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UK–India Bilateral Trade in FinTech and FinTech – Enabled Services: Emerging Trends and Potential for Growth

ESRC-ICSSR Research Grant (Ref. ES/T016213/1)

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ESRC-ICSSR Research Grant (Ref. ES/T016213/1) on “UK-India Bilateral Trade in FinTech and FinTech-Enabled Services: Emerging Trends and Potential for Growth."

Introduction

This project provides crucial research insights on enhancing trade between India and the UK, particularly in FinTech-related policy and practice. Given the rapid growth of the FinTech sector in both countries, there is significant untapped potential for cross-border trade in FinTech and FinTech-enabled services. While both nations possess thriving domestic FinTech industries, international trade remains limited. Strengthening FinTech trade offers a strategic opportunity to improve overall bilateral trade in goods and services, benefiting consumers, businesses, and governments in both country's economies.

Research Objectives

Our research sought to identify the key enablers and barriers to FinTech trade and propose actionable recommendations for policy and practice.

We explored the following critical questions:

What are the barriers to and enablers of trade in FinTech and FinTech-enabled services?

What regulatory, policy, investment, and operational changes could enhance and facilitate FinTech trade between India and the UK?

What factors specific to FinTech start-ups influence their ability and willingness to engage in international trade?

What role does FinTech play in promoting cross-border investment?

This study addresses these questions and provides valuable insights for policymakers, industry stakeholders, and investors. It could contribute to ongoing discussions regarding the Free Trade Agreement (FTA) between India and the UK.

Methodology

To establish a comprehensive understanding of trade dynamics in the FinTech sector, we employed a mixed-methods approach that included:

- A literature review and documentary analysis will assess existing evidence on trade barriers and enablers.

- Qualitative interviews with industry stakeholders to gain insights into practical challenges and opportunities.

- Quantitative regional and firm-level data analysis to identify trends, gaps, and potential policy interventions.

These methodologies allowed us to identify critical regulatory, policy, and investment strategies that could significantly enhance trade in FinTech and FinTech-enabled sector services.

Data

In compiling secondary data and literature for quantitative and qualitative analysis for the project, several online, web-based, paid and unpaid databases were consulted and utilised sources.

Tracxn (Online Database for Company & Investor Information)

Tracxn is a prominent platform that provides comprehensive data and analytics on startups, private companies, and emerging sectors. It is widely used by investors, venture capitalists, corporate development teams, and analysts to track trends, identify new investment opportunities, and conduct market research.

Key features of the Tracxn database include:

Company Insights: Detailed profiles of startups and private companies across various sectors, including funding rounds, founders, key financials, and business models.

Market Trends: Insights into emerging technologies and sectors like AI and FinTech.

Funding and Investment Data: Information on investment deals, investors, and fundraising rounds across industries and geographies. Sectoral Analysis: Reports and insights on sector-specific trends and innovations.

Curated Lists: Collections of high-potential startups, unicorns, and emerging companies across specific industries or regions. Acquiring a one-year subscription to Tracxn was a strategic investment for the project's FinTech startup performance and funding research, providing robust and up-to-date data on emerging companies, investment trends, and sector innovations. This subscription enabled a comprehensive analysis of FinTech ecosystems globally, including detailed insights into startup profiles, funding rounds, valuations, and investor activities, which are essential for impactful, data-driven research. Tracxn's curated sectoral reports and trend analytics empowered our research team to identify key performance drivers, funding patterns, and regional dynamics, directly supporting evidence-based insights for academic publications.

Crunchbase (Online Database for Company & Investor Information)

While Tracxn had a dedicated FinTech marker that gave the project team a good understanding of about 20,000 companies and FinTech startups to compile and analyse data for research purposes, several companies had fewer funding rounds and less information than their profiles suggested. To enhance funding data and augment research by consulting multiple sources, a one-year subscription to Crunchbase was obtained.

Crunchbase improved over Tracxn by offering more detailed funding and financial insights for FinTech and financial services companies. With an expansive database covering funding rounds, valuations, revenue data, acquisitions, and economic milestones, Crunchbase provided richer, more granular data essential for understanding startup growth and investor dynamics. Its user-friendly interface and advanced filtering options enabled the research team to efficiently track company developments, compare market performance, and

identify key players in the FinTech landscape. Crunchbase's robust analytics features further enhanced our ability to assess competitive landscapes and generate actionable insights, making it an indispensable tool for academic research and strategic industry analysis.

FDI Markets (University of Essex subscription)

FDI Markets is a comprehensive resource for obtaining detailed investment information relevant to FinTech and the broader financial services sector. By tracking real-time data on cross-border investments, including greenfield projects and investment flows by sector and geography, FDI Markets enable in-depth analysis of trends in global financial services. For FinTech research, the platform provides essential insights into foreign direct investment patterns, investor profiles, project announcements, and market entry strategies, aiding in identifying key investment hubs and potential growth regions. This data enriches our understanding of international FinTech expansion, allowing us to assess economic impacts, investment drivers, and the role of FinTech in advancing financial services worldwide.

OECD Trade Statistics (free service)

The OECD Statistics platform provided a robust source for detailed trade data, essential for analysing global trends and patterns in the FinTech and financial services sectors. By offering access to high-quality, standardised data on trade flows, market indicators, and economic performance across countries, OECD Statistics enabled us to assess trade dynamics and competitive standings in financial services at regional and global levels. For FinTech research, the platform's comprehensive datasets on trade in services and financial flows allowed us to explore trade volume, policy impacts, and emerging market opportunities, ultimately supporting evidence-based insights into trade policy and international market development within the financial services industry.

Google Scholar (literature and academic papers for review)

Google Scholar is vital for accessing academic literature relevant to FinTech and financial services. With its extensive database of scholarly articles, conference papers, theses, and patents, Google Scholar enables us to review the latest research on FinTech trends, regulatory challenges, market dynamics, and technological innovations. Its powerful search capabilities and citation tracking provide insights into influential studies and allow us to identify key authors, institutions, and journals contributing to the field. By facilitating access to foundational and cutting-edge literature, Google Scholar supports a thorough literature review, helping us build a strong theoretical foundation and identify emerging topics within FinTech research.

Zotero (literature dump and future access platform)

Zotero has proved invaluable as a comprehensive platform for managing, organising, and accessing FinTech and financial services research literature. By facilitating efficient storage, categorisation, and tagging of a wide range of academic sources, Zotero has enabled us to create a structured literature repository that streamlines our review process and ensures easy access to critical information. The platform's capabilities for annotating and sharing references also support collaborative research, making it easier to track relevant studies, theoretical frameworks, and emerging themes. Additionally, Zotero's integration with various citation styles and document processing tools ensures accuracy in referencing. Its cloud storage allows future access to our curated database, fostering continuity in ongoing and subsequent research projects.

https://www.zotero.org/groups/2778615/fintechtrade/library

http://www.acefinmod.com/research-materials-and-outputs-for-2021-2024-esrc-icssr-funded-project-uk-india-trade-in-fintech-and-fintech-related-services/

Methodology

Various methodologies were employed to aggregate and analyse the above data. Substantial qualitative analysis was undertaken to define and focus attention on the underlying trends and developments in the fintech sector.

