

# Cross-Border Payment Infrastructure and International Business In Asia: A Narrative Review Of SWIFT's Operational And Regulatory Challenges



Anuveeta Datta Chowdhury<sup>1</sup>, Dr. Shyam Singh<sup>2</sup>,

<sup>1</sup>Ph.D. Scholar, Faculty of Law, Oriental University, Indore, anuveetadc@gmail.com

<sup>2</sup>Assistant Professor, Faculty of Law

## Abstract

International business increasingly relies on cross-border payment systems to facilitate trade, investment, and global supply chain coordination. Payment infrastructures play a critical role in shaping transaction efficiency, regulatory compliance, and access to international markets, particularly in rapidly growing Asian economies. This study offers a narrative review of cross-border financial transactions conducted through global financial messaging networks, examining the operational and regulatory challenges that influence sustainable entrepreneurship in Asia. The review highlights persistent operational frictions, including transaction complexity, processing delays, cost inefficiencies, and uneven technological capacity across countries. These challenges are compounded by regulatory pressures related to financial integrity, sanctions enforcement, and data governance, which collectively increase compliance burdens for firms and financial institutions. The analysis further demonstrates that such constraints disproportionately affect small and medium-sized enterprises and sustainability-oriented ventures, limiting their ability to participate effectively in international business and sustainable trade. By integrating perspectives from international business, financial infrastructure, and sustainability-oriented entrepreneurship research, the study underscores the interconnected nature of payment efficiency, regulatory governance, and entrepreneurial resilience. Emerging technological and strategic responses aimed at improving transparency, speed, and reliability in cross-border transactions are also discussed. The study concludes that enhancing payment system efficiency and regulatory coordination is essential for supporting sustainable entrepreneurship and inclusive economic development across Asia.

**Keywords:** Cross-border payments, International business, Sustainable entrepreneurship, Financial infrastructure, Asia

## 1. Introduction

SWIFT is positioned at the heart of the global business environment because it enables banks and other financial institutions worldwide to receive and send interbank and other financial messages over the border safely and to standardize these messages. As the world becomes increasingly reliant on global trade, foreign direct investment, the international supply chain relies on the synchronized financial operations, the SWIFT transactions have become a significant infrastructural base of the contemporary international business operations. Besides being technical, global financial networks such as SWIFT are also the signs of deeper power relations coded in economic interdependence, and define how states, firms, and markets can be related to one another in the global economy (Farrell and Newman, 2019). The SWIFT operations are thus not transactions business instruments but strategic facilities that define how well, stable and governed international trade is. The new school of thought has highlighted the reality that financial infrastructures are not envisioned as neutral conduits of transactions but are instead in the form of socio-technical systems. The development of global finance has increasingly been influenced by

technological infrastructures to structure global flows of information, capital and risk across borders (Bernards and Campbell-Verduyn, 2019). SWIFT in that aspect is a core coordination instrument that transforms financial ties into standard data streams, which enhances the new viewpoint that money is becoming increasingly configured as data (Westermeier, 2020). This shift has made global business activity more dependent on digital payment systems, making systems that are incorporated in the system more efficient and vulnerable.

Meanwhile, financial systems have been embroiled in the security and governance issues. The convergence of finance and security has made payment systems the location of regulatory controls, monitoring, and risk controls, specifically on illegal finance and geopolitical conflicts (de Goede, 2020). Such dynamics have only made the strategic significance of SWIFT even higher, as the regulatory and political pressures exerted on the world intensify the monitoring, control and even restriction of cross-border transactions. In infrastructural geopolitical terms, the networks of global payments have become the fields where economic connectivity and political power overlap, frequently resulting in uneven effects

throughout regions and sizes of firms (de Goede & Westermeier, 2022).

The increasing importance of Asia in the world trade and finance, as well as in the entrepreneurship, provides even more importance to the investigation of SWIFT transactions. Asian economies are now the key points of intersection in the global production networks, export-driven growth, and cross-border investments, as well as a home to fast-growing entrepreneurial ecosystems. In such a context, sustainable entrepreneurship has been of special relevance as companies have grown to be interested in balancing economic performance with the environmental and social goals. Sustainable entrepreneurship focuses on innovative business models that can solve the sustainability issue and that can be viable to compete in competitive global markets (Terán-Yépez et al., 2020). The capacity of such ventures to go global is, however, strongly related to their accessibility to stable, cheap, and compliant cross-border payment systems.

The connection between payment infrastructure and sustainable entrepreneurship is an underresearched topic, though there is emerging agreement that financial systems are a critical determinant of sustainable business models that can or cannot be facilitated. Social enterprises, green startups, and hybrid organizational structures are among different forms of sustainable entrepreneurship that are based on the cross-border transactions in order to enter the international markets, fund sustainable supply chains, and collaborate with the international partners (Dentchev et al., 2016). The vulnerability of companies that are sustainability-oriented, particularly the small and medium-sized companies that operate across the Asian markets, may be enhanced by high costs, delays or regulating restriction.

It is on this background that the operational and regulatory concerns of the SWIFT transactions are opportune and should be analysed. The frictions in the operations of speed of transactions, data specifications and compatibility with technology interact with the regulatory frictions with the security, compliance and risk management. These challenges are not evenly spread and might have certain implications on the heterogeneous Asian economic setting where the financial maturity, regulatory possibilities, and entrepreneur maturity vary to the extreme. To comprehend these dynamics, there is a need to have a narrative approach that will integrate the knowledge of international business, financial infrastructure studies, and sustainable entrepreneurship research to grasp them.

