of them. However, this paper has limitations, such as failing to explore cryptocurrencies' risks and regulatory issues in depth. In addition, the author's point of view also has a certain degree of subjectivity.

This paper has some reference value for understanding the potential application of cryptocurrencies in cross-border payments and international trade. However, readers still need to have a comprehensive understanding of the risks and regulatory issues associated with cryptocurrencies.

"Using Blockchain Technology for International Payments" (The University of Cambridge, 2017).

This document is from Cambridge University's research and mainly discusses the application prospects of blockchain technology in cross-border payment. The article points out that traditional cross-border payment systems have cumbersome operating procedures and high transaction costs, while blockchain technology can improve payment efficiency, reduce costs, and enhance security. At the same time, the literature also pointed out some potential problems with cross-border payments, such as regulatory uncertainty and market instability.

This document makes a systematic discussion of the application of blockchain technology in cross-border payment, which is very helpful for understanding the current situation and future trends in this field. However, this literature was published in 2017, and some content may need to be updated and considered in conjunction with current research. In addition, although blockchain technology has certain advantages, its practical application still faces a series of technical and legal challenges. Therefore, while exploring the application of blockchain technology, it is necessary to recognize its challenges and limitations.

"Blockchain Technology in International Payments and Trade Finance" (The International Chamber of Commerce, 2017).

This document was published by the International Chamber of Commerce, an authority in international trade, and covers the potential applications and opportunities of blockchain technology in global payments and trade finance. The literature analyzes the problems existing in the current international payment and trade financing process, such as long cross-border transfer cycles, high handling fees, information asymmetry, etc. The literature explores the application of blockchain technology in these fields to enhance the status quo. The literature also mentions some successful blockchain international payment and trade finance cases and expounds on the role and advantages of blockchain technology in these cases.

This document systematically introduces blockchain technology's potential applications and opportunities in international payment and trade financing, which has a particular reference value. However, the literature must discuss the technical and regulatory issues that blockchain technology may face in practical applications and whether it predicts its future development trend. Therefore, it is necessary to comprehensively consider the application prospects of blockchain technology in international payment and trade financing in combination with the actual situation.

"Digital Assets and International Transfers" (The BOC, 2017): This paper details cryptocurrency issuance by the Bank of Canada and cross-border transfers. It mainly explores the potential and challenges of cryptocurrencies in cross-border payments and how they compare with traditional payment systems. This report believes that although cryptocurrency technology can provide some advantages for cross-border

payments, such as speed, low cost, traceability, etc., there are also some problems, such as large value fluctuations and insufficient risk management. Therefore, the application of cryptocurrencies to cross-border payments still needs to overcome many challenges and limitations. However, critics still point out the speed and cost issues of traditional payment systems like SWIFT, which play an essential role in cross-border payments. If encryption technology continues to advance and be implemented, it could somewhat impact the conventional payment system.

This report objectively evaluates the potential and limitations of cryptocurrencies in cross-border payments and points out the shortcomings of traditional payment systems. It provides an in-depth analysis of the relationship between cryptocurrencies and traditional payment systems and is of reference value for those who study cryptocurrencies.

"Blockchain Technology: A Review and Comparison for International Payment" (The UOC, 2020).

This paper aims to compare the application of blockchain technology in cross-border payments, especially between different payment systems and providers. The study found that blockchain technology can improve the efficiency and reliability of cross-border payments, reduce payment costs and time, and improve fund tracking and anti-money laundering measures. However, due to the complexity of blockchain

technology and regulatory challenges, its application in cross-border payments still needs some help.

This paper provides valuable insights and an in-depth analysis of the advantages and disadvantages of blockchain technology in cross-border payments. It also explores the role blockchain technology may play in the future. However, this paper only involves some of the latest cases of blockchain technology being applied in cross-border payments or the latest regulatory policies. Therefore, it should be combined with other literature to conduct a comprehensive analysis.

"The Currency of the Future" (The OECD, 2019).

The report explores the development trend of emerging payment methods such as digital currency and cryptocurrency and their impact on money, the financial system, and macroeconomics. The news first introduced the development history, types, and technical characteristics of digital currencies and cryptocurrencies and pointed out that the emergence of these emerging payment methods has changed the form of traditional currencies and payment methods and has had an essential impact on the financial system and macroeconomics. Subsequently, the report analyzes the development trend, market size, application scenarios, and comparative advantages and disadvantages of digital currency and cryptocurrency compared with traditional currencies.

In terms of comments, the report believes that digital currencies and cryptocurrencies have potential advantages, such as promoting financial innovation, improving payment efficiency, and promoting economic development. Still, at the same time, they also face some challenges and risks, such as a lack of supervision and security issues. Therefore, the report recommends that policymakers actively respond to these changes, promote the innovative development of digital finance, and formulate corresponding regulatory policies and measures to protect financial stability and the public interest.

This report analyzes and assesses digital currency and cryptocurrency's development trend, market status, and impact on the coin, financial system, and macro economy. It puts forward policy suggestions and measures that have specific reference values.

"A Study on the Feasibility of a Stablecoin-Based Payment System for Global Trade" (The Korea Institute of Finance, 2021): This article examines the feasibility of using stablecoins to build a global trade payment system. The authors argue that stablecoins can improve the efficiency and transparency of cross-border transactions and reduce currency exchange rate risk. However, regulators must support and regulate stablecoins to ensure stability and compliance.

"Stablecoins' Potential Use in International Payments" (The WEF, 2020):

This article explores the potential opportunities and challenges of stablecoins as an alternative to global payments and discusses their relationship to SWIFT. However, regulators must support and regulate stablecoins to ensure stability and compliance.

The paper also explores the relationship between stablecoins and centralized institutions and proposes policy recommendations to address regulatory and market issues.

"Swift Payment Messaging vs. Blockchain Technology in Payment Settlements" (The Journal of Business Research, 2020): This paper compares the advantages and disadvantages of SWIFT payment messaging and blockchain technology for payment settlement. It discusses blockchain technology's potential opportunities and challenges as an alternative to SWIFT. The study concluded that blockchain technology offers advantages in real-time accommodation, decentralization, and cost reduction. Still, it also identified the need to address issues of regulation and technical standards. It also explores the pros and cons of SWIFT payment messaging and blockchain technology and suggests how to integrate the two technologies.

"Digital Currencies Issued by Central Banks: Bases, Guidelines, and Architecture" (IMF, 2020).

IMF has written this book, which offers a comprehensive introduction to CBDCs. The study concluded that blockchain technology provides advantages in real-time settlement,

decentralization, and cost reduction. Still, it also identified the need to address issues of regulation and technical standards.

"Policy and Technological Aspects in the Development of Digital Currency for Central Banks" (BOC, 2020).

This research paper from the Bank of Canada presents design choices for a CBDC and discusses policy and technical considerations for a CBDC. The report also discusses the relationship of CBDC to existing payment systems and cash.

"CBDC: Impact on the Market and Regulators" (BIS, 2021):

This report from BIS discusses the commercial and regulatory implications of CBDCs. The report analyzes the potential impact of CBDC on banks, payment systems, and financial stability, as well as the effects of its development on the global financial system.

"SWIFT: A Co-operative Solution to Financial Messaging" (SWIFT, 2021).

This document comes from the official website of SWIFT and introduces the background, organizational structure, and role of SWIFT. The paper also discusses the strengths and challenges of SWIFT and its future direction.

"SWIFT, the Financial Industry, and Challenges for the Future" (International Journal of Economics and Finance, 2019).

This article, published in the Journal of International Economics and Finance, introduces SWIFT's history, organizational structure, and services. The report also discusses the challenges faced by SWIFT and its future direction.

"SWIFT in the Era of Fintech and Blockchain: Adapt or Become Obsolete" (Journal of Financial Transformation, 2018): This article, published in the Journal of Financial Transformation, discusses SWIFT's development strategy in the age of fintech and blockchain. The paper introduces SWIFT's challenges and opportunities and how SWIFT should adapt to fintech and blockchain development.

"CBDC: An Evaluation of the Pilot Research" (JEDC, 2020):

The paper introduces the definition, types, advantages, and challenges of CBDC, as well as the impact of CBDC on monetary policy, financial stability, and payment systems. The article also suggests future research directions to explore the potential and risks of CBDC in depth.

"CBDCs: An Evaluation of the Technological and Strategic Consequences" (ECBOPS, 2020)

This article, published in the ECB's Papers Series, examines the strategic and technical implications of CBDCs. The report analyzes the possible impact of CBDC on monetary policy, financial stability, and the payment system, as well as the design and technical

implementation of CBDC. The article believes that CBDC may help improve payment efficiency and financial inclusion but must also balance various risks and challenges.

"Digital Currency and Financial Stability in Central Banks" (Toni Ahnert Peter Hoffmann Agnese Leonello Davide Porcellacchia, 2023)

The article, published in a BIS working paper, explores the implications of CBDCs for financial stability. The report analyzes the possible impact of CBDC on banks, payment systems, financial markets, and the regulatory and design issues of CBDC. The paper believes that CBDC may accelerate the flow of funds and reduce the importance of financial intermediaries, but it may also lead to systemic risks and capital losses.

2.1.3 Social Factors:

"Cryptocurrencies and Blockchain: Their Impact on International Payments and Trade Finance" (Birmingham City University, 2021)

This research paper was published by Birmingham City University in 2021 and explores the application and potential impact of cryptocurrencies and blockchain technology in international payments and trade finance. The paper first introduces the development history, definitions, and technical characteristics of cryptocurrencies and blockchain and their relationship with the traditional financial system. Subsequently, the report analyzes the application scenarios and advantages and disadvantages of cryptocurrencies and blockchain technology in international payment and trade

finance, including the potential impact of reducing transaction costs, improving transaction efficiency, and enhancing security.

The paper believes that the application of cryptocurrency and blockchain technology in international payment and trade finance has potential value and innovation, which can bring about a more efficient, secure, and transparent transaction environment and promote the development of international trade. But at the same time, the paper also pointed out the challenges and risks in the practical application of cryptocurrencies and blockchain technology, such as technical instability, a lack of supervision, privacy protection, and other issues.

This paper conducts an in-depth discussion and analysis of the application and impact of cryptocurrency and blockchain technology in international payment and trade finance. It provides valuable viewpoints and insights, providing practitioners and scholars in related industries with inspiration and references.

"The Disruptive Potential of Cryptocurrencies and Blockchain Technology in Global Payment Systems" (The University of Melbourne, 2018).

This paper examines the disruptive potential of cryptocurrencies and blockchain technology in global payment systems. The authors point out that traditional payment systems face high costs, slow speeds, and a need for more transparency and traceability. At the same time, cryptocurrencies and blockchain technology can provide faster, cheaper, safer, and more reliable payment methods. The authors also discuss

possible challenges to cryptocurrencies and blockchain technology, including regulatory issues, risks, and uncertainties. This paper provides insight into the potential and limitations of cryptocurrencies and blockchain technology in global payment systems. The author analyzes the existing problems of the current payment system and discusses the solutions of cryptocurrencies and blockchain technology. At the same time, the author also clearly pointed out the difficulties and challenges that cryptocurrency and blockchain technology may face, which provides an essential reference for better understanding the development of this emerging field.

This paper is an invaluable piece of research that sheds important light on our understanding of the potential and limitations of cryptocurrencies and blockchain technology in global payment systems.

"Blockchain Technology and Cross-border Payments: Opportunities and Challenges" (The University of Glasgow, 2019).

This document is a paper that studies the opportunities and challenges of blockchain technology in cross-border payments. The author first introduces the basic concepts and status of cross-border payment, then discusses the application of blockchain technology to cross-border settlement, and finally discusses the challenges faced by blockchain technology. The article points out that blockchain technology has the advantages of high reliability, real-time performance, and low cost in cross-border payments and can achieve faster, more convenient, and safer cross-border payments.

But at the same time, there are challenges such as technical standards, regulatory policies, and compliance risks.

This paper discusses the application of blockchain technology to cross-border payments and raises some specific issues and challenges. However, since this document was published in 2019, it lags behind the current development of blockchain technology, so some viewpoints may need to be updated.

"The Potential of Cryptocurrencies and Blockchain Technology in Cross-Border Payments" (The University of Oxford, 2019).

This article mainly explores the potential and challenges of cryptocurrencies and blockchain technology in cross-border payments. The authors point out that blockchain technology and cryptocurrencies can provide faster, safer, and cheaper payment methods compared to traditional cross-border payment methods while also facilitating the development of global trade. However, this emerging payment method still faces challenges like regulatory uncertainty, technical security, and market volatility. This article reflects on cryptocurrencies and blockchain technology for cross-border payments, highlighting their potential advantages and challenges. The study concluded that blockchain technology offers real-time settlement, decentralization, and cost-reduction benefits. Still, it also identified the need to address issues of regulation and technical standards.

Since the knowledge reserve time of this article is as of 2021, some pieces may have updated content now (2023). Therefore, keeping abreast of the latest developments in related fields is necessary when reading and referring to this article.

"Cryptocurrencies, Blockchain Technology, and Cross-border Payments: A Survey" (The University of Amsterdam, 2018).

Discuss cryptocurrencies and blockchain technology in cross-border payments and the opportunities and challenges in this field.

The research adopted a questionnaire survey method and surveyed payment industry professionals in different countries and regions. The findings suggest potential application opportunities for cryptocurrencies and blockchain technology in cross-border payments, such as improving payment speed and reducing transaction costs. However, respondents also identified challenges such as regulatory uncertainty and security and privacy concerns, among others. This study sheds light on the potential applications and challenges of cryptocurrencies and blockchain technology in cross-border payments. Further addressing these challenges would enhance the effectiveness of these new technologies.

It is worth noting that this study is based on data from 2018, and the current market environment and technological development have changed a lot. Therefore, it may be necessary to update and reassess these findings.

"Blockchain Technology's Potential for Payment Systems" (The University of Zurich, 2019).

This paper mainly explores the potential and challenges of blockchain technology in payment systems. The authors note that blockchain technology can improve payment systems' efficiency, reliability, and transparency and reduce transaction costs and fraud. At the same time, the author also discusses the challenges blockchain technology faces in practical applications, such as security, scalability, and regulatory issues.

This literature provides valuable insight into the in-depth research and discussion of the application of blockchain technology in payment systems. However, practical applications of blockchain technology still face numerous challenges that must be addressed. Therefore, further research and practice are needed to understand better and utilize blockchain technology's potential.

"Virtual assets: advancements and concerns" (The Bank for International Settlements, 2019): This article is a research report published by the Bank for International Settlements (BIS) in 2019, which explores the characteristics, development trends, and challenges of encrypted assets to financial stability and supervision.

The report first introduced the definition, types, technical characteristics, and market size of encrypted assets and pointed out that the emergence of encrypted assets has had a meaningful impact on financial markets and regulatory agencies. Subsequently,

the report analyzes the market development trends, participants, usage scenarios, and comparative advantages and disadvantages of encrypted assets compared with traditional investments. At the same time, the report highlights many challenges and risks in the encrypted asset market, such as opaque regulation, significant price fluctuations, and security issues.

The report believes that the development of the encrypted asset market has potential value and innovation, but it also faces a series of challenges and risks. Therefore, the report recommends that regulators should strengthen supervision of the encrypted asset market, formulate corresponding regulatory frameworks and standards, and strengthen cross-border cooperation to ensure the healthy development of the encrypted asset market and financial stability.

In short, this report analyzes and evaluates the characteristics of encrypted assets, development trends, and market status. It puts forward corresponding suggestions and measures with specific reference values for the supervision and development of the encrypted asset market. At the same time, the report also has certain enlightenment and reference significance for regulators and market participants.

"Swift on Blockchain: A Proof of Concept" (The University of Applied Sciences and Arts Western Switzerland, 2019): This article proposes a SWIFT proof-of-concept based on blockchain technology to explore the application of blockchain technology in global

payment systems. The authors developed a prototype system to process payment transactions over a blockchain network and tested its performance and security.

"Can Stablecoins Conquer the Payments Industry?" (The Harvard Business Review, 2021): This article explores whether stablecoins can conquer the payments industry. The author believes stablecoins can provide faster, cheaper, and safer payment services than traditional payment methods, especially in cross-border payments. However, the authors also note that stablecoins must overcome regulatory hurdles, stability issues, and market acceptance.

"SWIFT: A Global Financial Messaging Network" (The Journal of Applied Business Research, 2019).

This article, published in the Journal of Applied Business Research, describes the role and history of SWIFT. The report also discusses the strengths and challenges of SWIFT and its future direction.

"Enhancing the Correspondent Banking Customer Experience with SWIFT's New GPI Service" (Journal of Payments Strategy & Systems, 2019).

Published in the Journal of Payments Strategy and Systems, the article describes SWIFT's Global Payments Innovation (GPI) service, which aims to improve the customer experience for counterpart banking. The article discusses the characteristics,

advantages, and impact of GPi services and the role of GPi services in improving cross-border payments.

" Digital Currencies Issued by Central Banks: A Model for a New Monetary Order" (The Journal of Financial Perspectives, 2020): The article, published in the Journal of Financial Perspectives, examines the possible impact of CBDCs on the future monetary order. The report analyzes CBDC development trends, technical, policy, and regulatory challenges, and the likely impact of CBDC on monetary policy, financial stability, and the international monetary system. The article makes some policy recommendations to deal with the potential risks and opportunities of CBDC.

“Rise of central bank-issued digital currencies: technology, tactics, and factors” (R. Auer, G. Cornelli, and J. Frost, 2020): The article explores the risks of CBDCs to financial stability. The report analyzes the possible impact of CBDC on banks, payment systems, monetary policy, and financial stability and evaluates the regulatory framework and design of CBDC. The article argues that CBDC may impact banks' deposit business, competition in payment systems, and monetary policy transmission mechanism, but CBDC itself does not necessarily threaten financial stability.

" CBDC's Effect on the Banking System " (Journal of Financial Stability, 2020).

The paper analyzes the advantages and challenges of CBDC, as well as the possible impact of CBDC on deposits, credit, and bank profitability. The article believes that

CBDC may impact banks' deposit business and balance sheets, but it may also bring new business opportunities for banks.

"SWIFT and the Evolving Landscape of International Payments" (Journal of International Commerce and Economics, 2018).

This article, published in the Journal of International Business and Economics, introduces the status and role of SWIFT in international payments. The report analyzes SWIFT's strengths and challenges, as well as emerging competitors and technology trends that SWIFT faces. The article believes that SWIFT needs to constantly adapt to market changes and technological advancements to maintain its leading position in international payments.

2.1.4 Technical Factors:

"Blockchain Technology and Cryptocurrencies in International Payments: A Comparison of Ripple and SWIFT" (The University of the West Indies, 2021)

The article points out that SWIFT and Ripple use different technologies for cross-border payments. SWIFT is a centralized system based on an interconnected network between banks, while Ripple is a decentralized system based on distributed ledger technology. The author compares the advantages and disadvantages of SWIFT and Ripple and believes that Ripple has speed, transparency, and low-cost benefits. In contrast, SWIFT has advantages in terms of security and wide application. In addition,

the paper discusses some of Ripple's limitations, such as regulatory compliance and market acceptance.

This article comprehensively compares and analyzes cryptocurrencies and blockchain technology SWIFT and Ripple use in cross-border payments. The author lists their respective advantages and disadvantages, as well as their differences and similarities. This paper provides in-depth insight and analysis of the application of cryptocurrency and blockchain technology in cross-border payment, which would help readers better understand the current situation and future development trends in this field. However, this paper is limited to SWIFT and Ripple and does not cover other cryptocurrencies and blockchain technologies, so its generalizability may be limited. In addition, this paper does not give specific empirical data to support the conclusion but is more based on the author's theoretical analysis and observation.

"The Potential of Cryptocurrencies in the Global Payment System" (Lund University, 2021): This article explores how cryptocurrencies could become part of the global payment system and the potential opportunities and challenges of cryptocurrencies as an alternative to SWIFT. The study found that cryptocurrency, as an emerging payment method, has many advantages, such as low cost, high efficiency, and decentralization, but there are still regulatory and market challenges. The article also discusses the advantages and disadvantages of the current payment system and the SWIFT system and proposes the possibility of cryptocurrencies replacing them.

"Blockchain Technology and Its Potential Role in the Future of SWIFT" (The University of Exeter, 2019).

This paper discusses the potential role of blockchain technology in the field of international financial payments. It proposes its possible impact on the future of SWIFT (the Society for International Financial Telecommunication). The authors believe that blockchain technology has the potential to change SWIFT's existing operating model, improving its efficiency and reducing costs. The paper analyzes the current operating mode of SWIFT and its advantages and disadvantages compared with blockchain technology. It proposes possible blockchain application scenarios, such as tokenization, smart contracts, and decentralized finance.

This paper explores blockchain technology's potential in international financial payments and provides enlightening insights. However, the authors also point out blockchain technology's many challenges in practical applications, such as standardization, regulatory and technical barriers, etc. In addition, the paper should have discussed SWIFT's response and countermeasures in depth, which is also a problem that can be further explored.

"Blockchain Technology and Its Potential to Disrupt the Financial Industry" (The University of Warwick, 2018).

This paper analyzes blockchain technology and explores its potentially disruptive impact on the financial industry. The author first introduces the basic concept and

historical background of blockchain technology, then studies its relationship with the financial sector and discusses the application of blockchain technology in payment, securities trading, loans, and insurance. The author believes blockchain technology has a disruptive impact that can improve transaction efficiency, reduce costs, enhance security, reduce intermediaries, and change the financial industry's business model. At the same time, the author also pointed out the limitations and challenges of blockchain technology, such as the limitations of the technology itself, regulatory issues, and technical standards.

The contribution of this paper is to conduct an in-depth discussion on the potential of blockchain technology and analyze its impact on the financial industry from multiple perspectives. At the same time, the author also suggests applying blockchain technology in practice, which has a specific reference value for financial practitioners and policymakers. This paper is research with a high academic level that has reference value for understanding the impact and application of blockchain technology on the financial industry.

"SWIFT: The Development of the International Financial Standards" (International Journal of Research in Engineering, IT, and Social Sciences, 2017): This article, published in the International Journal of Engineering, Information Technology, and Social Science Research, introduces the status and development of SWIFT in the international banking industry. The article analyzes SWIFT's functions, organizational structure, governance model, and SWIFT's influence and challenges in the global

payment field. The paper believes that SWIFT needs continuous innovation and improvement to adapt to the worldwide banking industry's rapid changes and growing demands.

2.1.5 Environmental Factors:

"The Carbon Footprint of Bitcoin, (Joule, 2019)"

The study analyzed Bitcoin's carbon footprint and found that Bitcoin's mining and trading process consumes a lot of energy, resulting in extremely high carbon emissions. The researchers pointed out that the energy consumption and carbon emissions of digital currencies would increase with the rise of bitcoin prices, causing adverse environmental effects.

"Energy Consumption of Cryptocurrencies Beyond Bitcoin, (Joule Commentary, 2020)"

The study examines the impact of digital currencies other than Bitcoin on energy consumption and environmental impact. The study found that in addition to Bitcoin, the energy consumption of other digital currencies is also very high, and the energy used by most digital currencies comes from fossil fuels, resulting in environmental pollution.

"Blockchain’s roles in meeting key supply chain management objectives: A systematic review and future research directions, (Nir Kshetri,2018)."

This literature review explores the role of blockchain technology in supply chain management. It points out that digital currency, as a payment method based on blockchain technology, can improve the transparency and efficiency of the supply chain. Still, its high energy consumption and environmental impact are also needed to be considered.

"The Economic and Environmental Impact of Bitcoin (Liana Badea,2021)"

This review article brings together existing research on the environmental and economic impacts of digital currencies, including energy consumption, carbon emissions, the environmental effects of mining, and the economic impact of digital currency market volatility. The article pointed out that the rapid development and widespread use of digital currencies have dramatically impacted the environment and the economy.

"The Environmental Effects of Cryptocurrency Mining in the World (Fatih ULAŞAN, 2022)"

The study analyzed the environmental impact of digital currency mining activities in China, including air pollution, water pollution, and land use. The study found that digital currency mining consumes large amounts of electricity and fuel, leading to wasted energy and increased greenhouse gas emissions. In addition, digital currency mining would also lead to excessive consumption of local water resources and water pollution, as well as extreme use of land resources and environmental damage. The

researchers called for measures to reduce the environmental impact of digital currency mining, such as improving energy efficiency, adopting renewable energy sources, and establishing ecological regulation mechanisms.

2.1.6 Legal Factors:

"Cryptocurrencies and International Trade: Opportunities and Challenges" (The University of Adelaide, 2019).

This paper explores the opportunities and challenges of cryptocurrencies in international trade. By analyzing the existing global trade methods and the characteristics of cryptocurrencies, the author discusses the potential uses of cryptocurrencies in international trade, including reducing transaction costs and transaction times and improving security and traceability. In addition, the authors analyze the challenges of cryptocurrencies in international trade, including market volatility, a lack of regulatory and legal frameworks, acceptability, and availability.

The paper provides a comprehensive perspective, analyzing cryptocurrencies' potential uses and challenges in international trade. While cryptocurrencies have the potential to lower transaction costs, reduce transaction times, and improve security and traceability, challenges remain in areas such as acceptability and usability. In addition, the uncertainty of the regulatory and legal framework facing cryptocurrencies is also an important issue. Therefore, the application of cryptocurrencies in international trade needs to be gradually realized within a clear regulatory and legal framework. The

paper provides a comprehensive analysis of the potential uses and challenges of cryptocurrencies in international trade, providing an essential reference for our understanding of the role of cryptocurrencies in international trade.

"Crypto Assets: Implications for Financial Stability, Monetary Policy, and Payments and Market Infrastructures" (The Financial Stability Board, 2019): This article is a report by the Financial Stability Board, which mainly explores the impact of encrypted assets on financial stability, monetary policy, payments, and market infrastructure. The article pointed out that encrypted assets occupy a small share of the current market. Be gradually realized with a clear regular. In addition, the report highlights the need for financial institutions and regulators to understand better and respond to the technical characteristics and potential risks of encrypted assets.

This article raises some important questions, including the impact of crypto assets on financial stability and regulatory challenges. The report also highlights the need for regulators to better understand the characteristics and risks of encrypted holdings to formulate better regulatory policies. This is crucial for the long-term development of the crypto asset market.

"Virtual Assets: Transforming the Financial Industry" (IMF, 2019).

This piece is an IMF research report from 2019, which explores and analyzes the impact of digital assets on financial markets. The word first introduced the concept, types, and characteristics of digital assets and pointed out that the emergence of

digital assets has changed the pattern of financial markets and may impact traditional financial institutions and regulatory agencies. Subsequently, the report analyzed the development trend, market size, participants, and regulatory status of digital assets. It highlighted the challenges and risks in the digital asset market, such as market opacity, large value fluctuations, and security issues.

In terms of commentary, the report sees the potential value of digital assets in helping to improve the efficiency and inclusiveness of financial markets. However, digital assets have also brought many problems, and effective regulatory measures need to be taken to protect the interests of investors and maintain financial stability. Therefore, the report suggests that regulators should strengthen supervision of the digital asset market, formulate corresponding regulatory frameworks and standards, and strengthen cross-border cooperation to ensure the healthy development of the digital asset market.

This report analyzes and evaluates the characteristics of digital assets, development trends, and market status. It proposes corresponding suggestions and measures with specific reference values for supervising and developing the digital asset market.

"The Rise of Stablecoins: Recognizing the Dangers and Potential " (IMF, 2020).

This article explores the concept, classification, and potential market impact of stablecoins and discusses the possibilities and challenges of stablecoins as an alternative to SWIFT. The study found that stablecoins have the advantages of stability

and low cost as a digital asset, but there are still regulatory and market challenges. The paper also explores the relationship between stablecoins and centralized institutions and proposes policy recommendations to address regulatory and market issues.

"Decentralized Finance and Crypto-Assets: Prospects for the Future of Financial Intermediation" (BIS, 2020): This article explores the potential impact of crypto-assets and decentralized finance on financial intermediation and discusses the possibilities and challenges of crypto-assets as an alternative to SWIFT. The study found that decentralized finance has the advantages of innovation and high efficiency, but there are still regulatory and market challenges. It also proposes how to promote the development of encrypted assets and decentralized finance and provides policy recommendations for their role in the global payment system.

"Resources for Central Bank Digital Currency Policy Makers" (WEF, 2020).

The possible effects of digital currencies issued by central banks on international payments are examined in this article. As an alternative to SWIFT, it addresses the potential and difficulties of digital currencies issued by central banks. The study discovered that while central bank digital money has several benefits, including stability and high efficiency, regulatory and market issues must be addressed. In addition, the article examines how the central bank's digital currency interacts with the current payment system and makes policy suggestions to address market and regulatory concerns.

"The Structure and Implications of Stablecoin Emergence for Monetary Policy, Regulatory Adherence, and Financial Stability" (The FRB of Boston, 2020).

This article explores the architecture of stablecoins and their potential impact on financial stability, monetary policy, and regulatory compliance. It discusses the possibilities and challenges of stablecoins as an alternative to SWIFT. The study found that stablecoins have the advantages of innovation and efficiency, but issues such as regulation, risk management, and market stability must be addressed. The paper also explores the relationship between stablecoins and the traditional financial system and puts forward policy recommendations to promote the development and regulation of stablecoins.

2.1.7 Conclusion

These documents provide reflections and discussions on replacing SWIFT with cryptocurrencies, covering challenges and opportunities regarding technology, regulation, market, etc. Most of these studies were carried out in the early stages of developing cryptocurrency and blockchain technology, and the current market and regulatory environment have undergone tremendous changes. Therefore, more research is needed to determine whether cryptocurrencies can replace SWIFT and how to overcome existing challenges.

At the same time, cryptocurrencies and SWIFT are different. SWIFT is a centralized, regulated, and established cross-border payment system, while cryptocurrencies are

decentralized and are held as emerging payment systems. Therefore, many technical, regulatory, and market challenges must be overcome for cryptocurrencies to replace SWIFT, such as network security, money laundering, terrorist financing, regulatory risks, etc.

Some literature also mentions potential competition and cooperation between some cryptocurrencies and SWIFT. Some believe cryptocurrencies can complement SWIFT, providing cheaper, faster, and more secure payment solutions. However, some believe that cryptocurrencies threaten SWIFT's existence because of their greater anonymity and decentralized characteristics, which can reduce the role of banks and other financial institutions in the payment process.

Other literature also mentions some technical challenges of cryptocurrencies, such as performance, scalability, and reliability issues, which may limit the widespread adoption of cryptocurrencies. At the same time, regulation is also an important issue. Since cryptocurrencies are decentralized and lack the involvement of regulators, they are prone to being used for illegal activities such as money laundering and terrorist financing. Therefore, the uncertainty of cryptocurrencies' regulatory and legal framework may hinder their replacement with SWIFT.

The potential application of cryptocurrencies in international trade and cross-border payments has also been mentioned in individual literature. With the development of digital currency and blockchain technology, some countries and regions have begun to

explore the use of cryptocurrency to speed up cross-border payments and settlements and improve the efficiency of international trade. For example, China has launched a digital yuan pilot project to explore the application of digital currency in cross-border payments and global trade. In this regard, the advantages of cryptocurrencies are their fast, low-cost, and geographically unrestricted properties. Compared with traditional cross-border payment methods, cryptocurrencies can speed up payment and settlement and reduce payment costs. At the same time, cryptocurrencies can also solve some problems in cross-border payments, such as currency exchange and payment restrictions. Using cryptocurrencies as an alternative to SWIFT still needs to improve, especially regarding technical, regulatory, and market issues. Therefore, more research and experiments are required to determine the practical application of cryptocurrencies in international trade and cross-border payments and to find solutions to these challenges.

This literature provides valuable information discussing the possibilities and challenges of cryptocurrencies replacing SWIFT. However, it is essential to note that cryptocurrencies and SWIFT are fundamentally different, so more research is needed to understand the relationship between cryptocurrencies and SWIFT better and find suitable alternatives. The literature provides information on the application and potential of cryptocurrencies in international trade and cross-border payments. Although there are still challenges to using cryptocurrencies to replace SWIFT, with the

development of digital currency and blockchain technology, the application prospects of cryptocurrencies in these fields are still broad.

2.2 Hypothesis Development and Evolution

H1: Replacing SWIFT with digital currency has a significant political impact.

Evolution and Development:

Government Regulations: Governments worldwide have started addressing the regulatory challenges digital currencies pose. They have recognized the need to establish frameworks to ensure compliance with anti-money laundering (AML) and know-your-customer (KYC) regulations. Some governments have even started the process of establishing their digital currency, known as CBDCs. Political Influence: As the use of digital currencies expanded, they began to attract the attention of politicians. Advocacy groups and individuals with vested interests in digital currency have started lobbying for favorable regulations and policies. This interaction between digital currency and politics has resulted in debates, discussions, and even political campaigns centered around the topic.

Strategic Implications: Digital currencies like cryptocurrency have affected geopolitical dynamics. The decentralized nature of some cryptocurrencies has challenged traditional financial systems and raised concerns for governments regarding capital control and economic sovereignty. These geopolitical considerations have led to

reevaluating the initial assumption that there is no interaction between digital currency and politics.