We conducted numerous formal and informal interviews with practitioners, policymakers, and industry stakeholders to establish the state of play in the sector, the specific challenges pertinent to the two countries of primary interest, and the global situation in the fintech industry. This was intertwined with various investigation forms (e.g., quantitative analysis). On the one hand, it informed other stages of the investigation. Still, it also served to cross-check and triangulate findings and hypotheses from other forms of analysis in the true triangulation tradition. Furthermore, these qualitative steps were handy in identifying suitable data sources for the next analytical steps. We held key engagement events for multiple purposes as part of the qualitative stages. The early events were used to identify the questions of most pertinent interest to the key stakeholders, who were subsequently contacted to comment on preliminary results related to these questions of high interest. This helped ensure stakeholders' involvement in subsequent steps and the relevance and timeliness of the project findings.

A recurring feature of this project was qualitative overviews of hypotheses and preliminary results throughout the network of key stakeholders. The unstructured nature of many underlying investigations required constant consultation, careful explanation, and justification of any chosen approaches. Due to this, many interlinkages existed between the different stages and methodologies applied during the project's progress.

Establishing tangible facts and elaborating on hypotheses related to the spatial and temporal evolution of the Fintech sector in its various aspects and manifestations naturally lends itself to quantitative methodological treatment. However, the project required conceptualising and defining a range of definitional issues, leading to a specification of what constitutes Fintech and Fintech-related technologies and consequently elaborating measures for different aspects of these. Since the literature is somewhat salient and ambiguous regarding Fintech's characteristics and defining features, providing clear-cut definitions was crucial for the project's progress. In addition to the usual discursive conceptualisation of the underlying issues and trends, this was employed to filter and distinguish data points (e. g., in the tier 1 and tier 2 classification of fintech FDI projects). One outcome of the conceptualisation efforts was the lack of reliable measures for many underlying phenomena.

We, therefore, made a concerted effort to elaborate and construct such measures. While some measures relied on qualitative and logical arguments and amended or modified existing data, others delved deeper into defining the quantities of interest and utilised quantitative methods (such as confirmatory factor analysis and regression techniques) to produce novel measures. Furthermore, we conducted internal and external validation of these measures by cross-checking arguments with colleagues and external experts and

ascertaining their predictive abilities in the statistical models being built. We applied various quantitative techniques, such as regression methods (both cross-sectional and longitudinal) and time-series models (particularly state space type models with varying coefficients), to reveal and ascertain the underlying relationships. Due to the unstructured and sometimes exploratory nature of many issues, our analysis considered conscious and concerted efforts were made to acknowledge and account for the uncertainty in the studies' relationships. These included qualitative tasks, such as consultations (internally among project partners and externally with stakeholders including academics, policymakers, and practitioners) designed to refine further the measures used and their interpretations. Further quantitative analytical efforts were implemented to validate these measures and model structure. These included less formal model selection exercises and formalised model and measures validation methodologies (e. g., Bayesian shrinkage).

Key Outputs

As a result of our research, we have produced a substantial body of work that contributes to both academic and policy discussions:

Two working papers have been completed and are being submitted to high-impact journals, such as the British Journal of Management and the Journal of Financial Economics.

A third paper on regulatory frameworks is in progress and will be submitted to the European Journal of Finance.

Eight policy papers have been published, providing evidence-based recommendations for policymakers and practitioners.

Public engagement through media outlets, including contributions to The Conversation, has helped disseminate findings to a broader audience.

Dissemination and Future Impact

We have engaged key stakeholders through workshops, policy dialogues, and industry discussions to ensure our findings translate into actionable outcomes. Our research offers valuable insights that can support decision-makers in enhancing FinTech trade between India and the UK and meaningfully contribute to shaping bilateral trade policies.

Moving forward, we aim to refine our analysis further and enhance our engagement with government agencies and industry leaders to foster sustainable and mutually beneficial growth in the FinTech sector.

Partner Institutions:

University of Essex (https://www.essex.ac.uk/)
SOAS, London (https://www.soas.ac.uk/)
University of Central Lancashire (https://www.uclan.ac.uk/)
Research and Information Systems for Developing Countries (RIS; https://www.ris.org.in/)
Gulati Institute for Finance & Taxation (https://www.gift.res.in/)

Institute for Studies in Industrial Development (ISID; https://isid.org.in/)
Twimbit (https://twimbit.com/)

Key Individuals: Thankom Arun (PI, University of Essex), Sheri Markose (University of Essex), Victor Murinde (SOAS/African Economic Research Consortium), Philip Kostov (University of Central Lancashire), Sachin Chaturvedi (RIS), Priyadarshini Dash (RIS), K.J.Joseph (GIFT), Reji. K. Joseph (ISID)

Research collaborators: Ahmed Khan (Essex/Research England); Nihan Ari (Essex), Rosemarie Mcgarrell (SOAS), Kiran Kumar Kakarlapudi (GIFT), Varnika Goel (Twimbit), Rashika Sethi (Twimbit).

Outputs (Academic Papers)

1. **FinTech Ecosystem Impact on FinTech Startup Performance: Perspectives from UK & India**

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5160326

The digital transformation of the financial services industry has attracted a remarkable amount of capital investment, entrepreneurship, and government policies that foster favourable conditions in what is increasingly viewed as FinTech ecosystems. We examine the key drivers of these ecosystems, including funding sources from pre-seed and seed stages to Series A-H, acquisitions, and strategic interactions by established financial firms, along with the government policy framework. This creates a virtuous cycle, leading to more FinTech startups with global reach and the establishment of highly skilled tech jobs within an environment characterised by expanding investment inflows and digitally savvy entrepreneurs. We present a systematic empirical study on the effectiveness and quality of ecosystems for specific locations of FinTech startups and their subsectors, spanning from digital payments to blockchain, in the UK and India. To achieve this, we develop time-varying indexes for the quality of FinTech ecosystems using Confirmatory Factor Analysis for the sample period from 2003 to 2022. Cross-sectional and panel regressions are employed to test hypotheses regarding funding sources and their capacity to foster FinTech startups with their impact on job creation in multiple locations recognised as FinTech hubs. The UK and India offer intriguing historical trajectories. The former indicates that the concentration of FinTech startups in a superhub in London has detrimental implications for job creation and the growth of viable FinTech ecosystems in the rest of the country. In contrast, despite having less venture capital funding and support from large domestic incumbent financial firms, India demonstrates a more sustainable model of FinTech growth across geographically diverse regions, with a more remarkable ability to attract foreign direct investment in FinTech to these areas.