This study is a narrative review of the operational and regulatory challenges of SWIFT transactions in the international business with particular attention to the possibility of applying them to sustainable

entrepreneurship in Asia. The integration of the interdisciplinary perspectives contributes to a less obvious conceptualization of how the global payment infrastructures can either impact or restrict the entrepreneurial opportunities and constraints in the dynamic Asian economies.

#### **The objectives of this study are:**

1. To critically examine the operational and regulatory challenges associated with SWIFT transactions in the context of international business in Asia
2. To analyze how these challenges influence the development and internationalization of sustainable entrepreneurship across Asian economies

## **2. SWIFT Transactions in the Context of International Business**

### **2.1 Evolution and Role of SWIFT as a Global Financial Messaging Network**

SWIFT has evolved to become a collaborative messaging service to a core component of global financial infrastructure that enables money and information to be transferred across the international boundaries. SWIFT does not involve direct money transfer; however, it enables regular, secure, and reliable transfer of money between financial institutions, thus, promoting correspondent banking relationships between financial institutions worldwide (Robinson et al., 2023). Such position has helped SWIFT to be a compulsory transit point where the majority of financial flows in the world have to pass through, which reinforces its centrality in the world finance (Robinson et al., 2024). The system has evolved over the years to handle increasing amount of transactions, regulatory control and technological progression and retain its fundamental functions and aims as a neutral and reliable intermediary.

The infrastructural significance of SWIFT lies in the fact that it can bring the heterogeneous financial system together to a global network. The financial infrastructures have been migrated to be more nationally enclosed to globally integrated platforms that have structural power over market coordination (Petry, 2021). In this transformation, SWIFT has not lost its relevance and has incorporated trust, reliability and interoperability in its standards of messaging to allow coordination in different legal and technological contexts (Robinson et al., 2025). This development explains how financial messaging infrastructures are defining how international business is being governed, as well as how operational processes are being determined.

### **2.2 SWIFT's Function in Trade Finance, Foreign Direct Investment, and Global Supply Chains**

Financial messaging is significant in international business transactions in trade finance, foreign direct investment, and global supply chains, where timely and precise financial message delivery is essential. Letters of credit, documentary collections, interbank settlements, and cross-border investment payments are carried out with the help of SWIFT messages and are therefore vital to the implementation of international contracts (Robinson et al., 2023). In the absence of standardized messaging, companies would experience major coordination failures, greater counterparty risk and higher costs of transactions.

With the growth of global supply chains towards increasingly fragmented and geographically spread supply chains, payment infrastructures have assumed an expanded role of settlement to information verification and risk mitigation. Financial market infrastructures such as messaging networks have become connective tissue between firms, banks and regulators across borders (Wishnick, 2020). The credibility of SWIFT messaging thus directly determines the capacity of firms to manage liquidity, fulfill contractual commitments and maintain long-term international relationships especially in the trade intensive industries.

### 2.3 Dependence of International Business on Secure and Standardized Payment Systems

The contemporary international business practices are heavily reliant on reliable and standardized

digital systems that minimize uncertainty and make them scalable. Systems interoperability is among the key demands of the digital economy that enables various actors to communicate effectively despite institutional and technological variations (Kerber and Schweitzer, 2017). SWIFT fulfills this need through the delivery of messaging formats that are globally accepted and thus allow coordination of thousands of financial institutions.

In socio-technical terms, payment infrastructures are not technical equipment but socio-organizational structures that are defined by trust, norms and governance structures. The studies of social informatics focus on the fact that information infrastructures impact the organizational behavior and power relations through the organization of the flow of information production and interpretation (Hara and Fichman, 2025). In this respect, SWIFT inserts standardized meanings in the financial communication which makes international business relationships predictable and trustworthy.

Table 1 shows the central functions which are executed by SWIFT in international business activities as it endeavors to show how standardization of the messaging facilitates various transactional activities in the global markets. Through the convergence of these functions, the table explains the reason why companies are structurally reliant on SWIFT-powered infrastructures even with the continuous innovation of payment technologies.

**Table 1. Core Functions of SWIFT in International Business Transactions**

Function	Description	Key references
Financial messaging	Standardized and secure communication framework connecting financial institutions globally	Robinson et al. (2023); Robinson et al. (2025)
Trade finance support	Facilitation of letters of credit, documentary collections, and trade-related financial messaging	Robinson et al. (2023); Wishnick (2020)
Investment coordination	Messaging infrastructure enabling cross-border capital movements and foreign direct investment flows	Petry (2021); Robinson et al. (2024)
Risk mitigation	Reduction of settlement, counterparty, and information asymmetry risks through trusted messaging standards	Robinson et al. (2025); Giraldo-Mora (2023)
Network integration	Interoperability and coordination across heterogeneous national financial systems	Kerber & Schweitzer (2017); Petry (2021)

### 2.4 Asia's Integration into the Global SWIFT Network and Regional Heterogeneity

The inclusion of Asia into the global SWIFT network is a manifestation of the high rates of financial globalization and the continuing regional heterogeneity. Asian economies are firmly entrenched in the international payment systems, but they are highly diversified in the form of financial market development, regulatory systems, and technological preparedness (Giraldo-Mora, 2023). Such diversity determines the access to, processing

and governance of the SWIFT transactions within the region.

As the advanced financial centers in Asia are based on highly infrastructurally sophisticated operation, the emerging and developing economies tend to use the longer chain of correspondent banking, which complicates the operation. International payment systems are dynamic and keep evolving with changes in geopolitical forces, regulatory changes, and experimentation with new technologies (Giraldo-Mora, 2023). In this dynamic landscape, SWIFT remains a stabilizing infrastructure, which links the

heterogeneous financial systems in Asia to the global markets.

Figure 1 provides the conceptual map of the location of the Asian continent in the global SWIFT network that shows different levels of connectivity between

the regional financial hubs. The figure indicates the interaction between the regional heterogeneity and the global financial infrastructures, which support the experience of uneven transactions among firms operating in the Asian markets.