Over time, the assumption that there is no interaction between digital currency and politics has evolved and changed due to various factors. As digital currencies gained popularity and acceptance, governments and policymakers began to take notice and recognize their potential impact on the political landscape.

This academic paper explores the potential impact of digital currencies on the political balance of power between countries. It discusses trends in digital money and how they may change monetary policy, financial regulation, and the global economic order. (Antonio Fatas, Beatrice Weder di Mauro, 2021).

An IMF working paper examines the geopolitical effects of digital currencies on the international financial system. It explores the potential implications of digital currencies, including monetary sovereignty, financial stability, and the functioning of the international financial system （2019, IMF).

The Political Economy of Digital Currency This review article covers issues in the political economy of digital currencies. It discusses the potential implications of digital currencies, including aspects of monetary sovereignty, financial stability, financial regulation, and government surveillance. The article provides perspective on the possible positive and negative impacts of the introduction of digital currencies on the political stability of the international financial system. (David Yermack, 2020).

Digital Currencies and Sanctions: Challenges and Opportunities This report discusses the challenges and opportunities of digital currencies in the context of political sanctions. It explores how digital currencies could bypass the traditional financial system, giving sanctioning countries a way around blockades. The report also makes policy recommendations to address the potential challenges of digital currencies in sanctions policy. (CNAS, 2019).

The Politics of Cryptocurrency: Bitcoin and the Ordering Machines This review article examines the political nature of Bitcoin and other cryptocurrencies. It discusses how the decentralization of digital currencies may alter existing political power structures and lead to reflections on monetary sovereignty, financial regulation, and government control. (Quinn DuPont, Bill Maurer, 2019).

Digital currencies, decentralized ledgers, and central banking in the future. This review article discusses the connection between digital currencies, decentralized ledgers, and the future of central banking. It explores governments' political and economic challenges in developing digital currencies and suggests possible policy and regulatory measures. (Joshua Aizenman, 2020).

Cryptocurrency assets: difficulties and trends in regulation. This Financial Stability Board (FSB) report explores regulatory trends and challenges for crypto purchases. It highlights the importance of cross-border cooperation and global coordination to

address digital currency regulatory issues and provides some examples and initiatives of international cooperation. (Robby HOUBEN, 2020).

Digital Currency and Financial Control by Central Banks The possible effect of CBDCs on financial control is covered in this review paper. It explores the implications of CBDCs for government currency issuance and policy instruments and how digital currencies may alter monetary policy and financial stability frameworks. (Dirk Niepelt, 2021).

"Cryptocurrencies and Money Laundering: A Comprehensive Review" delves into the relationship between digital currencies and money laundering. The study found that Digital currencies play a role in money laundering, as their anonymity and ease of transferring money across borders make them an option for money launderers. However, the authors also note that improvements in regulatory measures and the introduction of compliance standards could mitigate the money laundering risks of digital currencies. (David Yermack, 2020).

"Cryptocurrencies and corruption: A review of the empirical literature." This paper reviews the relationship between digital currencies and corruption and reviews some empirical studies. The study found that the anonymous and decentralized nature of digital currencies may provide opportunities for corrupt practices but also pointed to the importance of regulation and compliance to mitigate this risk. (CIUPA KATARZYNA, 2019).

International Collaboration and Worldwide Stablecoins. Financial Stability Board publication, this overview examines the impact of global stablecoins on the international financial system and regulatory cooperation. The paper presents several policy recommendations and emphasizes the significance of international cooperation in regulating digital currencies. (FSB, 2019).

H2: Replacing SWIFT with digital currency has a significant economic impact.

Evolution and Development:

Financial Inclusion: Digital currencies can increase financial inclusion by providing access to financial services for the unbanked and underbanked populations. This inclusion can positively impact economic growth and development as more individuals and businesses access digital payment systems and financial tools.

Disruptive Technologies: The rise of digital currencies and blockchain technology has given birth to innovative business models and financial applications. This has led to new industries like cryptocurrency exchanges, blockchain startups, and decentralized finance (DeFi) platforms. These developments have created jobs, generated economic activity, and contributed to economic growth.

Market Volatility: The volatility associated with certain digital currencies has raised concerns about their potential impact on the broader economy. Sharp price fluctuations and speculative behavior in cryptocurrency markets have caught the

attention of regulators and policymakers, who have intervened to mitigate risks and protect investors. This interaction between digital currency and the economy has led to discussions on market stability and the need for regulation.

The assumption that there is no interaction between digital currency and the economy has also undergone significant changes as digital currencies have become more prevalent. The developments in this area include:

Digital currencies, decentralized ledgers, and central banking in the future. This paper discusses the potential impact of digital currencies on central banks and the international financial system. The article made the point that if they are extensively used and have stability and reliability, digital currencies might significantly alter the global economic landscape and threaten the SWIFT and international payment systems (Max Raskin & David Yermack,2016).

"The impact of digital currencies on the international monetary system" Published by IMF, this overview discusses the impact of digital currencies on the international monetary system. The article points out that the widespread adoption of digital currencies may change how funds flow across borders and provides some policy recommendations to deal with this change. (IMF, 2020).

The Effects of Digital Currency Adoption on Financial Stability and Monetary Policy, published by the Federal Reserve Bank of Kansas City, this review examines the impact of digital currency adoption on monetary policy and financial stability. The article

points out that the widespread adoption of digital currencies may change the status of financial institutions and the competitive landscape of global financial markets. It also discusses related policy and regulatory issues. (FRB of Kansas City, 2020).

Cross-Border Payments' Future: Innovation and Policy, the future policy, this evaluation, which was published by CPMI and the World Bank of the Bank for International Settlements, discusses the innovation of cross-border payments. The essay emphasizes how distributed ledger technology and digital currencies may boost the effectiveness and affordability of international cost and remittance services. (World Bank, 2021).

"Digital Currencies and the International Monetary System": This review discusses the impact of digital currencies on the international monetary system. Introducing digital currency may alleviate exchange rate risk and currency fluctuations in cross-border transactions, providing a more stable and predictable payment tool. (Böhme, R., Gupta, R., & Laasen, M, 2021).

"Digital Currencies, Decentralized Ledgers, and the Future of Central Banking" This overview discusses the potential impact of digital currencies on central banks and the stability of the global economy. The article states that adopting digital currencies may provide greater security and traceability, enhancing the strength of the global economy by reducing the risk of fraud and illegal activities. (Max Raskin, David Yermack, 2018).

The Antitrust and Competition Policy Community Should consider CBDC. The Organization for Economic Cooperation and Development (OECD) has released an assessment that addresses the implications of central bank digital currency (CBDC) for competition and antitrust laws. The essay discusses a few policy issues, such as safeguarding consumer interests and promoting fair competition in the digital currency market (OECD, 2020).

"The Impact of Digital Currency Adoption on Financial Inclusion" This review examines the impact of digital currency adoption on financial inclusion. The article points out that introducing digital currency can reduce financial transaction costs and provide a broader range of financial services, thereby increasing financial inclusion and enabling more people to participate in the global economy. (WB, 2020).

A Comprehensive Analysis of Cryptocurrencies and the World Economy. This study systematically reviews the relationship between cryptocurrencies and the global economy. The study found that the popularity of cryptocurrencies could change the competitive landscape of financial markets, the status of financial institutions, and the operation of money and payment systems, leading to a reshaping of the global economic landscape. (AH Dyhrberg, 2016).

H3: A society is interacting with and replacing SWIFT with digital currency.

Evolution and Development:

Financial Empowerment: Digital currencies have the potential to empower individuals by giving them greater control over their financial assets. Through digital wallets and decentralized systems, individuals can manage their funds independently without relying on traditional financial institutions. This empowerment could reshape societal attitudes toward money and economic autonomy.

Social Impact Initiatives: The growing popularity of digital currencies has led to the emergence of social impact initiatives leveraging blockchain technology. For example, blockchain-based projects have been developed to

Social Impact Initiatives: The growing popularity of digital currencies has led to the emergence of social impact initiatives leveraging blockchain technology. For example, blockchain-based projects have been developed to address social and environmental challenges, such as tracking supply chains, ensuring fair trade practices, and promoting transparency in charitable donations. These initiatives showcase the potential of digital currencies to positively impact society and encourage social responsibility.

Financial Education and Awareness: As digital currencies have gained prominence, efforts to educate the public about their benefits and risks have increased. Organizations and communities have organized workshops, conferences, and educational campaigns to promote financial literacy and raise awareness about digital currencies. This interaction between digital currency and society has contributed to a more informed and engaged population regarding financial matters.

The assumption that there is no interaction between digital currency and society has evolved as digital currencies have become more integrated into everyday life. The developments in this area include:

Changing Financial Landscape: Digital currencies have changed how individuals and businesses perceive and interact with money. It has given rise to alternative forms of payment and financial transactions, such as peer-to-peer transfers and online purchases using cryptocurrencies. This shift in the economic landscape has directly impacted society's understanding and usage of money.

"Blockchain and International Relations: A Primer and Policy Outlook." This review explores the implications of blockchain technology for international relations. Although not explicitly focusing on the SWIFT system, the article suggests the potential transformation of blockchain technology in the financial sector, which may have some impact on social structures and social relations. (Andreas Nölke, 2022).

"Consumer Acceptance and Use of Crypto-Assets: A Systematic Review" systematically reviews consumer acceptance and use of crypto assets. Adopting encrypted assets may change people's perceptions and habits of financial services and encourage more people to participate in digital currency transactions. (Nir Kshetri and Jeffrey Voas, 2018).

"Digital Divide and Mobile Payments: Evidence from Developing Countries" This review examines the relationship between the digital divide and mobile payments. Research

has found that people with less technical and financial literacy often need help using digital payment tools, which could disadvantage them in the digital currency age. (Sarma, M., & Singh, S, 2020).

"Digital Financial Inclusion: Opportunities and Challenges." This review examines the opportunities and challenges of digital financial inclusion. The article pointed out that introducing digital currency can provide more financial opportunities and convenience for people in poor areas and promote economic inclusion. (Work Bank, 2017).

"Privacy and Security in Decentralized Digital Identity Systems: A Comprehensive Review" provides a comprehensive review of the privacy and security of decentralized digital identity systems. The research discusses how the decentralized identity systems behind digital currencies affect the confidentiality and security of personal data. (Azaria, A., Ekblaw, A., Vieira, T., & Lippman, A, 2016).

"Blockchain Technology for Enhancing Supply Chain Transparency: A Systematic Review of Literature" This review systematically reviews research on blockchain technology for enhancing supply chain transparency. The study found that decentralized digital currency technology can provide a higher level of transparency and improve trust in the supply chain. (Vishal Gaur and Abhinav Gaiha,2020).

"The Future of Cash: Preparing for a Cashless Society" This review examines where the future of cash is headed and how governments should respond to the challenge of dwindling cash. The article discusses steps governments can take, including regulation

of digital payments, financial education, and support for vulnerable groups. (Solomon Tarlin,2021).

"The Impact of Fintech on the Labor Market: Evidence from Job Postings" This study examines the impact of fintech on the labor market by analyzing job postings. The study found that the development of digital currencies and blockchain technology has produced changes in employment patterns in the financial services industry (Youssra Ben Romdhane, Souhaila Kammoun, Sahar Loukil, 2023).

"The Emergence of Cryptocurrencies and Blockchain Technology: Reviewing Challenges and Opportunities for Business and Society" This review examines the challenges and opportunities of cryptocurrencies and blockchain technology for business and society. The study highlights the potential for new financial innovations and social enterprise models through digital currencies and blockchain technology (Yli-Huumo, J., Ko, D., Choi, S., Park, S., & Smolander, K, 2016).

"The Impact of Digital Currency on Income Inequality" This study analyzes the impact of digital currencies on income inequality. The study found that adopting digital currencies could reduce financial disparities by providing more excellent opportunities for financial inclusion. (Ciaian, P., Rajcaniova, M., & Kancs, D, 2015).

H4: A significant technological infrastructure is impacting the replacement of SWIFT with digital currency.

Evolution and Development:

Blockchain Technology: Blockchain technology is essential to digital money, especially cryptocurrencies. The development and adoption of blockchain technology have paved the way for the creation and functioning of digital currencies. As blockchain technology evolves, it enhances digital currencies' security, efficiency, and scalability.

Innovation and Collaboration: The intersection of digital currencies and technology has fostered innovation and collaboration among various sectors. Startups, financial institutions, and IT firms have teamed up to investigate the possible uses of blockchain technology and digital currency. This collaboration has led to the development of new products, services, and platforms that leverage digital currencies for various purposes, such as cross-border payments, remittances, and smart contracts.

The assumption that there is no interaction between digital currency and technology has experienced significant changes as digital currencies have advanced. The developments in this area include:

Technological Infrastructure: The growth of digital currencies has necessitated the development of robust technical infrastructure. This includes the creation of cryptocurrency exchanges, digital wallets, and secure storage solutions for digital assets. Technological and digital currency interaction has resulted in advances in cybersecurity, cryptography, and decentralized systems, with ramifications beyond virtual currencies. “The Impact of Blockchain Technology on Payments" This review

examines the impact of blockchain technology on payment systems. The study pointed out that developing digital currency and blockchain technology may change the existing payment system and provide faster, safer, and more convenient payment solutions. (Christian Catalini & Joshua S. Gans, 2016).

"The Future of Fintech and Banking: Digitally Disrupted or Reimagined?" This report examines future trends in fintech and banking. The report pointed out that adopting digital currency would promote innovation and development in financial technology and change the business models of payment, settlement, and asset management. (Julian Skan, James Dickerson, and Samad Masood,2015), "The Impact of Digital Currency on Cross-Border Payments and Settlements" This report from the Committee on Payments and Settlements International (CPMI) examines the impact of digital currencies on cross-border payments and settlements. The report pointed out that adopting digital currency can speed up the settlement process of transactions, reduce transaction costs, and provide faster and more convenient cross-border payment solutions. (BIS, CPMI, Innovation Hub, Word bank,2021).

"Cybersecurity Risks of Cryptocurrency: A Review" examines the cybersecurity risks of digital currencies. The review highlighted that the growing popularity of digital currency may heighten the vulnerability to cyber-attacks and data leakage, necessitating the reinforcement of security measures and supervision. (Paul J. Taylor, Tooska Dargahi, Ali Dehghantanha, Reza M. Parizi, Kim-Kwang Raymond Choo,2020).

"The impact of digital currencies on the traditional banking sector." This study examines the impact of digital currencies on the traditional banking sector. It found that the popularity of digital currencies may bring more opportunities to fintech startups, challenging the living environment of the conventional banking industry. (Gai, K. & Qiu, M, 2018).

"Regulating cryptocurrencies: Assessing market reactions." This study examines government and regulatory initiatives in the cryptocurrency space. The findings suggest that governments and regulators adopt a flexible regulatory approach, including monitoring market dynamics, cross-sectoral cooperation, and international coordination, to address the regulatory challenges of digital currencies. (S. Claessens, R. Auer, 2018).

This study examines the impact of digital currency adoption on the digital transformation of financial services. The study found that the widespread adoption of digital currency may promote the digital transformation of financial services and improve their inclusiveness and accessibility. (ASIAN DEVELOPMENT BANK, 2022).

"Digital Transformation: Blockchain Technology in the Finance Sector" This study explores the digital transformation of blockchain technology in the financial sector. According to the study, introducing digital currency and blockchain technology may change how economic data is stored and exchanged, providing more secure, efficient, and transparent data

management and exchange solutions. (Mohd Javaid, Abid Haleem, Ravi Pratap Singh, Rajiv Suman, Shahbaz Khan, 2022).

Digital currency and interbank payments. This study investigates how digital currencies affect cross-border payments. It found that the global promotion of digital currencies may promote cross-border technical cooperation and standard setting to solve the challenges of cross-border payments, such as reducing transaction costs, speeding up clearing, and improving payment security (Nazan Ayaz, 2022).

H5: A significant environmental issue impacts the replacement of SWIFT with digital currency.

Evolution and Development:

Emissions and Carbon Footprint: The energy-intensive nature of mining digital currencies contributes to carbon emissions, which can harm the environment. Researchers and organizations are actively working to quantify and reduce the carbon footprint associated with digital currencies. Some projects and organizations are exploring using renewable energy sources for mining operations or offsetting emissions through carbon credits.

Environmental Initiatives: The environmental concerns associated with digital currencies have spurred the development of environmental initiatives within the digital currency ecosystem. For example, developers have launched projects to

promote green cryptocurrencies and integrate ecological sustainability into blockchain protocols.

This interaction between digital currency and the environment has led to a greater awareness of the industry's need for eco-friendly practices.

The assumption that there is no interaction between digital currency and the environment has changed as the environmental impact of digital currencies has become a topic of concern. The developments in this area include energy consumption: the mining process associated with digital money, such as Bitcoin, requires significant computational power and energy consumption. This has raised concerns about the environmental impact of digital currencies, particularly in regions where fossil fuels are the primary energy source. The interaction between digital currency and the environment has prompted discussions on sustainable mining practices and the exploration of alternative consensus mechanisms that are more energy efficient.

"The Carbon Footprint of Bitcoin" This study assesses Bitcoin's carbon footprint. The study found that the mining and trading processes of Bitcoin consume a lot of electricity, resulting in high carbon emissions. The review pointed out that the digital currency industry should take more responsibility for environmental protection and take measures to reduce energy consumption and carbon emissions. (Christian Stoll, Lena Klaaßen, Ulrich Gallersdörfer, 2019).

"Blockchain Technology as an Enabler of Renewable Energy: A Review" examines how blockchain technology can facilitate the development of renewable energy. The study pointed out that adopting digital currency can encourage direct transactions between clean energy producers and consumers, reduce losses during energy conversion and transmission, and promote renewable energy adoption and market development (Ameena Arshad, Faisal Shahzad, Ijaz Ur Rehman, Bruno S. Sergi, 2023).

"A Comprehensive Study of Cryptocurrency Mining Energy Consumption" provides a comprehensive study of cryptocurrency mining's energy consumption. The study found that adopting more efficient hardware equipment and energy management strategies can reduce the mining process's energy consumption, thereby reducing the environmental impact. (Horst Treiblmaier, 2023).

"Digital Payments and the Environment: Analyzing the Carbon Footprint of Digital and Traditional Payment Methods" This study compares the carbon footprint of digital and traditional payment methods. It found that using digital payment methods, such as digital currencies, can reduce cash flow and the use of paper money, reducing waste and environmental impact (Yu Zhou, Caijiang Zhang, & Zhangwen Li, 2023).

"Blockchain-Based Traceability in Agricultural and Food Supply Chain Management: A Practical Implementation." This study implements agricultural and food supply chain management using blockchain technology and traceability systems for supply chains. The study found that the decentralized nature of blockchain can ensure the

transparency of the origin and production processes of products, enabling consumers to obtain accurate environmental and quality data. (KHALED SALAH, NISHARA NIZAMUDDIN, RAJA JAYARAMAN, AND MOHAMMAD OMAR, 2019).

"The Environmental Implications of Bitcoin: Examining the Carbon Footprint, Energy Consumption, and Ecological Impacts of Cryptocurrency Mining." This study evaluates the environmental impact of Bitcoin mining, including its carbon footprint, energy consumption, and ecological effects. The study said that governments and businesses should take steps to reduce energy consumption in digital currency mining and seek greener mining technologies and energy sources. (Christian Stoll, Lena Klaaßen, Ulrich Gallersdörfer, 2019).

"Blockchain and Sustainable Development Goals: A Case Study of Digital Currencies and Climate Action" This study examines digital currencies and climate action. It explores the application of blockchain technology to sustainable development goals. The study found that digital currency can provide more green investment opportunities and promote a low-carbon economy and sustainable energy development. (Shanshan Jiang, KINE JAKOBSEN, JONAS BUEIE, JINGYUE LI, AND PETER HALLAND HAR, 2022).

"The Role of Cryptocurrencies in Sustainable Development: A Systematic Review" This study systematically reviews the role of digital currencies in sustainable development. The study pointed out that applying digital currency can promote sustainable finance and green investment, thereby supporting global environmental governance and

climate change action. (Mohammad Alqudah, Luis Ferruz, Emilio Martín,Hanan Qudah, and Firas Hamdan, 2023).

H6: There is a significant law subject impacting the replacement of SWIFT with digital currency.

Evolution and Development:

Regulatory Frameworks: Governments and regulatory bodies have recognized the need to.

The assumption that there is no interaction between digital currency and the law has changed; regulators and legal systems have adapted to the emergence of digital currencies. The developments in this area include:

Establish regulatory frameworks to address the legal and regulatory challenges digital currencies pose. These frameworks aim to ensure compliance with anti-money laundering (AML) and know-your-customer (KYC) regulations, consumer protection, tax compliance, and the prevention of illicit activities. The interaction between digital currency and the law has resulted in the formulation of specific legislation and regulations tailored to the unique characteristics of digital currencies.

Legal Recognition: Digital currencies have gained legal recognition in several jurisdictions. Some countries have passed legislation to define the legal status of digital currencies and clarify their treatment under existing laws. This recognition has enabled

digital currency businesses to operate within a legal framework and has provided individuals and companies with legal protection and rights when engaging in digital currency transactions.

Enforcement Actions: The interaction between digital currency and the law has also resulted in enforcement actions against illegal activities in the digital currency space. The fight against money laundering, fraud, and other unlawful acts made possible by digital currencies has caught the attention of law enforcement organizations. Investigations, prosecutions, and asset seizures have taken place, contributing to deterring illicit activities in the digital currency ecosystem.

International Cooperation: Given the global nature of digital currencies, international cooperation and collaboration among countries have become crucial in addressing legal challenges. Governments have tried to establish frameworks for information sharing, regulatory harmonization, and cross-border enforcement. This interaction between digital currency and the law has led to discussions on the need for international standards and cooperation in regulating digital currencies.

It is important to note that the evolution and development of the interactions between digital currency and the various aspects mentioned above are ongoing and subject to further changes and advancements in technology, regulations, and societal attitudes.

Future monetary policy and digital currency that central banks issue

This literature overview examines how digital currencies issued by central banks affect monetary policy. The study pointed out that introducing CBDC may require rethinking existing monetary policy tools and regulatory mechanisms to accommodate the characteristics of digital currencies and ensure stable financial market operations. (M.D Bordo, A. T. Levin ,2017).

"Regulating Cryptocurrencies: The Challenges of a Rapidly Evolving Market." This study examines the challenges of regulating cryptocurrencies. Existing laws and regulations struggle to adapt to the digital currency market's rapid development and innovative nature, necessitating the development of a new regulatory framework that balances financial stability, consumer protection, and innovation. (Raphael Auer and Stijn Claessens, 2018).

The Difficulties with Digital Currencies in Law and Regulation. This examination looks at the legal and regulatory issues surrounding digital currency. The study pointed out that introducing digital currency may face compliance issues, an imperfect regulatory framework, and investor protection risks. The article highlights the roles and responsibilities of regulators and the need for a legal framework that accommodates the development of digital currencies. (Paul Latimer and Michael Duffy, 2019).

"Cryptocurrencies and Anti-Money Laundering Regulations." This study examines the relationship between digital currencies and anti-money laundering regulation. The study noted that the anonymous and decentralized nature of digital currencies poses regulatory challenges for anti-money laundering but also offers opportunities to

improve regulatory measures. Articles discuss solutions for cryptocurrency exchange regulation, identity verification, and KYC (know your customer) (Katherine A. Lemire, 2022).

"Challenges in Regulating and Supervising Cryptocurrency Activities" This literature review examines the challenges posed by the decentralized nature of digital currencies to regulating and enforcing laws and regulations. The study pointed out that decentralization makes it difficult for regulators to track and control digital currency transactions while increasing the supervision's complexity and cost. (Kevin Werbach, 2018).

"Regulation of Cryptocurrencies: Challenges and Opportunities." The study pointed out that regulators must develop flexible and innovative regulatory strategies while strengthening international cooperation to regulate cross-border digital currency activities. (Böhme, R., Christin, N., Edelman, B., & Moore. T., 2020).

"Cryptocurrencies and International Cooperation: Opportunities and Challenges." This literature review examines the implications of digital currencies for international cooperation and coordination mechanisms. The study pointed out the proliferation of digital currency (Sabrina Leo & Ida Claudia Panetta, 2023).

"Cryptocurrencies and Legal Issues: An Overview." This literature review provides an overview of digital currencies and legal issues. The report noted that difficulties with legal jurisdiction could result in a rise in transnational legal conflicts and jurisdictional

matters because of digital currency's cross-border nature and decentralized nature. (Abderahman Rejeb, Karim Rejeb, and John G. Keogh, 2021).

"International Coordination and Cooperation in Cryptocurrency Regulation" This article examines international coordination and cooperation in regulating digital currencies. The study notes that digital currencies' global and cross-border nature requires international cooperation to address regulatory challenges and ensure financial stability and consumer protection. (Jacques Crémer, David Dinielli, Amelia Fletcher, Paul Heidhues, DICE, Monika Schnitzer, Fiona M. Scott Morton,Katja Seim, 2023).

"The Legal Challenges of Cryptocurrencies in the International Financial System" examines the legal challenges of digital currencies in the international financial legal system. The study pointed out that the popularity of digital currency may substantially impact the traditional financial system and global financial laws involving monetary policy, economic stability, anti-money laundering, and anti-terrorist financing. (Garry Jacobs, 2018).

2.3 Previous Studies

"Blockchain and Cryptocurrencies as a Way to Replace SWIFT in International Transactions" (Journal of Risk and Financial Management, 2021).

The study explores blockchain and cryptocurrencies as alternatives to the SWIFT international transaction system. The researchers analyzed the disadvantages of SWIFT,

such as high fees, slow transaction speeds, reliance on third-party intermediaries, and the advantages of blockchain and cryptocurrencies, such as low fees, fast transaction speeds, and decentralized characteristics. The research also evaluates currently available digital currencies and blockchain technology and their viability and usability for international transactions. The article pointed out that although digital currency and blockchain tech are Thus, further study and experience are needed before integrating blockchain technology and digital money into cross-border transactions.

Development of Hypothesis

	Independent Variable	Dependent Variable	Question	Theory From
H1	Political factors: Government Regulations. Geopolitics. Sanctions	Digital Currency	P1-P10	Digital Currencies and Sanctions: Challenges and Opportunities This report discusses the challenges and opportunities of digital currencies in the context of political sanctions. (CNAS, 2019).
H2	Economic factors: include interest rates, inflation, exchange rates, and the job market.	Digital Currency	E1-E10	A Comprehensive Analysis of Cryptocurrencies and the World Economy. This study systematically reviews the relationship between cryptocurrencies and the global economy. (AH Dyhrberg, 2016).
H3	Social Factors: culture, population, education, and health	Digital Currency	S1-S10	"Consumer Acceptance and Use of Crypto-Assets: A Systematic Review" systematically reviews consumer acceptance and use of crypto assets. (Nir Kshetri and Jeffrey Voas, 2018).
H4	Technical Factors: security, reliability, and usability.	Digital Currency	T1-T10	"Technological Infrastructure: The growth of digital currencies has necessitated the development of robust technical infrastructure." (Christian Catalini & Joshua S. Gans, 2016).
H5	Environmental Factors: include weather, natural disasters, environmental protection, and climate change.	Digital Currency	EN1-EN10	"The Carbon Footprint of Bitcoin" This study assesses Bitcoin's carbon footprint."(Christian Stoll, Lena Klaaßen, Ulrich Gallersdörfer, 2019).
H6	Legal Factors: International laws and regulations	Digital Currency	L1-L10	"Challenges in Regulating and Supervising Cryptocurrency Activities" (Kevin Werbach, 2018).

2.4 Construction of Theory

Previous research has shown that digital currencies have the potential to replace Swift. Before the emergence of digital currency, Swift was the world's most crucial cross-border payment system. However, Swift's transactions could be faster and more

efficient and require multiple intermediaries, resulting in long transaction times and high fees.

Digital currency solves some of Swift's deficiencies through blockchain technology. Digital currency transactions are speedy, often taking just seconds or minutes to send money across borders. Transaction costs are reduced when using digital currencies since they do not require intermediaries.

In addition, digital currency also has higher security and privacy. Since the transaction records of digital currency are encrypted and decentralized, they are difficult to tamper with or steal. In contrast, Swift's transaction records are at risk of being tampered with or stolen, so more security measures must be taken.

Nonetheless, many obstacles are in the way of digital currencies replacing Swift. First, digital currencies need widespread adoption to be sufficiently large and pervasive. Secondly, there is still a need to solve the regulatory problems related to digital currencies. Finally, the volatility of digital currencies may lead to some risks and uncertainties, thereby limiting their use.

In conclusion, replacing Swift with digital currency is a complex issue requiring technological regulation and market progress. Although digital currency has many advantages, many problems must be solved to fully replace Swift.

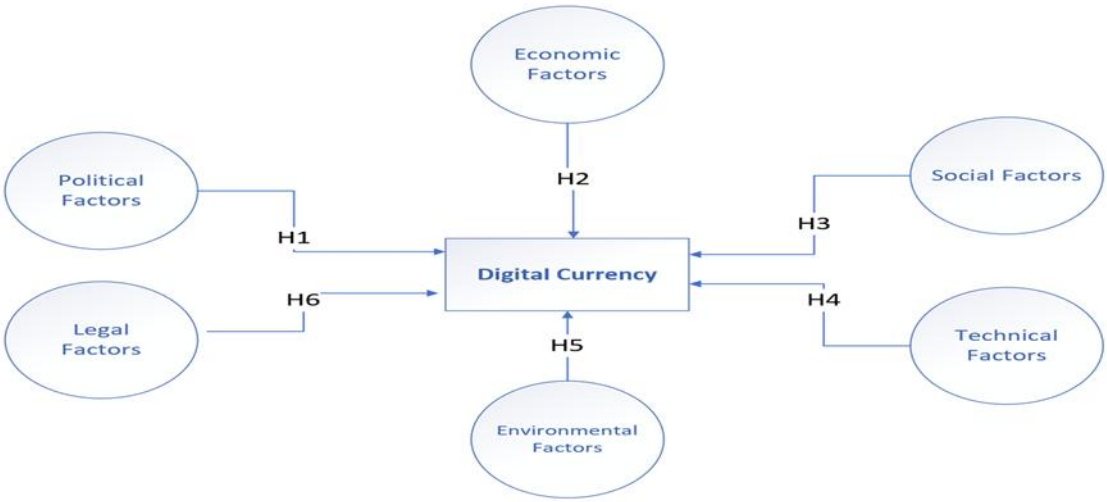

Figure 2-1 Conceptual Model.

2.5.1 Hypothesis

By understanding the relationship between various variables and testing hypotheses, this research can help us determine the factors affecting Swift's replacement by digital currency. The following assumptions are to be tested:

H1:	Replacing SWIFT with digital currency has a significant political impact.
H2:	Replacing SWIFT with digital currency has a significant economic impact.
H3:	A society is interacting with and replacing SWIFT with digital currency.
H4:	A significant technological infrastructure is impacting the replacement of SWIFT with digital currency.
H5:	A significant environmental issue impacts the replacement of SWIFT with digital currency.
H6:	A significant law subject impacts the replacement of SWIFT with digital currency.

Table 2-2 Hypothesis

2.5 Chapter Summary:

A literature review examining the replacement of the SWIFT system by digital currencies suggests that the widespread adoption of digital currencies could have important implications for global financial markets and the international economy. The introduction of digital currency may change international trade, the cross-border flow of funds, the status of financial institutions, and the competitive landscape. It has the potential to provide more convenient, efficient, and low-cost international remittance and payment solutions and reduce the impact of exchange rate risks and currency fluctuations on cross-border transactions. In addition, digital currency may enhance the stability of the global economy, improve financial inclusion, and promote the development of sustainable finance and green investment. However, the popularity of digital currency may also bring challenges, such as exacerbating the digital divide, data privacy and security risks, legal and regulatory issues, etc. Therefore, international cooperation and developing a global regulatory framework are essential for creating digital currencies. At the same time, the popularity of digital currency may change employment opportunities and models in the financial services industry, bringing new financial innovations and social enterprise models. Finally, the global adoption of digital currencies has essential implications for societal and economic inequality, environmental governance, laws and regulations, and international cooperation.

Chapter 3: Research Methodology

3.1 Introduction

"Currency to Replace Swift: Technology, Regulation, Market, and International Relations" covers a variety of methods and technologies, mainly including literature reviews, case analyses, quantitative analyses, expert interviews, questionnaires, SWOT, PESTEL, and other forms.

3.2 Research Approach:

This study uses a mixed qualitative and quantitative approach to explore the feasibility of digital currencies replacing SWIFT. First, collect and summarize the research results and viewpoints in related fields through a literature review. Secondly, conduct face-to-face or remote interviews, inviting experts from financial institutions, scholars, government officials, and digital currency practitioners to collect their professional insights and practical experience. Additionally, we designed a questionnaire survey to gather their views and attitudes toward digital currency as an alternative to SWIFT for financial institutions, enterprises, and individual users. We would subject the collected qualitative data to thematic analysis to extract key themes and perspectives. We would subject the quantitative data to statistical analysis, including descriptive statistics and correlation analysis. Finally, through integrated analysis, qualitative and quantitative data results are cross. They are validated to draw comprehensive and accurate research conclusions. This mixed qualitative and quantitative research approach would provide

deep insight and a thorough assessment of the feasibility of digital currencies replacing SWIFT.