2. **The Impact of FinTech and Digital Transformation on Foreign Direct Investment and Bilateral Trade in Financial Services: The Case of the UK and India**

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5168227

The rapid digitisation of financial markets has significant implications for international trade and the global provision of financial services. This study examines the evolving role of FinTech and automation in reshaping global supply chains, focusing on the UK and India. While the UK leads in exports of financial services, India has established itself as a major player in ICT-related exports, bolstered by its growing FinTech capabilities. We explore how the increasing reliance on digital technologies, artificial intelligence, and internet-based financial services is altering the traditional dynamics of Foreign Direct Investment (FDI) and bilateral trade in financial services. Precisely, we assess whether FinTech-driven FDI complements or substitutes cross-border trade in financial services between these two economies. Our analysis is informed by empirical data on FDI flows, trade in services, and the FinTech ecosystem, utilising sectoral classifications from FDI Markets, OECD trade statistics, and Tracxn startup data. By applying econometric modelling and qualitative insights from industry interviews, we identify key factors driving FDI decisions in FinTech and assess their impact on trade patterns. Findings suggest that FinTech FDI is increasingly substituting traditional trade in financial services, particularly in the UK-India corridor. Regulatory barriers, market saturation, and an increasing preference for local market presence by financial service providers drive this shift. The study underscores the necessity for policymakers to consider the implications of digital transformation on trade policies and investment strategies significantly as financial globalisation accelerates in the digital realm age.

(3) What have we learnt from regulatory sandboxes for FinTech Firms? Perspectives from UK & India (Working on final revisions)

Sheri Markose, Thankom Arun and Ahmed Khan

The UK and India have vibrant ecosystems for FinTech startups, with 11,977 and 9,529 established, respectively. Since the FCA introduced ‘Sandbox’ procedures for FinTech startups in 2016, over 50 jurisdictions globally have adopted this framework to help FinTech startups navigate the regulatory ambiguity and radical uncertainty involved in launching a new product in the market. However, companies that undergo the sandbox treatment make up less than 1 % of the total number of startups in the UK and India. Having rigorously identified the performance of sandbox firms against control firms using the Synthetic Control method, we find evidence that sandbox firms raise more funding than control firms. We also examine the performance of all FinTech startups in the UK and India against the broader context of the locations where these startups are founded to assess the differential contributions made by ecosystem factors and the sandbox treatment. It is noteworthy that ecosystem drivers for FinTech startups, particularly in conurbations or contiguous regions with a concentration of tech personnel, such as in tech parks, can be enabling factors for the success of startups. In the bigger picture, while sandbox treatment can enhance success, it has yet to become a significant factor.

Outputs (Policy Papers)

(1) Impact of Neo-Banks (Digital Banks): India – UK Comparison

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4452179

The emergence of neo-banks in India and the UK reflects the growing demand for digital financial services. The onset of the digital age in the financial sector has facilitated increased partnerships between traditional institutions and fintech organisations. Neo-banks, digital-only banks primarily operating through mobile apps, have significantly impacted the financial industry in recent years. They leverage technologies such as artificial intelligence and machine learning to deliver personalised financial solutions to customers. Over the last four years, nearly 36 neo-banks in India have been competing, acquiring customers, and carving out a niche in the banking and financial sector. Likewise, in the UK, the three significant neo-banks (Monzo, Revolut, and Starling Bank) are actively working to establish a presence in the banking industry.

(2) Digital Lending in FinTech: India – UK Comparison

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4558960

Digital lending has emerged due to the growing demand for convenient financial services fueled by technological advancements. It has evolved differently across regions, with the US and Europe adopting online lending platforms, while Africa and Asia have experienced growth through mobile money platforms and digital banking. Key drivers include addressing the credit gap, utilisation of online platforms, data analytics, increased smartphone adoption, and regulatory support. Digital lending has revolutionised the loan origination process, enhanced access to credit, promoted financial inclusion, and stimulated innovation. It has also spurred economic growth and supported small-scale enterprises. Future success relies on technology, regulations, and customer engagement needs.

(3) A Comparative Analysis of Digitalization in Small Finance Banks: India and UK Scenario

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4889908

Small Finance Banks (SFBs) in India, established by the Reserve Bank of India (RBI) to promote financial inclusion, demonstrated significant growth in revenue and profitability in 2023. There are 12 SFBs, four publicly listed, reflecting investor confidence. Regulatory guidelines ensure adherence to capital adequacy and governance norms. Initiatives promoting digitalisation, including the Pradhan Mantri Jan Dhan Yojana (PMJDY), Unified Payments Interface (UPI), and Aadhaar-based services, have furthered financial inclusion. SFBs are crucial to this effort, with 67% of their total loan book focused on microfinance.

In contrast, the UK lacks a dedicated Small Finance Bank sector but supports financial inclusion through microfinance and SME banking. With diverse ownership, microfinance institutions in the UK have made significant impacts. Success stories from Grameen Bank UK, Big Issue Invest, and Fair Finance illustrate positive outcomes and effects.

(4) State of Open Banking in India and the UK

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4924965

Open banking, facilitated by APIs, is revolutionising the financial sector by enabling secure third-party access to consumer banking data. This fosters innovation, competition, and efficiency while empowering customers with control over their financial information and supporting personalised financial services. Regulatory frameworks like PSD2 in the EU and CDR in Australia are crucial in ensuring security, privacy, and interoperability. The UK's Open Banking initiative, launched in 2018 under the Open Banking Standard, has encouraged a dynamic ecosystem of fintech innovation by mandating major banks to provide APIs for third-party access to customer data. Open Banking in India is rapidly transforming the financial landscape, driven by regulatory mandates and market competition. The adoption of Open Banking APIs in the UK and India faces significant challenges, including data security and privacy concerns, compliance risks, and cybersecurity threats. Addressing these challenges through IT modernisation, developer platforms, robust API architectures, revenue-sharing models, and enhanced data strategies will be crucial for sustainable growth and customer trust in an open finance ecosystem.

(5) Buy Now, Pay Later (BNPL): India – UK Comparison

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4924971.

The Buy Now, Pay Later (BNPL) financial service has rapidly expanded, particularly in the UK and India. BNPL allows consumers to defer payments for purchases, breaking them into interest-free instalments, typically four payments or fewer. The swift growth of BNPL services has raised regulatory concerns, especially regarding consumer debt and financial stability. UK, EU, US, and Australian regulators increasingly advocate for stricter oversight. Leading players in the BNPL market include Klarna, Afterpay, Affirm, and Zip, all fostering innovation and competition. In 2020, the UK BNPL market surged to £2.7 billion, surpassing the peak volume of payday loans. The COVID-19 pandemic accelerated BNPL adoption, supporting consumer spending during economic difficulties and boosting average order values. In India, the BNPL market is projected to grow from USD 3.5 billion to USD 50 billion by 2026, driven by increasing e-commerce activities, particularly among millennials.