**Figure 1. Conceptual Positioning of Asia within the Global SWIFT Network**

### 3. Operational Challenges of SWIFT Transactions in Asia

#### 3.1 Transaction Complexity, Processing Time, and Cost Inefficiencies

Asian region is characterized by high operational complexity in the form of multi-layered processing structures, multi-faceted banking practices, and strict monitoring conditions as a part of SWIFT transactions. Multi-bank payments can involve a number of middle-men banks which increase processing and processing time and costs. The latter inefficiencies are further promoted by the prevalent transaction monitoring processes intended to meet compliance requirements and can result in an increased number of manual interventions and increased settlement periods (Oztas et al., 2024). Therefore, the cross-border transactions conducted within Asia can become costly and time-intensive to those companies with their business in more than one jurisdiction.

The emergence of the dependency on advanced analytical tools to follow the transactional risk is also a reason, which leads to delays in the operations. Even though machine learning-based monitoring systems do increase the accuracy of the detection, they are more likely to increase the amount of alerts that need to be investigated, which, in turn, decreases the throughput of the transactions (Jullum et al.,

2020). This delay has a direct effect on the predictability of the cash flow and management of the working capital to the internationally active firms.

#### 3.2 Dependence on Correspondent Banking Relationships

One of the operational characteristics of a SWIFT transaction is that it relies on correspondent banking networks. The financial institutions, particularly in emerging economies, in Asia, do not have direct access to international clearing systems and thus do not have to go through intermediary banks. This reliance enhances the length of transaction path and exposes firms to more costs, operational uncertainties and settlement risk. Asymmetries between the globally linked financial centers and the peripheral banking systems are also strengthened due to the dependence on the correspondent banking.

The emergence of FinTech-based solutions and decentralized models of finance has become a possible disruptive solution to the traditional correspondent banking framework, but it does not replace SWIFT in the vast majority of jurisdictions (Zetzsche et al., 2020). Correspondent banking, therefore, still remains an operational reality of the



SWIFT transactions especially in cross border trading and investment transactions involving Asia.

3.3 Technological Disparities among Asian Economies

Asia has a high level of technological heterogeneity of financial infrastructure preparedness that directly influences the operational performance of SWIFT transactions. Further financial centres have become more technologically focused in terms of treasury services and money transfer services, whereas less developed systems continue to operate on old systems that restrict automation and interoperability. The studies of the digitalization of treasuries point to the fact that the unequal implementation of digital tools leads to the uneven processing speed, reconciliation, and data integration among various areas (Zanko, 2025).

The FinTech innovation has risen at a fast rate in Asia but the adoption of this innovation in the current banking system is disproportionate. The sector-specific limitations, such as those inside the Islamic finance systems, additionally influence the way digital payment solutions can interplay with the processes based on SWIFT (Rabbani, 2022). These differences help in creating disjointed transaction experiences by companies that operate in Asian markets.

Table 2 provides an overview of the main operational issues related to SWIFT transaction in Asia and the business impact. The table shows that all the factors of transaction inefficiencies, correspondent dependence, and technological gaps influence cross-border payment performance.

Table 2. Key Operational Challenges of SWIFT Transactions in Asia

Operational challenge	Description	Business impact	Key references
Transaction complexity	Multi-step processing, extensive transaction monitoring, and manual interventions	Delays, increased processing time, and higher transaction fees	Oztas et al. (2024); Jullum et al. (2020)
Correspondent banking dependence	Reliance on intermediary banks for cross-border settlements	Reduced transparency and increased settlement risk	Zetsche et al. (2020); Gozman et al. (2018)
Technological disparity	Uneven digital maturity and legacy system dependence across Asian economies	Inconsistent transaction efficiency and reconciliation challenges	Zanko (2025); Rabbani (2022)
Cybersecurity risk	System vulnerabilities, third-party risks, and exposure to cyber threats	Operational disruptions and loss of transaction reliability	Gozman et al. (2018); Chatterjee (2025)

3.4 Cybersecurity Risks and Operational Vulnerabilities

Cybersecurity has become a major issue of operation as the SWIFT transactions are more and more based on digital interfaces and interconnected platforms. Banks have increased vulnerability to cybercrimes and breach of systems and data manipulations that may disrupt the flow of payments and trust. Traditional payment infrastructures have increased the attack surface due to the increased FinTech ecosystems, which necessitate greater coordination among banks, technology providers, and regulators (Gozman et al., 2018).

New disruptive changes in payment systems have enhanced speed and accessibility but also created new holes that are associated with the complexity of systems and reliance on third parties (Chatterjee, 2025). These risks are also increased by differences in cybersecurity maturity in an Asian diverse financial environment, which impacts the reliability of transactions across borders.

3.5 Implications of Operational Frictions for Cross-Border Business Activities

SWIFT transactional operational frictions have physical implications on international business operations in Asia. Delays, expense, and uncertainty surrounding the payment execution may deter firms to pursue trading across the borders, lessen competitiveness, and make coordination of the supply chain difficult. These issues are especially onerous to smaller companies and new entrants to the market since they do not have the size to accommodate inefficiencies.

Figure 2 gives a theoretical representation of the interaction of operational challenges among the SWIFT-based transaction flows in Asia. The figure shows that the complexity of transactions, disparity in technologies, and risks in cybersecurity have a joint impact on the speed, cost, and reliability of payments and, therefore on the outcome of cross-border operations of firms.