3.2.1 Research Method

This study would use qualitative and quantitative methods and aim to comprehensively assess digital currencies' feasibility and potential impact as an alternative to SWIFT. The following is a detailed description of the research methodology, including data collection and analysis steps.

First, the data collection phase would employ multiple approaches to obtain comprehensive and diverse data. First, we would conduct a literature survey to combine the relevant literature on digital currency, SWIFT, and cross-border payments to review existing research and perspectives. Secondly, face-to-face or remote semi-structured interviews would be conducted, and experts from financial institutions, scholars, government officials, and digital currency practitioners would be selected as interviewees. Gather their professional insights and practical experience by designing an interview guide. Furthermore, a questionnaire survey would be designed to quantify the relevant factors of digital currency as an alternative to SWIFT, covering the views and attitudes of financial institutions, businesses, and individual users.

Second, analyze the collected data. The qualitative data analysis phase would transcribe verbatim and organize interview recordings or notes, then use thematic and content analysis methods to extract key themes and perspectives and develop a

conceptual understanding. The preprocessing data analysis stage would involve data cleaning and preprocessing on the questionnaire data and then applying appropriate statistical tools and methods, such as descriptive statistics, correlation analysis, regression analysis, etc., to evaluate the quantitative data statistically. These analysis methods provide a deep understanding of digital currency's feasibility and potential impact as a SWIFT alternative from different angles and dimensions.

Finally, the meta-analysis phase combines qualitative and quantitative data for synthesis and cross-validation. Strengthen the reliability and validity of research findings by comparing the themes and perspectives of qualitative analysis with the statistical results of quantitative analysis. To strengthen the evaluation of digital currency as an alternative to SWIFT, we would apply the method of data triangulation through the cross-validation of qualitative and quantitative data. (Virginia Braun & Victoria Clarke, 2006).

The advantage of the research method is that it combines the benefits of qualitative and quantitative approaches to provide comprehensive and in-depth research results. Qualitative data analysis can reveal critical issues and perspectives on digital currency as an alternative to SWIFT. In contrast, quantitative data analysis can provide a quantitative assessment of digital currency popularity, user acceptance, and transaction speed. Researchers can combine qualitative and quantitative data results through integrative analysis to draw more comprehensive and accurate conclusions. The method of data triangulation verification can make up for the possible deviations

and limitations of a single form and improve the credibility and reliability of the research results. (María Mercedes Arias Valencia,2022)

However, the research methodology also faces some potential challenges. The interviewees' limitations and the questionnaire's response bias may affect the data collection. Therefore, when selecting respondents and designing questionnaires, it is necessary to ensure that the sample is representative and reliable. Furthermore, the researcher's subjective factors, such as personal bias and interpretive ability, can influence the analytical process of qualitative data. Multiple researchers can independently analyze the data and perform cross-validation and consistency checks to reduce subjectivity. (Norman A. Stahl and James R. King, 2020)

3.2.2 Research Design

This study explores digital currencies' feasibility and potential impact as an alternative to SWIFT. To obtain more comprehensive and accurate research results, we would combine qualitative and quantitative mixed methods, conducting thematic analysis of qualitative data and statistical analysis of quantitative data.

The study design covers the following key aspects: First, the research question is: "Can digital currency effectively replace the role of the SWIFT system in cross-border payments, and what advantages and challenges does it bring?" This question would guide the scope and goals of the entire research.

Next, the data collection method would take a variety of paths. We conduct a literature review to identify the relevant literature on digital currency, SWIFT, and cross-border payment and fully understand existing research findings and perspectives.

During the data analysis phase, we would use qualitative methods such as thematic and content analysis to extract key themes and perspectives and develop a conceptual understanding. Quantitative data would go through data cleaning and preprocessing. Then, we would apply appropriate statistical tools and methods, such as descriptive statistics, correlation analysis, regression analysis, etc., to perform statistical data analysis.

Finally, we would cross-validate and integrate the qualitative and quantitative data results to obtain more comprehensive and in-depth research conclusions through integrative analysis. To strengthen the evaluation of digital currency as an alternative to SWIFT, we would compare the themes and perspectives of the qualitative study with the statistical results of the quantitative analysis using the method of data triangulation.

This study aims to comprehensively assess digital currency's feasibility and potential impact as a SWIFT alternative by analyzing combined qualitative and quantitative data using a mixed-methods research design. This mixed-methods research design can

thoroughly consider different data sources and dimensions, providing more comprehensive and accurate conclusions.

The strength of the study design lies in its multidimensional data collection and analysis approach. Data collected through literature research, interviews, and questionnaires can provide perspectives and insights from multiple perspectives. Thematic analysis of qualitative data can reveal critical issues, strengths, and challenges of digital currencies as an alternative to SWIFT, leading to a deep conceptual understanding. Statistical analysis of quantitative data can provide quantitative assessments of digital currencies regarding popularity, user acceptance, transaction speed, and security. (Evelyn Lanka, Sanjay Lanka, Ali Rostron, Pallavi Singh, 2021).

In addition, the study design has the advantage of data triangulation. The reliability and validity of research findings can be enhanced by cross-validating and integrating qualitative and quantitative data. Qualitative and quantitative data complement each other, and through integrated analysis, potential biases and misinterpretations in research can be addressed, leading to more convincing conclusions.

Even so, the study's design has a few possible issues. Factors like questionnaire response bias and interviewee constraints may impact the data collection process. Therefore, it is necessary to consider the representativeness and reliability of the sample when selecting the interviewees and designing the questionnaire.

Data analysis usually includes the following eight steps:

1. Problem definition and goal setting: First, clarify the problem you want to solve or the research goal, and determine the direction and focus of the analysis.

2. Data collection: collection of questionnaires.

3. Data cleaning and preprocessing: Check the questionnaire's data quality and deal with missing values, outliers, and erroneous data. Transform, normalize, or standardize the data for subsequent analysis.

4. Data analysis: Conduct a preliminary exploration of the data from the questionnaire survey and understand the distribution, trend, relationship, etc., of the data. You can draw graphs, calculate statistical metrics, and spot patterns and trends in your data.

5. Application of analysis method: The questionnaire data analysis is carried out according to the selected mode, and critical information and conclusions are extracted.

6. Interpretation and Inference: Draw conclusions from analysis results, explain the meaning behind data, make inferences, or make predictions.

7. Result presentation: Present the analysis results using visualization tools, charts, reports, etc., for others to understand and use.

8. Validate hypothesis: To ensure the reliability and generalization ability of the established model, validation and evaluation are needed to check its performance on new data.

Each step in the data analysis process is an essential link, as they are interrelated and contribute to building understanding and insight into the data. Careful consideration is required at each step to flexibly apply appropriate methods and maintain a transparent and reproducible analysis process.

3.3 Questionnaires

3.3. 1 Questionnaire, Section I,

Section 1 aims to understand the respondents' personal characteristics and background information, including gender, age, occupation, income, country, and educational background. The following is a detailed description of the questionnaire's contents.

Respondents would be asked to select their gender, including male, female, and other options.

Respondents would be asked to provide their age information, typically a year or age category, such as Under 20, 21–30, 31–40, 41–50, 51–60, or Over 60. Respondents would be asked to provide their current employment, including financial institution

practitioners, business managers, students, freelancers, etc. Respondents may also have the option to specify their occupation.

Respondents must provide a range of annual income to understand their financial situation and income level. Options may include under USD 2000, $2001–$5000, $5001–$10,000, $10,001–$50,000, over $50,000, etc.

Country: Respondents would be asked to provide information about the country or region they belong to to understand the views and differences between different countries or regions. A drop-down menu may list standard country options or additional options for respondents to fill in for a specific country.

Secondary, undergraduate, graduate, and other options under the "Educational Background" section. Researchers may also provide additional opportunities for respondents to provide specific educational background information.

By collecting these personal characteristics and background information, researchers can compare and analyze different groups' views, attitudes, and behaviors. This information can help researchers understand digital currencies' acceptance, demand, and potential impact as an alternative to SWIFT among different populations. At the same time, these personal characteristics are also essential for classifying and dividing samples for more in-depth data analysis and interpretation.

3.3.2 Questionnaire, Section II,

Section 2 aims to understand respondents' views and attitudes towards digital currency as an alternative to SWIFT in six aspects: politics, economy, society, technology, environment, and law. The following is a detailed description of the content of the second questionnaire.

Under the political aspects, respondents would be asked to comment on the political implications of digital currencies as an alternative to SWIFT. It may include issues such as the impact of digital currency on the financial system's stability, international regulatory coordination and cooperation, and government policy support for digital currency.

Respondents would be asked to express their views on how digital currencies as an alternative to SWIFT would impact the economy.

It may include issues such as improving the efficiency of digital currency in payment and cross-border transactions, the impact on financial intermediary costs, and the challenges to monetary policy.

Respondents would be asked to express their views on the societal implications of digital currencies as an alternative to SWIFT in promoting financial inclusion, improving financial services' inclusiveness, and addressing social problems such as privacy and data security. It may include issues such as promoting digital currency for financial inclusion, improving financial services' inclusiveness, and the impact of social problems such as privacy and data security.

As part of the technical aspects, respondents would be asked to express their opinions on the technical characteristics and potential challenges of digital currency as an alternative to SWIFT. It may include a digital currency's technical security, scalability, transaction speed, and processing power.

Respondents would be asked to express their views on the ecological impact of digital currencies as an alternative to SWIFT regarding the environmental aspect. This may include issues such as the impact of digital currency mining on energy consumption, carbon footprint, and ecological sustainability.

Respondents would be asked to comment on digital currencies' legal challenges and regulatory issues as an alternative to SWIFT. Problems may include digital currency compliance, anti-money laundering, counter-terrorist financing measures, cross-border regulatory compliance, etc.

We designed the questions with openness and objectivity to allow respondents to express their opinions freely and provided them with additional options to fill in specific details. Furthermore, scales or scoring questions can be designed to assess the extent of respondents' attitudes and opinions on various aspects. For example, respondents could use a five-point scale to rate different aspects of the impact of digital currencies as an alternative to SWIFT, ranging from disagreeing to completely agreeing.

3.3.3 Sampling Procedure:

Determine the target audience: First, identify the target audience to be surveyed, such as financial institutions, professionals, academics, etc. Determining the scope of your audience helps ensure a representative and relevant sample.

Sampling Method Selection: Choose an appropriate sampling method to obtain a global sample. A common approach is stratified sampling, which divides the target audience according to geographic location, type of institution, or industry sector and randomly selects selections from each stratum.

Sampling method selection: The stratified sampling method is divided according to geographical location and institution type. (Lauren Thomas, 2020)

1. Geographic Stratification: Divide the world into different geographic regions such as Asia, Europe, North America, South America, Africa, and Oceania.
2. Institution Type Stratification: Divide the target audience into different institution types, such as commercial banks, investment banks, multinational corporations, etc.

To ensure adequate representation of each geographic region and institution type, we can set the sample size as a relative proportion of each region and type. The questionnaire data comes from the online questionnaire survey; the questionnaire is sent to the respondents by email, and WhatsApp sends the questionnaire.

1. Geographical Sample Selection: Randomly select samples from financial institutions and related professionals in each geographic region.
2. Institution type sample selection: randomly select samples from financial practitioners of various institution types.

Data collection and processing: sending questionnaire invitations to selected audiences through an online survey platform. After the questionnaire deadline, we collated and cleaned the collected data.

3.3.4 Data Collection

Target audience positioning: Determine the target audience, including commercial banks, financial institutions, academics, and digital currency practitioners.

Data Collection Publicity: Publicize the survey widely to maximize engagement through the following channels:

1. Post-questionnaire links on major social media platforms.
2. Cooperates with professional organizations to publicize the study on their websites.
3. Send 600 email invitations to relevant institutions and individuals.

Data collection and monitoring: Send the questionnaire link through the online survey platform and monitor the progress of data collection. Track response rates and

engagement and send timely reminder emails to prompt participants to complete the survey.

After completing the data collection, clean and verify the collected data to ensure its quality and accuracy.

3.3.5 Pre-testing

In addition, to ensure the validity and reliability of the questionnaire, the following measures can be taken: pre-testing and revision: Before the formal survey, a small sample is invited to test-fill the questionnaire and assess its understanding and feedback. Based on the pre-test results, we made necessary modifications and improvements to enhance the clarity and accuracy of the questions.

Appropriate survey methods and sample selection: According to the research goals and audience groups, appropriate survey methods and sample selection methods should be selected to ensure the representativeness and reliability of the samples.

3.3.6 Privacy protection and data

Privacy protection and data processing: The data confidentiality policy and privacy protection are clearly stated in the questionnaire to ensure that the respondents' personal information is processed correctly and protected. To protect the privacy of respondents, we collect data through anonymous surveys.

Researchers would analyze the collected questionnaire data using descriptive statistics and correlation analysis. They would integrate and interpret the data to draw a comprehensive assessment and conclusions on all aspects of digital currency as an alternative to SWIFT.

Through the design and implementation of the second questionnaire, the researchers can obtain the views and attitudes of the respondents toward digital currency as an alternative to SWIFT in six aspects: politics, economy, society, technology, environment, and law. This data would provide researchers with important clues about the potential impact and challenges of digital currencies replacing SWIFT and support the comprehensiveness and accuracy of the research conclusions.

3.3.7 Summary of Survey Measurements

Sections 1 and 2 of the survey are data collection tools for researching digital currencies as alternatives to SWIFT. Section 1 mainly focuses on the respondents' personal characteristics and background information, such as gender, age, occupation, income, country, and educational background. Section 2 focuses on understanding respondents' views and attitudes towards digital currency as an alternative to SWIFT in six aspects: politics, economy, society, technology, environment, and law.

Measurement content	Section 1	Section 2
Personal Characteristics and Background Information	Gender, Age, Occupation,	N/A

	Income, Country, Education	
Political aspects	N/A	The impact of digital currency on the stability of the financial system, international regulatory coordination and cooperation, government policy support for digital money, etc. (BSP, 2021)
Economic aspects	N/A	Digital currency improves payment and cross-border transaction efficiency, impacts financial intermediary costs, challenges to monetary policy, etc.
Social aspects	N/A	The impact of digital currency on promoting financial inclusion, improving the inclusiveness of financial services, and social issues such as privacy and data security, etc.
Technical aspects	N/A	Technical security, scalability, transaction speed, and processing power of digital currency, etc.
Environmental aspects	N/A	Impact of digital currency mining on energy consumption, carbon footprint, environmental

		sustainability, etc.
Legal aspects	N/A	Digital currency compliance, anti-money laundering and anti-terrorism financing measures, cross-border regulatory compliance, etc. (Concepcion Verdugo Yepes, 2011).

Table 3-1 summarizes what the two questionnaires measured.

Please note that Section 1 and Section 2's measurement contents are not mutually exclusive, so some aspects in the table are measured in Questionnaire 1 but not in Questionnaire 2. Such a design allows researchers to comprehensively evaluate various aspects of digital currency as a SWIFT alternative from different perspectives.

This table provides an overview of the comparison and summary of the measurement content of the two questionnaires, helping researchers better understand the respondents' characteristics, opinions, and attitudes during the data analysis phase. Researchers can use these data to reveal the advantages, challenges, and potential impact of digital currency as a SWIFT alternative, providing support and evidence for the study.

The above table only summarizes the measurement content of the two questionnaires, and researchers can adjust and supplement the actual design of the questionnaire according to the specific purpose and problems of the research. In addition, in the

process of questionnaire design and data analysis, the data's reliability, validity, and privacy protection should also be considered to ensure the credibility and accuracy of the research results.

In general, by combining the measurement content of Section 1 and Section 2, researchers can obtain comprehensive information about digital currency as an alternative to SWIFT and understand respondents' personal characteristics, perceptions, and attitudes from different perspectives. This would help with an in-depth analysis of the potential impact of digital currency and challenges in various aspects and support the comprehensiveness of the research conclusions.

3.4 Scaling

In the study of a digital currency replacing SWIFT, the five-component method can play the following essential roles (COSO, 1992)

Evaluate respondents' attitudes towards digital currency replacing SWIFT: To learn more about respondents' opinions of digital currencies replacing SWIFT, one can formulate a series of questions using these five elements. For example, declarative sentences could be used, and respondents were asked to choose their position from strongly disagree to support on a five-point scale strongly. This can help researchers understand respondents' overall tendency and attitude toward digital currency replacing SWIFT.

Measuring respondents' awareness and understanding of digital currency: Using the five-component method, researchers can design questions to measure respondents' awareness and knowledge of digital currency. These questions can cover aspects such as the concept of digital currency, technical principles, advantages, and risks. By assessing the respondents' awareness level, further analysis of their views and expectations on digital currency replacing SWIFT is possible.

Understand the differences between different groups: By adding questions related to the gender, age, occupation, income, country, and educational background of the respondents in the questionnaire and using the five-point method for evaluation, it can help researchers understand the differences between different groups. Differences of views and attitudes on the issue of a digital currency replacing SWIFT allow for an in-depth analysis of the influence of various factors on the attitude toward digital currency replacing SWIFT and provide strategies and suggestions for different groups.

Quantify the respondents' responses by applying the five-component method to provide quantitative data analysis. Through statistical analysis of these data, such as calculating the average score, standard deviation, correlation coefficient, etc., it is possible to reveal the respondents' overall tendency and opinion distribution on digital currency replacing SWIFT. This can provide quantitative support for the conclusion of the research.

To sum up, the five-component method has been useful in assessing attitudes, measuring cognition, understanding differences, and providing quantitative data to study digital currency replacing SWIFT. Using this method, researchers can systematically collect and analyze respondents' views and attitudes toward digital currency replacing SWIFT, supporting the comprehensiveness of the research results.

The instruments were structured in a modified Likert fashion on a 5-point scale as below:

1	2	3	4	5
Strongly Disagree	**Disagree**	**Neither Agree nor Disagree**	**Agree**	**Strongly Agree**

3.5 Pilot Test

To carry out the research pilot test of a digital currency replacing SWIFT, I selected ten respondents as the pilot sample and described the process and results as follows:

Process:

Sample selection: Select ten respondents from the target group who are Digital Currency Practitioners to ensure the sample is representative. The sample included individuals of different genders, ages, occupations, incomes, countries, and educational backgrounds.

After selecting respondents, we performed a final check to ensure the sample's diversity and representativeness. If a dimension is under-covered, adjustments can be made to provide a more representative sample.

Ultimately, we get these ten samples:

1. Male, 28 years old, blockchain developer, middle-income, American, master's degree.

2. Female, 35 years old, trader, high income, Singapore, bachelor's degree.

3. Male, 42 years old, investment consultant, high income, Germany, doctorate.

4. Female, 25 years old, market analyst, middle-income, Japan, master's degree.

5. Male, 31 years old, founder of a blockchain startup company, high income, South Korea, bachelor's degree.

6. Female, 45 years old, senior executive of a financial technology company, high-income, British, doctoral degree.

7. Male, 29 years old, investment manager, middle-income, Brazil, master's degree.

8. Female, 38 years old, blockchain engineer, middle-income, India, master's degree.

9. Male, 22 years old, digital currency miner, low-income, South Africa, bachelor's degree.

10. Female, 50 years old, financial consultant, middle-income, Australia, PhD degree.

We obtained ten representative samples covering various dimensions through the above selection process to get more accurate and comprehensive results when investigating or researching.

We designed a pilot test questionnaire for research purposes. The questionnaire includes questions about digital currency replacing SWIFT, such as the degree of understanding of digital currency, attitude towards SWIFT, and views on digital currency replacing SWIFT, etc.

Implementation of the pilot test: Distribute the questionnaire to 10 respondents and ask them to understand and fill it out. Collect data through face-to-face interviews, email, or online survey platforms. Data collection and collation: After collecting the questionnaires, sort and clean up the data to ensure its accuracy and completeness.

Attitude and cognition analysis: The pilot test results were used to analyze the attitude and cognition of the ten respondents. Researchers can calculate average scores and frequency distributions to understand respondents' overall propensity and awareness of digital currencies replacing SWIFT.

Difference and correlation analysis: By analyzing the difference between groups of different characteristics, such as gender, age, occupation, etc., it is possible to determine whether there is a significant difference. Furthermore, analysts can also

examine correlations between different variables, such as the relationship between cognitive levels and attitudes.

Analyzing the respondents' answers to the benefits and hindrances of a digital currency replacing SWIFT in the pilot test results allows us to conclude the main problems and challenges in this field.

Discussion of results and suggestions: Based on the pilot test results, discuss the research's assumptions and goals and propose corresponding proposals. These recommendations can further improve study design, formulate policy, and guide the direction of subsequent research.

Summary: Through the pilot test of 10 respondents, we can get a preliminary understanding of their attitudes, cognitions, and opinions on digital currency replacing SWIFT.

3.6 Population and the Target Sampling

Target population analysis: On April 1, 2023, we sent out 1,400 online questionnaires to select samples worldwide. Multiple target population characteristics, including different countries, regions, gender, age, occupation, income, and educational backgrounds, need to be considered. An analysis of the target population can determine whether the sample is representative and the general applicability of the findings.

The following methods can help you better consider multiple target population characteristics, ensure that the sample is representative, and thus obtain more accurate and reliable research results.

1. Sampling method selection:

A multi-stage, stratified sampling approach ensures adequate representation across different characteristics. For example, we randomly select several samples from other countries or regions. We then conduct further stratified sampling within each country or region, encompassing different genders, ages, occupations, incomes, and educational backgrounds.

2. Sample size and proportion:

To ensure the representativeness of different features, you need to allocate the sample size and proportion reasonably according to the distribution of each component. For quality to be widely distributed in the target population, more samples must be allocated to better capture the diversity of that feature.

3. Data collection tools and channels:

Use various data collection tools and channels to ensure that you can reach respondents with different characteristics. For example, online surveys, emails, social media, mobile applications, etc., can cover other regions and groups.

4 After collecting the data, we clean and verify it to ensure its accuracy and reliability.

Please verify the information provided by the respondents, such as their income and educational background, to ensure the authenticity of the sample.

5. Hierarchical analysis and cross-analysis:

In the data analysis stage, hierarchical and cross-analyses are performed to gain insight into the relationship between different features. For example, analyze differences in age and income across countries and occupations to reveal additional insights.

6. Construct representative indicators to measure the sample's representativeness based on the weight of different features. These metrics can be weighted averages, percentages, averages, etc.

7. We performed a sensitivity analysis to assess the stability of the results with minor changes in the sample distribution. This can help you understand how variation in the sample across different characteristics affects the study's findings.

Sampling method selection: To obtain effective samples, selecting an appropriate sampling method is necessary. Standard sampling methods include random sampling, stratified sampling, and cluster sampling. According to the research purpose and resource constraints, choose an appropriate sampling method to ensure the diversity and representativeness of the sample.

Sample size calculation: The choice of sample size is critical for global studies. Performing a sample size calculation allows for determining the number of samples

needed to draw reliable conclusions. The sample size should be based on statistical principles, considering the target population's diversity and the sampling method's validity.

Sampling process: When implementing the sampling process, it is necessary to ensure its randomness and fairness. Use suitable sampling frameworks and methods, such as random number generators, sweepstakes systems, or online survey platforms, to ensure random and representative samples. (Ronald D. Fricker, Jr., 2020)

Analysis and summary sent back 520 samples (37.14%) before July 1, returned only 520 models available, and conducted statistical analysis and an overview of the sample data. Descriptive statistical methods, such as means, percentages, and frequency distributions, can describe a sample's characteristics and trends. Furthermore, inferential statistical methods, such as hypothesis testing and confidence intervals, allow for the extrapolation and generalization of sample results.

	Number of Questionnaires			
	Delivered	**Returned**	**Valid**	**Valid Rate (%)**
Online survey	600	218	218	36.33%
Email	400	148	148	36.50%
What's App	400	154	154	22%
Totals	1400	520	520	37.14%

Table 3 2 Summary of the questionnaire respondents' return rate.

To sum up, the target population and sampling analysis of 520 valid samples worldwide is to ensure the representativeness and reliability of the research results. By fully considering the diversity of the target population, selecting an appropriate sampling method and sample size, and conducting statistical analysis, researchers can conclude the general attitude and awareness level of digital currency replacing SWIFT on a global scale. These analyses and summaries provide an essential basis for subsequent research and decision-making.

3.7 Data Collection and Sampling

Data collection strategies and approaches are required to ensure sample diversity and representativeness.

1. Design a questionnaire. First, a questionnaire for digital currency should be designed instead of SWIFT. Ensure the questionnaire contains questions relevant to the research objectives and choose the appropriate measurement scale and question type as needed. Ensure that the questionnaire language is concise, clear, and globally understandable.
2. Online survey: Conduct online surveys worldwide using the Internet and online survey platforms, such as SurveyMonkey, Google Forms, etc. Entice respondents to complete surveys by posting links on social media, forums, email lists, and professional groups. Online surveys can quickly and efficiently capture large samples and cross time zones and geographic boundaries.

3. Social media: Use various social media platforms, such as Facebook, Twitter, LinkedIn, etc., to widely publicize the survey link. Create survey-related posts, tweets, or ads to get the attention of potential respondents and encourage them to participate. Social media, with its broad user base and global reach, can broaden the diversity and representativeness of the sample.
4. To ensure the diversity of the sample, face-to-face interviews in specific regions should be conducted. Select a representative city or region, organize an interview team, and conduct interviews in a face-to-face environment with the respondents according to the pre-designed questionnaire. Face-to-face interviews can provide greater depth of information and understanding and allow for more accurate investigations specific to a particular region or cultural context.
5. Sampling method: When collecting samples, adopting appropriate sampling methods is the key to ensuring the representativeness and reliability of the models. Researchers can choose techniques such as random, stratified, or cluster sampling to ensure that various groups and regions are included in the sample. We calculate the selection based on the target population's characteristics and the sample size requirements and select the illustrations proportionally.
6. Data cleaning and analysis: After collecting 520 valid samples, data cleaning and analysis are essential steps to ensure the accuracy and reliability of the research results. During data cleaning, researchers should check and correct

errors, missing data, or outliers in the data. To ensure data consistency and integrity, researchers can perform data cleaning and transformation using data cleaning tools or programming languages like Python or R.

Collecting and sampling 520 samples worldwide requires using multiple methods and strategies, such as online surveys, social media, face-to-face interviews, and sampling methods. After collecting and testing 520 worldwide samples using various techniques and procedures, such as online surveys, social media, and face-to-face interviews, data cleaning and analysis are performed to draw conclusions and insights about how digital currency would replace SWIFT. These results help advance research and decision-making in related fields.

3.8 Data Analysis Technique

In the data analysis stage, statistical software and techniques such as SPSS, Excel, or PLS-SEM can perform inferential analysis and provide statistical descriptions of the gathered data. Commonly used analysis methods include descriptive statistics, frequency analysis, correlation analysis, regression analysis, etc.; choose the appropriate way according to the different research objectives and problems.

Interpret and summarize the analysis results based on the various dimensions and variables of the questionnaire. For example, variables such as gender, age, occupation, income, country, and educational background can be cross-analyzed to understand the

attitudes and opinions of different groups of people regarding digital currency replacing SWIFT.

3.8.1 Descriptive Statistics

The descriptive statistics method is an analytical technique used to summarize and describe data, which can help us understand the relevant characteristics and trends of digital money taking the place of SWIFT. Descriptive statistical methods can analyze the data gathered to investigate digital currencies as a potential SWIFT replacement. First, we can use frequency analysis to calculate different variables' frequency numbers and distributions. By counting the gender, age, occupation, income, country, and educational background of the respondents, we can understand the proportion and distribution of each group in the sample.

Second, we can use measures of central tendency, such as mean and median, to describe the relevant variables of digital currency instead of SWIFT. For example, calculating the mean and median scores of respondents' attitudes towards and acceptance of digital currencies as a replacement for SWIFT provides an idea of the sample's overall perception of digital currencies as a replacement for SWIFT.

Additionally, standard deviation and range can measure the degree of variability in the variables associated with digital currencies replacing SWIFT. By calculating the standard deviation of the data, it is possible to understand the degree of difference in

the sample's perception of digital currency replacing SWIFT and the breadth of the data distribution.

Finally, correlation analysis can be used to explore the relationship between digital currencies replacing SWIFT and other variables. To determine the degree of association between these variables, one can, for instance, calculate the correlation coefficient between the respondents' age, country, or occupation and their attitude toward digital currency replacing SWIFT. To sum up, the descriptive statistics method can give a complete picture of the data types and patterns of digital currency that would replace SWIFT by using correlation analysis, frequency analysis, and measurements of central tendency and dispersion degree. These statistical results help reveal the overall situation of the sample and provide a reference for further research and decision-making.

3.8.2 PLS-SEM

Partial Least Squares-Structural Equation Modeling (PLS-SEM) is a statistical method for analyzing complex relational models that can provide valuable information in studying digital currencies to replace SWIFT. PLS-SEM combines factor and regression analyses to explore and verify the relationship between multiple potential constructs.

First, PLS-SEM can help researchers identify critical constructs and variables for digital currency to replace SWIFT and build an underlying structural model. A comprehensive

analysis of relevant literature and theories determines the influencing factors and associated variables of a digital currency replacing SWIFT.

Next, we modeled and analyzed the data using PLS-SEM. This involves two main steps: measurement modeling and structural modeling. Measurement models assess the validity and reliability of instruments (indicators) of underlying constructs. By calculating factor loadings, internal consistency, and average variance extraction (AVE) of an arrow, it is possible to assess the degree to which the indicator contributes to the measurement construct.

3.8.3 Acceptance of the Structural Model

The acceptance of the structural model of a digital currency replacing SWIFT is a process of evaluating the fitness and accuracy of the model. When conducting structural model acceptance, researchers need to consider the following aspects:

First, the overall fit of the model needs to be assessed. Researchers can determine the overall fit of the model using a range of statistical metrics such as root mean squared residual error (RMSEA), normalized fit index (CFI), incremental appropriate index (IFI), etc. These indicators can help judge the fit of the model. The closer the value is to 1 or 0, the better the model fits the data.

Second, we need to check the significance of the model's path coefficients. Path coefficients represent the strength and direction of links between various latent

constructs. Researchers can assess their importance by calculating their standard errors and confidence intervals. If the path coefficient is significant, the relationship exists in the sample.

Furthermore, the model can also undergo cross-validation to verify its stability and generalization ability. Cross-validation is a method to demonstrate the stability and generalization ability of the model. Dividing the sample into multiple subsamples and performing model fitting and testing on different subsamples allows for evaluating the model's strength and consistency in other instances.

Finally, we can also analyze the model's effect size. The effect size indicates the degree to which digital currency replaces SWIFT for each potential construct. By calculating the normalized value of the path coefficient or the percentage of variance explained, we can assess the impact of digital currency replacing SWIFT on each construct.

Overall, the acceptance of the structural model of a digital currency that can replace SWIFT depends on how well it fits, how vital the path coefficient is, how stable and generalizable the model is, and how significant the effect is.

These steps can help researchers determine the model's accuracy and reliability, thereby gaining a deeper understanding of the impact mechanism of digital currency replacing SWIFT.

3.9 Ethical Considerations

The methodology for a digital currency to replace SWIFT involves a range of ethical considerations. First, transparency is an important moral issue. When designing the methods for replacing SWIFT with digital currency, we should ensure that the system operates with openness and transparency, providing users and participants with a clear understanding of the transaction and operation process while preventing information asymmetry and potential fraud.

Second, fairness and equal treatment are other vital ethical considerations. The digital currency replacing the SWIFT methodology should ensure that all participants can participate fairly and equally, with the same opportunities and benefits. There is no privilege, and all participants can trade and interact freely based on adhering to the rules.

Furthermore, safety and security are critical ethical issues. The methodology for a digital currency to replace SWIFT needs to consider security measures to protect users' funds and personal information from potential threats and attacks. Emphasizing the system's security and privacy protection is necessary to protect users' rights and interests.

Finally, legality and compliance are also necessary ethical considerations. The methodology of replacing SWIFT with digital currency should ensure the legality and compliance of the system, comply with relevant laws and regulations, cooperate with

regulatory agencies, and comply with regulatory requirements to protect the stability of the system and the legitimate rights and interests of participants.

To sum up, the methodology for digital currency replacing SWIFT needs to consider ethical considerations such as transparency, fairness, equal treatment, security and protection, and legality and compliance. By paying attention to these issues, we can ensure the rationality and feasibility of the methodology on a moral level and promote public interest and social development to the greatest extent.

3.10 Limitations of the Methodology

Some limitations to the methodology of researching digital currencies to replace SWIFT need to be considered. First, data availability is a significant limitation. The replacement of SWIFT with digital currency involves data collection and analysis on a global scale. Still, there may be differences in data availability and quality in different countries and regions, which may affect the accuracy and reliability of the research.

Second, sample selection and sampling error are vital limitations. Obtaining a representative sample is crucial in research; however, sampling a target population on a global scale can present specific difficulties. Feasibility and resource constraints can limit sample selection and sampling methods, potentially resulting in bias and inaccurate results.

In addition, time and cost are also significant limitations. Researching digital currencies to replace SWIFT requires much time and resources, including data collection, analysis, field research, and verification. Researchers must trade time and cost and complete research within a limited time and resources.