(6) Cross Border Remittances & FinTech: India and UK Scenario

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4992933

The global remittances industry has expanded significantly, surpassing foreign direct investment as the largest source of foreign income for many developing countries. In 2023, global remittance flows reached USD 656 billion, highlighting their critical role in supporting economies, particularly in low-income nations. The shift from traditional cash-based remittances to digital platforms, driven by FinTech innovations, has transformed the industry. Mobile technology and digital platforms have reduced transaction costs and improved access, especially in remote areas. Blockchain technology is emerging as a means to enhance efficiency further. FinTech advancements have increased financial inclusion by providing access to financial services for unbanked populations, particularly in regions like

Sub-Saharan Africa. Mobile money platforms have integrated millions into the economic system, although access and digital literacy barriers persist.

(7) Wealth Management & FinTech: India and UK Scenario

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4992993

The wealth management sector has evolved significantly, driven by the rise of FinTech innovations reshaping traditional financial services. FinTech has introduced affordable and accessible solutions such as robo-advisors, AI-powered analytics, and micro-investing platforms, enabling individuals with modest assets to participate. These technologies enhance personalisation, efficiency, and financial inclusion by offering low-cost, scalable services. WealthTech innovations, including blockchain, social trading platforms, and digital payment systems, broaden market access and empower a new generation of individual investors.

(8) UK – India Free Trade Agreement on FinTech

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4924974

This paper examines the UK's role in Free Trade Agreements (FTAs) within the FinTech sector post-Brexit, focusing on global partnerships in international trade. Central to the UK's "Global Britain" strategy, the financial services sector is a crucial area of emphasis. The paper analyses the UK's ongoing FTA discussions with India, underscoring the challenges and opportunities within the context of India's tech sector and the outsourcing of UK financial services to India. Additionally, it reviews the financial services components in successful FTAs between the UK and countries such as Japan, Singapore, Australia, and New Zealand, as well as India's agreements with the UAE and Japan, providing key insights for the UK-India FTA. This analysis, grounded in official documents and recent research, evaluates FinTech trade modes and regulatory barriers in both countries, offering case studies to illustrate these issues. The OECD DSTRI measures policy barriers to fintech trade, analysing key policy areas like infrastructure, electronic transactions, and payment systems. India's DSTRI score of 0.28 suggests higher regulatory barriers than the UK's 0.02, highlighting significant challenges for digital service trade, particularly in infrastructure.

Other publications

1. Evidence submitted to House of Lords committee on UK–India free trade agreement: Scrutiny of the Government's Negotiating Objectives by Thankom Arun and Philip Kostov

https://committees.parliament.uk/writtenevidence/107173/html/

2. How cashless societies can boost financial inclusion – with the right safeguards
-*The Conversation*, 7th June, 2023

https://theconversation.com/how-cashless-societies-can-boost-financial-inclusion-with-the-right-safeguards-199450

Impact, Events and Visibility

(1)Panel Discussion – Banks, Finance and New Forms of Technology – New Options with FinTech - 23rd April 2021

Panellists: Sachin Chaturvedi (RIS, New Delhi), T Rabi Shankar (Reserve Bank of India, Mumbai), K.J. Joseph (Gulati Institute of Finance and Taxation, Thiruvananthapuram), B.V. Phani (IIT Kanpur), Thankom Arun (University of Essex), Priyadarshi Dash (RIS, New Delhi)

India's FinTech adoption rate stands at 87%, significantly higher than the global average of 64%. The sector, valued at ₹2 lakh crore in 2019, is expected to triple to ₹6 lakh crore by 2025. FinTech lowers the cost of financial intermediation, which remained stagnant until the 2007-09 financial crisis, after which it declined rapidly.

Contrary to common perception, competitive threats to banks arise not from FinTech companies but from banks that leverage FinTech more effectively. Banks play a crucial role in bridging the distance and time gaps between savers and borrowers, providing liquidity where technology alone cannot. While technology enhances speed and efficiency, only banks possess the authority to create money.

Regulation remains a key factor in shaping the financial sector, ensuring stability and public benefit. Regulators must actively identify and oversee major tech players in financial markets, establishing robust governance frameworks to maintain balance and mitigate risk.

(2) FinTech – New Technology for Future Banking & Finance

RIS-IIC Webinar on FinTech - 23rd April 2021

Banking and financial institutions are undergoing rapid technological transformations driven by digital innovations such as Big Data and AI. The FinTech sector, which leverages these technologies to enhance efficiency and broaden the financial system's reach, is central to this evolution. However, adopting FinTech raises critical cybersecurity, regulation, and data localisation issues that must be addressed.

2.1 Banks, Finance, and Changing Forms of Technology: New Options with FinTech

Speaker: T. Rabi Sankar, Executive Director, RBI

FinTech enhances financial intermediation by reducing costs, customising products, improving customer service, and extending the reach of financial services. It challenges

traditional banking, pushing incumbents to adapt, but it cannot replace the fundamental functions of banks. India's FinTech adoption rate is significantly high at 87%. RBI initiatives like the Reserve Bank Innovation Hub promote innovation and technology adoption in finance. Future focus includes addressing pricing issues in cross-border transactions and managing the non-disruptive entry of big tech into finance. Trust remains a central issue; FinTech and traditional banking must coexist, leveraging each other's strengths.

2.2 FinTech and Society

Speaker: Thankom Arun, Director CAGD, University of Essex, UK

Historical issues in microfinance, such as high borrower indebtedness and a lack of registries, have created challenges. FinTech is shifting lending towards P2P platforms that offer diverse credit models and faster processing times. Proper regulation and stakeholder engagement are crucial for positively harnessing FinTech's potential. Regulatory trust is essential to encourage public adoption of FinTech products.

2.3 Regulatory Challenges in the FinTech Sector

Dr. Srinivas Yanamandra, Chief of Compliance, New Development Bank, Shanghai

Defining the regulatory scope and developing a clear lexicon for FinTech is challenging. Differentiating regulations for FinTech startups from those for big tech firms and finding a balanced co-regulation model is critical. Regulators tackle challenges through capacity-building pilot projects, international cooperation, and regulatory sandbox collaborations.

(3) Redefining the Business Management Paradigm Using Technological Innovations in the Society 5.0 Era - 27th May 2021

Thankom Arun, University of Essex

Technology has impacted society, human lives, and businesses. Going forward, there will be more convergence between cyberspace and physical space, creating more value for individuals. The accumulation of profits in a particular economy has traditionally come from the manufacturing or industrial sector, but now, the financial sector plays a crucial role in defining that economy's position in the global business landscape. Technology enables the financial industry to lower its service costs, generating intense competition among banks. Blockchain technologies and distributed ledgers, among others, create a range of P2P credit products that promote financial inclusion worldwide. While financial inclusivity is essential, financial institutions must ensure they protect the interests of their clients and users

(4) Finance and Development Webinar

Thankom Arun (University of Essex)

28th May 2021

A webinar by Prof. Thankom Arun for DIALECTICS 2021- A Multidisciplinary International Webinar Series organised by all the Departments of Sree Narayana College for Women, Kollam, Kerala in association with Internal Quality Assurance Cell (IQAC).