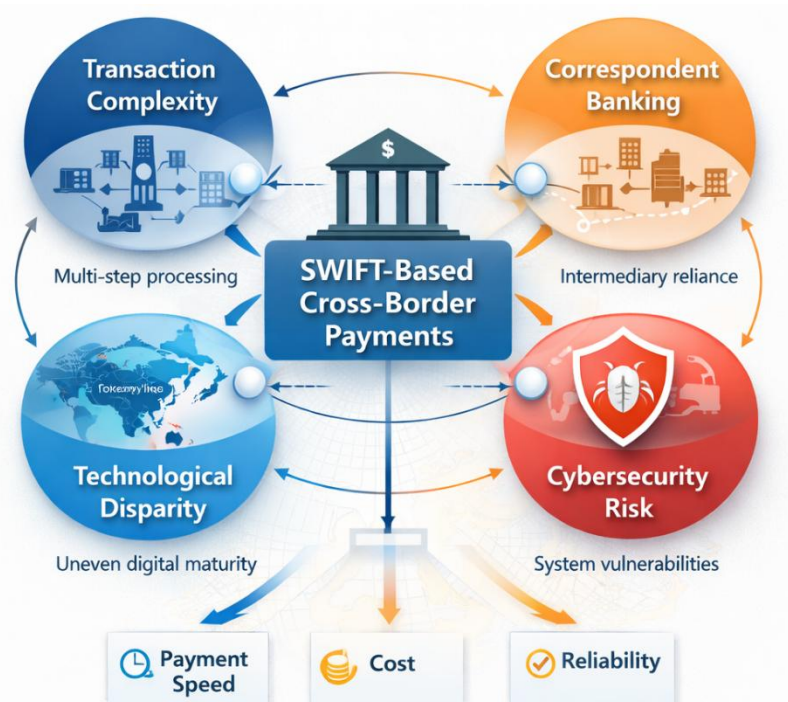


Figure 2. Operational Frictions in SWIFT-Based Cross-Border Transactions in Asia

#### 4. Regulatory and Compliance Challenges Affecting SWIFT Transactions

##### 4.1 Global Regulatory Expectations Surrounding Cross-Border Payments

Cross-border payments that are facilitated by SWIFT are made in a more dense global regulatory landscape that is framed by financial integrity, security, and governance issues. The regulatory requirements focus on transparency, traceability and accountability in international transactions and payment infrastructures are instrumental in that regard. The transition between the sole risk-based regulatory methods to dealing with more profound types of uncertainty has increased the compliance requirements of financial institutions involved in cross-border messaging (Bello and Harvey, 2017). The outcome of this is that SWIFT transactions have now been incorporated in broader regulatory systems that extend beyond the efficiency of operations to cover systemic risk management.

As the international regulatory standards have been expanded, disparities in compliance capacity have also been initiated between regions. Even though the big international banks are in a position to adapt, smaller institutions and companies, particularly those whose operations run throughout the Asian markets are vulnerable to the greater complexity of regulations and their inconsistency in application.

##### 4.2 Anti-Money Laundering and Counter-Terrorism Financing Requirements

The anti-money laundering (AML) and counter-terrorism financing (CTF) policies are one of the

most important spheres of compliance challenge in transactions by way of SWIFT. Banks are required to perform a full customer due diligence, transaction monitoring and reporting systems which has a considerable influence on the payment processing processes. The AML literature states that the growing regulatory pressures have resulted in the growing number of false positives, the slows in operations, and compliance costs with no proportional effectiveness improvement (Tiwari et al., 2020).

This trend is becoming more inclined to the uncertainty-oriented compliance structures, which makes it even harder to realize the AML, and the institutions have to respond to unclear and dynamic threat environments rather than to well-defined risks (Bello and Harvey, 2017). In the cross-border scenario where the transactions are made through Asia where the institutional capacities are not equalized among many, the AML and CTF requirements have the effect of providing unequal treatment of the transactions and processing outcomes.

##### 4.3 Sanctions Screening and Regulatory Fragmentation across Jurisdictions

Sanctions screening is the other important regulatory issue that affects SWIFT transactions. Economic sanctions with extraterritorial characteristics come with compliance costs that tend to extend beyond national jurisdictions and compel financial institutions across the entire globe to abide by existing regulatory regimes (Emmenegger, 2016). These requirements are disintegrating, as businesses

must strike a balance between legal requirements that exist between home and host nations. In the recent assessments, the regimes of sanctions are noted to possess inadvertent impacts on the emerging markets, particularly in the Global South, limiting them to access the global financial flows (Custer, 2024). The screening of sanctions incorporated in the compliance procedures of SWIFT can be seen as a source of uncertainty in the transactions and discourage foreign transactions to Asian companies that engage in cross-border business.

4.4 Data Governance, Privacy, and Localization Requirements in Asia

Data governance has grown to be a decisive regulatory aspect that influences SWIFT transactions. The exchange of cross-border financial messages involves the transfer and storage of sensitive information, which provokes the issues of surveillance, privacy, and jurisdiction control. The difference between the regulatory attitudes of data protection, in particular the Western economy and the jurisdiction of Asia, further complicates compliance (Cole et al., 2017). Economies of Asia continue to introduce an increasing number of data localization and cybersecurity demands that impact the flow of information concerning SWIFT usage by financial institutions. The lack of homogeneity in cybersecurity capabilities in the region also complicates the compliance since disparities in

system maturity present institutions with regulatory and operational risk (Pigola et al., 2025). These dynamics have a direct influence on the reliability and legality of the cross-border transactions.