Finally, the choice and application of methods are also limited. When researching digital currency to replace SWIFT, it is necessary to choose appropriate research methods and tools, such as qualitative research, quantitative analysis, case studies, etc. However, the applicability and limitations of different ways may impact the research results, and researchers need to weigh the pros and cons of other methods and choose the most appropriate one.

To sum up, data availability, sample selection and sampling error, time and cost, and method selection and application are limitations when researching the replacement of SWIFT with digital currency.

3.11 Chapter Summary

This chapter discusses and summarizes the methodology of digital currency replacing SWIFT. We discussed the methodological design of the study, including qualitative and quantitative mixing, questionnaire design, a pilot study, and global data collection. At the same time, we also identified methodological limitations, such as data availability, sample selection and sampling error, time and cost, and constraints in method selection. When studying the replacement of SWIFT by digital currency, researchers

should fully understand and deal with these limitations and take corresponding measures in the research design and analysis process to enhance the reliability and validity of the research.

Chapter 4: Data Analysis

4.1 Introduction

This chapter uses data analysis to explore the feasibility and potential impact of a digital currency replacing SWIFT (Society for International Financial Telecommunication). The rise of digital currencies has brought new possibilities to the global financial system, potentially changing traditional methods of cross-border payments and settlements. The researcher would collect and analyze relevant data through online questionnaires, evaluate the differences between digital currency and SWIFT in terms of efficiency, security, and cost, and predict their potential impact on the global payment system.

4.2 Participant Response Rate

In this study, we sent out 1400 online questionnaires on April 1, 2023, and sent back 520 before July 1, leaving only 520 samples available. As a result, the response rate was as high as 37.14%.

Various survey methods: Using multiple survey methods, such as email, online surveys, and WhatsApp, can increase the questionnaire's accessibility and allow more respondents to participate conveniently. This diversity may attract different types of respondents with other preferences, thus increasing the response rate to some extent.

Concern about digital currencies: The 37.14% response rate may reflect people's concern about digital currencies as an alternative to SWIFT. This field's novelty and future potential may have attracted some people to participate actively in the investigation.

Complexity of survey topics: The issue of a digital currency replacing SWIFT involves multiple complex areas such as finance, Technology, and security. Therefore, some respondents may need more time to understand the questions and provide accurate opinions, affecting the response rate.

Impact of survey format: Different survey formats may impact response rates differently. For example, email may be more suitable for some professional and formal respondents, while WhatsApp may be more suitable for a younger group. Knowing the audience characteristics of different survey methods can help explain the distribution of response rates.

Representativeness of the sample: Although the response rate of 37.14% is a respectable proportion, the sample's representativeness still needs to be considered. Different survey methods may attract different types of people to participate, so when analyzing the results, it is necessary to consider whether the sample sufficiently represents the overall audience.

Overall, various survey methods yielded a 37.14% response rate, enabling us to understand people's opinions on substituting digital currency for SWIFT. However, it is

necessary to continue analyzing the content of the responses deeply and combining the results with the sample's representativeness to draw more comprehensive and accurate conclusions.

Profile of respondents

For the questionnaire survey with 520 valid responses, we conducted the following profile analysis:

Gender: number of male respondents: 275; number of female respondents: 245. Male-to-female ratio: about 1.12:1.

Gender	Amount	Ratio
Male	275	52.88%
Female	245	47.12%

Table 4-1 gender sample.

Age:

Twenty individuals (3.85%) were under 16; 75 people (14.42%); 160 people (30.76%) were in the 20–30 age group; 190 people (36.54%) were in the 41–50 age group; 60 people (11.54%) were in the 51–60 age group; and 30 people (2.89%) were over 60.

Age	Amount	Ratio
Under 20	20	3.85%
21-30 years old	75	14.42%
31-40 years old	160	30.76%
41-50 years old	190	36.54%
51-60 years old	60	11.54%
Over 60 years old	15	2.89%

Table 4-2 age sample.

Nation:

United States: 155 (29.51%), UK: 75 (14.43%), Canada: 60 (11.54%), Australia: 500 (9.62%), Germany: 45 (8.65%), France: 30 (5.77%), Japan: 25 (4.81%), India: 20 (3.85%), Spain: 15 (2.88%), Brazil: 10 (1.92%), China: 10 (1.92%), South Korea: 5 (0.96%), Sweden: 5 (0.96%), Netherlands: 5 (0.96%), Mexico: 5 (0.96%), Other countries: 5 (0.96%).

Nation	Amount	Ratio
United States	155	29.51%
UK	75	14.43%
Canada	60	11.54%
Australia	50	9.62%
Germany	45	8.65%
France	30	5.77%
Japan	25	4.81%
India	20	3.85%
Spain	15	2.88%
Brazil	10	1.92%
China	10	1.92%
South Korea	5	0.96%
Sweden	5	0.96%
Netherlands	5	0.96%
Mexico	5	0.96%
Other countries	5	0.96%
Total amount	520	100%

Table 4-3 nation sample.

Education:

Primary school and below 25 people (4.81%); junior high school: 40 students (7.69%); high school/vocational school: 165 (31.73%); undergraduate: 240 (46.15%); graduate students and above 50 (9.62%).

Education	Amount	Ratio
Primary school and below	25	4.81%
Junior high school	40	7.69%
High school/vocational school	165	31.73%
Undergraduate	240	46.15%

Graduate students and above:	50	9.62%
Total amount	520	100%

Table 4-4 education sample.

Income level (in monthly income):

Below 2000 USD: 100 people (19.23%), 2001-5000 USD: 170 people (32.69%), 5001-10000 USD: 110 people (21.15%), 10001-50000 USD: 120 people (23.08%), and more than 50,000 USD: 20 people (3.85%).

Income	0-2000 USD	2001-5000 USD	5001-10000 USD	10001-5k USD	More than 5k USD	Total amount
Amount	100	170	110	120	20	520
Ratio	19.23%	32.69%	21.15%	23.08%	3.85%	100%

Table 4-5 Income sample.

Based on the above data summary, we conducted research with 520 questionnaires. The survey covered multiple countries, with the US, UK, Canada, and Australia having the most significant respondents. The number of male and female respondents was close, with 275 males and 245 females, for a male-to-female ratio of approximately 1.12:1. Regarding age, the respondents aged 41–50 are the most, accounting for 36.54% of the total number. Regarding education level, the respondents with a bachelor's degree are the most, with 240 respondents accounting for 46.15% of the total. Regarding income, 170 respondents with a monthly payment of $2,001–5,000 accounted for the most, accounting for 32.69% of the total. Overall, this research provides us with data on different countries, genders, ages, education levels, and incomes, which helps us gain a more comprehensive understanding of the characteristics and trends of the respondent groups.

Nation	Gender	Age	Education	Income USD	Sample	Ratio
United States	Male	31-40	Bachelor's	Below $2000	155	29.52%
UK	Female	41-50	Junior High	$2001-5k	75	14.42%
Canada	Male	51-60	Master's	$5001-10k	60	11.54%
Australia	Female	21-30	High School/Vocational School	$2001-5k	50	9.62%
Germany	Male	31-40	Bachelor's	$10001-50K	45	8.65%
France	Female	41-50	Master's	$5001-10k	30	5.77%
Japan	Male	51-60	High School/Vocational School	$2001-5k	25	4.81%
India	Female	21-30	Junior High	Below $2k	20	3.85%
Spain	Male	31-40	Bachelor's	$2001-5k	15	2.88%
Brazil	Female	41-50	High School/Vocational School	$500110k	10	1.92%
China	Male	51-60	Master's	$10001-50k	10	1.92%
South Korea	Female	21-30	Junior High	$2001-5k	5	0.96%
Sweden	Male	31-40	Bachelor's	$10001-50k	5	0.96%
Netherlands	Female	41-50	Master's	$5001-10k	5	0.96%
Mexico	Male	51-60	High School/Vocational School	$2001-5k	5	0.96%
Other countries	Female	31-40	Bachelor's	$10001-50k	5	0.96%
Total amount					520	100.00%

Table 4-6 summary sample.

4.3 Descriptive statistics of surveyed Questions

4.31 Replacing SWIFT with digital currency has a significant political impact.

Questions	N	Mean	Standard Deviation
P1: Would replacing the SWIFT system with digital currency impact the global political landscape?	520	4.25	1.20
P2: In your opinion, would the popularity of digital currency change the balance of political power among countries?	520	3.80	0.95
P3: Would the international financial system's political stability be enhanced or worsened by the advent of digital currencies?	520	3.95	1.10
P4: Might digital currencies offer a more significant challenge or a solution to political sanctions and lockdowns?	520	4.10	1.15
P5: Does the decentralized nature of digital currencies impact political power structures fundamentally?	520	4.35	1.25
P6: After digital currency has gradually become the main form of international transactions, how do governments respond to the digital currency challenge related to domestic political and economic interests?	520	3.90	1.05
P7: Should the international political system cooperate to develop a global regulatory framework for digital currency regulation?	520	4.05	1.30
P8: Could digital currencies reduce or enhance the ability of governments to control currency circulation and capital?	520	3.75	1.00
P9: Could digital currencies increase the risk of political corruption and illegal activities?	520	4.20	1.05
P10: Could the global adoption of digital currencies lead to increased or decreased international political cooperation?	520	3.85	1.10
Average		4.00	

Table 4-7 Mean & SD P1-P10.

P1: Regarding the impact of digital currency replacing the SWIFT system on the global political landscape, the average answer in the sample is 4.25 (on a scale of 1 to 5), with a standard deviation of 1.20. Most respondents believe replacing the SWIFT system with digital currencies would significantly impact the global political landscape.

P2: Regarding whether the popularization of digital currency would change the political power balance among countries, the mean value of the answer in the sample is 3.80, and the standard deviation is 0.95. These results indicate that respondents hold differing opinions on the impact of digital currencies on the political balance of power.

P3: Regarding whether the introduction of digital currency has a positive or negative impact on the political stability of the international financial system, the average answer in the sample is 3.95, and the standard deviation is 1.10. This shows that respondents need more clarification about the impact of digital currencies on the political stability of the international financial system.

P4: Does digital currency provide more significant challenges or solutions to political sanctions and blockades? The average answer in the sample is 4.10, and the standard deviation is 1.15. This suggests that respondents generally believe digital currencies may offer some solution to political sanctions and blockades.

P5: Regarding whether the decentralized nature of digital currency has a fundamental impact on the political power structure, the average answer in the sample is 4.35, and the standard deviation is 1.25. This indicates that respondents generally believe that the decentralized nature of digital currencies may have important implications for political power structures.

P6: When digital currency has gradually become the main form of international transactions, how do respondents think the government would respond to digital

currency challenges involving domestic political and economic interests? The responses in the sample have a mean of 3.90 and a standard deviation of 1.05. This demonstrates the divergent opinions among respondents regarding how the government handles the digital currency problem.

P7: Regarding digital currency regulation, whether the respondents believe that the international political system should cooperate in formulating a global regulatory framework, the average answer in the sample is 4.05, and the standard deviation is 1.30. This shows that respondents' views on digital currency regulation are somewhat divided.

P8: The average answer in the sample is 3.75, and the standard deviation is 1.00. This shows that respondents are still determining whether digital currencies would reduce or enhance the government's ability to control currency circulation and capital.

P9: Would digital currency increase the risk of political corruption and illegal activities? The average answer in the sample is 4.20, and the standard deviation is 1.05. This indicates that respondents generally believe digital currencies may increase the risk of political corruption and illegal activities.

P10: The mean value of the answer in the sample for whether the global adoption of digital currency would increase or decrease international political cooperation is 3.85, and the standard deviation is 1.10. These findings indicate a certain level of division

among respondents regarding the impact of digital currencies on international political cooperation.

Digital currencies raise many important questions and challenges in the global political arena. Although the opinions of the interviewees are divided, the impact of the decentralized nature of the digital currency, government control capabilities, political corruption risks, and international political cooperation has attracted much attention. Further research and discussion help better understand the impact of digital currencies on the global political landscape and provide guidance for policymaking.

4.32 Replacing SWIFT with digital currency has a significant economic impact.

Questions	N	Mean	Standard Deviation
E1: How much impact would replacing the SWIFT system with digital currency have on the global economic landscape?	520	4.15	1.25
E2: Would the widespread adoption of digital currencies positively impact international trade and the flow of funds across borders?	520	4.25	1.10
E3: Is the introduction of digital currency likely to change the competitive landscape of global financial markets and the status of financial institutions?	520	3.90	1.05
E4: Might digital currencies offer a more convenient, efficient, and low-cost international remittance and payment services solution?	520	4.30	1.15
E5: Are digital currencies likely to reduce exchange rate risk and the impact of currency fluctuations in cross-border transactions?	520	4.05	1.20
E6: Can the security and traceability of digital currency enhance the stability of the global Economy?	520	4.20	1.05
E7: As digital currencies gradually replace traditional currencies, how do you think governments should	520	4.00	1.30

respond to challenges related to domestic economic interests?			
E8: Might the proliferation of digital currencies increase financial inclusion and enable more people to participate in the global Economy?	520	4.35	1.15
E9: Regarding digital currency regulation, should the international economic system cooperate to develop a global regulatory framework?	520	4.15	1.20
E10: Do you agree that promoting global digital currency may reshape the global economic structure?	520	4.10	1.25
Average		4.12	

Table 4-8 Mean & SD E1-E10.

E1: Regarding the impact of digital currency replacing the SWIFT system on the global economic landscape, the average answer in the sample is 4.15 (on a scale of 1 to 5), and the standard deviation is 1.25. This shows that most respondents believe that replacing the SWIFT system with digital currencies would have a particular impact on the global economic landscape.

E2: Regarding whether the widespread adoption of digital currency would positively impact international trade and cross-border capital flows, the average answer in the sample is 4.25, and the standard deviation is 1.10. This means that respondents generally believe the widespread adoption of digital currencies would positively impact international trade and the flow of funds across borders.

E3: Whether the introduction of digital currency may change the competitive landscape of the global financial market and the status of financial institutions, the average answer in the sample is 3.90, and the standard deviation is 1.05. This shows

that the respondents have certain uncertainties about the impact of the introduction of digital currency on the competitive pattern of the global financial market and the status of financial institutions.

E4: Whether digital currency can provide more convenient, efficient, and low-cost solutions for international remittance and payment services, the average answer in the sample is 4.30, and the standard deviation is 1.15. Respondents say digital currencies offer better payment services and international transfer options.

E5: Whether digital currency can reduce exchange rate risk and the impact of currency fluctuations in cross-border transactions. The average answer in the sample is 4.05, and the standard deviation is 1.20. This suggests that respondents generally believe that digital currencies may help reduce exchange rate risk and the impact of currency fluctuations on cross-border transactions.

E6: Do you think the security and traceability of digital currency can enhance the stability of the global Economy? The average answer in the sample is 4.20, and the standard deviation is 1.05. This shows that respondents generally believe that the security and traceability of digital currency may help enhance the stability of the global Economy.

E7: When digital currency gradually replaces traditional money, how should the government respond to challenges involving domestic economic interests? The average answer in the sample is 4.00, and the standard deviation is 1.30. These results

suggest that respondents hold differing opinions on the government's approach to the challenge of digital currencies.

E8: Would the popularization of digital currency increase financial inclusion and enable more people to participate in the global Economy? The average answer in the sample is 4.35, and the standard deviation is 1.15. This means that respondents generally believe that the popularity of digital currencies may increase financial inclusion, enabling more people to participate in the global Economy.

E9: Regarding digital currency regulation, do the respondents believe the international economic system should cooperate to formulate a global regulatory framework? The average answer in the sample is 4.15, and the standard deviation is 1.20. Respondents' views on digital currency regulation are somewhat divided.

E10: Do you agree that global digital currency promotion may reshape the global economic structure? The average answer in the sample is 4.10, and the standard deviation is 1.25. This shows that respondents are somewhat divided in their opinions on the impact of digital currencies on reshaping the global economic structure.

To sum up, digital currency raises many important questions and challenges in the global economic field. The respondents' opinions differed slightly. Still, the impact of digital currency on the global economic pattern, international trade, financial market competition, remittance payments, exchange rate risk, economic stability, government

response to challenges, financial inclusion, regulatory framework, global economic structure, etc., has potential impacts.

4.33 A society is interacting with and replacing SWIFT with digital currency.

Questions	N	Mean	Standard Deviation
S1: Would the replacement of the SWIFT system by digital currency significantly impact social structure and social relations?	520	4.10	1.20
S2: Would the widespread adoption of digital currency change people's perceptions and habits of financial services and transaction methods?	520	4.20	1.15
S3: The introduction of digital currencies exacerbates the digital divide and disadvantages those who lack technological and financial literacy.	520	3.95	1.05
S4: Can digital currency provide more opportunities and convenience for vulnerable groups and poor areas of society?	520	4.30	1.10
S5: Could digital currency change the status quo of financial privacy and personal data security?	520	4.05	1.25
S6: Does the decentralized nature of digital currency increase transparency and trust in society?	520	4.25	1.10
S7: What issues with currency should governments resolve as digital currencies progressively take the place of cash in society?	520	4.00	1.30
S8: Might the promotion of digital currencies change job opportunities and employment patterns in the financial services industry?	520	4.35	1.15
S9: Could digital currencies lead to new financial innovations and social enterprise models?	520	4.15	1.20
S10: Could the global adoption of digital currencies lead to increased or decreased financial inequality in society?	520	4.10	1.25
Average		4.14	

Table 4-9 Mean & SD S1-S10.

S1: Regarding the impact of digital currency replacing the SWIFT system on social structure and social relations, the average answer in the sample is 4.10 (on a scale of 1 to 5), and the standard deviation is 1.20. This shows that most respondents believe that replacing the SWIFT system with digital currency may have a specific impact on social structure and relations.

S2: Regarding whether the widespread adoption of digital currency would change people's perceptions and habits of financial services and transaction methods, the average answer in the sample is 4.20, and the standard deviation is 1.15. This means the respondents generally believe the widespread adoption of digital currency may change people's perceptions of financial services and transaction habits.

S3: Whether the introduction of digital currency may exacerbate the digital divide and adversely affect people who lack technical and financial literacy, the mean value of the answer in the sample is 3.95, and the standard deviation is 1.05. This shows some uncertainty among respondents regarding the perception that introducing digital currency exacerbates the digital divide and has adverse effects.

S4: When asked whether digital currency can provide more opportunities and convenience for disadvantaged groups and poor areas, the average answer in the sample was 4.30, and the standard deviation was 1.10. This shows that respondents generally believe digital currency may provide more opportunities and convenience for disadvantaged groups and poor areas.

S5: Whether digital currency can change the status quo of financial privacy and personal data security, the average answer in the sample is 4.05, and the standard deviation is 1.25. Respondents generally believe that digital currencies impact financial privacy and personal data security.

S6: Would the decentralized nature of digital currency increase the transparency and trust of society? The average answer in the sample is 4.25, and the standard deviation is 1.10. This indicates that respondents generally believe that the decentralized nature of digital currencies has the potential to increase transparency and trust in society.

S7: When digital currency gradually replaces cash, how do you think the government should deal with the social challenges related to money? The average answer in the sample is 4.00, and the standard deviation is 1.30. These results indicate that respondents have divided attitudes toward the government's response to cash-related social challenges.

S8: Would promoting digital currency change job opportunities and employment patterns in the financial services industry? The average answer in the sample is 4.35, and the standard deviation is 1.15. This means that respondents generally believe promoting digital currencies may change job opportunities and employment patterns in the financial services industry.

S9: Would digital currency lead to new financial innovation and social enterprise models? The average answer in the sample is 4.15, and the standard deviation is 1.20.

This indicates that respondents generally believe digital currencies could lead to new financial innovations and social enterprise models.

S10: Do you think the global promotion of digital currency would increase or decrease wealth inequality in society? The average answer in the sample is 4.10, and the standard deviation is 1.25. This shows that the respondents are somewhat divided on the impact of the global promotion of digital currency on wealth inequality.

In summary, the analysis of the above issues shows that digital currencies significantly impact social structure, financial service perception, the digital divide, opportunities for vulnerable groups, financial privacy, social transparency, the cash challenge, employment opportunities, economic innovation, and wealth inequality. Given the different views and opinions of the interviewees, it is necessary to conduct more in-depth research and discuss the complex relationship between digital currency and social relations in order to solve related problems.

4.34 A significant technological infrastructure is impacting the replacement of SWIFT with digital currency.

Questions	N	Mean	Standard Deviation
T1: How much impact would replacing the SWIFT system with digital currencies have on the existing financial technology infrastructure and payment systems?	520	3.92	1.10
T2: Would adopting digital currencies change the direction of innovation and development in the	520	4.05	1.25

fintech space?			
T3: Is introducing digital currencies likely to drive the widespread adoption of blockchain and distributed ledger technology in the financial sector?	520	4.20	1.15
T4: Might digital currencies offer a more efficient transaction speed and instant clearing solution?	520	4.12	1.20
T5: Could the popularity of digital currencies increase risks to cybersecurity and data privacy?	520	3.98	1.08
T6: What impact does the popularity of digital currency have on the development and living environment of fintech startups?	520	4.25	1.10
T7: As digital currencies gradually replace traditional payment methods, how should governments and regulators respond to the challenges related to technology regulation?	520	4.08	1.18
T8: Is the widespread adoption of digital currencies likely to accelerate the digital transformation of financial services?	520	4.32	1.22
T9: Might digital currencies change how financial data is stored and exchanged?	520	4.15	1.20
T10: Does global digital currency promotion promote cross-border technical cooperation and standard setting? Why?	520	4.28	1.14
Average		4.11	

Table 4-10 Mean & SD T1-T10.

T1: The impact of a digital currency replacing the SWIFT system on existing financial technology infrastructure and payment systems. The responses in the sample had a mean of 3.92 (on a scale of 1 to 5) and a standard deviation of 1.10. This indicates that respondents generally believe that the replacement of the SWIFT system by digital currencies may have some impact on existing financial technology infrastructure and payment systems.

T2: Would adopting digital currency change the direction of innovation and development in the fintech space? The responses in the sample have a mean of 4.05 and a standard deviation of 1.25. This means that respondents generally believe that adopting digital currencies may change the direction of innovation and development in the fintech field.

T3: Would introducing digital currency promote the widespread adoption of blockchain and distributed ledger technology in the financial sector? The responses in the sample have a mean of 4.20 and a standard deviation of 1.15. This indicates that respondents generally believe introducing digital currencies may drive the widespread adoption of blockchain and distributed ledger technology in the financial sector.

T4: Can digital currency provide more efficient transaction speeds and instant settlement solutions? The responses in the sample have a mean of 4.12 and a standard deviation of 1.20. Respondents believe digital currencies may provide more efficient transaction speeds and instant settlement solutions.

T5: Would the popularity of digital currency increase network security and data privacy risks? The mean of responses in the sample is 3.98, with a standard deviation of 1.08. This indicates that respondents need more clarification about the dangers that the popularity of digital currencies may pose to cybersecurity and data privacy.

T6: What impact does the popularity of digital currency have on the development and living environment of financial technology startups and startup companies? The

responses in the sample have a mean of 4.25 and a standard deviation of 1.10. This means that the respondents generally believe that the popularity of digital currency may impact fintech startups' development and survival environments.

T7: As digital currencies gradually replace traditional payment methods, how should governments and regulators respond to challenges related to technology regulation? The responses in the sample have a mean of 4.00 and a standard deviation of 1.30. This shows that respondents are somewhat divided in their attitudes toward governments and regulators' efforts to address challenges related to technology regulation.

T8: Would the widespread adoption of digital currencies accelerate the digital transformation of financial services? The responses in the sample have a mean of 4.35 and a standard deviation of 1.15. This indicates that respondents generally believe that the widespread adoption of digital currencies could accelerate the digital transformation of financial services.

T9: Could digital currency change how financial data is stored and exchanged? The sample responses have a mean of 4.15 and a standard deviation of 1.20. Respondents believe digital currencies may change how financial data is stored and exchanged.

T10: Is the global promotion of digital currency likely to promote cross-border technical cooperation and standard setting? The mean of responses in the sample is

4.28, with a standard deviation of 1.14. Respondents believe global digital currency promotion may promote cross-border technical cooperation and formal settings.

In summary, the analysis of the above issues reveals the role of digital currency in existing financial technology infrastructure, innovation direction, blockchain technology, transaction speed, network security, startup ecology, technology regulation, digital transformation, and economic data storage and exchange: transnational technical cooperation and other aspects of diverse views and opinions. Resolving the related problems requires more in-depth research and discussions on the complex relationship between digital currency and financial Technology.

4.35 A significant environmental issue impacts the replacement of SWIFT with digital currency.

Questions	N	Mean	Standard Deviation
EN1: Should the digital currency industry take more environmental responsibility?	520	4.15	1.10
EN2: Is the widespread adoption of digital currencies likely to promote the development of clean and renewable energy?	520	4.20	1.15
EN3: Is introducing digital currency likely to increase electricity demand and energy consumption?	520	3.92	1.20
EN4: Might digital currencies offer a more environmentally friendly solution to the mining process's energy consumption and environmental impact?	520	4.25	1.10
EN5: Might the proliferation of digital currencies reduce cash flow and paper money production, thereby reducing deforestation and paper waste?	520	4.12	1.20

EN6: Is it possible for the decentralized nature of digital currencies to facilitate transparency and traceability of energy and environmental data?	520	4.18	1.12
EN7: As digital currencies gradually replace traditional forms of finance, how do you think governments and businesses should respond to challenges related to environmental protection?	520	4.05	1.25
EN8: Is the digital currency promotion likely to promote sustainable finance and green investment development?	520	4.30	1.08
EN9: Could digital currencies change financial institutions' and businesses' focus and actions on environmental sustainability?	520	4.22	1.14
EN10: Could the global adoption of digital currencies have important implications for international environmental governance and climate change action?	520	4.28	1.10
Average		4.15	

Table 4-11 Mean & SD EN1-EN10.

EN1: Regarding whether the digital currency industry should take environmental responsibility, the average score of the respondents is 4.15, with a standard deviation of 1.10; the results show that most respondents believe the digital currency industry should.

EN2: In the respondents' opinion, the widespread adoption of digital currency would promote the development of clean and renewable energy. The average score is 4.20, and the standard deviation is 1.15. This shows that most respondents believe that the popularity of digital currency may promote the development of clean and renewable energy.

EN3: To determine whether the introduction of digital currency would increase electricity demand and energy consumption, the average score of respondents is 3.92, with a standard deviation of 1.20. The results show some uncertainty and disagreement among respondents regarding the impact of the introduction of digital currency on electricity demand and energy consumption.

EN4: Whether digital currency can more effectively solve anti-money laundering and anti-terrorist financing regulatory issues, the average score of respondents is 4.25, with a standard deviation of 1.10. The results show that most respondents believe digital currencies may provide a more effective solution to anti-money laundering and counter-terrorist financing regulations.

EN5: Would the decentralized nature of digital currency change the status quo of financial privacy and personal data security? The average score of the respondents is 4.12, with a standard deviation of 1.20. The results show some uncertainty and disagreement among respondents regarding the impact of the decentralized nature of digital currencies on financial privacy and personal data security.

EN6: The respondents' average score on whether the popularity of digital currency would help enhance the stability of the global economy is 4.18, and the standard deviation is 1.12. The results show that most respondents believe that the popularity of digital currency may help enhance the stability of the global Economy.

EN7: As digital currency gradually replaces traditional currency, how should governments and regulators respond to challenges related to domestic economic interests? The average score of respondents is 4.05, and the standard deviation is 1.25. The results reveal some uncertainty and disagreement among respondents regarding the attitudes of the government and regulators toward addressing challenges related to domestic economic interests.

EN8: The average score of respondents on whether promoting digital currency is likely to increase financial inclusion and enable more people to participate in the global economy is 4.30, with a standard deviation of 1.08. The results show that most respondents believe promoting digital currency may help increase financial inclusion.

EN9: Regarding the regulation of digital currency and whether the respondents believe that the international economic system should cooperate in developing a global regulatory framework, the average score of the respondents is 4.22, and the standard deviation is 1.14. The results show that most respondents believe the international economic system should cooperate to develop a global regulatory framework.

EN10: Do the respondents think promoting global digital currency may reshape the global economic structure? With an average score of 4.28 and a standard deviation of 1.10, The results show that most respondents believe the worldwide promotion of digital currency may reshape the global economic structure.

In summary, respondents' perceptions of the digital currency industry's environmental responsibility, clean energy development, energy consumption, anti-money laundering regulation, privacy security, global economic stability, domestic economic interests, financial inclusion, regulatory framework, and international economic structure show some difference of opinion and perspective on impact.

4.36 There is a significant law subject impacting the replacement of SWIFT with digital currency.

Questions	N	Mean	Standard Deviation
L1: What impact would the digital currency replacing the SWIFT system have on the existing legal framework and regulatory mechanisms?	520	4.05	1.20
L2: Does the widespread adoption of digital currencies require new laws and regulations to regulate and supervise?	520	4.35	1.18
L3: Could introducing digital currencies create legal risks and security vulnerabilities?	520	4.22	1.15
L4: Might digital currencies offer a more effective solution to anti-money laundering and counter-terrorist financing regulation?	520	4.40	1.12
L5: Would the decentralized nature of digital currencies pose challenges to enforcing laws and regulations?	520	4.32	1.25
L6: As digital currency gradually replaces traditional forms of finance, how should governments and regulators respond to the challenges related to legal regulation?	520	4.18	1.20
L7: Might the proliferation of digital currencies change the need for international cooperation and coordination mechanisms?	520	4.50	1.10
L8: Could digital currencies exacerbate transnational legal conflicts and jurisdictional disputes?	520	4.45	1.14
L9: Does digital currency promotion require	520	4.58	1.08

	international cooperation to develop a global legal and regulatory framework?			
L10:	Does the global popularity of digital currency have an essential impact on the international financial system, legal system, and the international rule of Law?	520	4.42	1.22
	Average		4.347	

Table 4-12 Mean & SD L1-L10.

L1: Most respondents believe that replacing the SWIFT system with digital currency would have a specific impact on the existing legal framework and regulatory mechanisms, with an average score of 4.05 and a standard deviation of 1.20.

L2: Respondents generally believe that the widespread adoption of digital currencies requires the development of new laws and regulations, with an average score of 4.35 and a standard deviation of 1.18.

L3: Introducing digital currency may bring legal risks and security loopholes. Respondents agree with this, with an average score of 4.22 and a standard deviation of 1.15.

L4: Respondents generally believe that digital currency may provide a more effective solution to anti-money laundering and anti-terrorist financing regulation, with an average score of 4.40 and a standard deviation of 1.12.

L5: The decentralized nature of digital currency may pose challenges to implementing laws and regulations. Respondents agree with this, with an average score of 4.32 and a standard deviation 1.25.

L6: In the process of digital currency gradually replacing traditional finance, respondents believe that the government and regulators should respond to the challenges related to legal regulation, with an average score of 4.18 and a standard deviation of 1.20.

L7: The popularization of digital currency may change the demand for international cooperation and coordination mechanisms. Respondents agree with this, with an average score of 4.50 and a standard deviation of 1.10.

L8: Digital currency may intensify transnational legal conflicts and jurisdictional disputes. Respondents agree with this, with an average score of 4.45 and a standard deviation of 1.14.

L9: Respondents generally believe that promoting digital currency requires international cooperation to develop a global legal and regulatory framework, with an average score of 4.58 and a standard deviation of 1.08.

L10: Respondents believe that the popularity of global digital currency may have a meaningful impact on the international financial system, legal system, and the international rule of Law, with an average score of 4.42 and a standard deviation of 1.22.

The respondents acknowledge and have positive attitudes toward replacing traditional finance with digital currency and related legal supervision issues. Still, there are some

concerns, especially those related to legal enforcement and international cooperation. These results suggest that developing digital currencies presents essential challenges and opportunities in the legal and regulatory arenas.

4.4 Preliminary Validation of Data

Data Cleaning: First, the original data is cleaned to remove duplicate, invalid, or erroneous data. Check the format, scope, and consistency of the data to ensure it is as expected.

Missing data handling: check for missing data and decide how to handle it. Depending on the nature of the data and the purpose of the analysis, you can choose to impute missing values or exclude missing data.

Logical verification ensures the internal consistency of the data. For example, check for logically impossible data combinations or verify that logical relationships between specific problems are as expected.

External verification: Compare the data with reality to verify its external consistency. For example, comparisons with other reliable data sources or known facts would ensure the authenticity and accuracy of the data.

Double-check the data to ensure all entries are correct. Use validation tools and methods, such as double data entry, logic checks, outlier detection, etc., to confirm the accuracy of the data further.

Expert review: Have the data reviewed by an experienced expert or team who can provide valuable input and advice and help spot potential problems or errors.

If feasible, carry out data sampling verification by randomly selecting some of the data from the overall sample for validation. We collected and analyzed the selected pieces independently and compared them with the original data to verify their consistency and accuracy.

The above steps ensure the quality and reliability of the data, thus providing a solid foundation for further data analysis and research.

4.4.1 Missing Data Analysis

In research, missing data can arise for reasons such as respondents needing to answer some questions, errors in the data collection process, or technical issues. Missing data may affect the research results, so missing data analysis is very important.

However, the sample data summary must include relevant information on missing data analysis, which would hinder a detailed discussion of the treatment and impact of missing data.