Fintech: Evolutionary to Revolutionary

There has been a shift in the understanding of finance and market interactions by modern society compared to the 20th century. Traditionally, financial issues have been viewed through the lens of financial intermediation, particularly in mobilising savings and managing risks. This gained momentum in the 1950s among newly independent nations. However, in the 1980s and 1990s, this approach faced severe criticism for restricting the nature and quality of financial intermediation. Proposals for a liberalised trade regime followed this. While exclusion can be voluntary or involuntary, the limited use of financial services in developing countries has become an international policy concern. Approximately 1.7 billion people do not use formal financial services, and over 50% of adults in the poorest households are unbanked.

(5) How "Open" is Open Banking? - 28th July 2021

Speakers: Hue Davies (Co-founder and COO Ozone API), Kevin O'Leary (Senior Post-Doctoral researcher, FINTECHNEXT project at UCC, Ireland), Vaibhav Garg (Head of Business Strategy Open Financial Technologies)

Open Banking can disrupt or complement existing retail banking through Application Programming Interface (API) technology, which allows third-party developers to create apps for more personalised financial services. This facilitates extensive data sharing between firms. The webinar explores the challenges and opportunities posed by this phenomenon. Among the various topics discussed, key questions addressed include the definition of open banking, its disruptive potential on current banking structures, and how customers can benefit from it. After watching this video, you will have these questions answered and will also gain an understanding of the following topics:- Sustainability of the value created from open banking- The difficulty and cost associated with setting up APIs for banks- Main features of the regulatory framework for open banking- Benefits for SMEs.

(6) The FinTech Revolution: What's the Status Quo?- 21st October 2021

The financial technologies revolution is underway globally. In this academic presentation, we review the key aspects of the FinTech revolution, structuring our discussion around a conceptual framework for the flow of funds. We examine regulatory issues and the broader question of FinTech governance globally. We summarise the key takeaways from existing research and identify promising research ideas that future studies could explore, including insights related to the global Covid-19 pandemic and other global risks, such as climate risk. This presentation comprehensively summarises contemporary issues related to FinTech and FinTech-enabled services. It discusses the opportunities and risks for various stakeholders, including households, firms, banks, and the government, within the context of funds flow. Regulatory issues and the governance of FinTech on a global scale are examined.

(7) Frontiers Webinar on Narrow and Artificial Intelligence - 5th November 2021

Panellists: Sheri Markose (Moderator) (University of Essex), Emily S. Cross (Professor of Social Robotics, Macquarie University Sydney), Karl Friston (Professor of Neuroscience, University College London), Georg Northoff (Professor of Neuroscience and Mental Health, University of Ottawa), Tony Prescott (Professor of Cognitive Robotics, University of Sheffield)

Sheri Markose moderated the Frontiers Webinar with a distinguished multi-disciplinary group of Topic Editors assembled to assess the remarkable success of narrow Statistical Artificial Intelligence and explore new perspectives on achieving Artificial General Intelligence (AGI). Narrow Artificial Intelligence (AI), also known as Weak AI, is designed to perform specific tasks or solve particular problems, operating within a limited scope. Examples include virtual assistants like Siri, recommendation algorithms, and autonomous vehicles. Unlike General AI, which aims to mimic human intelligence across a wide range of activities, Narrow AI excels in specific areas using predefined rules and patterns, making it highly effective in focused applications but lacking broader cognitive capabilities abilities.

(8)Panel Discussion on the Digital Economy – BRICS Virtual Economic Conclave

Panellists: Thankom Arun (University of Essex), Alexandera Morozkina (Senior Research Fellow, Ministry of Finance of the Russian Federation), Arvind Gupta (Head and Co-Founder of Digital India foundation), Keyzom Ngodup Massally (Senior Advisor, Chief Digital Office, United Nations Development programme)

Thankom Arun attended the BRICS Virtual Economic Conclave 2021, hosted by the Research and Information System for Developing Countries (RIS) in collaboration with the Ministry of Finance, Government of India, and the Reserve Bank of India (RBI). The event took place on November 26-27, 2021. The global adoption of digital technologies rapidly enhances economic and social spheres, offering vast opportunities for economic growth, investment, and structural change. The Digital Economy Report 2019 by UNCTAD highlights the explosive growth in global Internet Protocol (IP) traffic and predicts further increases. Advanced digital technologies like AI, IoT, Blockchain, and Big Data are poised to drive future growth, particularly in emerging markets like BRICS.

(9)Webinar: An Overview of the Disruptive Banking Model in India and UK30th November 2021

Thankom Arun (University of Essex), Varnika Goel (Twimbit Research Director)

In this episode of the impact webinar series, Thankom Arun gets together with Twimbit's research director, Varnika Goel, to discuss the neo-banking landscape in the UK and India and how they can develop powerful synergies. The neo-banking landscape in both countries is rapidly evolving, with significant growth and innovation occurring in each market. In the UK, neobanks such as Monzo, Revolut, and Starling Bank have revolutionised banking with their user-friendly digital platforms and innovative financial products. Similarly, India's neobanks like Niyo, Jupiter, and Fi are transforming the banking experience by leveraging technology to offer seamless and personalised services. Developing powerful synergies between these markets can lead to enhanced financial inclusion, cross-border financial innovations, and the sharing of best practices, fostering a more robust and dynamic global neo-banking environment ecosystem.

(10)Webinar: An Overview of the FinTech Startup Sector in India and UK

Thankom Arun (University of Essex) - **16th December 2021**

In this episode of the Impact Webinar Series, our Principal Investigator for the UK, Mr. Thankom Arun, joins Mr. Reji K. Joseph, Co-Investigator for India, to discuss the booming fintech startup landscape in both countries and how they stand to benefit from each other. The fintech startup sector in India and the UK is vibrant and rapidly growing, driven by innovation and supportive regulatory environments. In India, this sector is fuelled by a large, tech-savvy population, widespread smartphone usage, and government initiatives like Digital India and UPI, leading to significant advancements in digital payments and financial inclusion.

(11)AIDigEcon Webinar on FinTech for Sustainable and Inclusive Development – UKIERI-DST Conference on AI, Cyber Risks for FinTech

Thankom Arun (University of Essex) - **13th – 14th January 2022**

'Fintech for Sustainable and Inclusive Development' explores the role of financial technology in fostering economic growth that is both environmentally sustainable and socially inclusive. It highlights how fintech innovations can enhance access to financial services for underserved populations, support green finance initiatives, and promote economic inclusion. By utilizing digital solutions, fintech can significantly contribute to solving global challenges such as poverty, inequality, and climate change, ultimately supporting a more equitable and sustainable future future.