4.5 Compliance Burdens Faced by Firms and Financial Institutions

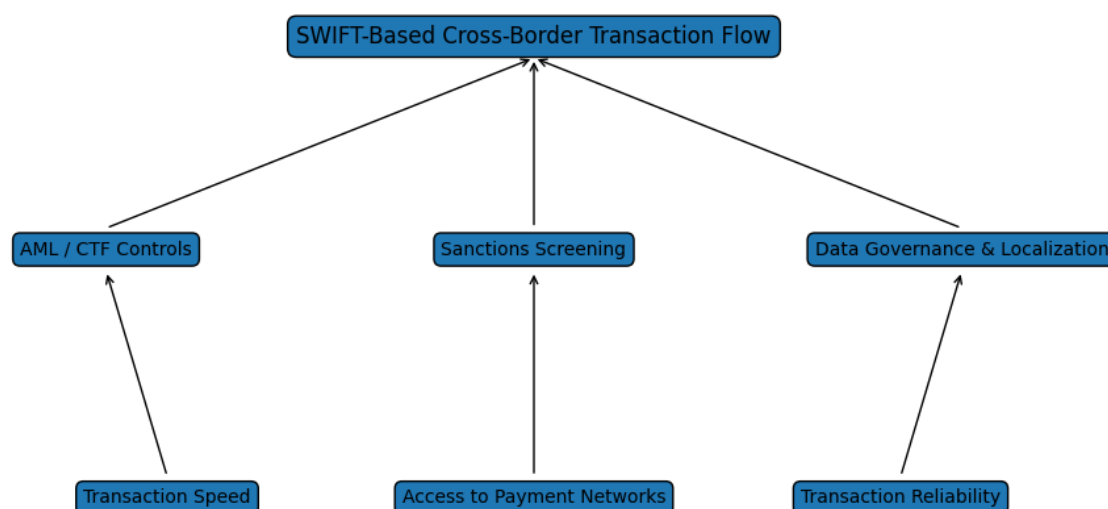
The sanctions screening, data governance requirements, and the AML requirements combined impose a considerable compliance burden to the firms and financial institutions. Regulatory technologies are strategic reactions to these pressures, particularly in high-technology regulatory environments such as the European Union (Buckley et al., 2020). However, the distribution of RegTech products in Asian markets is uneven, which favors disparities in compliance capacity. The regulatory imperatives can also consume innovation and environmental undertakings of companies that desire sustainable and socially responsible business designs. Empirical evidence on compliance-based restrictions is emerging in the market to indicate how indirectly this approach can affect the ability of firms to invest in green innovation and sustainability performance (Bonsu et al., 2024). Table 3 captures the key compliance and regulatory challenges affecting SWIFT transactions, how it has been manifested in its operations and business impacts. The table indicates the transformation of the regulatory goals into the concrete compliance strains of the cross-border actors.

Table 3. Key Regulatory and Compliance Challenges Affecting SWIFT Transactions

Regulatory challenge	Description	Business impact	Key references
Global regulatory expectations	Heightened transparency and monitoring requirements	Increased compliance complexity	Bello & Harvey (2017); Tiwari et al. (2020)
AML and CTF obligations	Extensive due diligence and transaction screening	Processing delays and higher costs	Tiwari et al. (2020); Buckley et al. (2020)
Sanctions screening	Extraterritorial and fragmented sanctions regimes	Transaction uncertainty and exclusion risk	Emmenegger (2016); Custer (2024)
Data governance and privacy	Divergent data protection and localization rules	Legal and operational constraints	Cole et al. (2017); Pigola et al. (2025)
Compliance burden	Resource-intensive regulatory adaptation	Reduced strategic flexibility	Buckley et al. (2020); Bonsu et al. (2024)

Figure 3 provides a conceptual illustration of how regulatory and compliance pressures intersect with SWIFT-based transaction flows. The figure demonstrates how AML controls, sanctions

screening, and data governance requirements collectively shape transaction speed, access, and reliability across jurisdictions, reinforcing uneven compliance outcomes in Asia.



**Figure 3. Regulatory and Compliance Pressures in SWIFT-Based Cross-Border Transactions**

## 5. Implications for Sustainable Entrepreneurship in Asia

### 5.1 Payment Frictions and Financing Constraints for Sustainable Ventures

Sustainable entrepreneurship in Asia is closely related to the ability of firms to have access to time-sensitive and cost-effective cross-border payment systems. The cash flows of sustainability-oriented ventures may be limited due to payment friction caused by delays, high transaction costs and compliance related interruptions. This is especially disadvantageous to the companies that are following the proactive sustainability approach, where it is mandatory to invest in the environmental management systems and the risk mitigation practices on a regular basis (Wijethilake, 2017). In the case of inefficient cross-border transactions, sustainable ventures are at a greater risk of financial losses, which negatively affects their ability to internalize sustainability values in the core business processes (Wijethilake and Lama, 2019).

The problem of financing limitations is also related to payment inefficiencies, which impact the ability of firms to attract external capital to sustainability projects. Green and impact-oriented investments usually imply international partners and sources of funding, and the effective payment infrastructures are necessary to maintain investor confidence and viability of the project on the long term basis.

### 5.2 Challenges for SMEs and Startups in International Markets

SMEs and startups are the main part of sustainable entrepreneurship in Asia, but they experience a disproportionate impact of cross-border payment frictions. The low level of organizational slack and bargaining power of sustainable SMEs can prevent

their involvement in global markets because these organizations are usually unable to absorb delays in transactions and compliance costs. Empirical studies indicate that green entrepreneurial orientation and sustainable supply chain activities are considerably beneficial in promoting the performance of firms, yet the returns are conditional on the stable international transaction environment (Habib et al., 2020).

SMEs in manufacturing-intensive Asian economies have an extra difficulty in the alignment of sustainability goals and the demands of the global market. Asian manufacturing SMEs are not equally progressing towards sustainable development, which is manifested in the dissimilarity in their access to finance, infrastructure, and institutional support (de Sousa Jabbour et al., 2020). These structural disadvantages are further made worse by payment inefficiencies.