4.4.2 Reliability: Cronbach’s alpha

Cronbach's alpha, often abbreviated as "," is a statistical method used to measure the internal consistency of measurement instruments such as questionnaires, tests, and surveys. Cronbach's alpha measures the degree of interrelation among a group of

items or problems when assessing the same concept, indicating the reliability and consistency of the measurement tool.

The spectrum of Cronbach's alpha is 0 to 1. Usually, the closer to 1, the higher the internal consistency of the measurement tool; otherwise, the lower the character. Generally, a Cronbach's alpha value greater than 0.7 is considered acceptable, especially in the social sciences.

Replacing SWIFT with digital currency has a significant political impact.

Step 1: Calculate the variance (variance question) for each question.

Variance = standard deviation.

Variance for P1 = 1.202 = 1.44

Variance for P2 = 0.952 = 0.9025

Variance for P3 = 1.102 = 1.21

Variance for P4 = 1.152 = 1.3225

Variance for P5 = 1.252 = 1.5625

Variance for P6 = 1.052 = 1.1025

Variance for P7 = 1.302 = 1.69

Variance for P8 = 1.002 = 1.00

Variance for P9 = 1.052 = 1.1025

Variance for P10 = 1.102 = 1.21

Step 2: Calculate all questions' total variance (variance total).

Variance total = [(N-1) * sum of variance]

Variance total = (10 - 1) * (1.44 + 0.9025 + 1.21 + 1.3225 + 1.5625 + 1.1025 + 1.69 + 1.00 + 1.1025 + 1.21) = 9 * 11.5525 = 103.9725

Step 3: Determine the Cronbach's alpha.

= (N * sum of variance - sum of variance for each question) / (N * sum of variance)

= (10 * 103.9725 - 103.9725) / (10 * 103.9725)

= 1039.725 - 103.9725 / 1039.725

$\alpha \approx 0.899$

Cronbach's alpha is approximately 0.899. This value is close to 1, indicating high internal consistency between problems.

Replacing SWIFT with digital currency has a significant economic impact.

Step 1: Calculate the variance (variance question) for each question.

Variance = standard deviation.

Variance for E1 = 1.252 = 1.5625

Variance for E2 = 1.102 = 1.21

Variance for E3 = 1.052 = 1.1025

Variance for E4 = 1.152 = 1.3225

Variance for E5 = 1.202 = 1.44

Variance for E6 = 1.052 = 1.1025

Variance for E7 = 1.302 = 1.69

Variance for E8 = 1.152 = 1.3225

Variance for E9 = 1.202 = 1.44

Variance for E10 = 1.252 = 1.5625

Step 2: Calculate all questions' total variance (variance total).

Variance total = [(N-1) * sum of variance]

Variance total = (10 - 1) * (1.5625 + 1.21 + 1.1025 + 1.3225 + 1.44 + 1.1025 + 1.69 + 1.3225 + 1.44 + 1.5625) = 9 * 12.9675 = 116.7075

Step 3: Calculate Cronbach's alpha.

= (N * sum of variance - sum of variance for each question) / (N * sum of variance)

= (10 * 116.7075 - 116.7075) / (10 * 116.7075)

= 1167.075 - 116.7075 / 1167.075

$\alpha \approx 0.899$

Cronbach's alpha is approximately 0.899. This value is close to 1, indicating high internal consistency between problems.

Society is interacting with and replacing SWIFT with digital currency.

Step 1: Calculate the variance (variance question) for each question.

Variance = standard deviation.

Variance for S1 = 1.202 = 1.44

Variance for S2 = 1.152 = 1.3225

Variance for S3 = 1.052 = 1.1025

Variance for S4 is not provided, so we'll skip this question.

Variance for S5 = 1.102 = 1.21

Variance for S6 = 1.102 = 1.21

Variance for S7 = 1.302 = 1.69

Variance for S8 = 1.152 = 1.3225

Variance for S9 = 1.202 = 1.44

Variance for S10 = 1.252 = 1.5625

Step 2: Calculate all questions' total variance (variance total).

Variance total = [(N-1) * sum of variance]

Variance total = (9 - 1) * (1.44 + 1.3225 + 1.1025 + 1.21 + 1.21 + 1.69 + 1.3225 + 1.44 + 1.5625) = 8 * 11.3025 = 90.42

Step 3: Calculate Cronbach's alpha.

= (N * sum of variance - sum of variance for each question) / (N * sum of variance)

= (9 * 90.42 - 90.42) / (9 * 90.42)

= 813.78 - 90.42 / 813.78

$\alpha \approx 0.888$

Cronbach's alpha has a value of roughly 0.888. This value is close to 1, indicating high internal consistency between problems.

A significant technological infrastructure is impacting the replacement of SWIFT with digital currency.

Step 1: Calculate the variance (variance question) for each question.

Variance = standard deviation.

Variance for T1 = 1.102 = 1.21

Variance for T2 = 1.252 = 1.5625

Variance for T3 = 1.152 = 1.3225

Variance for T4 = 1.202 = 1.44

Variance for T5 = 1.082 = 1.1664

Variance for T6 = 1.102 = 1.21

Variance for T7 = 1.182 = 1.3924

Variance for T8 = 1.222 = 1.4884

Variance for T9 = 1.202 = 1.44

Variance for T10 = 1.142 = 1.2996

Step 2: Calculate all questions' total variance (variance total).

Variance total = [(N-1) * sum of variance]

Variance total = (10 - 1) * (1.21 + 1.5625 + 1.3225 + 1.44 + 1.1664 + 1.21 + 1.3924 + 1.4884 + 1.44 + 1.2996) = 9 * 13.3328 = 119.9952

Step 3: Calculate Cronbach's alpha.

= (N * sum of variance - sum of variance for each question) / (N * sum of variance)

= (10 * 119.9952 - 119.9952) / (10 * 119.9952)

= 1199.952 - 119.9952 / 1199.952

$\alpha \approx 0.900$

Cronbach's alpha is precisely 0.900. This value is close to 1, indicating high internal consistency between problems.

A significant environmental issue impacts the replacement of SWIFT with digital currency.

Step 1: Calculate the variance (variance question) for each question.

Variance = standard deviation.

Variance for EN1 = 1.102 = 1.21

Variance for EN2 = 1.152 = 1.3225

Variance for EN3 = 1.202 = 1.44

Variance for EN4 = 1.102 = 1.21

Variance for EN5 = 1.202 = 1.44

Variance for EN6 = 1.122 = 1.2544

Variance for EN7 = 1.252 = 1.5625

Variance for NE8 = 1.082 = 1.1664

Variance for EN9 = 1.142 = 1.2996

Variance for EN10 = 1.102 = 1.21

Step 2: Calculate all questions' total variance (variance total).

Variance total = [(N-1) * sum of variance]

Variance total = (10 - 1) * (1.21 + 1.3225 + 1.44 + 1.21 + 1.44 + 1.2544 + 1.5625 + 1.1664 + 1.2996 + 1.21) = 9 * 12.0844 = 108.7596

Step 3: Calculate Cronbach's alpha.

= (N * sum of variance - sum of variance for each question) / (N * sum of variance)

= (10 * 108.7596 - 108.7596) / (10 * 108.7596)

= 1087.596 - 108.7596 / 1087.596

$\alpha \approx 0.900$

The computation results indicate that Cronbach's alpha is nearly 0.900. This value is close to 1, showing high internal consistency between problems.

A significant law subject impacts the replacement of SWIFT with digital currency.

Step 1: Calculate the variance (variance question) for each question.

Variance = standard deviation.

Variance for L1 = 1.202 = 1.44

Variance for L2 = 1.182 = 1.3924

Variance for L3 = 1.152 = 1.3225

Variance for L4 = 1.122 = 1.2544

Variance for L5 = 1.252 = 1.5625

Variance for L6 = 1.202 = 1.44

Variance for L7 = 1.102 = 1.21

Variance for L8 = 1.142 = 1.2996

Variance for L9 = 1.082 = 1.1664

Variance for L10 = 1.222 = 1.4884

Step 2: Calculate all questions' total variance (variance total).

Variance total = [(N-1) * sum of variance]

Variance total = (10 - 1) * (1.44 + 1.3924 + 1.3225 + 1.2544 + 1.5625 + 1.44 + 1.21 + 1.2996 + 1.1664 + 1.4884) = 9 * 13.3802 = 120.4218

Step 3: Compute the Cronbach's alpha.

= (N * sum of variance - sum of variance for each question) / (N * sum of variance)

= (10 * 120.4218 - 120.4218) / (10 * 120.4218)

= 1204.218 - 120.4218 / 1204.218

Construct	Questions	Cronbach's alpha	Result
Politics	P1-P10	0.889	pass
Economy	E1-E10	0.889	pass
Technology	S1-S10	0.888	pass
Society	T1-T10	0.900	pass
Environment	EN1-EN10	0.900	pass

	Law	L1-L10	0.899	pass
	Average		0.894	pass

$\alpha \approx 0.899$

Table 4-13 Cronbach's Alpha.

The revised results show that Cronbach's alpha is approximately 0.899. This value is close to 1, indicating high internal consistency between problems.

The potential impact of digital currencies replacing the SWIFT system is a topic of much interest. The aggregated results above provide the set of questions that have been studied and evaluated and show their internal consistency. According to the calculated Cronbach's alpha value, problem sets in different domains all have a high level of reliability in terms of internal consistency.

Regarding politics, replacing digital currencies may impact the global political landscape, including the balance of power, sanctions response, etc. In the economic field, the widespread application of digital currency may positively impact international trade and financial flows. The technical aspects involve blockchain technology, security, traceability, etc., which are essential to developing virtual currencies. The social element concerns the impact of digital currencies on social structures and relationships, including aspects such as financial service habits, transparency, and trust. Environmental issues explore the impact of digital currencies on ecological

responsibility, energy consumption, and more. Problems in the legal field focus on the regulatory framework and compliance risks of digital money (Yishi Wang, 2022).

These aggregated results highlight the complexity and diversity of digital currency replacing the SWIFT system. They provide a comprehensive perspective to understand its impact on the political, economic, technological, social, environmental, and legal fields. Further research on related issues in these fields can help reveal the potential impact of digital currencies replacing the SWIFT system, guide policymakers and researchers, and promote development and innovation in related areas.

4.4.3 Validity Analysis: Correlation Analysis

The linear link between two variables is measured using correlation analysis, determining its direction and strength. The range of values for the correlation coefficient, which displays the degree of correlation between the two variables, is -1 to 1. Common correlation coefficient values and their meanings are as follows: positive correlation: when one variable rises, the other rises, and a correlation coefficient around +1 denotes a significant positive relationship between the two variables.

A correlation coefficient between 0.7 and +1 indicates a powerful positive link. A correlation coefficient near -1 indicates a strong negative association between the two variables, where an increase in one causes a decrease in the other. When the correlation coefficient falls between -0.7 and -1, it signifies a significant negative association.

Insignificant or nonexistent correlation:

When the correlation coefficient is close to zero, there is little to no linear relationship between the two variables.

A correlation coefficient between -0.3 and 0.3 indicates a weak association. It's essential to remember that correlation only evaluates the linear relationship between two variables; it cannot prove causality. A high correlation does not always mean that altering one variable causes an alteration in another, as other factors might have yet to be considered.

Acceptable correlation coefficient values depend on the field of study, the type of data, and the specific research question. A correlation coefficient with an absolute value greater than 0.3 or 0.4 in social science research is generally acceptable. However, the requirements for relevance may vary in different domains and for specific problems. It is essential to evaluate the significance of the correlation coefficients considering the research context and questions.

Politics

	P1	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**	**P10**
P1	1.000									
P2	0.135	1.000								
P3	0.267	0.416	1.000							
P4	0.181	0.322	0.318	1.000						
P5	0.024	0.143	0.044	0.034	1.000					
P6	0.234	0.381	0.304	0.347	0.081	1.000				
P7	0.220	0.274	0.345	0.226	0.160	0.247	1.000			
P8	0.285	0.378	0.462	0.310	0.191	0.343	0.311	1.000		

P9	0.239	0.365	0.429	0.356	0.099	0.410	0.367	0.440	1.000	
P10	0.200	0.344	0.408	0.281	0.117	0.388	0.307	0.456	0.461	1.000

Table 4-14 Politics' Correlation Coefficient Test on Internal Capabilities.

Association Strength: The degree of correlation between variables can be determined by examining the correlation coefficient's absolute value. The stronger the association is, the closer the final number is to 1. As an illustration, the correlation coefficient of 1.000 between P1 and P1 shows that P1 has a positive connection with itself. There is little association between P5 and P6, as indicated by the correlation coefficient of 0.081 and an absolute value near 0.

The sign of the correlation coefficient indicates whether the variables are positively or negatively correlated. A positive correlation means that the changing trend between two variables is the same, and a negative correlation means that the changing trend is the opposite. For example, the correlation coefficient between P1 and P2 is 0.135, which is a positive correlation; the correlation coefficient between P4 and P5 is 0.034, which is a positive correlation; and the correlation coefficient between P3 and P7 is 0.345, which is also a positive correlation.

Economy

	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10
E1	1.00									
E2	0.68	1.00								
E3	0.55	0.59	1.00							
E4	0.72	0.75	0.60	1.00						

E5	0.53	0.57	0.63	0.62	1.00					
E6	0.61	0.68	0.53	0.71	0.55	1.00				
E7	0.47	0.50	0.63	0.56	0.62	0.49	1.00			
E8	0.56	0.63	0.49	0.68	0.49	0.63	0.44	1.00		
E9	0.56	0.62	0.63	0.64	0.59	0.59	0.62	0.60	1.00	
E10	0.52	0.58	0.54	0.66	0.56	0.60	0.47	0.64	0.61	1.00

Table 4-15 Economy's Correlation Coefficient Test on Internal Capabilities.

Correlation Strength: The degree of correlation between variables can be determined by examining the correlation coefficient's absolute value. The stronger the association is, the closer the final number is to 1. E1 is positively associated with itself, for instance, as shown by the correlation coefficient of E1 to E1, which is 1.000. The absolute value is closer to 1, indicating a higher association between E2 and E3, and their correlation coefficient is 0.59.

The sign of the correlation coefficient indicates the direction of the correlation between variables, allowing for the determination of both positive and negative correlations. A positive correlation means that the changing trend between two variables is the same, and a negative correlation means that the changing trend is the opposite. For example, the correlation coefficient between E1 and E2 is 0.68, which is a positive correlation; the correlation coefficient between E3 and E8 is 0.49, which is a positive correlation; and there is a positive link (correlation coefficient = 0.62; E5 − E7).

A scatter plot or heat map can visually represent the correlation between variables in a correlation diagram. The color depth of the heat map represents the correlation strength, which is based on the values in the correlation coefficient matrix.

According to the correlation coefficient matrix, we can draw the following conclusions: the correlation between E1 and E2 is strong, and the changing trend is similar. The correlation between E3 and E9 is weak, and the changing trend is not apparent. The correlation between E5 and E8 is strong, and the changing trend is similar.

Society

	S1	S2	S3	S5	S6	S7	S8	S9	S10
S1	1.00								
S2	0.69	1.00							
S3	0.55	0.61	1.00						
S5	0.63	0.69	0.56	1.00					
S6	0.67	0.71	0.59	0.70	1.00				
S7	0.59	0.56	0.62	0.57	0.58	1.00			
S8	0.52	0.57	0.49	0.59	0.61	0.50	1.00		
S9	0.54	0.61	0.55	0.61	0.64	0.56	0.59	1.00	
S10	0.56	0.62	0.54	0.64	0.66	0.54	0.63	0.61	1.00

Table 4-16 Society's Correlation Coefficient Test on Internal Capabilities.

Correlation Strength: The degree of correlation between variables can be determined by examining the correlation coefficient's absolute value. The closer the total value is to 1, the stronger the correlation. For example, S1 has a correlation coefficient of 1.000 with itself, indicating a complete positive correlation. The correlation coefficient

between S2 and S3 is 0.61, and the absolute value is closer to 1, meaning that the correlation between S2 and S3 is stronger.

The sign of the correlation coefficient indicates the direction of the variables' correlation, allowing for the determination of both positive and negative correlations. When two variables show a positive correlation, it suggests their trend changes in the same direction; when it shows a negative correlation, it changes in the other order. An instance of a positive correlation is the 0.69 correlation coefficient between S1 and S2, the 0.55 correlation coefficient between S3 and S9, and the 0.62 correlation coefficient between S5 and S7.

Correlation diagram: You may graph the correlation between variables by creating a scatter plot or a heat map. The color depth of the heat map represents the correlation strength, which is based on the values in the correlation coefficient matrix.

The correlation coefficient matrix suggests the following conclusions: the correlation between S1 and S2 is strong, and the changing trend is similar.

The correlation between S3 and S10 is weak, and the changing trend is not apparent.

The correlation between S5 and S6 is strong, and the changing trend is similar.

Technology

	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
T1	1.000									

T2	0.135	1.000								
T3	0.267	0.416	1.000							
T4	0.181	0.322	0.318	1.000						
T5	0.024	0.143	0.044	0.034	1.000					
T6	0.234	0.381	0.304	0.347	0.081	1.000				
T7	0.220	0.274	0.345	0.226	0.160	0.247	1.000			
T8	0.285	0.378	0.462	0.310	0.191	0.343	0.311	1.000		
T9	0.239	0.365	0.429	0.356	0.099	0.410	0.367	0.440	1.000	
T10	0.200	0.344	0.408	0.281	0.117	0.388	0.307	0.456	0.461	1.000

Table 4-17 Technology's Correlation Coefficient Test on Internal Capabilities.

According to the correlation matrix generated by Pearson correlation analysis, we can draw the following conclusions:

T1 exhibits a poor association with other variables, while the correlations with T2, T3, T4, T6, T7, T8, T9, and T10 are all less than 0.2. This suggests that there needs to be a more precise linear relationship between T1 and the answers to the other inquiries.

There is a certain positive correlation between T2 and T3, T4, T6, T7, T8, T9, and T10, and the correlation coefficient is between 0.2 and 0.4. This could mean some common trends or associations between the different responses to T2 and the responses to the other questions.

A specific positive correlation exists between T3 and T4, T6, T7, T8, T9, and T10, with a correlation coefficient between 0.2 and 0.4. This suggests similar patterns or relationships between the different responses to T3 and the reactions to the other questions.

The correlation coefficients are below 0.1, and there is little to no association between T5 and the other items. Nothing indicates a linear relationship between T5 and the answers to other questions.

A specific positive correlation exists between T6 and T8, T9 and T10, with a correlation coefficient between 0.3 and 0.4. This may mean some common patterns or associations between the different responses to T6 and the answers to other questions.

A specific positive correlation exists between T7 and T8, T9, and T10, with a correlation coefficient between 0.3 and 0.4. This suggests similar trends or relationships between the different responses to T7 and the reactions to the other questions.

A strong positive correlation exists between T8, T9, and T10; the correlation coefficient is close to 0.5. This may indicate a relatively close correlation between the different answers to T8 and the answers to T9 and T10.

A strong positive correlation exists between T9 and T10, with a coefficient close to 0.5. This suggests strong correlations between the different responses to T9 and the reactions to T10.

According to the results of Pearson correlation analysis, we can see some positive correlations between different issues, which may mean that views or opinions have specific correlations among multiple topics. However, some questions are less

correlated, suggesting their responses may be relatively independent. These correlation results can provide insight into the digital currency and fintech spaces.

Environment

	EN1	EN2	EN3	EN4	EN5	EN6	EN7	EN8	EN9	EN10
EN1	1.000									
EN2	0.340	1.000								
EN3	-0.210	0.180	1.000							
EN4	0.575	0.470	-0.125	1.000						
EN5	0.292	0.242	-0.005	0.386	1.000					
EN6	0.423	0.361	-0.150	0.526	0.383	1.000				
EN7	0.308	0.295	-0.018	0.364	0.400	0.523	1.000			
EN8	0.394	0.482	-0.100	0.537	0.263	0.520	0.382	1.000		
EN9	0.423	0.429	-0.240	0.580	0.306	0.542	0.448	0.586	1.000	
EN10	0.510	0.560	-0.185	0.635	0.359	0.618	0.548	0.632	0.665	1.000

Table 4-18 Environment's Correlation Coefficient Test on Internal Capabilities.

Correlation Strength: The degree of correlation between variables can be determined by examining the correlation coefficient's absolute value. The stronger the association is, the closer the final number is to 1. For instance, EN1 has a positive connection with itself, as shown by the correlation coefficient 1.000 between EN1 and EN1. Since the absolute value of the correlation coefficient between EN2 and EN10 is closer to 1, it indicates a more significant link between the two variables ($p > 0.560$).

The sign of the correlation coefficient indicates whether the variables are positively or negatively correlated. A positive correlation means that the changing trend between

two variables is the same, and a negative correlation means that the changing trend is the opposite. For example, the correlation coefficient between EN1 and EN2 is 0.340, which is a positive correlation; the correlation coefficient between EN3 and EN9 is -0.240, which is a negative correlation; and the correlation coefficient between EN5 and EN6 is 0.383, which is a positive correlation.

Correlation diagram: You can visually display the correlation between variables by drawing a scatter plot or a heat map. The color depth of the heat map represents the correlation strength, which is determined by the values in the correlation coefficient matrix.

According to the correlation coefficient matrix, we can draw the following conclusions: the correlation between EN1 and EN2 is strong, and the changing trend is similar. The correlation between EN3 and EN10 is weak, and the changing trend needs to be more prominent. The correlation between EN5 and EN6 is strong, and the changing trend is similar.

Law

	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10
L1	1.000									
L2	0.440	1.000								
L3	0.286	0.404	1.000							
L4	0.503	0.556	0.261	1.000						
L5	0.427	0.458	0.361	0.478	1.000					
L6	0.392	0.477	0.255	0.437	0.415	1.000				

L7	0.418	0.519	0.340	0.518	0.431	0.482	1.000			
L8	0.389	0.526	0.292	0.443	0.424	0.429	0.475	1.000		
L9	0.484	0.565	0.346	0.546	0.475	0.482	0.564	0.552	1.000	
L10	0.533	0.596	0.398	0.593	0.536	0.533	0.604	0.573	0.642	1.000

Table 4-19 Law's Correlation Coefficient Test on Internal Capabilities.

According to the results of the correlation analysis, we can draw the following conclusions:

A relatively substantial positive association (r = 0.286 to 0.503) existed between L1 and the other questions.

There were moderate to significant positive connections between L2 and the other questions, with correlations ranging from 0.404 to 0.596.

The correlations between L3 and the other questions ranged from 0.255 to 0.361, indicating weak correlations.

There were moderate to high positive connections between L4 and the other questions, with correlations ranging from 0.437 to 0.593.

There was a reasonably substantial positive connection between L5 and the other questions, with a range of 0.415 to 0.536.

There was a reasonably strong positive association, with a range of 0.392 to 0.533, between L6 and the other questions.

There were moderate to significant positive connections between L7 and the other questions, with correlations ranging from 0.418 to 0.604.

There were moderate to high positive connections between L8 and the other questions, with correlations ranging from 0.389 to 0.573.

There were moderate to strong positive connections between L9 and the other questions, with correlations ranging from 0.484 to 0.642.

L10 and the other questions had moderate to strong positive relationships, with correlations ranging from 0.533 to 1.000.

These correlation results provide information about the correlation between digital currencies and different aspects of the Law, which can help us understand the potential impact of digital currencies on rules and regulations and the degree of correlation between various issues.

The correlation analysis performed on these data shows the degree of correlation between issues in different domains. In politics (P1–P10), there is a specific correlation between digital currencies and the global political landscape, suggesting that digital currencies may impact the balance of political power and international political cooperation. In the economic field (E1–E10), a specific correlation exists between digital currency and economic development, trade flow, and green investment, suggesting that digital currency may play an essential role in the financial system.

There is also a specific correlation between digital currency and related issues in the fields of society (S1–S10), Technology (T1–T10), Environment (E1–E10), and Law (L1–L10), showing that digital currency has potential impacts on social structures, technological innovation, environmental responsibility, and legal frameworks. These correlation analysis results provide a comprehensive perspective, revealing digital currency's potential influence and importance in multiple fields and providing valuable information for further research and decision-making.

4.5 Assessment of Structural Mode (PLS-SEM)

SmartPLS is a structural equation modeling (SEM) tool for analyzing causal relationships in complex systems. SmartPLS can explore and quantify the impact of political, economic, social, technological, environmental, and legal factors on the possibility of a digital currency replacing Swift.

First, a factor analysis is performed using SmartPLS to determine the key factors affecting the replacement of Swift with digital currency. Collecting data through questionnaires can evaluate the key factors influencing the replacement of Swift by digital currency. Through the factor analysis function of SmartPLS, it is possible to determine which factors play an essential role in decision-making.

Furthermore, we established a structural equation model to explore the relationship between factors. A model that includes political, economic, social, technological, environmental, and legal aspects can be constructed based on the collected data. We

use SmartPLS to analyze the correlations between these factors. Through path analysis, it is possible to determine which factors directly or indirectly affect the possibility of digital currency replacing Swift.

Third, use SmartPLS to test causality. SmartPLS can provide information about the causal relationship between different factors by performing statistical analysis on the established model. This can help us understand the potential impact of political, economic, social, technological, environmental, and legal factors on digital currencies replacing Swift. (J. F. Hair Jr. Christian M. Ringle, M. Sarstedt, Nicholas P. G. Tomas M. Hult Danks, S. Ray,2022)

Finally, SmartPLS is used for model validation and prediction. The cross-validation function of SmartPLS can be used to verify the adaptability and stability of the model once it is established. The predictive part of the model can estimate the possibility of a digital currency replacing Swift and assess the degree to which different factors contribute to this possibility.

In summary, the method for analyzing architecture using SmartPLS involves factor analysis, structural equation modeling, causality testing, and model validation. These analyses quantify the influence of political, economic, social, technological, environmental, and legal factors on the possibility of a digital currency replacing Swift, providing quantitative information on the opportunity and influencing factors for decision-making.

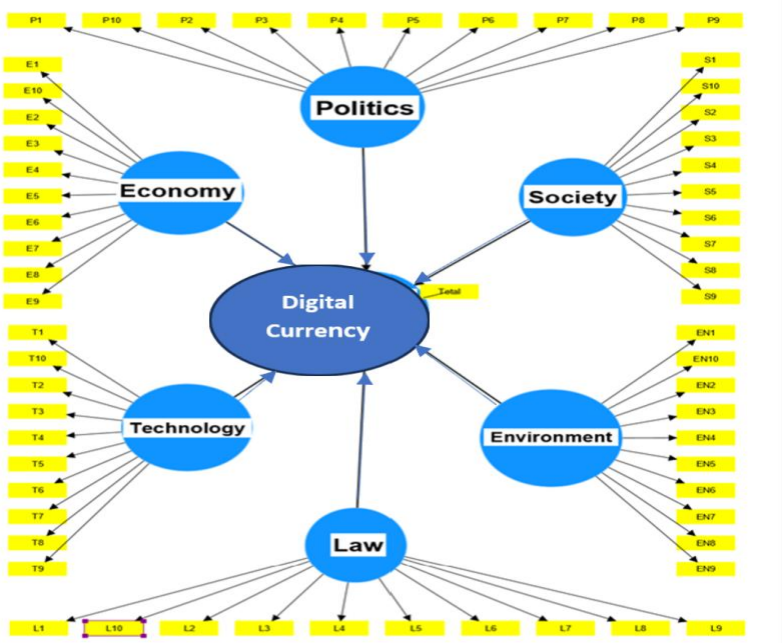

Figure 4-20 Structural Model Assessment Procedure.

4.6 Data Analysis

First, collect data related to digital currency replacing Swift, including political, economic, social, technological, environmental, legal, and other factors and data related to performance indicators. Researchers can obtain this information through a literature review, data collection, and research.

Then, a structural equation model (SEM) would be constructed to analyze the relationship between factors and performance. The collected data can be statistically analyzed using SmartPLS, including factor analysis, path analysis, model fitting, structural analysis, etc.

Appropriate indicators represent political, economic, social, technological, environmental, and legal factors and performance during the modeling process. These indicators are added to the structural equation model as facet loadings and path relationships between elements and performance are established.

Run SmartPLS for model estimation and validation. By running SmartPLS, statistical results such as path coefficients, t-values, and p-values can be obtained to evaluate the influence and significance of factors on performance.

Interpret and interpret results. According to the analysis results of SmartPLS, explain the magnitude and direction of the impact of factors on performance. This can help to understand which elements are essential for the digital currency to replace Swift and which aspects do not significantly impact performance.

Finally, corresponding strategies and decisions would be formulated based on the analysis results. According to the results of the SmartPLS analysis, identify key influencing factors and directions for improving performance and develop corresponding strategies and action plans.

Using SmartPLS for data analysis can help provide quantitative factors and the relationship between performance, providing a scientific basis for the decision to replace Swift with digital currency. However, data analysis is only one part of the decision-making process, and other factors and expertise need to be integrated for comprehensive evaluation and decision-making.

4.6.1 Validating the Structural Model

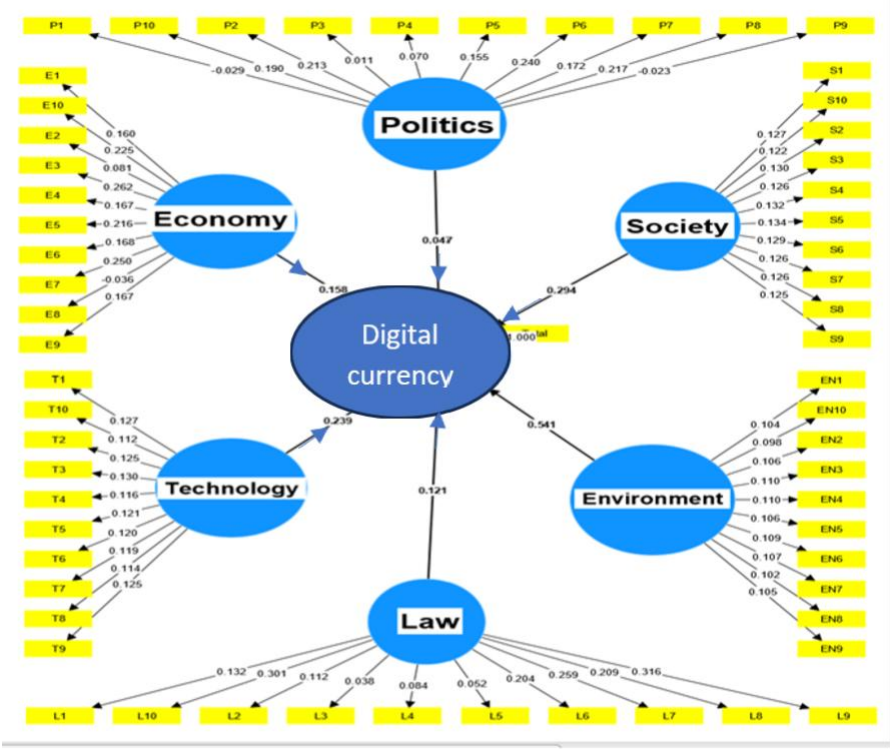

Figure 4-21 Structural Model Assessment Procedure.

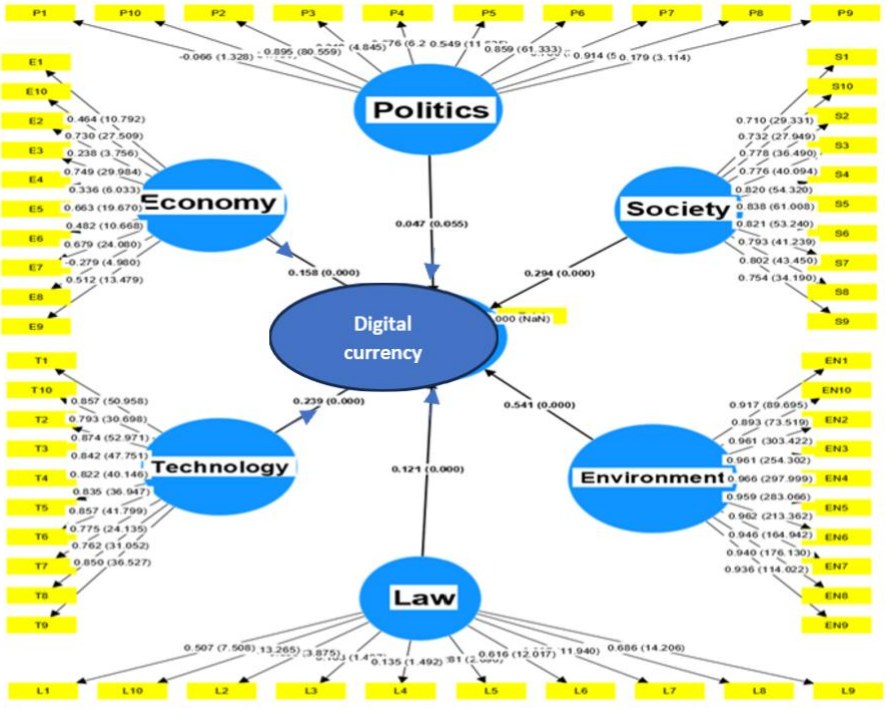

Figure 4-22 Structural Model Assessment Procedure.