(12) AIDigEcon Webinar on Cyber Security & Intelligence – Part of UKIERI-DST Conference on AI, Cyber Risks for FinTech

Sheri Markose (University of Essex) - **13th – 14th January 2022**

'Self-Reference as the Basis of Genomic Intelligence and Blockchain' explores how self-referential systems underpin both genomic intelligence and blockchain technology. It highlights the parallels between the self-organizing principles in genetic information processing and the decentralized, self-verifying nature of blockchain. This concept suggests that understanding self-reference can provide deeper insights into developing intelligent

systems and enhancing the security and efficiency of blockchain applications. The AIDigEcon Webinar on Cyber Security & Intelligence, part of the UKIERI-DST Conference on AI and Cyber Risks for FinTech, featured Prof. Sheri Markose (University of Essex) discussing "Self-Reference as the Basis of Genomic Intelligence and Blockchain." Prof. Markose presented the idea that self-referential systems—those that reference and organize themselves—are fundamental to both genomic intelligence and blockchain technology. She drew parallels between the self-organizing processes in genetic information and the decentralized, self-verifying structure of blockchain, arguing that understanding self-reference can aid in designing more secure and efficient blockchain systems. This approach could potentially advance the development of intelligent, autonomous technologies.

(13) Panel Discussion – Foundational Aspects of General Intelligence and AI

Panellists: Sheri Markose (University of Essex), Silvia Sanchez Roman, Karl Friston, Oron Shagrir, Anindya Chakrabarti **- 13th – 14th January 2022**

Presenters discussed the applicability of the free energy framework to artificial intelligence, emphasising its potential to encompass various AI methodologies such as deep learning and game theory. They explained that deep understanding, particularly variational autoencoders, aligns with the free energy principle but noted the necessity of uncertainty quantification in deep reinforcement learning to minimise complexity fully. They highlighted that the framework's strength lies in its ability to generalise existing models and its hierarchical structure, ranging from simple systems like thermostats to complex human decision-making. This hierarchical approach enables AI systems to model and predict future states, enhancing their planning and decision-making capabilities.

(14) SOAS CGF Conference – Shifting Global Economic & Financial Trends: What do we really know?

Participants: Thankom Arun (University of Essex), Sheri Markose (University of Essex), Phillip Kostov (UCLAN), Victor Murinde (SOAS), Ahmed Khan (University of Essex), Nihan Ari (University of Essex), Varnika Goel (Twimbit), Rashika Sethi (Twimbit)

21st – 22nd September 2023

The UK India Fintrade project team attended the SOAS Centre for Global Finance (CGF) conference titled 'Shifting Global Economic & Financial Trends: What do we really know?' Recent unprecedented global shocks, including the COVID-19 pandemic, climate-related disruptions, and the Russia-Ukraine conflict, have created significant uncertainty in economic and financial trends. This conference gathered leading scholars, policymakers, and practitioners to discuss these shifts, share insights, and debate preliminary research findings. The event explored new methodologies and solutions for restoring global financial stability and economic sustainability while fostering engagement between researchers, policymakers, the private sector, and NGOs to continue advancing knowledge and identifying emerging issues. The UK India Fintrade team made a total of three presentations. Ahmed Khan and Phillip Kostov presented their paper, 'Trends in Trade and Foreign Direct Investment in FinTech and FinTech Related Services: Challenges and Prospects of Digital Transformation of Financial Markets, ' while Sheri Markose and Nihan Ari discussed their paper, 'What Have We Learnt from Regulatory Sandboxes? Perspectives from UK & India. ' Lastly, Twimbit representatives Varnika Goel and Rashika Sethi presented on 'The Impact of Neo-banks (Digital Banks) - India and UK.' Comparison'.

(15) Globelics International Conference 2023: Innovation-Driven Knowledge-Economies and Transformation in the Global South

Participants: Thankom Arun (University of Essex), Sheri Markose (University of Essex), Phillip Kostov (UCLAN), Priyadarshi Dash (RIS India) **- 11th – 14th October 2023**

The Globelics network was established twenty years ago, with its first international conference taking place in Rio de Janeiro in 2003. The primary aim of the network was to concentrate on Learning, Innovation, and Competence-building Systems (LICS) to understand the connection between innovation and development. This 20th anniversary conference will take the opportunity to reflect on insights generated by the network and the future research agenda. This year, the conference was hosted in Thiruvananthapuram, Kerala, India. Attendees from the UK India Fintrade project presented the latest research outcomes of the project, including 'Trends in Trade and Foreign Direct Investment in FinTech and FinTech Related Services: Challenges and Prospects of Digital Transformation of Financial Markets' and 'What Have We Learnt from Regulatory Sandboxes? Perspectives from the UK & India'.

(16) SOAS CGF Online Presentations

15th – 29th January 2022

During a series of online presentations conducted via MS Teams by the Centre of Global Finance at SOAS, the UK India Fintrade project team provided research updates across three meetings from 15th to 29th November to an audience of online participants.

16.1 Trends in Trade and Foreign Direct Investment in FinTech and FinTech Related Services: Challenges and Prospects of Digital Transformation of Financial Markets

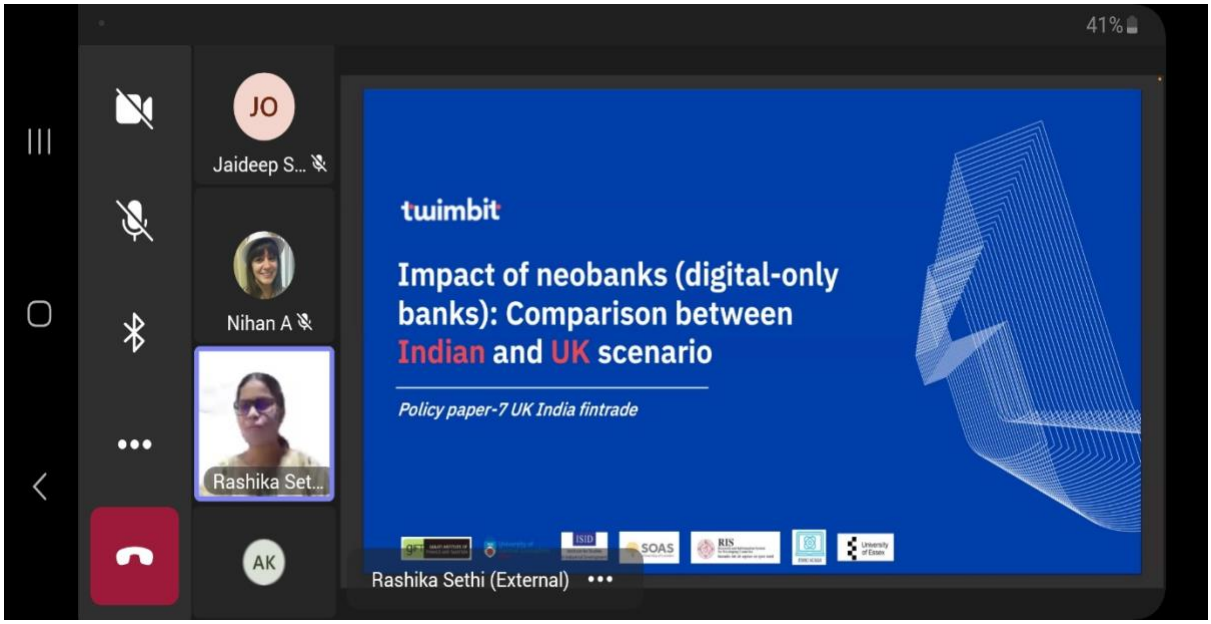
Prof. Phillip Kostov (UCLAN), Ahmed Khan (University of Essex)