### 5.3 Sustainable Trade, Ethical Supply Chains, and Green Finance

Effective cross-border payment systems are very important in facilitating sustainable trade and ethical supply chains. Global sourcing, certification and monitoring systems that are based on the idea of sustainability are becoming more and more relied upon by sustainability-driven firms that necessitate regular cross-border transactions. Purchase delays and uncertainty may affect the relations with suppliers and deter the motivation of the implementation of green supply chain management practices, which are the core of sustainable performance of firms (Habib et al., 2020).

The green finance programs in Asia are also reliant on the sound financial infrastructure to fund renewable energy and environmentally-friendly



investments. The green finance development in ASEAN and East Asia demonstrates the role of reliable payments in the facilitation of the cross-border capital flows in accordance with the sustainability objectives (Phoumin et al., 2024). In the case where payment systems create friction, the expansion of green finance projects might be limited.

5.4 Unequal Effects across Asian Economies

Asia is not uniformly exposed to the implications of the SWIFT related operational and regulatory challenges. Established financial centers are more at a place to deal with payment frictions due to superior systems and institutional capacity, whereas the emerging economies are more exposed to delays in transaction and compliance costs. These imbalances enforce prior inequalities in sustainable entrepreneurship performance especially in areas with poor financial infrastructures. The comparative views of other developing areas indicate the gaps in financial inclusions form the trajectories of sustainable development. Despite the fact that it is based on a different context, there is evidence on the topic of financial inclusion that highlights how infrastructural limitations have a disproportionate impact on entrepreneurial activity and resilience in developing economies (Mhlanga

and Dzingirai, 2025). This can be observed in other regions of Asia.

5.5 Financial Inclusion and Entrepreneurial Resilience

Generalized implications can be seen with financial inclusion, as well as entrepreneurial resilience in Asia. Adaptive capabilities are the key features that sustainable entrepreneurs need to build more to manage payment inefficiencies and regulatory uncertainty. Innovation ecosystems, entrepreneurial cognition, and resource mobilization are important in helping firms to overcome infrastructural constraints (Mostafiz et al., 2025). Companies that are able to rearrange resources creatively are in a better position to continue with international business even when there is a friction of payment. Table 4 presents the main suggestions of the SWIFT-related payment issues on sustainable entrepreneurship in Asia that would have to connect the payment limitation to the entrepreneurial performance. The table provides the interaction between the financial infrastructure conditions and the firm capabilities, sustainability strategies and market participation.

Table 4. Implications of Cross-Border Payment Challenges for Sustainable Entrepreneurship in Asia

Dimension	Implication for sustainable entrepreneurship	Key references
Payment efficiency	Cash flow volatility and financing constraints	Wijethilake (2017); Wijethilake & Lama (2019)
SME internationalization	Reduced participation in global markets	de Sousa Jabbour et al. (2020); Habib et al. (2020)
Sustainable supply chains	Disruptions to ethical and green sourcing	Habib et al. (2020); Phoumin et al. (2024)
Regional inequality	Uneven sustainability outcomes across Asia	de Sousa Jabbour et al. (2020); Mhlanga & Dzingirai (2025)
Entrepreneurial resilience	Need for adaptive and cognitive capabilities	Mostafiz et al. (2025); Wijethilake & Lama (2019)

6. Emerging Trends and Strategic Responses

The past few years have seen vast technological and procedural improvements defining the development of cross-border payment systems, including ones that run in parallel with the SWIFT ecosystem. The development of digital infrastructure is progressively determined by the need to contribute to the elimination of long-term inefficiencies in the context of transaction speed, cost, and security. Blockchain solutions and distributed ledgers have become the supplementary systems to enhance the efficiency of settlement and minimize operational frictions in international payments, especially through the enhancement of data integrity and transparency of transactions (Eyo-Udo et al., 2024). Although these innovations cannot substitute the role of SWIFT in

messaging, they have an impact on the way that payment processes are organized and orchestrated. Speed, traceability and transparency have become the focal points in the modern payment system reform. CBDCs are one of the key institutional reactions to these goals, and an increasing number of experiments are conducted both at retail and wholesale. CBDCs structure is focused on programmability, traceability, and finality of settlement and provides the prospect of efficiency improvement in transnational transactions (Auer & Böhme, 2020). Evidence of survey-based data also shows that central banks are increasingly considering CBDCs as a means to increase the cross-border payment interoperability, instead of using them as a domestic tool (Boar et al., 2020).

Financial innovation is still transforming strategic reactions of banks, policymakers and entrepreneurs. The transformation of financial services due to FinTech has changed the ways financial services are provided, regulated, and incorporated into the global markets and has generated novel coordination issues between the out-of-date infrastructures and the in-progress digital systems (Arner et al., 2015). Interoperability has thus been a priority policy agenda, especially regarding data governance systems that allow cross-border digital money transfers without regulation (Li, 2022). The adoption of the strategy of regional payment and currency innovation is another indication of the adaptation of Asia to the changing financial environment. A broader geopolitical and monetary process behind the development of digital sovereign currencies like the digital renminbi is the impact on cross-border payment infrastructure (Zhang et al., 2024). At the same time, the changing patterns of the movement of the capital and financial transparency continue to affect how the payment systems are going

to be interrelated with the inflow of investment in the world (Valchyshen, 2025). Strategic responses are increasingly becoming more precision oriented and effective on regulation compliance. False positives in the process of monitoring transactions are also being reduced by adoption of compliance tools that are artificial intelligence-driven to ensure that balancing of enforcement and operational efficiency is achieved (Tiamiyu and Ndibe, 2024). The developments are showing that the goals of payment efficiency and sustainability are becoming more and more converged as reduced friction and improved transparency lead to the strengthening and responsibility of the cross-border business practice. Some of the key emerging trends and strategic responses in cross-border payments have been summarized in Table 5. As the table shows, there is an overall impact of technological innovation, policy reform, and compliance optimization in making the transaction environments more efficient and sustainable.