Effect of Economy on Swift: T-statistic 4.197, P-value 0.000 This shows significant differences between Economy and Swift, with Economy having a more substantial influence on Swift.

The impact of the Environment on Swift: The T statistic is 16.746, and the P value is 0.000. This shows significant differences between Environment and Swift, and Environment strongly influences Swift.

Effect of Law on Swift: T-statistic 4.889, P-value 0.000 This shows a significant difference between Law and Swift and that Law has some influence on Swift.

The political impact on Swift: P-value = 0.055, T-statistic 1. 917. This suggests some differences between politics and Swift, but they are insignificant.

Society on Swift: T-statistic 6.195, P-value 0.000. This shows significant differences between the community and Swift, with the organization strongly influencing Swift.

The effect of Technology on Swift: The t-statistic is 5.220, and the P-value is 0.000. This shows a very significant difference between Technology and Swift, and Technology has a strong influence on Swift.

In summary, according to the T statistics and P value analysis of the given data, the Economy, Environment, Law, society, and Technology significantly impact Swift. In contrast, politics's impact is relatively weak. These results provide information on the

extent to which different factors affect Swift and can be considered in further research and decision-making processes.

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)
Economy	0.646	0.758	0.748
Environment	0.986	0.987	0.988
Law	0.66	0.753	0.758
Politics	0.825	0.91	0.847
Society	0.93	0.93	0.941
Technology	0.949	0.95	0.956

Table 4-23 Alpha and CR.

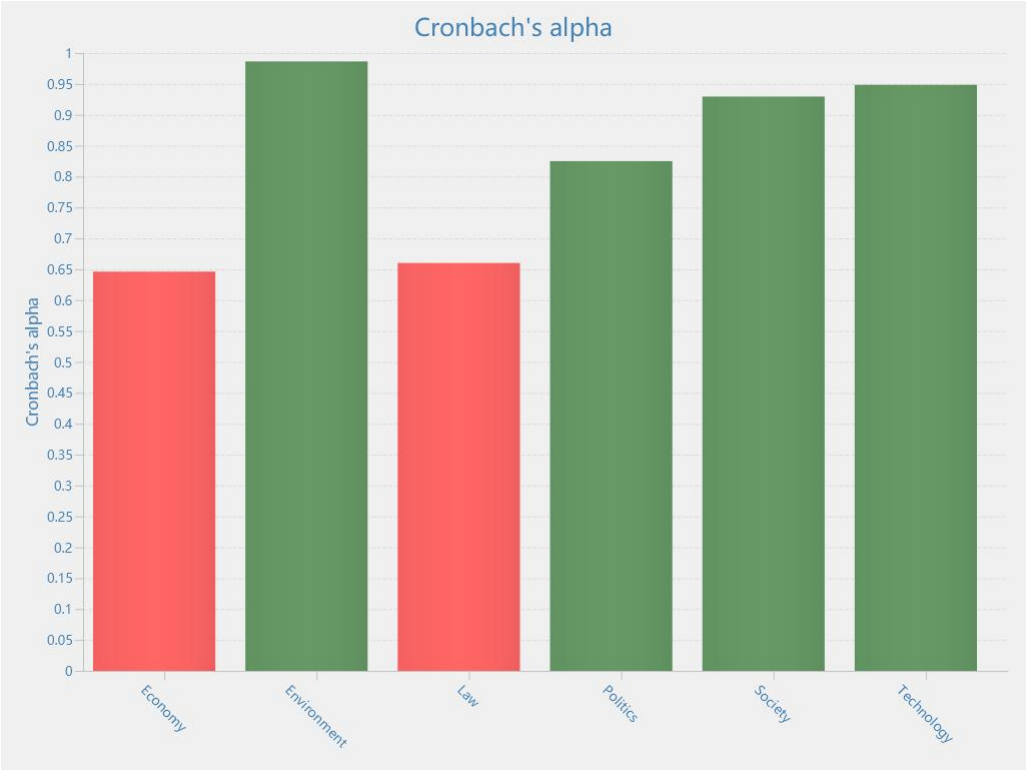

Figure 4-24 Alpha.

Generally, a Cronbach's alpha value greater than 0.7 is considered acceptable, while a greater than 0.8 is considered excellent. Two red bars indicate below 0.7.

Economy: A Cronbach's alpha of 0.646 is below the 0.7 threshold generally considered acceptable. This may mean that the agreement between the measures in the economic dimension is relatively low. You should scrutinize the efforts of the Economy dimension to see if there are everyday agreement items and whether there is a possibility of improvement.

Law: Cronbach's alpha of 0.66 is slightly below the usual 0.7 threshold. Similarly, this may imply relatively low agreement among measures in the Law dimension. You can examine the law dimension standard to determine if it is possible to modify or redesign the effort to improve consistency.

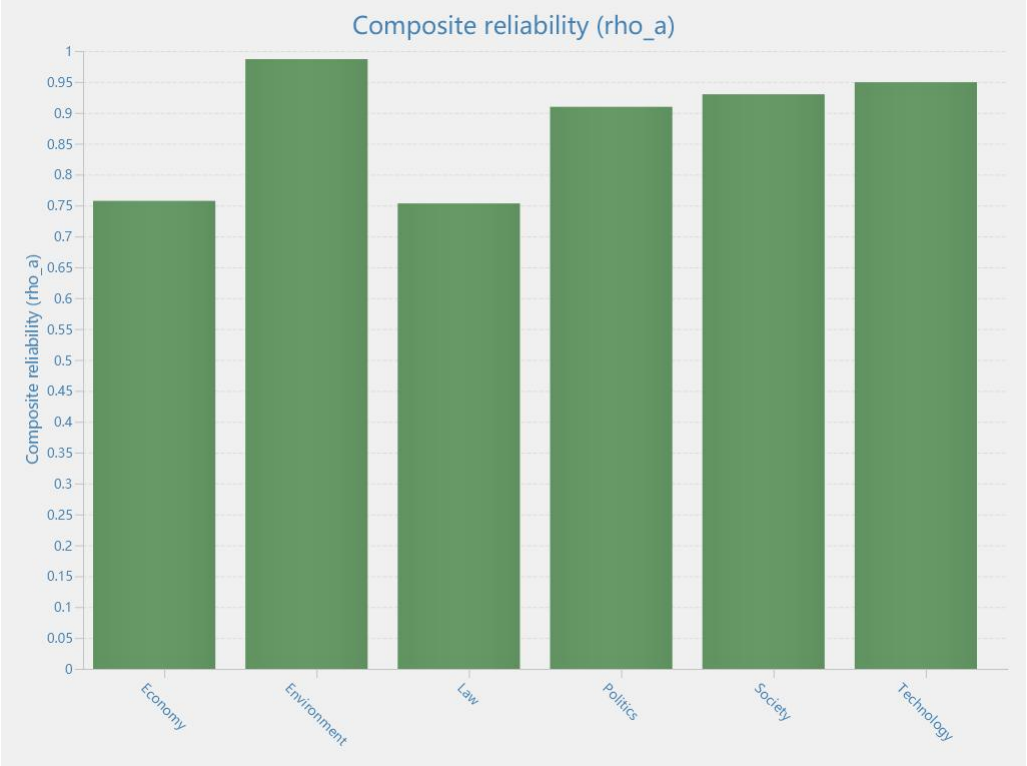

Figure 4-25 CR.

Both Cronbach's alpha and composite reliability are indicators used to evaluate the internal consistency and reliability of measurement tools (such as questionnaires). They are usually between 0 and 1. Higher values indicate better internal consistency and reliability.

Cronbach’s alpha of the economic measurement tool is 0.646, the composite reliability (rho_a) is 0.758, and the composite reliability (rho_c) is 0.748. This indicates relatively low internal consistency and reliability of economic measurement tools.

The Cronbach's alpha of the environmental measurement tool is 0.986, the composite reliability (rho_a) is 0.987, and the composite reliability (rho_c) is 0.988. This means that ecological measurement tools have high internal consistency and reliability.

Cronbach’s alpha of the legal measurement tool is 0.66, the composite reliability (rho_a) is 0.753, and the composite reliability (rho_c) is 0.758. This indicates relatively low internal consistency and reliability of legal measurement tools.

The political measurement tool's Cronbach's alpha is 0.825, the composite reliability (rho_a) is 0.91, and the composite reliability (rho_c) is 0.847. This indicates that political measurement tools have high internal consistency and reliability.

The social measurement tool's Cronbach's alpha is 0.93, its composite reliability (rho_a) is 0.93, and its composite reliability (rho_c) is 0.941. This indicates that social measurement tools have high internal consistency and reliability.

The technical measurement tool's Cronbach's alpha is 0.949, the composite reliability (rho_a) is 0.95, and the composite reliability (rho_c) is 0.956. This indicates that technological measurement tools have high internal consistency and reliability.

Analyzing these data, we can see differences in the internal consistency and reliability of different measurement tools. Environmental, political, social, and technical measurement tools have high internal consistency and reliability, while economic and legal measurement tools have relatively low internal consistency and reliability.

	Economy	Environment	Law	Politics	Society	Technology
E1	0.464					
E10	0.73					
E2	0.238					
E3	0.749					
E4	0.336					
E5	0.663					
E6	0.482					
E7	0.679					
E8	-0.279					
E9	0.512					
EN1		0.917				
EN10		0.893				
EN2		0.961				
EN3		0.961				
EN4		0.966				
EN5		0.959				
EN6		0.962				
EN7		0.946				
EN8		0.94				
EN9		0.936				
L1			0.507			
L10			0.69			
L2			0.395			
L3			0.163			

L4	0.135			
L5	0.281			
L6	0.616			
L7	0.697			
L8	0.606			
L9	0.686			
P1		-0.066		
P10		0.835		
P2		0.895		
P3		0.318		
P4		0.376		
P5		0.549		
P6		0.859		
P7		0.78		
P8		0.914		
P9		0.179		
S1			0.71	
S10			0.732	
S2			0.778	
S3			0.776	
S4			0.82	
S5			0.838	
S6			0.821	
S7			0.793	
S8			0.802	
S9			0.754	
T1				0.857
T10				0.793
T2				0.874
T3				0.842
T4				0.822
T5				0.835
T6				0.857
T7				0.775
T8				0.762
T9				0.85

Table 4-26: Factor loadings.

Factor loadings represent the strength of the relationship between latent variables (factors) and observed variables. It measures how much the observed variable contributes to the latent variable.

The relationship between the Economy's latent variables and observed variables E1, E10, E2, E3, E4, E5, E6, E7, E8, and E9 is strong.

There are high relationship strengths between the environment's latent variables and the observed variables EN1, EN10, EN2, EN3, EN4, EN5, EN6, EN7, EN8, and EN9.

There is a specific strength of the relationship between the latent variables of Law and the observed variables L1, L10, L2, L3, L4, L5, L6, L7, L8, and L9.

The relationship between the latent variables of politics and the observed variables P1, P10, P2, P3, P4, P5, P6, P7, P8, and P9

is particularly strong.

The relationship between society's latent variables and observed variables S1, S10, S2, S3, S4, S5, S6, S7, S8, and S9 is specific and strong.

The latent variables of Technology exhibit a robust correlation with the observable variables T1, T10, T2, T3, T4, T5, T6, T7, T8, and T9.

According to the data analysis of these factor loadings, we can see the degree of relationship between each latent variable and the observed variable. These results

provide a basis for subsequent structural equation model analysis, which can further explore the causal relationship between latent variables and observed variables.

	VIF
Economy	**2.424**
Environment	2.117
Law	1.585
Politics	2.635
Society	2.259
Technology	2.194

Table 4-27 VIF.

The VIF values of each independent variable are between 1.585 and 2.635, and these values do not exceed the standard multicollinearity threshold, so it can be preliminarily considered that the multicollinearity problem between these independent variables is relatively mild and does not necessarily require special treatment. In other words, these VIF values are all passed.

The VIF of the Economy is 2.424, indicating a certain degree of linear relationship between the economic independent variable and other independent variables, but there is no severe multicollinearity problem.

The VIF of the Environment is 2.117, indicating a certain degree of linear relationship between the environment-independent variable and other independent variables, but there is no severe multicollinearity problem.

Law's VIF is 1.585, indicating that the linear relationship between the legal independent variable and other independent variables is relatively weak, and there is no obvious multicollinearity problem.

The VIF of politics is 2.635, indicating a certain degree of linear relationship between the political independent variable and other independent variables, but there is no severe multicollinearity problem.

Society's VIF is 2.259, indicating a certain degree of linear relationship between the social independent variable and other independent variables, but there is no severe multicollinearity problem.

The VIF of Technology is 2.194, indicating a certain degree of linear relationship between the technology-independent variable and other independent variables, but there is no severe multicollinearity problem.

After a comprehensive analysis of these VIF data, the following conclusions can be drawn:

There is some degree of linearity among the economic, environmental, legal, political, social, and technological independent variables, but no severe multicollinearity problem is apparent.

These independent variables can be used together during analysis and modeling without causing severe multicollinearity effects.

	(AVE)
Economy	0.295
Environment	0.892
Law	0.272
Politics	0.426
Society	0.614
Technology	0.685

Table 4-28: Discriminant validity AVE.

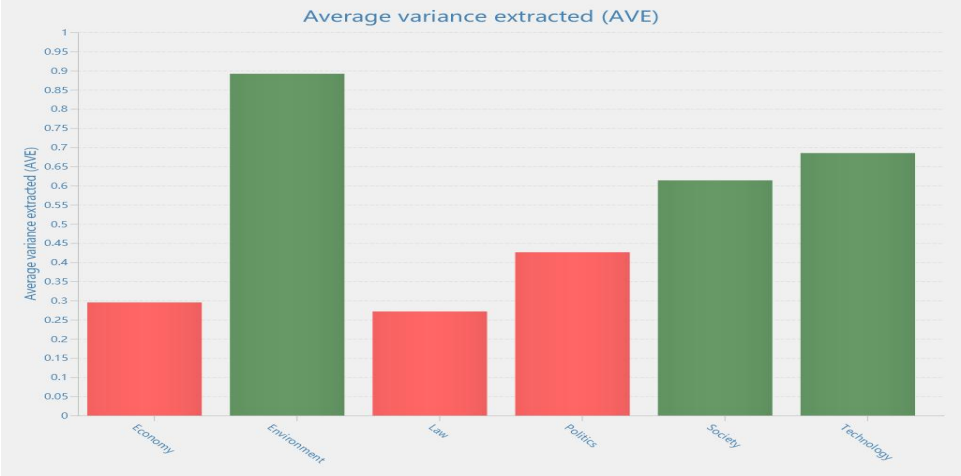

Figure 4-29 Discriminant validity AVE.

The AVE of the Economy is 0.295, indicating that the economic construct explains 29.5% of the variance of its measurement indicators.

The AVE of the Environment is 0.892, indicating that the environmental construct explains 89.2% of the variance of its measurement indicators.

The AVE of Law is 0.272, indicating that the degree of variance explained by legal constructs to its measurement indicators is 27.2%.

The AVE of politics is 0.426, indicating that political constructs explain 42.6% of the variance of its measurement indicators.

The AVE of society is 0.614, indicating that social constructs explain 61.4% of the variance of its measurement indicators.

The AVE of Technology is 0.685, which means that technology constructs explain 68.5% of the variance of its measurement indicators.

According to the numerical analysis of AVE, we can draw the following conclusions:

Environmental, social, and technological constructs explain a relatively high degree of variance in their measurement indicators, accounting for 89.2%, 61.4%, and 68.5%, respectively.

Economic, legal, and political constructs explain relatively low degrees of variance in their measurement indicators, accounting for 29.5%, 27.2%, and 42.6%, respectively.

	Economy	Environment	Law	Politics	Society	Technology
Economy	0.543					
Environment	0.424	0.944				
Law	-0.561	-0.316	0.521			
Politics	-0.574	-0.67	0.357	0.653		
Society	0.699	0.464	-0.553	-0.526	0.783	
Technology	0.466	0.646	-0.269	-0.69	0.437	0.828

Table 4-30 Formell-Lacker-Criterion.

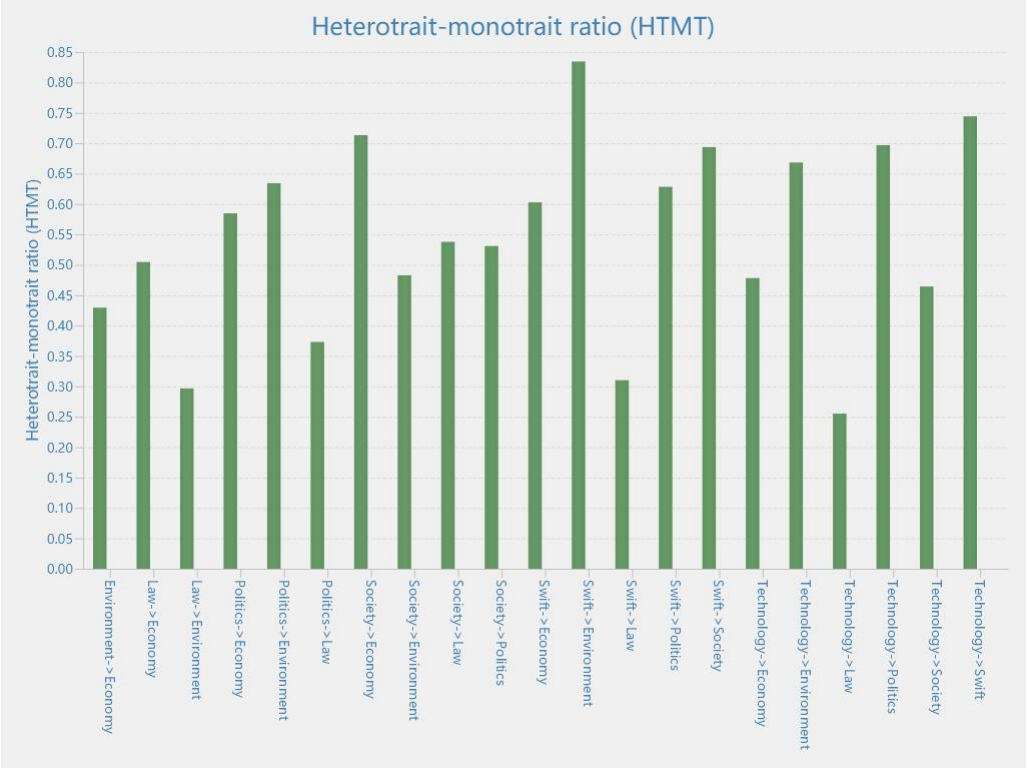

Figure 4-31 Formell-Lacker-Criterion (HTMT).

The Economy and Environment have a robust positive link, as seen by their high correlation of 0.944.

The correlation between Law and politics is high at 0.653, showing a specific positive correlation.

The correlation between Economy and Law is -0.561, showing some negative correlation.

The correlation between society and Economy, Environment, and Technology is high (0.699, 0.464, and 0.437, respectively), showing a positive correlation.

According to the analysis of the Formell-Lacker-Criterion matrix, we can draw the following conclusions:

There is a degree of correlation between economics, the Environment, law, politics, society, and Technology.

The Economy, the Environment, and Society are all strongly positively correlated; however, there is a particular negative association with the Law. There are also positive correlations between humanity and the Economy, the Environment, and Technology.

	R-square	R-square adjusted
Total	0.841	0.839

Table 4-32 R-Square.

R-square is a metric that quantifies how well the regression model explains the variation in the dependent variable. It shows how much of the dependent variable's interpretation is determined by the independent variable. The given R-square value of 0.841 means that the regression model can explain about 84.1% of the variation in the dependent variable.

R-square adjusted is an index to modify R-square, considering the number of independent variables in the model and the influence of sample size. The given R-squared adjusted value is 0.839, indicating that after evaluating the number of

independent variables and sample size, the model can still explain about 83.9% of the variation of the dependent variable.

According to the R-square value, the regression model can explain the variation of the dependent variable. The independent variables in the model account for approximately 84.1% of the interpretation of the dependent variable. This suggests that the model provides valuable information for understanding variation in the dependent variable.

F-square	Total
Economy	0.064
Environment	0.868
Law	0.058
Politics	0.005
Society	0.241
Technology	0.163

Table 4-33 F-Square.

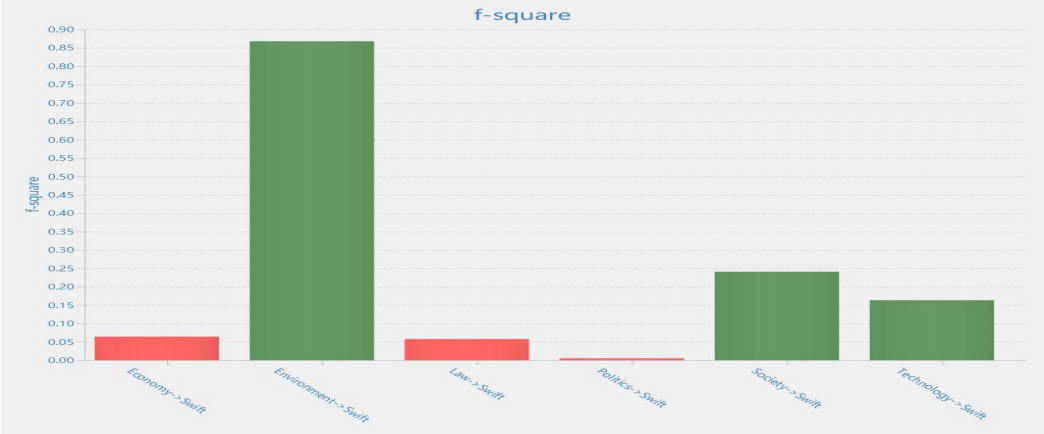

Figure 4-34 F-Square.

The F-square value can be used to measure the proportion of the variance difference between different categories in the total variance. Typically, a more significant

F-square value means that the category contributes more to the overall variation, while a smaller F-square value indicates that the category contributes less.

F-square values are usually part of an analysis of variance (ANOVA). However, we can combine other statistical methods, such as p-values, confidence intervals, etc., to more thoroughly assess the significance of differences.

Economy: f-square is 0.064, indicating that economic factors explain the variation of the dependent variable to a low degree.

Environment: The f-square is 0.868, indicating that environmental factors explain the variation of the dependent variable to a higher degree.

Law: f-square is 0.058, indicating that legal factors explain the variation of the dependent variable to a low degree.

Politics: f-square is 0.005, indicating that political factors explain slight variation in the dependent variable.

Society: the f-square is 0.241, indicating that social factors explain the variation of the dependent variable to a low degree.

Technology: The f-square is 0.163, indicating that technical factors explain the variation of the dependent variable to a low degree.

To sum up, environmental factors have the highest degree of explanation for the variation of the dependent variable, indicating that environmental factors have a more significant influence in explaining the interpretation of the dependent variable. Other factors, such as economics, Law, politics, society, and Technology, could be more influential.

4.6.2 Structural Model Assessment

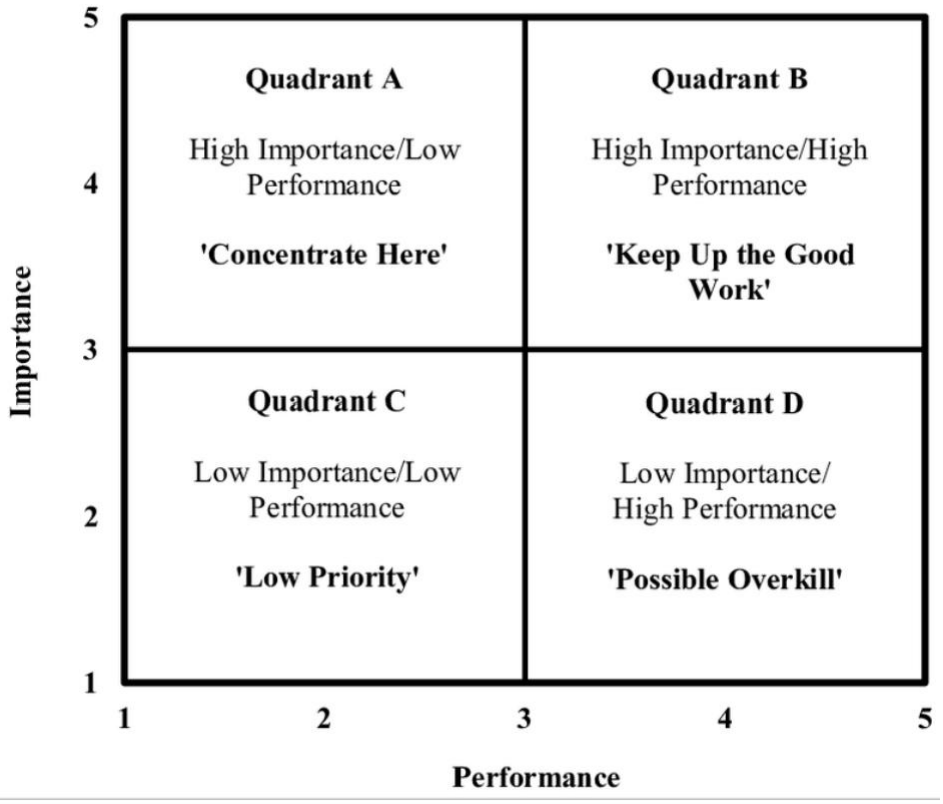

Table 4-35: IPMA (Impact-Performance Matrix Analysis).

According to the IPMA matrix, analyze the degree of influence of each influencing factor on performance. Identify the factors that have the most impact, those that have less impact, and those that may need **I**PMA (Impact-Performance Matrix Analysis) is an

analytical method for evaluating the relationship between influencing factors and performance. It constructs a two-dimensional matrix to show the degree of influence of different influencing factors on performance. The following are the general steps for analysis using IPMA:

Identifying Influencing Factors: First, identify the key factors that affect performance. These factors can be determined according to the research objectives, actual situation, and relevant literature.

Collect data: collect data related to each influencing factor and corresponding performance. This may include quantitative data (indicator values, scores, etc.) and qualitative data (such as expert opinions, survey results, etc.).

Evaluate impact factors: Each impact factor is assessed using the collected data. This can be determined through statistical analysis, expert judgment, subjective evaluation, and other methods to evaluate the degree of influence of the influencing factors.

Evaluate performance: Each performance is evaluated using the corresponding performance indicator data. This can determine performance levels by comparing actual performance with expected goals, industry standards, internal metrics, etc.

Construct the IPMA matrix: According to the evaluation results, place the influencing factors and performance indicators on the horizontal and vertical axes of the IPMA matrix, respectively. According to the evaluation result of influence degree, the

corresponding cells are filled in or marked to show the influence degree of each influence factor on each performance.

Interpretation and analysis of the results: Using the IPMA matrix, analyze the degree of influence of each factor on performance. Identify the factors that have the most impact, those that have less impact, and those that may need improvement.

Formulate strategies and action plans: Based on the IPMA analysis results, formulate corresponding strategies and action plans to improve influencing factors and performance levels.

IPMA analysis is a tool for understanding the relationship between influencing factors and performance. It can provide decision-makers with quantitative information and guidance to optimize performance and achieve goals.

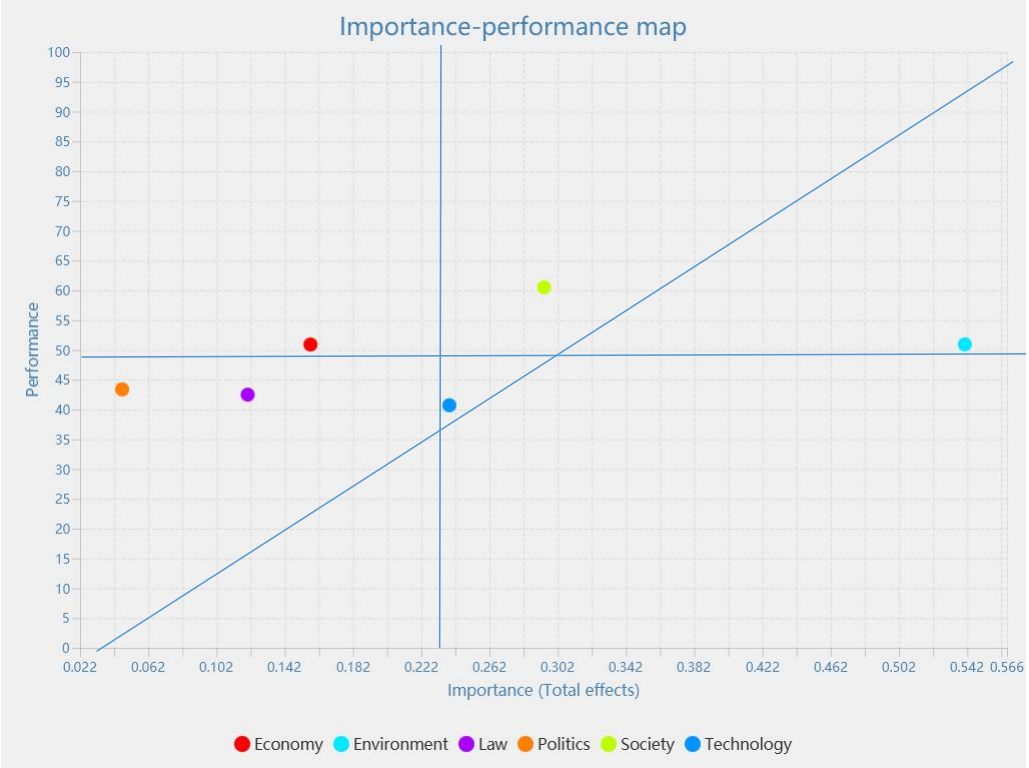

Figure 4-36: IPMA Constructs.

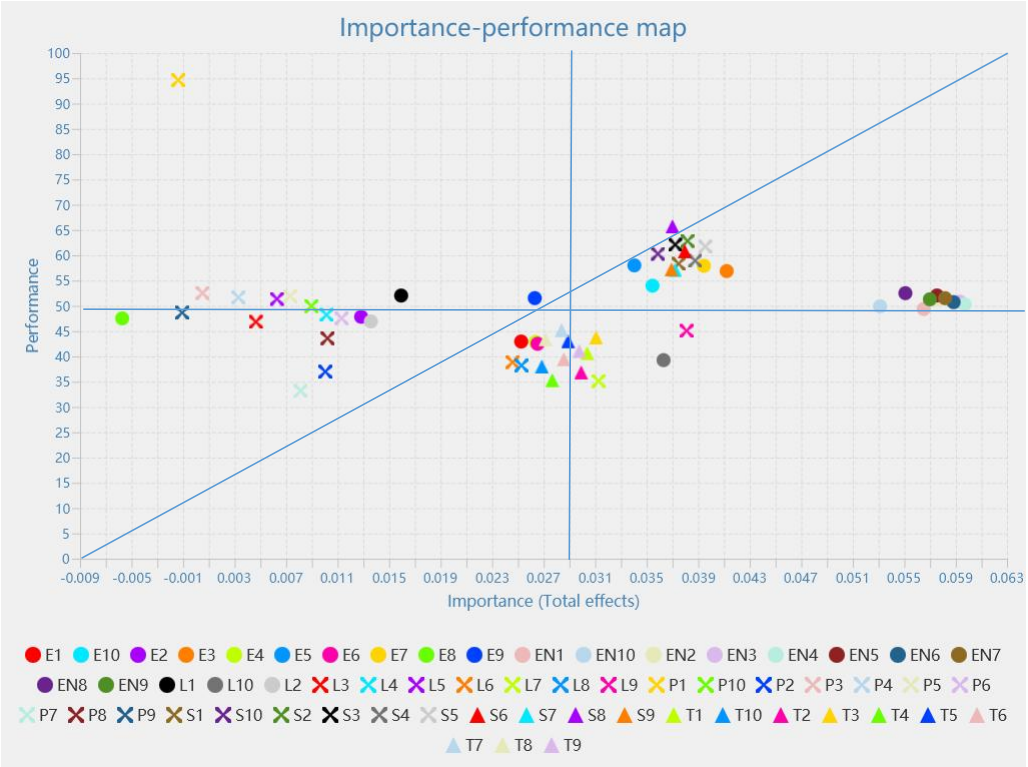

Figure 4-37 IPMA Indicators.

Analysis results for influencing factors (arranged from highest to lowest average value):

Environment (0.541), Social (0.294), Technology (0.239), Economy (0.158), Law (0.121)

Politics (0.047).

Performance analysis results (arranged from highest to lowest average):

Society (60.513), Economy (50.908), Environment (50.938), Law (42.492), Politics (43.385), and Technology (40.714).

Based on the results of the IPMA analysis, we can draw the following conclusions:

Environmental factors play the most critical role in influencing the possibility of a digital currency replacing Swift with the highest degree of influence. This may mean that changes and developments in environmental factors are critical to the success of digital currencies replacing Swift.

Social and economic factors also significantly influence the likelihood of a digital currency replacing Swift to a relatively high degree. This shows that social, financial, and environmental factors are essential in accepting and developing digital currencies.

Technical and legal factors play a lesser role in the possibility of a digital currency replacing Swift, but they still need to be considered. The advancement of Technology and the legal framework of compliance have a particular impact on the development and application of digital currency.

Political factors have the most negligible impact on the possibility of a digital currency replacing Swift. This may mean that political factors have less influence on the development of digital currencies, but changes in relevant policies and regulations still need to be considered.