16.2 What We Learnt from Regulatory Sandboxes – Perspectives from UK & India

Prof. Sheri Markose (University of Essex), Nihan Ari (University of Essex)

16.3 The Impact of Neo-banks (Digital Banks) - India and UK Comparison

Presenters: Varnika Goel (Twimbit), Rashika Sethi (Twimbit)



17. INTERNATIONAL CONFERENCE ON GLOBAL FINTECH ECOSYSTEM & FINTECH–ENABLED TRADE IN SERVICES @ University of Essex

This conference brought together world-leading scholars, policymakers, and practitioners in the fields of FinTech and financial services to share insights on the shifting global economic and financial trends, as well as how to build resilience for future shocks. Ongoing research and preliminary findings were debated and contested, highlighting new methodological advances in economics and finance while exploring solutions for restoring global financial stability and economic sustainability. The two-day conference also aimed to enable researchers to engage with policymakers, private sector practitioners, and non-governmental organizations (NGOs) to chart further research, identify emerging issues, and continue generating new findings, disseminating knowledge, and sharing experiences related to the global financial system.

This conference was supported by a research project on UK-India Bilateral Trade in FinTech and FinTech-Enabled Services, funded by the UK's Economic and Social Research Council (ESRC) and the Indian Council of Social Science Research (ICSSR), Grant Ref: ES/T016213/1.The conference held on July 22-23 covered six main sessions with several key themes in digital finance, financial inclusion, artificial intelligence, regulatory frameworks, and the impact of FinTech ecosystems. Below is an overview of the main themes and speakers who presented in various capacities.

Unlocking Digital Finance Value and FinTech Ecosystem Performance

- Keynote speaker Dr. Victor Murinde from the African Economic Research Consortium opened with a proposal to maximise the value of digital finance. Dr. Sheri Markose from the University of Essex discussed how the financial ecosystem influences the performance of the FinTech sector. Priyadarshi Dash from RIS India shared insights into adopting Fintech and its role in promoting inclusive development in developing countries.

Artificial Intelligence and Digital Banking

Dr. David Bholat (Faculty AI) highlighted the role of AI in transforming financial services, while Nikiforos Panourgias (QMU) presented a case study on Revolut as a leading digital bank. During a subsequent panel discussion on the FinTech ecosystems of the UK and India, Leighton Hughes (City of London Corp), Dr. Priyadarshi Dash (RIS India), and others explored the current state and future direction of FinTech in both regions.

Financial Inclusion through Open Banking

The second day began with a keynote by Dr. Pinar Ozcan (University of Oxford), who discussed the potential of FinTech in enhancing financial inclusion and open banking.

Dr. Kiran Kumar Kakarlapudi (Gulati Institute of Finance & Taxation) and Ashok Thomas (IIMK, India) examined how FinTech impacts financial inclusion across countries and its effect on household wealth portfolios.

Trade, FDI, and Free Trade Agreements in FinTech

Dr. Phillip Kostov (University of Central Lancashire) and Ahmed Khan (University of Essex) discussed emerging trends in trade and foreign direct investment (FDI) in FinTech.

Rosemarie McGarrell (SOAS) followed with an analysis of free trade agreements for FinTech services were examined during a panel led by Dr. Sheri Markose, focusing on AI applications in financial services and open banking.

Policy, Blockchain, and Crypto

Keynote speaker Dr. Alistair Milne (Loughborough University) discussed blockchain, cryptocurrency, and central bank digital currencies (CBDCs) as public policy challenges.

Chandila Fernando (UKRI) talked about government funding for FinTech startups, while Nidhi Agrawal (Virgin Money) shared insights on FinTech-related risks.

Regulatory Frameworks and Crypto Assets

Sarah Almershed (University of Essex) explored the valuation of crypto assets, and Sheri Markose along with Ahmed Khan presented their research on the impact of regulatory sandboxes on FinTech funding.

Summary of Speakers

Session Chairs: Dr. Thankom Arun (University of Essex), Dr. Alistair Milne (Loughborough University), Dr. Franco Fiordelisi (University of Essex), Dr. Victor Murinde (African Economic Research Consortium), and Dr. Kiran Kumar Kakarlapudi (GIFT).
Keynote Speakers: Dr. Victor Murinde, Dr. Pinar Ozcan, and Dr. Alistair Milne provided leading insights on digital finance, FinTech's role in financial inclusion, and policy challenges surrounding blockchain and crypto.

Panellists and Presenters: Key figures such as Dr. David Bholat, Leighton Hughes, Dr. Priyadarshi Dash, Dr. Sheri Markose, and Ahmed Khan contributed their expertise on various topics, including AI, regulatory frameworks, and FinTech adoption.

This conference effectively addressed various dimensions of FinTech's impact on global finance, offering industry experts, policymakers, and academics a platform to discuss trends and challenges in this rapidly evolving field.

https://cdn.twimbit.com/uploads/2024/03/10190908/Conference-Programme-22nd-23rd-July.pdf

https://aercafrica.org/aerc-at-the-international-conference-on-fintech-ecosystem/

https://www.linkedin.com/posts/thankom-arun-94815b17_fintech-conference-at-the-university-of-essex-activity-7221191813078937600-y5pm/

18. 61st AERC Biannual Plenary Session: The FinTech Revolution in Africa @Niarobi

Victor Murinde (Conference organiser), Thankom Arun (Keynote speaker), Sheri Markose

The African Economic Research Consortium (AERC) hosted its 61st Biannual Plenary Session today, 1st December 2024, in Nairobi, Kenya, under the theme “The FinTech Revolution in Africa.” The event, held in partnership with the Central Bank of Kenya (CBK) and Kenya Bankers Association, brought together leading economists, policymakers, and practitioners to explore the evolving role of financial technology in shaping Africa’s economic future.