Table 5. Emerging Trends and Strategic Responses in Cross-Border Payment Systems

Emerging trend	Strategic response	Key references
Blockchain-based payments	Enhanced security and settlement efficiency	Eyo-Udo et al. (2024); Arner et al. (2015)
Central bank digital currencies	Faster and more transparent cross-border payments	Auer & Böhme (2020); Boar et al. (2020)
Digital money interoperability	Coordinated data governance frameworks	Li (2022); Zhang et al. (2024)
Capital mobility shifts	Adaptive payment and liquidity strategies	Valchyshen (2025)
AI-driven compliance	Reduced monitoring errors and processing delays	Tiamiyu & Ndibe (2024)

7. Conclusion and Future Directions

This study has provided a comprehensive narrative review of the SWIFT transactions in international business, and how the operational and regulatory issues that have been intertwined have affected the cross-border payment environments in Asia. The discussion has found the complexity of transaction, relying on correspondent banking, differences in technology, and cybersecurity issues as a compounding factor that introduces payment frictions that influence the effectiveness, the cost, and the reliability of international transactions. The implications of the findings in the context of international business and sustainable entrepreneurship are that the adequate and robust cross-border payment systems are significant to support sustainable trade, ethical supply chain and green finance programs in Asia. Small and medium-sized enterprises and the business concerned with sustainability are disproportionately affected by the payment inefficiencies and fragmentation of regulations, which reinforces the uneven

performance of entrepreneurship in the developed financial centres and in the developing economy. Policy-wise, the study finds a necessity to regulate proportionately, enhance interoperability, and more coherence in the areas to reduce unnecessary frictions without affecting the objectives of financial integrity and security. The alignment of technological innovation, compliance practices, and sustainable goals can be used by the Asian policymakers and financial institutions to create more inclusive and resilient payment ecosystems. More comparative studies across Asian subregions and payment corridors could be used to shed some light on the role of institutional diversity in defining the outcome of transactions. Overall, the restructuring of the role of SWIFT in the business life of Asia can be regarded as the reflection of the changes in the world financial framework where the notions of efficiency, governance, and sustainability become more interconnected and need to be treated as a whole.

References:

1. Arner, D. W., Barberis, J., & Buckley, R. P. (2015). The evolution of Fintech: A new post-crisis paradigm. *Geo. J. Int'l L.*, 47, 1271.
2. Auer, R., & Böhme, R. (2020). The technology of retail central bank digital currency. *BIS Quarterly Review*, March.
3. Bello, A. U., & Harvey, J. (2017). From a risk-based to an uncertainty-based approach to anti-money laundering compliance. *Security Journal*, 30(1), 24-38.
4. Bernards, N., & Campbell-Verduyn, M. (2019). Understanding technological change in global finance through infrastructures: Introduction to review of international political economy special issue 'the changing technological infrastructures of global finance'. *Review of international political economy*, 26(5), 773-789.
5. Boar, C., Holden, H., & Wadsworth, A. (2020). Impending arrival—a sequel to the survey on central bank digital currency. *BIS paper*, (107).
6. Bonsu, M. O. A., Guo, Y., & Zhu, X. (2024). Does green innovation mediate corporate social responsibility and environmental performance? Empirical evidence from emerging markets. *Journal of Applied Accounting Research*, 25(2), 221-239.
7. Buckley, R. P., Arner, D. W., Zetsche, D. A., & Weber, R. H. (2020). The road to RegTech: the (astonishing) example of the European Union. *Journal of Banking Regulation*, 21(1), 26-36.
8. Chatterjee, P. (2025). Innovative disruption in financial technology and payment systems. *International Journal of Financial, Accounting, and Management*, 7(2), 289-301.
9. Cole, D., Schulhofer, S., & Fabbrini, F. (2017). Surveillance, privacy and Trans-atlantic relations.
10. Custer, S. (2024). US Sanctions and the Global South: Navigating Networked Resistance, Competing Narratives, and Unintended Consequences. *Sanctions and the Symphony of Power: Revitalizing American Economic Statecraft*.
11. De Goede, M. (2020). Finance/security infrastructures. *Review of international political economy*, 28(2), 351-368.
12. De Goede, M., & Westermeier, C. (2022). Infrastructural geopolitics. *International studies quarterly*, 66(3), sqac033.
13. de Sousa Jabbour, A. B. L., Ndubisi, N. O., & Seles, B. M. R. P. (2020). Sustainable development in Asian manufacturing SMEs: Progress and directions. *International Journal of Production Economics*, 225, 107567.
14. Dentchev, N., Baumgartner, R., Dieleman, H., Jóhannsdóttir, L., Jonker, J., Nyberg, T., ... & van Hoof, B. (2016). Embracing the variety of sustainable business models: social entrepreneurship, corporate intrapreneurship, creativity, innovation, and other approaches to sustainability challenges. *Journal of cleaner Production*, 113, 1-4.
15. Emmenegger, S. (2016). Extraterritorial economic sanctions and their foundation in international law. *Ariz. J. Int'l & Comp. L.*, 33, 631.
16. Eyo-Udo, N. L., Agho, M. O., Onukwulu, E. C., Sule, A. K., Azubuike, C., Nigeria, L., & Nigeria, P. (2024). Advances in blockchain solutions for secure and efficient cross-border payment systems. *International Journal of Research and Innovation in Applied Science*, 9(12), 536-563.
17. Farrell, H., & Newman, A. L. (2019). Weaponized interdependence: How global economic networks shape state coercion. *International security*, 44(1), 42-79.
18. Giraldo-Mora, J. C. (2023). *It is Along Ways: Global Payment Infrastructure in Movement*. Copenhagen Business School [Phd].
19. Gozman, D., Liebenau, J., & Mangan, J. (2018). The innovation mechanisms of fintech start-ups: insights from SWIFT's innotribe competition. *Journal of Management Information Systems*, 35(1), 145-179.
20. Habib, M. A., Bao, Y., & Ilmudeen, A. (2020). The impact of green entrepreneurial orientation, market orientation and green supply chain management practices on sustainable firm performance. *Cogent Business & Management*, 7(1), 1743616.
21. Hara, N., & Fichman, P. (Eds.). (2025). *Social Informatics*. Routledge.
22. Jullum, M., Løland, A., Huseby, R. B., Ånonsen, G., & Lorentzen, J. (2020). Detecting money laundering transactions with machine learning. *Journal of Money Laundering Control*, 23(1), 173-186.
23. Kerber, W., & Schweitzer, H. (2017). Interoperability in the digital economy. *J. Intell. Prop. Info. Tech. & Elec. Com. L.*, 8, 39.
24. Li, S. (2022). Towards digital money interoperability: Data governance coordination for cross-border payments. *Hous. J. Int'l L.*, 45, 107.
25. Mhlanga, D., & Dzingirai, M. (Eds.). (2025). *Financial inclusion and sustainable development in Sub-Saharan Africa*. Routledge.
26. Mostafiz, M. I., Ahmed, F. U., Ahammad, M. F., & Rahman, P. N. A. (2025). Entrepreneurial Cognition and Artificial Intelligence Adoption—Contingency Role of Innovation Ecosystem Resource Mobilization and Entrepreneurial Bricolage. *R&D Management*.
27. Oztas, B., Cetinkaya, D., Adedoyin, F., Budka, M., Aksu, G., & Dogan, H. (2024). Transaction monitoring in anti-money laundering: A