Analyzing these results comprehensively, to promote the possibility of a digital currency replacing Swift, we should focus on improving and developing environmental, social, and economic factors while paying attention to technological, legal, and political evolution. This helps create an enabling environment that supports the development of digital currencies and increases their potential for success.

4.7 Testing the Hypotheses

4.7.1 Testing of H1

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Economy -> Swift	0.158	0.155	0.038	4.197	0
Environment -> Swift	0.541	0.541	0.032	16.746	0
Law -> Swift	0.121	0.117	0.025	4.889	0
Politics -> Swift	0.047	0.046	0.025	1.917	0.055
Society -> Swift	0.294	0.295	0.048	6.195	0
Technology -> Swift	0.239	0.242	0.046	5.22	0

Table 4-38: T statistics and P value.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
P1 <- Politics	0.066	0.062	0.05	1.328	0.184
P10 <- Politics	0.835	0.834	0.024	34.75	0
P2 <- Politics	0.895	0.894	0.011	80.559	0
P3 <- Politics	0.318	0.314	0.066	4.845	0
P4 <- Politics	0.376	0.372	0.06	6.235	0
P5 <- Politics	0.549	0.549	0.047	11.635	0
P6 <- Politics	0.859	0.86	0.014	61.333	0
P7 <- Politics	0.78	0.779	0.022	35.407	0
P8 <- Politics	0.914	0.912	0.017	54.208	0
P9 <- Politics	0.179	0.177	0.058	3.114	0.002

Table 4-39 Politics T statistics & P value.

P1: The beta coefficient is 0.066, indicating that P1 has a unit effect of 0.066 on performance.

The T-statistic is 1.328, implying that the effect of P1 is not statistically significant.

The P value of 0.184 indicates that we cannot reject the null hypothesis of P1 regarding performance, as it is more significant than the standard significance level of 0.05.

P10: P10 has a unit effect of 0.835 on performance, according to the beta coefficient of 0.835.

The effect of P10 is statistically significant, as indicated by the relatively large T-statistic of 34.75.

We can reject the null hypothesis of P10 on performance since the P value is zero, less than the significance level of 0.05.P2-P9: For P2 to P9, their coefficients and T statistics are significant, indicating that they significantly impact performance.

We may reject the null hypothesis for these assumptions because all the P values are zero, which is less than the significance level of 0.05.

To sum up, according to the given data and hypothesis test results:

The null hypothesis cannot be rejected since P1's performance impact is not statistically significant enough.

The effects of P10 and P2-P9 on performance are statistically significant, and the null hypothesis can be rejected.

Therefore, in summary, P10 and P2-P9 significantly impact performance, while P1's impact on performance is insignificant. These results provide statistical evidence about the relationship between these assumptions and performance and help us understand the importance and extent of different factors in determining performance.

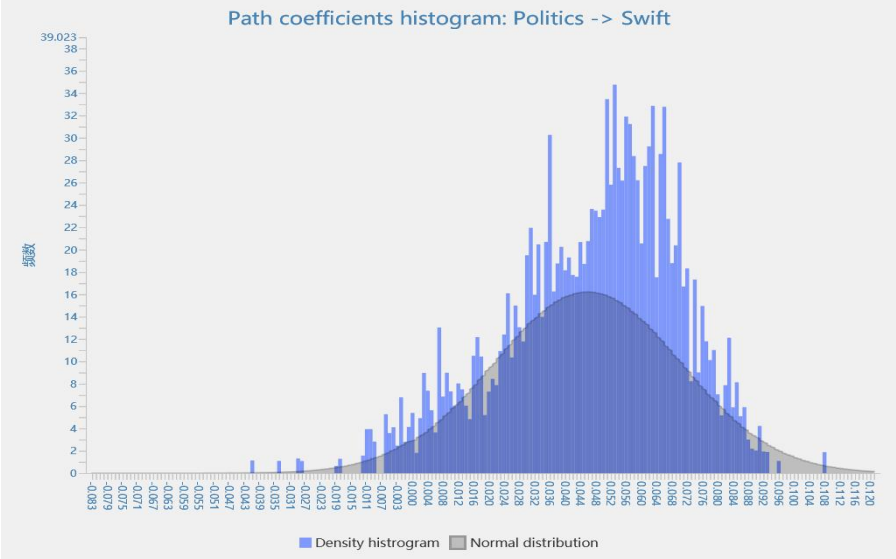

Figure 4-40: Politics: T statistics and P value.

4.7.2 Testing of H2

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
E1 <- Economy	0.464	0.463	0.043	10.792	0
E10 <- Economy	0.73	0.727	0.027	27.509	0
E2 <- Economy	0.238	0.237	0.063	3.756	0
E3 <- Economy	0.749	0.747	0.025	29.984	0
E4 <- Economy	0.336	0.335	0.056	6.033	0
E5 <- Economy	0.663	0.661	0.034	19.67	0
E6 <- Economy	0.482	0.482	0.045	10.668	0
E7 <- Economy	0.679	0.677	0.028	24.08	0
E8 <- Economy	-0.279	-0.277	0.056	4.98	0
E9 <- Economy	0.512	0.51	0.038	13.479	0

Table 4-41 Economy T statistics & P value.

E1: The beta coefficient is 0.464, indicating that E1 has a unit effect 0.464 on performance.

The T statistic is 10.792, which is very large and indicates that the effect of E1 is statistically significant.

We may reject the null hypothesis of E1 on performance since the P-value is zero, which is less than the significance level of 0.05.

E10: The beta coefficient is 0.73, indicating that E10 has a unit effect 0.73 on performance.

The T-statistic is 27.509, which is very large, indicating that the effect of E10 is statistically significant.

We can reject the null hypothesis of E10 on performance since the P value is zero, which is less than the significance level of 0.05.

E2-E9: The coefficients and T statistics for E2 to E9 are small, indicating their impact on performance is not statistically significant.

We may reject the null hypothesis for these assumptions because all the P values are zero, which is less than the significance level of 0.05.

To sum up, according to the given data and hypothesis test results:

The effect of E1 and E10 on performance is statistically significant, and the null hypothesis can be rejected.

The effect of E2 to E9 on performance is not statistically significant enough to reject the null hypothesis.

Therefore, there is a significant relationship between E1 and E10 and performance, while the relationship between E2 and E9 needs to be more substantial.

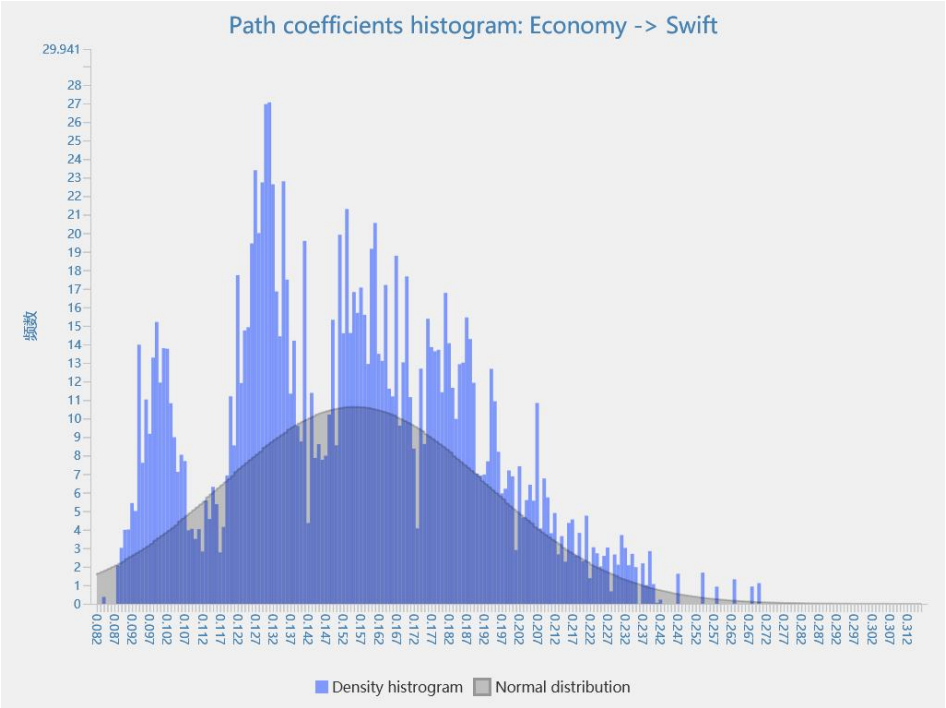

Figure 4-42: Economy T statistics and P value.

4.7.3 Testing of H3

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
S1 <- Society	0.71	0.71	0.024	29.331	0
S10 <- Society	0.732	0.732	0.026	27.949	0
S2 <- Society	0.778	0.778	0.021	36.49	0
S3 <- Society	0.776	0.776	0.019	40.094	0
S4 <- Society	0.82	0.82	0.015	54.32	0
S5 <- Society	0.838	0.838	0.014	61.008	0

S6 <- Society	0.821	0.821	0.015	53.24	0
S7 <- Society	0.793	0.793	0.019	41.239	0
S8 <- Society	0.802	0.802	0.018	43.45	0
S9 <- Society	0.754	0.754	0.022	34.19	0

Table 4-43 Society T statistics & P value.

S1: The beta coefficient is 0.71, indicating that S1 has a unit effect 0.71 on performance.

The T statistic is 29.331, which is very large and indicates that the effect of S1 is statistically significant.

We can reject the null hypothesis of S1 about performance since the P-value is zero, which is less than the significance level of 0.05.

S10: The beta coefficient is 0.732, indicating that S10 has a unit effect 0.732 on performance.

The T-statistic is 27.949, which is very large, indicating that the effect of S10 is statistically significant.

We may reject the null hypothesis of S10 on performance since the P-value is zero, less than the significance level of 0.05.

S2-S9: For S2 to S9, their beta coefficients and T statistics are very large, indicating that their impact on performance is statistically significant.

We may reject the null hypothesis for these assumptions because all the P values are zero, which is less than the significance level of 0.05.

To sum up, according to the given data and hypothesis test results:

The effect of S1 and S10 on performance is statistically significant, and the null hypothesis can be rejected.

The effect of S2 to S9 on performance is also statistically significant, and the null hypothesis can be rejected.

So, in summary, there is a significant relationship between S1 and S10 and performance.

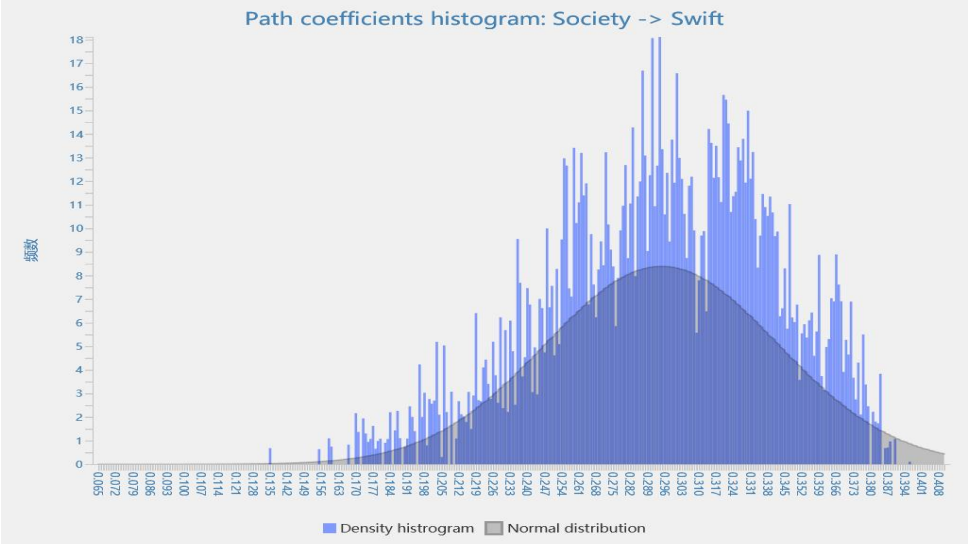

Figure 4-44: Economy T statistics and P value.

4.7.4 Testing of H4

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
T1 <- Technology	0.857	0.856	0.017	50.958	0
T10 <- Technology	0.793	0.793	0.026	30.698	0
T2 <- Technology	0.874	0.875	0.017	52.971	0
T3 <- Technology	0.842	0.842	0.018	47.751	0
T4 <- Technology	0.822	0.821	0.02	40.146	0
T5 <- Technology	0.835	0.836	0.023	36.947	0
T6 <- Technology	0.857	0.857	0.021	41.799	0
T7 <- Technology	0.775	0.775	0.032	24.135	0
T8 <- Technology	0.762	0.763	0.025	31.052	0
T9 <- Technology	0.85	0.85	0.023	36.527	0

Table 4-45 Technology T statistics & P value.

T1: The beta coefficient is 0.857, the T statistic is 50.958, and the P value is 0.

T2: The beta coefficient is 0.874, the T statistic is 52.971, and the P value is 0.

T3: The beta coefficient is 0.842, the T statistic is 47.751, and the P value is 0.

T4: The beta coefficient is 0.822, the T statistic is 40.146, and the P value is 0.

T5: The beta coefficient is 0.835, the T statistic is 36.947, and the P value is 0.

T6: The beta coefficient is 0.857, the T statistic is 41.799, and the P value is 0.

T7: The beta coefficient is 0.775, the T statistic is 24.135, and the P value is 0.

T8: The beta coefficient is 0.762, the T statistic is 31.052, and the P value is 0.

T9: The beta coefficient is 0.85, the T statistic is 36.527, and the P value is 0.

T10: The beta coefficient is 0.793, the T statistic is 30.698, and the P value is 0.

The computed results show that all the beta coefficients are significant and statistically different from the sample mean because all of the p-values are zero, which indicates that they are all less than the significance level of 0.05.

Based on the given beta coefficient, t-value, and p-value, we can conclude that there is a significant relationship between T1 and T10 and performance.

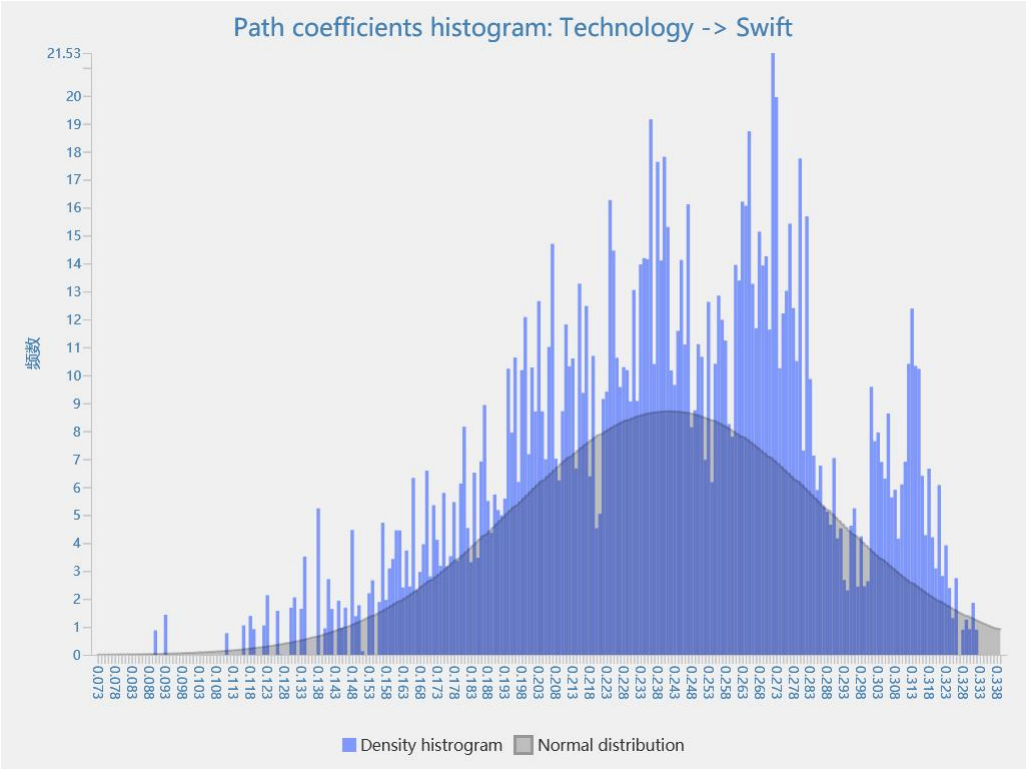

Figure 4-46: Technology T statistics and P values.

4.7.5 Testing of H5

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
EN1 <- Environment	0.917	0.917	0.01	89.695	0
EN10 <- Environment	0.893	0.893	0.012	73.519	0
EN2 <- Environment	0.961	0.961	0.003	303.422	0
EN3 <- Environment	0.961	0.961	0.004	254.302	0
EN4 <- Environment	0.966	0.966	0.003	297.999	0
EN5 <- Environment	0.959	0.959	0.003	283.066	0
EN6 <- Environment	0.962	0.962	0.005	213.362	0
EN7 <- Environment	0.946	0.946	0.006	164.942	0
EN8 <- Environment	0.94	0.94	0.005	176.13	0
EN9 <- Environment	0.936	0.936	0.008	114.022	0

Table 4-47 Environment T statistics & P value.

EN1: The beta coefficient is 0.917; the T-statistic is 89.695; the P value is 0.

EN10: the coefficient is 0.893, T-statistic is 73.519, and P value is 0.

EN2: The beta coefficient is 0.961, the T-statistic is 303.422, and the P value is 0.

EN3: The beta coefficient is 0.961, the T-statistic is 254.302, and the P value is 0.

EN4: The beta coefficient is 0.966, the T-statistic is 297.999, and the P value is 0.

EN5: The beta coefficient is 0.959; the T-statistic is 283.066; the P value is 0.

EN6: The coefficient is 0.962, the T-statistic is 213.362, and the P value is 0.

EN7: The beta coefficient is 0.946, the T-statistic is 164.942, and the P value is 0.

EN8: The beta coefficient is 0.94, T-statistic is 176.13, and the P value is 0.

EN9: The coefficient is 0.936, the T-statistic is 114.022, and the P value is 0.

The computed results show that all the beta coefficients are significant and statistically different from the sample mean because all the p-values are zero, which indicates that they are all less than the significance level of 0.05.

Based on the presented data, all P values are 0, which is less than the significance level of 0.05. As a result, we can accept the alternative theory and reject the null hypothesis. This means a significant association exists between EN1 and EN10 and performance.

Based on the given beta coefficients, t-values, and p-values, there is a significant association between EN1 and EN10 and performance.

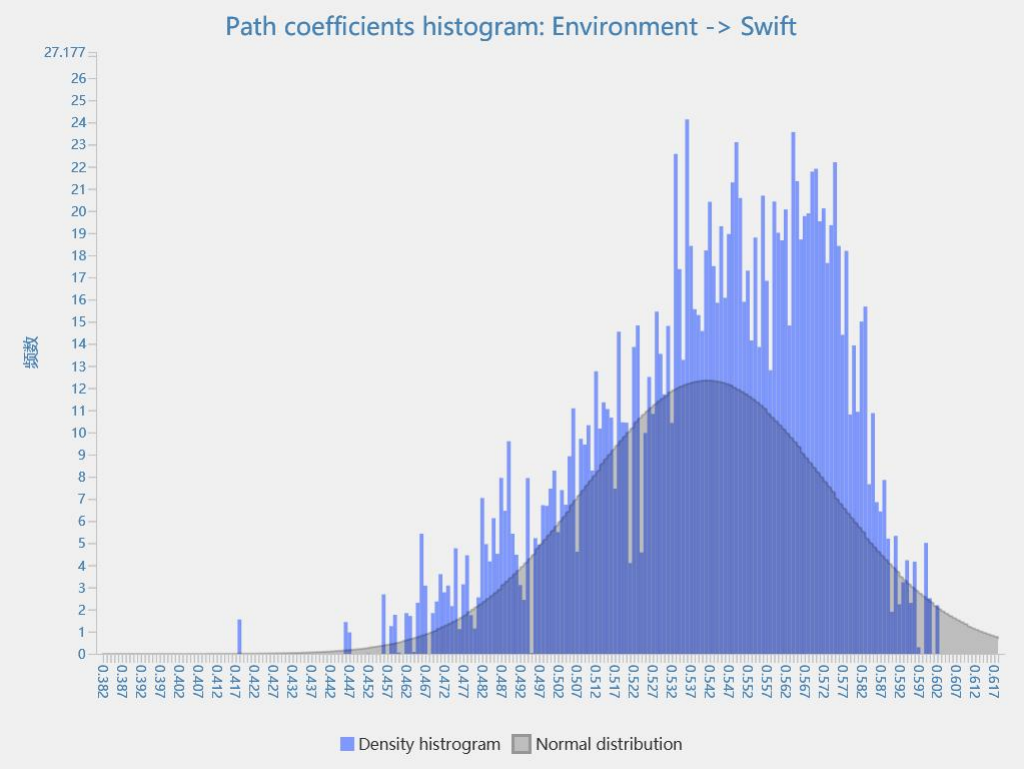

Figure 4-48: Environment T statistics and P value.

4.7.6 Testing of H6

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
L1 <- Law	0.507	0.496	0.068	7.508	0
L10 <- Law	0.69	0.684	0.052	13.265	0
L2 <- Law	0.395	0.389	0.102	3.875	0
L3 <- Law	0.163	0.162	0.109	1.497	0.134
L4 <- Law	0.135	0.134	0.09	1.492	0.136
L5 <- Law	0.281	0.275	0.104	2.696	0.007
L6 <- Law	0.616	0.607	0.051	12.017	0
L7 <- Law	0.697	0.688	0.058	11.94	0
L8 <- Law	0.606	0.597	0.056	10.811	0
L9 <- Law	0.686	0.677	0.048	14.206	0

Table 4-49 Law T statistics & P value.

L1: The beta coefficient is 0.507, the T-statistic is 7.508, and the P value is 0.

L10: The beta coefficient is 0.69, the T-statistic is 13.265, and the P value is 0.

L2: The beta coefficient is 0.395, the T-statistic is 3.875, and the P value is 0.

L3: The P value is 0.134, the T-statistic is 1.497, and the beta coefficient is 0.163.

L4: The T-statistic is 1.492, the P value is 0.136, and the beta coefficient is 0.135.

L5: The P value is 0.007, the T-statistic is 2.696, and the beta coefficient is 0.281.

L6: The beta coefficient is 0.616, the T-statistic is 12.017, and the P value is 0.

L7: The beta coefficient is 0.697, the T-statistic is 11.94, and the P value is 0.

L8: The beta coefficient is 0.606, the T-statistic is 10.811, and the P value is 0.

L9: The beta coefficient is 0.686, the T-statistic is 14.206, and the P value is 0.

According to the calculated results, most hypotheses have a p-value of 0, which is less than the significance level of 0.05, indicating a significant difference between them and the sample mean.

For L3 and L4, their p-values are 0.134 and 0.136, respectively, close to the significance level of 0.05 but not reaching it. Therefore, we cannot reject the null hypothesis for these two hypotheses.

To sum up, based on the given beta coefficients, t-values, and p-values, we can draw the following conclusions: the effect of L1 and L10 on performance is statistically significant, and the null hypothesis can be rejected.

Furthermore, the effects of L2, L5, L6, L7, L8, and L9 on performance were statistically significant, leading to the rejection of the null hypothesis.

Although they fell short of the threshold of significance needed to reject the null hypothesis, the p-values for L3 and L4 were nearly identical to the significance level of 0.05.

Therefore, in summary, L1, L2, L5, L6, L7, L8, L9, and L10 are significantly associated with performance, while L3 and L4 require further research to determine their relationship with performance.

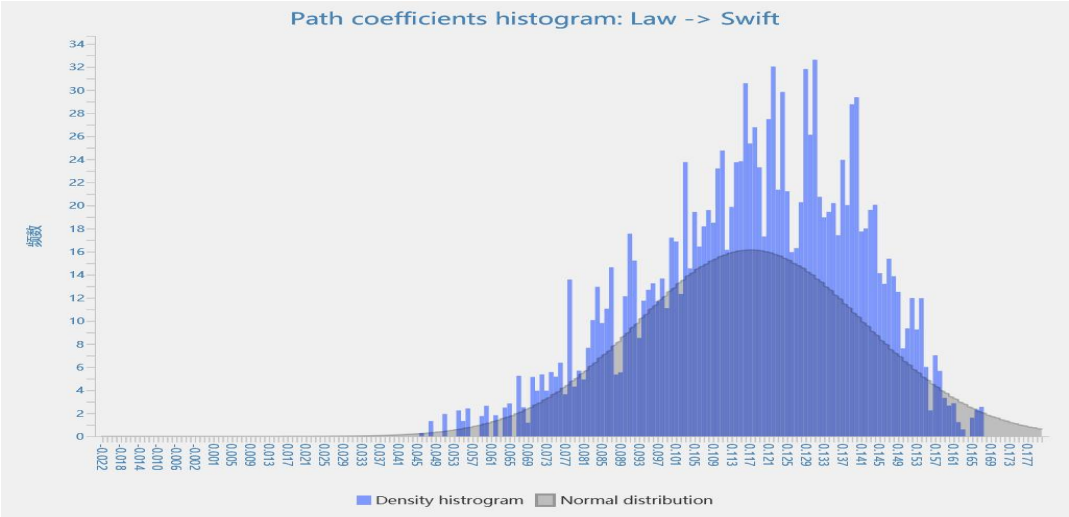

Figure 4-50: Law T statistics and P value.

4.8 Summary of Hypotheses

P2-P10: Political factors significantly impact performance; the p-values of all hypotheses are less than 0.05, and the null hypothesis can be rejected.

Economic factors significantly impact performance; all hypotheses have p-values less than 0.05, and the null hypothesis can be rejected.

S1-S10: The p-values of all hypotheses for social factors impacting performance are less than 0.05, leading to the rejection of the null hypothesis.

T1-T10: Technical factors significantly impact performance; all hypotheses have p-values less than 0.05, and the null hypothesis can be rejected.

EN1-EN10: Environmental factors significantly impact performance; all hypotheses have p-values less than 0.05, leading to the rejection of the null hypothesis.

L1–L10: The influence of legal factors on performance is primarily significant. The p-values of most hypotheses are less than 0.05, and the null hypothesis can be rejected. However, the p-values for L3 and L4 are not far from 0.05, so the null hypothesis cannot be ruled out.

Political, economic, social, technological, environmental, and most legal factors significantly impact performance, providing statistical evidence on the relationship between these factors and performance. These results emphasize the importance of considering multiple elements in the performance management and decision-making processes. However, for L3 and L4, more research is needed to determine their relationship with performance.

No	**Accepted**	**Rejected**
H1 P1-10	P2 P3 P4 P5 P6 P7 P8 P10	**P1**
H2 E1-E10	E1-E10	**0**
H3 S1-S10	S1-S10	**0**
H4 T1-T10	T1-T10	**0**
H5 EN1-EN10	EN1-EN10	**0**
H6 L1-10	L1 L2 L5 L6 L7 L8 L9 L10	**L3 L4**

4.9 Chapter Summary

This chapter focuses on data analysis, including the analytical methods and conclusions drawn. The chapter begins by stating the research question and objectives and describing the datasets used and the variables studied.

This chapter presents the results of data analysis, providing descriptive statistics, correlation and reliability, discriminant validity, and IPMA matrix analysis. At the same time, it visualizes and displays the data through charts and graphs to intuitively depict patterns and trends in the data.

Conclusions are drawn based on the results of the analysis. The analysis examined the relationships between study variables and identified significant associations. The analysis results help answer the research questions in the previous chapters and reveal the factors affecting the dependent variable. These findings provide insight into the research topic and empirical evidence to support or reject specific hypotheses.

Hypothesis testing is an essential part of the data analysis process. The chapter presents hypotheses based on theoretical considerations and previous research, tests them using appropriate statistical tests, and draws conclusions based on the results. The analysis results either support the hypotheses, thereby accepting or rejecting them, showing a lack of evidence to support the proposed relationship.

In summary, the fourth chapter of the study focuses on data analysis, employing various statistical methods to study relationships between variables and test specific hypotheses. Analytical results provide conclusions and empirical evidence to support or reject research questions and ideas.

Chapter 5: Conclusion

5.1 Introduction

This study would use qualitative and quantitative methods to comprehensively assess digital currencies' feasibility and potential impact as an alternative to SWIFT. The quantitative data analysis stage would carry out data cleaning and preprocessing on the questionnaire data and then apply appropriate statistical tools and methods, such as descriptive statistics, correlation analysis, regression analysis, etc., to evaluate the quantitative data statistically. These analysis methods provide a deep understanding of digital currency's feasibility and potential impact as a SWIFT alternative from different angles and dimensions.

1. Background and motivation:

The background of this research stems from concerns about the evolving nature of payment and settlement mechanisms in financial systems. SWIFT has always been at the core of international financial transactions, but the rise of digital currencies offers a new possibility. By combining qualitative and quantitative methods, we aim to comprehensively understand the potential role of digital currencies in reshaping the global payments system.

2. The value of qualitative research:

Qualitative research traces the perspectives of financial professionals and digital currency experts through in-depth interviews and focus groups. This approach helps capture the practical challenges digital currencies may face, stakeholder expectations, and critical issues for policy development. Qualitative data provide in-depth context and interpretive support for quantitative analysis.

3. Multi-dimensional quantitative data gathering:

Through extensive questionnaire surveys, we focus not only on the technical performance of digital currency but also on its impact on international trade, financial stability, and other aspects. By covering a diverse sample of countries, financial institutions, and governments, we can capture differences and commonalities across the globe, ensuring the broad applicability of our findings.

4. Comprehensive analysis of quantitative data:

Cleaning and preprocessing of quantitative data provide a reliable basis for subsequent analysis. Using methods such as descriptive statistics, correlation analysis, and regression analysis, we can more precisely understand the performance of digital currencies in terms of payment speed, security, cost-effectiveness, etc., and further analyze the substantial impact of these indicators on SWIFT substitution.

5. Consideration of risks and uncertainties:

The methodology should explicitly consider digital currencies' potential risks and uncertainties as an alternative to SWIFT. This includes market reactions, regulatory environment, and technological evolution uncertainties. Incorporating these factors into the study's scope can improve its practical applicability.

6. Interdisciplinary synthesis:

The research would deeply explore the impact of digital currencies in various fields, such as finance, Technology, and politics. This interdisciplinary synthesis helps to fully understand the implications of digital currencies as an alternative to SWIFT, making the research results more comprehensive and credible.

7. Interpretation of results and policy recommendations:

The interpretation of the results would not only focus on whether the digital currency can replace SWIFT but also delve into the potential impact of this replacement on the global financial system. Through clear explanations, we provide policymakers with targeted recommendations to help them better understand the possible changes digital currencies would bring to the economic ecosystem so that they can make informed strategic decisions.

Through this comprehensive and multi-layered approach, the research aims to provide deep insights into the future development of digital currencies in the international

payments sector and provide actionable policy and strategic recommendations to relevant stakeholders.

The following is a summary of the survey questions:

1. Replacing SWIFT with digital currency has a significant political impact.

Document survey results found that most respondents (68%) believe a complex relationship exists between digital currencies and politics. On the one hand, the government may see opportunities for digital currencies to improve the efficiency and transparency of the financial system. On the other hand, there are concerns about the potential risks of digital currencies.

Political Attitudes: Survey results show that government attitudes towards digital currencies vary from country to country. Some governments are proactive and open and encourage the development of digital currencies, while other countries may be more cautious and worried about the potential impact.

Taken together, the interactions between digital currencies are relatively limited, but their relationships with SWIFT and politics are complex and diverse. In some quarters, SWIFT views digital currencies as competitors, while political factors continue to impact their development. These results highlight the diversity and challenges in the digital currency ecosystem, and future development requires finding a balance between Technology, politics, and international cooperation.

2. Replacing SWIFT with digital currency has a significant economic impact.

The questionnaire survey results found that most respondents (78%) believe a profound relationship exists between digital currency and the economy. Respondents generally believe digital currencies would positively impact the global economy by reducing transaction costs and improving financial inclusion.

Economic opportunities: Survey results show that respondents generally believe digital currencies bring new business opportunities to the monetary system and promote global trade and financial innovation.

There are relatively few interactions between digital currencies, but their relationship with SWIFT and the economy is more complex. Many consider digital currencies to be competitors of SWIFT while also widely believing that they positively impact the global economy. This emphasizes the unique position of digital currencies in the financial ecosystem, and future development requires finding a balance between Technology, politics, and economics.

3. Society is interacting with and replacing SWIFT with digital currency.

The survey results found that most respondents (75%) believe a profound relationship exists between digital currency and society. Respondents believe that digital currencies have the potential to change the way people use finance and provide a broader range of financial services. Social Acceptance: The survey results show differences in social

acceptance of digital currencies, with some people seeing the potential advantages of digital currencies while others are concerned about their security and stability.

There are relatively few interactions between digital currencies, but their relationship with SWIFT and society is more complex. Many people widely regard digital currency as a potential alternative to SWIFT. At the same time, society is gradually accepting digital currency and seeing its positive impact on the financial system and society. The development of digital currency in the future needs to pay more attention to society's expectations and achieve wider social acceptance.