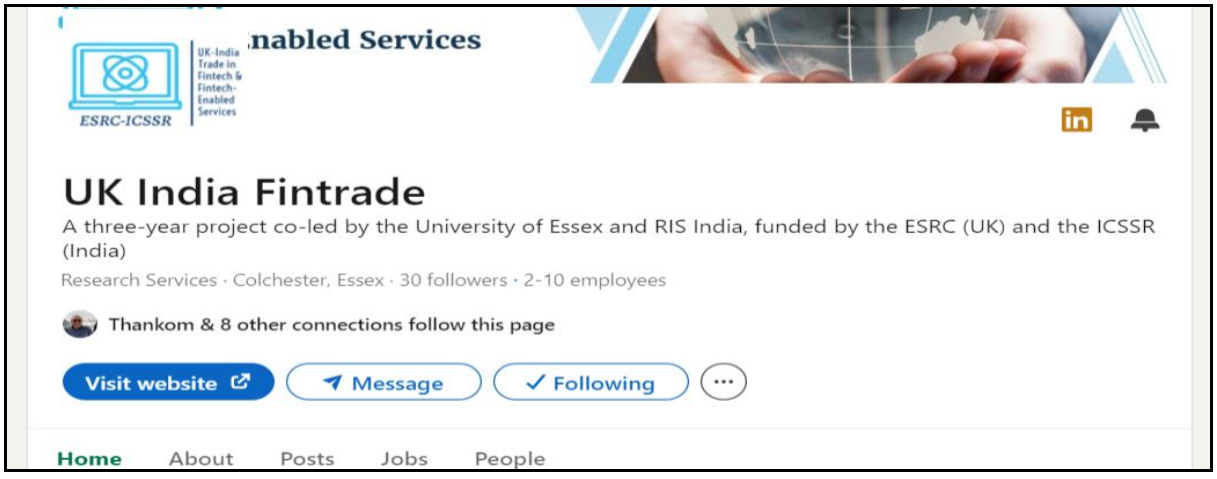
Visibility

For the UK India Fintrade project, strong online promotions were maintained through various mediums (project website, LinkedIn, Twitter (X), Youtube).

Project Website (www.ukindiafintrade.com)

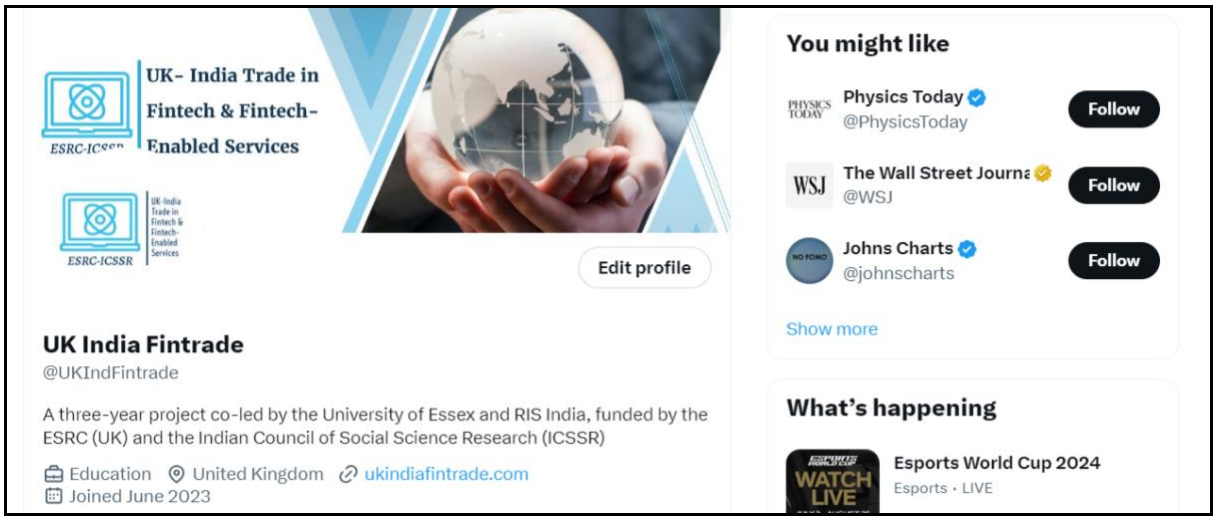
We found the website is highly effective because it serves as a centralised information hub, offers a professional platform for showcasing projects, enhances visibility through SEO, allows regular updates, includes interactive features for engagement, hosts a variety of educational resources, facilitates contact and collaboration, and can attract funding and support. Overall, we found this as a powerful tool for disseminating content, fostering collaboration, and ensuring project success.

LinkedIn (https://www.linkedin.com/company/uk-india-fintrade/)



Our LinkedIn page enables researchers and educators to connect with a global audience, share updates, and publish articles or findings. By leveraging LinkedIn's features, such as posts, articles, and groups, professionals can engage with peers, attract funding, collaborate with other researchers, and reach potential students or participants. LinkedIn's analytics tools help track engagement and optimise content strategy, ensuring that the research gains maximum visibility and impact. This has fostered a strong online following among industry and academic professionals

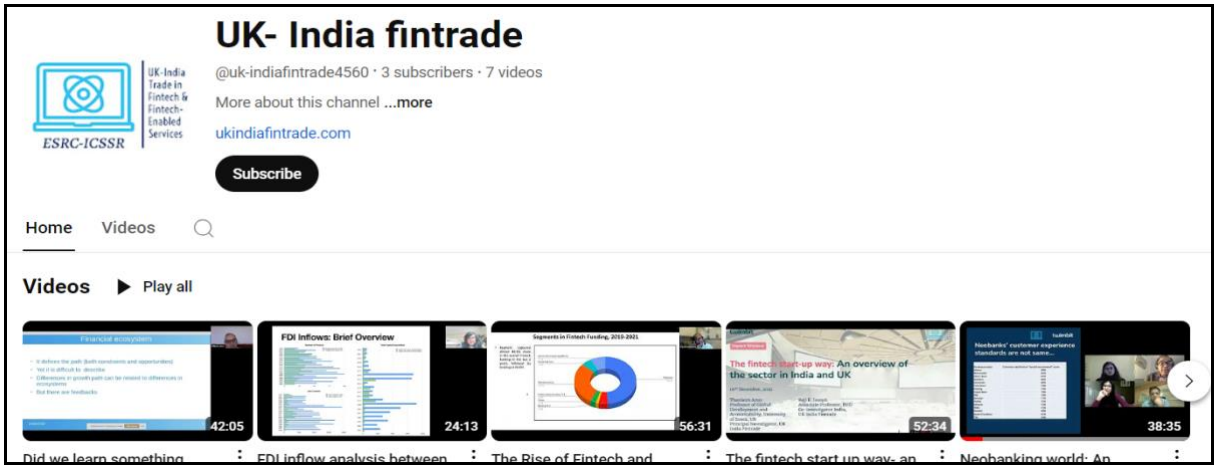
X (formerly Twitter) (https://x.com/UKIndFintrade)



The Twitter page allows for real-time updates, interactive engagement through replies and retweets, and networking opportunities with peers and collaborators. Utilising hashtags increases visibility, while multimedia sharing enhances content appeal. Additionally, Twitter is ideal for promoting events such as webinars and conferences, driving global attendance and participation. Overall, it offers powerful tools for engagement, visibility, and networking.

For the UK India Fintrade project, a Twitter/X page was created to promote project details (events, papers, research updates). This cultivated a strong online following among industry and academic professionals.

Youtube Channel (https://www.youtube.com/@uk-indiafintrade4560)



YouTube enables the creation of visually appealing and informative content, making complex topics accessible. It supports real-time interaction through live webinars and enhances engagement with multimedia elements such as slides and animations. Its SEO features improve visibility, while the platform's sharing capabilities and community-building tools encourage broader dissemination and interaction. Additionally, YouTube's analytics provide insights into audience engagement.