- qualitative analysis and points of view from industry. *Future Generation Computer Systems*, 159, 161-171.
28. Petry, J. (2021). From national marketplaces to global providers of financial infrastructures: Exchanges, infrastructures and structural power in global finance. *New political economy*, 26(4), 574-597.
  29. Phoumin, H., Taghizadeh-Hesary, F., & Kimura, F. (2024). *Green finance and renewable energy in ASEAN and East Asia*. Taylor & Francis Group.
  30. Pigola, A., da Costa, P. R., & de Souza Meirelles, F. (2025). Unveiling Regional Disparities: Exploring Cybersecurity Capabilities and Performance Through Systems Theory Approach. *Systems Research and Behavioral Science*.
  31. Rabbani, M. R. (2022). Fintech innovations, scope, challenges, and implications in Islamic Finance: A systematic analysis. *International Journal of Computing and Digital Systems*, 11(1), 1-28.
  32. Robinson, G., Dörry, S., & Derudder, B. (2023). Global networks of money and information at the crossroads: Correspondent banking and SWIFT. *Global networks*, 23(2), 478-493.
  33. Robinson, G., Dörry, S., & Derudder, B. (2024). Preserving the obligatory passage point: SWIFT and the partial platformisation of global payments. *Geoforum*, 151, 104007.
  34. Robinson, G., Dörry, S., & Derudder, B. (2025). SWIFT: Trusted infrastructure for infrastructures. In *The Cambridge Global Handbook of Financial Infrastructure* (pp. 237-249). Cambridge University Press.
  35. Terán-Yépez, E., Marín-Carrillo, G. M., del Pilar Casado-Belmonte, M., & de las Mercedes Capobianco-Uriarte, M. (2020). Sustainable entrepreneurship: Review of its evolution and new trends. *Journal of Cleaner Production*, 252, 119742.
  36. Tihamiyu, O. R., & Ndibe, O. S. (2024). From Compliance Burden to Enforcement Precision: AI Strategies for Reducing False Positives in Anti-Money Laundering Systems. *International Journal of Scientific Research in Science, Engineering and Technology*, 11(5), 421-433.
  37. Tiwari, M., Gepp, A., & Kumar, K. (2020). A review of money laundering literature: the state of research in key areas. *Pacific Accounting Review*, 32(2), 271-303.
  38. Valchyshen, O. (2025). *Reconsidering Capital Flows and Mobility* (Doctoral dissertation, University of Missouri-Kansas City).
  39. Westermeier, C. (2020). Money is data—the platformization of financial transactions. *Information, Communication & Society*, 23(14), 2047-2063.
  40. Wijethilake, C. (2017). Proactive sustainability strategy and corporate sustainability performance: The mediating effect of sustainability control systems. *Journal of environmental management*, 196, 569-582.
  41. Wijethilake, C., & Lama, T. (2019). Sustainability core values and sustainability risk management: Moderating effects of top management commitment and stakeholder pressure. *Business Strategy and the Environment*, 28(1), 143-154.
  42. Wishnick, D. A. (2020). Reengineering financial market infrastructure. *Minn. L. Rev.*, 105, 2379.
  43. Zanko, G. (2025). Treasury management digitalization: Current state of the art of research. *Multidisciplinary Reviews*, 8(12), 2025479-2025479.
  44. Zetzsche, D. A., Arner, D. W., & Buckley, R. P. (2020). Decentralized finance. *Journal of Financial Regulation*, 6(2), 172-203.
  45. Zhang, F., Cui, Y., & Campbell-Verduyn, M. (2024). Digital RMB vs. Dollar hegemony? Friendly foes in China-US currency competition. *Journal of Chinese Political Science*, 29(3), 483-508.