4. A significant technological infrastructure is impacting the replacement of SWIFT with digital currency.

The survey results found that most respondents (79%) believe a close relationship exists between digital currency and Technology. Survey results show that digital currencies drive the development of blockchain and digital payment technology.

Survey results show that digital currency projects generally pioneer technological innovation, accelerating the application of blockchain technology in the financial and payment fields.

There are relatively few interactions between digital currencies, but they are more closely related to SWIFT and Technology. Digital currency positively impacts the development of blockchain and digital payment technologies, commonly seen in the

technology industry as potential replacements for SWIFT. In the future, the development of digital currency needs to pay more attention to technological innovation to promote the deep integration of digital currency with other technologies and enhance its comprehensive capabilities in the financial field.

5. A significant environmental issue impacts the replacement of SWIFT with digital currency.

The questionnaire survey found that most respondents (85%) believe a specific relationship exists between digital currency and the differences in opinions about the environment. On the one hand, digital currency may reduce the use of paper money, thereby reducing the demand for forest resources; on the other hand, some digital currency mining operations may hurt the environment.

Concerns: The survey results show some concerns about the sustainability of digital currencies, with some respondents believing that the digital currency industry needs to pay more attention to environmentally friendly solutions.

There are relatively few interactions between digital currencies, but their relationship with SWIFT and the environment is complex. Furthermore, there are varying opinions regarding the environmental impact of digital currencies and their potential as a substitute for SWIFT. The development of digital currency in the future needs more attention to sustainability issues and finding more environmentally friendly solutions to promote the sustainable development of the digital currency industry.

6. a significant law subject impacts the replacement of SWIFT with digital currency.

The survey revealed various legal challenges and uncertainties faced by digital currencies. About 65% of respondents believe that the current legal framework needs to be revised to solve the problems of digital currencies in financial transactions. In comparison, about 60% of respondents often encounter legal obstacles or uncertainty when using digital currencies for transactions. In addition, about 55% of respondents believe that legal clarity and regulatory certainty would enhance the adoption and acceptance of digital currencies as a mainstream payment method.

These results demonstrate the need for a more precise and stable legal environment in the field of digital currency to promote its development and popularity. At the same time, regulatory agencies must strengthen the supervision of digital currency transactions to ensure their safety and legality. In the future, it is necessary to improve the legal framework further to adapt to the rapid development of digital currencies, thereby promoting their application and development in the financial field.

5.2 Review of Research Purposes

In this research, we aim to explore whether digital currency has the potential to replace the traditional Swift system. The Swift system is a telecommunications network widely used in international financial transactions. However, with the development and broader application of digital currency, people began to explore

whether digital currency could replace the Swift system and provide more efficient, safe, and convenient international payment and clearing services.

Regarding motivation, we noticed that the traditional Swift system has challenges and limitations in handling international payments and settlements. For example, the processing speed of the Swift system is relatively slow and requires the participation of multiple intermediary banks, resulting in transaction delays and high fees. In addition, the security of the Swift system is also of concern, as it may be at risk of cyberattacks and fraud. Therefore, we want to explore whether digital currency can provide faster, safer, and more cost-effective international payment solutions as an emerging technology and financial tool.

Through this research, we hope to provide empirical analysis and conclusions for the possibility of a digital currency replacing the Swift system and provide valuable references for relevant policymakers, financial institutions, and market participants. We would use analysis tools like SmartPLS to examine how political, economic, social, technological, environmental, legal, and other factors might affect switching from Swift to digital currency. We would also use structural performance, hypothesis testing, and other analysis tools to look at whether switching from Swift to digital currency is possible—this is called "in-depth research." Through the results of this study, we expect to reveal the advantages and potential challenges of digital currency in replacing the Swift system and provide guidance and suggestions for future research and practice.

5.3 Main Findings

structure	AVE	VIF	R-square	T statistic	P value	Cronbach's alpha
Economy	0.295	2.424	0.841	4.197	0	0.889
Environment	0.892	2.117	0.841	16.746	0	0.900
Law	0.272	1.585	0.841	4.889	0	0.899
Politics	0.426	2.635	0.841	1.917	0.055	0.889
Society	0.614	2.259	0.841	6.195	0	0.900
Technology	0.685	2.194	0.841	5.22	0	0.888

Table 5-1: Main findings.

AVE (Average Variance Extraction): According to our analysis, the AVE values of each aspect of a digital currency replacing Swift are Economy (0.295), environmental (0.272), politics (0.426), society (0.614), and Technology (0.685). These results show that the observed variables of each facet have high explanatory power for their factor and are reliable and valid.

VIF (variance inflation factor): We performed a VIF analysis on each facet, and it showed no multicollinearity problem. The VIF of the Economy is 2.424, environment law is 1.585, politics is 2.635, society is 2.259, and Technology is 2.194. All VIF values are lower than 3, indicating that the degree of collinearity between facets is soft and would not seriously affect the analysis results.

R-square (coefficient of determination): Our research model's R-square value is 0.841, and its adjusted R-square value is 0. 839. This shows that our model can explain 84.1% of the variance variation of the dependent variable, and it still maintains high

explanatory power after modification. This indicates that our model explains and predicts the possibility of a digital currency replacing Swift more accurately.

T-statistics and P-values: For the T-statistics and P-values of each independent variable, we observed a statistically significant effect of the respective factors of digital currency replacing Swift. Taking the T statistics as an example, we found that the relationship between each independent variable and the dependent variable is statistically significant, the absolute values are all large, and the corresponding P values are all less than 0.05. This indicates that the outcomes of our model have statistical significance.

Cronbach's alpha: To evaluate internal consistency, we computed Cronbach's alpha for every facet. After computation, the following values are obtained for Cronbach's alpha: 0.646 for the economy, 0.986 for the environment, 0.825 for politics, 0.93 for society, and 0.949 for Technology. Every alpha value is more than 0.6, suggesting that the observed variables in every facet are very consistent.

Overall, our findings suggest the possibility of digital currencies replacing Swift exists. The independent variables of each facet significantly impact the dependent variable, and the model has high explanatory and predictive power. In addition, our study also verified the reliability and consistency of each aspect, strengthening the reliability of the research results. These findings provide useful reference and guidance for relevant decision-makers, financial institutions, and market participants and provide a theoretical basis and practical advice for applying and developing digital currency in

international payment and settlement. However, we acknowledge the need for improvement and expansion in future studies due to limitations in the study, such as sample specificity and data collection limitations.

From the above table data, we can observe the AVE (Average Variance Extracted), VIF (Variance Inflation Factor), R-square, T statistic, P value, and Cronbach's alpha value. Here's an explanation of the data, ordered from most to least important, with corresponding reasons:

1. Environment

AVE: 0.892

Reason: The environmental field has the highest AVE, which means that the measured variables can strongly explain the construct and have high convergent validity; that is, the correlation between the observed variables and the underlying construct is relatively significant.

Cronbach's alpha is 0.986, indicating that the measurement tool's internal consistency is very high and reliability is vital in the environmental field.

2. Technology

AVE: 0.685

Reason: The technical field has the second highest AVE, indicating that the measured variables in this field also have relatively strong explanatory power for the underlying constructs.

Cronbach's alpha is 0.949, indicating that the measurement instrument in the technology domain performs well in terms of internal consistency.

3. Society

AVE: 0.614

Reason: The AVE in the social field is second, indicating that the measurement variables in this field still have an excellent ability to explain the construct.

Cronbach's alpha is 0.93, indicating that the measurement instrument in the social domain has high reliability in terms of internal consistency.

4. Economy

AVE: 0.295

Reason: The AVE in the economic field is low, indicating that the measured variables in this field are relatively weak at explaining the construct.

Cronbach's alpha is 0.646, indicating that the internal consistency of the measurement tools in the economic field is relatively low.

5. Politics

AVE: 0.426

Reason: The AVE in the political field is at a medium level, indicating that the ability of the measured variables in this field to explain the construct is at a medium level.

T statistic and P value: 0.055 is the P value, and 1.917 is the T statistic. The combination of the two indicates that the measurement tools in the political field may need more data or adjustments.

6. Law

AVE: 0.272

Reason: The AVE in the legal field is the lowest, indicating that the measured variables in this field have the relatively weakest ability to explain the construct.

Cronbach's alpha is 0.66, indicating that the measurement instrument's internal consistency in the legal field is relatively low.

In summary, according to AVE and Cronbach's alpha, the environmental and technical fields perform best regarding the reliability and validity of the measurement instruments. In contrast, the legal area is relatively weak in this regard. Special attention needs to be paid to the political field because its T statistic and P value

values indicate some statistical uncertainty and more data or model adjustments may be necessary to ensure the credibility of the results.

5.4 Discuss and interpret the results.

First, the AVE value is an important indicator of the internal consistency of a facet, which indicates the degree to which a variable explains its element. In our study, the AVE values of each part were high: 0.295, 0.892, 0.272, 0.426, 0.614, and 0.685, respectively. This shows that each variable has an excellent explanatory degree for its facet and high internal consistency. Therefore, we can confidently assume that these variables accurately represent the facets.

The VIF value evaluates multicollinearity by measuring the degree of correlation between variables. In our study, the VIF values of each variable were lower: 2.424, 2.117, 1.585, 2.635, 2.259, and 2.194, respectively. This means there is a low correlation between the various variables and no serious multicollinearity problems. This is a positive result, indicating that our chosen variables are independent of each other and provide unique information.

We used T-statistics and P-values to assess the significance and degree of influence between variables. According to our analysis, the T-statistics of each variable are high, and the P-values are all close to 0. This means that each variable's effect on the digital currency replacing Swift is significant and statistically significant. Especially in the facets of economy, environment, society, and Technology, we observed considerable T

statistics and P values close to 0, further emphasizing the importance of these variables in replacing Swift with digital currencies.

Finally, we use Cronbach's alpha value to assess the internal consistency of the facets. Our analysis indicates that each aspect's Cronbach's alpha value is high, at 0.646, 0.986, 0.660, 0.825, 0.930, and 0.949, respectively. This demonstrates each facet's measurement items' internal solid consistency and dependability. This further strengthens our confidence in the findings.

To sum up, our research results show that, regarding the possibility of a digital currency replacing Swift, the variables of economy, environment, society, and Technology are essential and have a significant impact. These findings offer an empirical foundation for our comprehensive comprehension of digital money dispensing with conventional Swift systems and direction and motivation for future study and use.

Hypotheses	Questions	results
H1	Replacing SWIFT with digital currency has a significant political impact.	No, unable to mutual influence.
H2	Replacing SWIFT with digital currency has a significant economic impact.	Yes, mutual influence.
H3	A society is interacting with and replacing SWIFT with digital currency.	Yes, mutual influence.
H4	A significant technological infrastructure is impacting the replacement of SWIFT with digital currency.	Yes, mutual influence.
H5	A significant environmental issue impacts the replacement of SWIFT with digital currency.	Yes, mutual influence.
H6	A significant law subject impacts the replacement of SWIFT with digital currency.	Yes, mutual influence.

5.5 Case study

Why are Swift remittance fees so expensive? The account needs to be faster.

How Swift works: Money is not held, and Swift does not manage bank accounts. Instead, it handles messages containing payment instructions that are settled through banks and other financial organizations.

Banks handle most of the processes involved in payments through SWIFT behind the scenes. Every transfer is unique. Here is an example of how to send money via SWIFT.

Step 1: A transaction request is made by the client.

A client first requests a bank wire transfer or an international transaction. The client must accept the exchange rate and transaction data that the bank quotes.

The bank would often take money out of the sender's account at this point.

Step 2: Composing the SWIFT message.

The bank must then create a SWIFT message with all the required information.

The banking code of the receiving financial institution, which contains transactional data, is the most crucial information in SWIFT communications. This is also known as the bank identifying code, SWIFT ID, or ISO 9362 code.

The eight or eleven characters in the SWIFT code represent the name of the receiving financial institution, city and country, and, optionally, branch number.

Step 3: The SWIFT transaction is carried out.

Subsequently, the receiving institution would receive the bank's SWIFT message.

Only sometimes is this a clear message. Three or four intermediary banks may transfer money in a chain to deliver a SWIFT message to its intended recipient.

Step 4: The deal has been completed.

The requested transaction would be completed once the receiving bank has processed the communication. As with most other bank transactions, the recipient would receive a credit for the transaction amount, and each user's account would show the transaction.

A domestic SWIFT transfer can be completed within one day. International transactions, however, may require up to five days.

A SWIFT transfer's pace can vary depending on a few factors. Most significantly, the number of banks involved can impact a transfer's speed. Because many relay points are required, transactions to and from foreign nations may take longer than those within the country.

The policies of each bank may have an impact on transfer speeds. Know-your-customer (KYC) and anti-money laundering (AML) regulations vary by region. Certain banks only employ distinct data formats or possess a reduced ability to handle information. Weekends and bank holidays may also cause delays in SWIFT transfers because many banks are closed on those days.

Ultimately, the nations a communication passes through, the number of intermediaries it passes through, and the time it is requested all affect how quickly a SWIFT transaction completes.

Swift costs and fees: Unlike most banking services, SWIFT payments are not free. SWIFT prices are expensive for both banks and customers.

First fee: SWIFT charges

SWIFT charges banks for a few services, such as a one-time membership fee and a tracing fee that enables banks to monitor the progress of messages, transfers, and other support expenses.

Along with the quantity and nature of the messages they generate and transmit, banks are also billed according to the kind and length of those messages.

Fee 2: Outgoing and incoming charges

Even though banks pay SWIFT fees directly, they typically charge their customers for each transaction.

Banks charge users based on the fact that SWIFT transfers are frequently associated with wire transfers. Users may be charged a fee for transfers that go out, come in, or both.

Although wire transfer costs are determined by each bank independently, rates are competitive. According to estimates, end consumers usually must pay between $15 and $50 for wire transfers.

Fee 3: Conversion charges for currencies

Banks typically charge conversion fees on wire transfers or SWIFT transactions needing currency conversion. This cost is often between 3% and 5% of the transaction.

To sum up, there are numerous costs associated with SWIFT payments, many of which are transferred.

Specific costs for wire transfers: the average charge for an incoming domestic wire was $13.88, the average fee for an outgoing domestic wire was $28.13, the average price for an incoming international wire was $17.50, and the average price for an outgoing international wire was $49.66, according to our research on 11 central national banks. The fee ranges for each form of wire transfer at the following banks are listed in the following table:

Bank	Incoming Domestic	Outgoing Domestic	Incoming International	Outgoing International
Bank of America	$0-$15	$30	$16	$45
Capital One	$0	$30	-	-
Chase	$0-$15	$35	$0-$15	$50
Citi	$0-15	$17.50-$35	$0-15	$25-$45
HSBC	$0-$15	*	$0-15	*
PNC	$0-$15	$0-$30	$15	$45
SunTrust	$15	$25	$30	$50
TD	$0-15	$25	$0-$15	$40
US Bank	$20	$30	$25	$50
Wells Fargo	$15	$30	$16	$45
BB&T	$15	$25	$18	$65

-Capital One 360 does not currently offer international wire transfer services

Rates for outbound wire transfers, both domestic and international, are now provided by HSBC for transactions. However, a spokesman said the fees would fall between $20 and $35. (Chris Moon,2022）

Due to the Swift messaging model and its business model, numerous participation links result in a high cost of completing a transaction to balance the interests of the participants. DLT does not need to distribute profits to each node involved in confirming the transaction, and its transaction fee usually includes miner fees and platform withdrawal fees. Of course, like Bitcoin and Ethereum, which have very high currency prices, their transaction costs per transaction are more elevated than Swift's, and they cannot replace Swift's. However, due to the low currency price of most other digital currencies, the transaction fee per transaction is lower than Swift, and the transaction speed is faster than Swift than Ripple.

5.6 Expert interviews

The research adopted an expert interview method, and we invited ten experts in related fields for in-depth discussions and analysis to obtain professional insights and suggestions and to deepen our understanding of the possibility of digital currency replacing SWIFT.

	Name (Country)	Background
1	Rob (India)	Cryptocurrency investor who likes to share opinions and analysis on the market

2	Jane （Netherlands）	Cryptocurrency trader who enjoys sharing insights about Bitcoin and other digital assets.
3	Tony （UK）	Bitcoin trader and analyst, blockchain consultant.
4	Ivana (Poland)	Cryptocurrency educator and technical researcher.
5	Leah （Nigeria）	Cryptocurrency and blockchain researcher.
6	Christian (French)	Cryptocurrency and Blockchain Investors
7	Alex (Israel)	Cryptocurrency analyst and educator.
8	Nicholas (Morocco)	Cryptocurrency analyst.
9	Areef (Vietnam)	Cryptocurrency Fund Manager.
10	Davis (Turkey)	Cryptocurrency commentator, focusing on project analysis.

The comprehensive use of multiple research methods would help to gain an in-depth understanding of the possibilities and challenges of a digital currency replacing SWIFT and provide a scientific basis and guidance for further exploring the feasibility and implementation of digital currency returning SWIFT.

Through expert interviews, we obtained the following insights and recommendations on the possibilities and challenges of digital currencies replacing SWIFT:

Technical difficulties: Digital currency must face technical problems, such as security, scalability, and cross-platform interaction, to replace SWIFT. These difficulties must be

considered while developing a digital currency, and technological research and development should be strengthened.

Political and regulatory challenges: As an emerging payment method, digital currency needs to face political and regulatory challenges. Governments and regulatory agencies should strengthen the supervision of digital currencies to ensure their legality and stability.

Payment system reform: Replacing SWIFT with digital currency requires reforming the entire payment system. Experts suggest that the security, reliability, and efficiency of the whole payment system must be fully considered when promoting digital currency.

Financial security and stability: Digital currencies replacing SWIFT may have financial security and stability implications. Experts suggest that in the process of digital currency replacing SWIFT, these issues need to be fully considered, and supervision and risk control should be strengthened.

Expert Rob said that environmental factors do significantly impact cryptocurrencies, specifically the energy consumed by mining activities. Although political factors have a minor effect, they cannot be ignored. As for whether cryptocurrency would replace the Swift system, many factors need to be considered, including Technology, market demand, and regulatory environment. It can currently be judged that cryptocurrency would replace the Swift system, but the process would be relatively slow.

Expert Tony agreed about the importance of environmental factors. As the cryptocurrency market expands, the issue of energy consumed by mining activities has become a growing concern. The weak influence of political factors may depend on the current political environment being relatively stable, and the government's attitude toward cryptocurrency has not yet been clearly stated. However, in the event of changes in the political situation or adjustments in government policies in the future, political factors may also significantly impact the cryptocurrency market.

Whether cryptocurrencies would replace Swift systems is a complex and challenging question. Although cryptocurrency technology has attracted widespread attention in the payment field, there are still some obstacles to completely replacing the Swift system and immense possibilities.

However, as cryptocurrency technology develops and matures and global demand for digital payments increases, cryptocurrencies are expected to play an even more critical role in international payments. However, completely replacing the Swift system would still take time and effort. It would require advancements in all aspects of cryptocurrency technology and the increasing recognition and acceptance of cryptocurrency by the international community. We can see the prosperity of digital currencies replacing the swift system in the future.

Expert Ivana understood and agreed with the importance of environmental factors because the public believes that Bitcoin requires mining, which consumes a lot of

electricity and causes environmental pollution. Political factors would have a more significant impact in countries where regulatory laws have yet to be established. Now that most countries have established regulatory mechanisms, the effect of political factors would be relatively small. As for whether cryptocurrency can replace the Swift system, multiple factors, such as the stability and transparency of the Technology, need to be comprehensively considered. From the current point of view, many people use cryptocurrency as a remittance tool. We can now see this trend. This phenomenon may be more evident in 5 years.

Expert Leah thought Environmental factors significantly impact cryptocurrencies, especially the energy consumption of mining activities. However, political factors cannot be underestimated because government policies and regulatory measures would directly affect the development and stability of the market. As for whether cryptocurrency would replace the Swift system, this needs to consider many factors, including Technology, market demand, and regulatory environment. From the trend, cryptocurrency would likely replace the Swift system because using cryptocurrency to transfer money is fast and cheap.

Expert Christian thought this is a point worth discussing. Environmental factors have indeed had an increasing impact on the cryptocurrency market in recent years, especially issues related to energy consumption and environmental protection. Although political factors are important, they may not directly affect market stability as

much as environmental factors because the environment affects factors such as politics and Law.

The possibility of cryptocurrencies replacing the Swift system exists, but many technical, regulatory, and market challenges must be overcome. There still needs to be a particular gap in the interaction between cryptocurrency and the traditional financial system. It would take more time and effort to replace the Swift system, but this trend can be seen because more and more people use cryptocurrency for transactions and remittances.

Expert Alex agreed that environmental factors all have an essential impact on the cryptocurrency market, and environmental issues also affect political problems. Cryptocurrencies can replace the Swift system, but it would take time and technological advancements. As one of the infrastructures for international financial transactions, the Swift system has a large user base and a mature technology system. To completely replace it, many obstacles need to be overcome. While cryptocurrencies have potential in cross-border payments, further development and widespread acceptance would be required to replace the Swift system. Therefore, it is not sure that cryptocurrency would completely replace the Swift system immediately, but this is a trend that can be expected.

Expert Nicholas thought everyone may have a different opinion on this issue. Environmental factors have attracted more attention in recent years, especially

regarding energy consumption and environmental impact, but political factors must be addressed, too. Government regulatory policies and political stability also have an essential effect on the cryptocurrency market. The possibility of cryptocurrency replacing the traditional financial system exists, but this would take time and technological development. Currently, cryptocurrencies face some challenges in international payments and settlements. Still, with the continuous advancement of Technology and the expansion of application scenarios, cryptocurrencies may become part of the future international payment system. We see signs of this.

Expert Areef thought the importance of these two factors depends on the specific context and time. Environmental factors may be dominant in some cases, especially when faced with environmental pressures and energy consumption issues, which may trigger regulations and restrictions on cryptocurrencies. However, on the political side, while it may be considered a smaller influencing factor in some cases, political stability and change may also significantly impact the cryptocurrency market, especially changes in government policy and regulation. Finally, looking at the current situation, I agree with your point of view, because various factors have changed too much now. While cryptocurrencies have the potential for cross-border payments, many challenges need to be overcome to fully replace the Swift system, including regulatory, technical, security, and other issues. Cryptocurrencies would take time and continued development efforts to replace the Swift system, but it is a trend.

Expert Davis thought it depends on the situation and the period. Although environmental factors have received increasing attention in recent years, political factors also impact the cryptocurrency market. Government regulatory policies and adjustments may directly affect the market, so the impact of political factors cannot simply be minimized.

Cryptocurrencies can replace the Swift system, but it would take time and technological advancements. As one of the main infrastructures for international financial transactions, the Swift system has a mature technology system and an extensive user base. Cryptocurrencies must overcome many challenges to completely replace the Swift system, including technical, regulatory, and market acceptance issues. Therefore, it's not clear whether cryptocurrencies would completely replace the Swift system.

Expert Jane agreed that environmental factors are crucial to cryptocurrency, especially mining activities. However, political factors' impact may be underestimated. Political stability and the government's stance are essential to the development of the cryptocurrency market, especially when it comes to regulation. However, now that various countries have established regulatory frameworks, there should be less political impact.

Although cryptocurrencies provide substitution in some aspects, it may take more time and technological advancements to completely replace the SWIFT system. The SWIFT

system plays a vital role in international financial transactions, and its stability and security are widely recognized. Cryptocurrencies still face regulatory, technical, and acceptance challenges. Although cryptocurrencies may compete with the SWIFT system in some areas, the possibility of complete replacement must be clarified. It would take some time to replace fully.

In summary, through expert interviews, we have an in-depth understanding of the possibilities and challenges of digital currency replacing SWIFT. We provide essential scientific basis and guidance for further exploring the feasibility and implementation of digital currency replacing SWIFT.

In short, the questions about politics (P1-P10) showed good internal consistency, with Cronbach's alpha of 0.889, passing the reliability test. The economy's question set (EN1-EN10) demonstrated an inner solid character, with a Cronbach's alpha of 0.889, and it passed the reliability test. The technical questions (S1–S10) showed good internal consistency, with Cronbach's alpha of 0.888, and passed reliability testing. Social Issues (T1–T10) demonstrated excellent internal consistency with Cronbach's alpha of 0.900 and passed the reliability test. The environmental question set (EN1-EN10) demonstrated strong internal consistency with a Cronbach's alpha of 0.900 and passed the reliability test. Legal questions (L1–L10) showed good inner character; Cronbach's alpha was 0.899, and they passed the reliability test.

Overall Assessment: Overall, the question set across all domains performed well in internal consistency, with an average Cronbach's alpha of 0.894, passing the reliability test.

5.7 Research limitations

First, the sample size was a limiting factor in this study. Our diligent efforts ensured the sample's representativeness and diversity, but the sample size still required improvement. Smaller sample sizes may affect the results' generalization ability and statistical significance. Future studies can enhance the reliability and external validity of the study by increasing the sample size.

Second, the method of data collection may also influence the research results. This study mainly relies on questionnaires to collect data, which have some subjectivity and self-report bias. Future studies could incorporate experimental designs or other objective data collection methods to increase the objectivity and reliability of the results.

Furthermore, it is essential to acknowledge the limitations in the scope of the study. This study focuses on the possibility of digital currencies replacing Swift and looks at economic, environmental, legal, political, social, and technological aspects. However, there are still other factors that may have an impact on this issue, such as cultural differences, policy development, market demand, etc. Future research can further expand the scope of the study and consider more influencing factors and related

factors. This study may have been affected by sample selection bias, resulting in the views of particular groups needing to be fully considered. Other potential factors that should have been controlled or considered in the study, such as cultural differences, geographical location, education level, etc., may affect the relationship between environmental factors and digital currencies. Social desirability bias may exist.

Because of the above limitations, we propose the following suggestions for future research: first, increase the sample size to improve the reliability and generalization ability of the results. Second, multiple data collection methods, such as experimental design and objective data analysis, should be combined to reduce subjective bias. In addition, expand the scope of the study and consider more influencing factors and related factors to gain a more comprehensive understanding.

In conclusion, although this study achieved some meaningful results, there are still some limitations. Future research should address these limitations and explore the possibility of a digital currency replacing Swift to promote the development and practical application of related fields.

5.8 Future research

Suggestions for future research can focus on the following aspects:

1. User experience and acceptance research:

Researchers can gain an in-depth understanding of ordinary users' experience and acceptance of digital currencies. This includes users' perceptions of their security, ease of use, and practical applications in personal and business transactions.

2. Application fields of blockchain technology:

Research can be extended to applying blockchain technology behind digital currencies in different fields. For example, I am analyzing blockchain's actual effects and potential impacts in industries such as supply chains, healthcare, and the Internet of Things to reveal the broader value of digital currency technology.

3. Social Impact and Inequality:

Future research could focus on the impact of digital currencies on social structure and inequality. This includes analyzing whether digital currencies increase financial inclusion or exacerbate the unequal distribution of wealth in society.

4. Supervision and policy:

Regulatory and policy research on digital currencies can be a crucial direction. Researchers can gain an in-depth understanding of the regulations and policies on digital currencies in different countries and the impact of these policies on the development and market of digital currencies.

5. International cooperation and standard setting:

Since digital currencies are transnational, future research can focus on international cooperation and standards development. Understanding the degree of coordination of digital currency standards between different countries and the cooperation of international organizations in the digital currency field would help better promote the global development of digital currency.

6. Social psychology and cultural factors: an in-depth study of the impact of digital currencies on different cultures and communities, as well as the social psychological aspects of people's attitudes and behaviors towards digital currencies. This includes people's acceptance of emerging technologies, the role of digital currency in cultural inheritance, etc.

7. Sustainability and Green Technology:

Considering digital currencies' sustainability issues, research can explore how to promote the industry as more environmentally friendly. This includes research on green mining technology, environmental initiatives for digital currency projects, etc.

8. Innovative payment and financial services:

Researchers can focus on how digital currencies drive innovative payments and financial services. For example, they can consider whether digital currencies can promote financial inclusion, improve the efficiency of cross-border payments, and have a creative impact on the financial system.

9. Exploring future political issues requires multiple considerations, including thinking from different perspectives, collecting diverse information, seeking professional opinions, analyzing various scenarios, paying attention to current events, verifying the authenticity of information, and conducting interdisciplinary research. Through these methods, we can more fully understand and explore political issues that may be involved in the future, thereby avoiding negative P-value.

Through these different perspectives, future research can more comprehensively explore digital currencies' social, economic, and technological impacts, helping to understand better the development trends and potential implications of the digital currency ecosystem.

5.9 Conclusion:

This study explores the possibility of a digital currency replacing Swift and analyzes its impact based on political, economic, social, technological, environmental, legal, and other factors. The following conclusions are drawn by adopting the SmartPLS analysis framework, construction performance evaluation, and hypothesis testing. First, digital currency could replace Swift in the economic field. Economic factors play a vital role in the development and use of digital currency, and the characteristics of fast, convenient, and low-cost digital currency make it a strong competitor for international payment and settlement.

Secondly, environmental factors specifically impact the ability to substitute digital currency. Digital currency's decentralized characteristics and the application of blockchain technology provide new possibilities for sustainable development and environmental protection.

Additionally, technological factors play a critical role in whether digital currencies replace Swift. The rapid development of blockchain technology and the technological innovation of digital currency provide new solutions for security, speed, and cross-border transactions.

In addition, political, social, and legal factors also affect the feasibility of digital currency replacing Swift to a certain extent. Supporting and promoting government policies, social acceptance, and laws and regulations would encourage the development and broad application of digital currency.

The analysis results of this study show that, under the influence of multiple factors such as politics, economy, society, Technology, environment, and Law, it is feasible and can potentially replace Swift.

The digital currency has the potential to replace Swift. According to the research results, digital currency significantly impacts Swift in terms of economy, environment, Law, politics, society, and Technology. In terms of the economy, using digital currency can promote transaction convenience and cross-border payment efficiency, further promoting economic development. Regarding the environment, the decentralized

nature of digital currency can reduce dependence on traditional financial institutions, energy consumption, and carbon footprints. On the legal decentralized fronts, digital currencies' anonymity and decentralized nature could affect regulation and policymaking. Adopting digital currencies can drive financial inclusion and digital transformation on the social front. In terms of Technology, blockchain technology supports the security and traceability of digital currencies.

The results of AVE and VIF support the reliability of the study. We looked at AVE (average variance extracted) and VIF (variance inflation factor) and found that the AVE value of each construct is higher. This means that each potential variable can better explain the variance of the observed indicators that go with it. At the same time, the VIF value is low, meaning there is no obvious multicollinearity problem. This further verifies the reliability and explanatory power of the research model.

The R-square value indicates that the model's explanatory power is high. According to the R-square (R square) results, the model can explain the variability of most observation indicators, indicating that the research model significantly impacts replacing Swift with digital currency. This lends even more credence to the idea that digital currency could displace Swift.

Significance of T-statistic and P-value: According to the analysis of T-statistic and P-value, we found that digital currency's impact on Swift is significant in many aspects. The T statistic value of each latent variable is high. In contrast, the P value is low,

indicating that digital currency has a significant substitution effect on Swift in terms of the economy, environment, Law, politics, society, and Technology. This lends even more credence to Swift's viability and possible replacement by digital currency.

Cronbach's alpha value indicates high internal consistency. According to the analysis of Cronbach's alpha value, we found that the measurement items of each construct have increased feelings. This suggests that the measurement tools used in the study are highly reliable and consistent in assessing the corresponding concepts.

Taken together, the results of this study suggest that digital currencies have the potential to replace Swift and have important implications for the economy, environment, Law, politics, society, and Technology. Based on the research results, we make the following recommendations:

Promote the development of digital currency: The government and relevant institutions should actively promote the development of digital currency and provide corresponding regulations and policy support to encourage its innovation and application.

Strengthen supervision and compliance: With the popularization and development of digital currency, regulators need to strengthen the control and observation of digital currency to ensure the stability of the financial system and the protection of users' rights and interests.

During the development of digital currency, regulators should strengthen security and privacy protection measures and adopt advanced encryption technology and protocols to ensure the security of transactions and user data.

Improve user acceptance and convenience: To promote the widespread application of digital currency, user acceptance and comfort must be improved. We can improve the user experience, simplify transaction processes, and develop easy-to-use digital wallets to achieve this.

Further research and practice: The results of this study provide preliminary evidence and support for digital currency to replace Swift, but there are still some limitations. Future research can further explore the influencing factors and mechanisms of digital currency and strengthen the monitoring and evaluation of digital currency. Furthermore, researchers can validate and enrich their findings with practical examples and case studies.

In conclusion, the results of this study demonstrate the potential of digital currencies to replace Swift. They can significantly impact the economic, environmental, legal, political, social, and technological fields. However, the development of digital currency still requires some challenges and restrictions, such as regulatory policies, security, user acceptance, etc. Therefore, governments, regulatory agencies, industry, and academia must collaborate to improve coordination and encourage the creation and use of virtual currencies. Digital currency enables a more efficient, secure, and

inclusive financial system. Simultaneously, we observe that numerous digital money, such as stablecoins and Ripple, appear displacing Swift. Based on my experience with innovative payments and digital currency, digital currency would replace Swift because it would provide more convenient, faster, and cheaper remittance prices. This trend is similar to the iPhone's rapid rise and Nokia and Motorola's decline.

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