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FINANCIAL INNOVATION AND TECHNOLOGY INTEGRATION IN EXPORT CREDIT OF COMMERCIAL BANKS

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Abstract: *Exports are considered crucial for the economic growth of the country as they contribute to the increased GDP and employment opportunities. In this scenario export credit stands not in isolations, they play a very crucial and critical role in the promotion of exports. Export credit are offered by both commercial banks and other export promotion agencies. The support offered by export credit from commercial banks lies in its ability to provide financial assistance to exporters, enabling them to navigate the complexities of international trade by mitigating risks, offering competitive financing terms, and facilitating trade finance, export credit empowers exporters to expand their market reach, strengthen economic growth, and contribute to global trade stability. Traditional banking activities are time consuming with lengthy procedures and paperwork's, but the introduction of innovation and financial technology in the field of banking has come up with prompt working and time saving making the banking activities simpler with anytime anywhere access. The financial innovation improves efficiency by reducing risks, and enhancing customer experience in banking. Financial innovations such as block chain technology, artificial intelligence, and digital platforms transforms various banking functions, including payments, lending, and risk management. Benefits of technology integration in export credit activities can include including faster processing times, reduced fraud, and enhanced transparency. Thus this study aims to bring out how commercial banks can integrating financial innovations and technology into export credit activities in eliminating the challenges that faced while using the traditional method of banking.*

Keywords: *Export Credit, Commercial Banks, Financial Innovation, Technology*

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INTRODUCTION

Globalization has resulted in cross border business transactions in search of better opportunities for growth and establishment, exporters are gaining momentum since they are considered to be the most prominent way of internationalization (Morgan et al., 2012).Global trade helps in enhancing the economic growth of the country, by contributing significantly in the post crisis era (Klasen, 2013). Exports are considered significant for the developing economies but the business risk and the increased completion in the international business may result in losses or failures (Njegić et al., 2020). Mostly the Small, Medium sized enterprises are engaged in exporting activities of the developing countries, but they lack competitiveness by way of lack of knowledge, financial resources, and the awareness relating to export markets (Njegić et al., 2020; Sousa & Bradley, 2009). Thus the government and other agencies offer various export promotion programmes to help firms to overcomes the challenges and obstacles faced in the international markets (J. Francis & Collins-Dodd, 2004). As far as exporters are considered the legal and regulatory challenges are the most significant challenge along with the currency fluctuation risk are significantly increasing (Coleman, 2013). Export credit and credit insurance is required by the exporters for fulfilling their export requirements. Export credit agencies provide assistance to exporters in this regard and plays a crucial role in promoting the exports of highly industrialized and developing economies. They also help the importers of the developing markets to access finance (Klasen, 2013). One of the important constrain to exporting and a significant determinant of the firms international participation in the international market is finance (Abor et al., 2014; Greenaway et al., 2011).

Digital financial innovation is gaining momentum and helps in increase the productivity and growth by way of financial inclusion and resource allocation (Kame Babilla, 2023). Innovations in digital finance provide individuals and business with access to financial services and products through innovative and cost efficient platforms that connects the banks and its customers and also plays a significant role in providing access, usage and quality of financial products and services among the developing countries of the world (Mothobi & Kebotsamang, 2024; Radcliffe & Voorhies, 2012). Fin tech is currently gaining acceptance receiving research attention with its capability to deliver the financial services seamlessly. The adoption of these technologies has facilitated speedy, efficient and easy accessibility to financial transactions for those who have limited access to traditional banking services (Gopal et al., 2023). The concept of block chain technology is receiving attention being the core and underlying technology with a huge prospects to the banking industry. The block chain technology is capable of restricting the financial innovation by digitalization of the assets. This technology is capable of increasing the efficiency and effectiveness of banking transactions by removing the barriers of traditional banking (Guo & Liang, 2016). Artificial Intelligence is transforming the industries with its capability to emulate the human skills and is gaining prominence in the banking industry (Sundar et al., 2024). Bredt,(2019) has stated that AI has the potential to transform the financial sector by offering more tailored and better services at reduced cost.

In this scenario it is known that the innovation and technology has an inevitable role to play in the field of financial sector especially in banking. Thus through this paper an attempt is being made to make an investigation into the implications of the innovation and technology in banking and how could the integration of these technologies could benefit the exporters and commercial bank employees if the technological innovations in the field of banking is integrated in the export credit services offered by the commercial banks.

RESEARCH METHODOLOGY

This study is designed to be exploratory in nature with the aim of exploring how the financial innovations and technology like the blockchain technology, artificial Intelligence and various digital platforms can be incorporated into the field of export credit to provide a seamless delivery of credit to the exporters. For this purpose review of pertinent literatures in the field of fintech or financial technology, innovation, blockchain technology, artificial intelligence and digital platforms and banking was selected and reviewed thoroughly and an attempt is made to identify how these could benefit the export community if these technological innovations are incorporated in the service delivery of export credit services of commercial banks. For this purpose the willingness to adopt these innovations by the commercial bank employees dealing in export credit were interviewed and content analysis is performed in order to project the willingness on the part of the respondents towards the adoption of financial innovation and technology into the export credit actives of the banks. Content analysis Content analysis is method of qualitative data analysis for systematically describing and quantifying a specific phenomenon and deriving valid inferences from verbal, visual, or written data (Viphanphong et al., 2023;Thetlek et al., 2024) .The interview consisted a set of questions relating towards the awareness relating to the financial technology and innovation in banking and their opinion on how this could benefit in providing a seamless delivery of export credit without much procedural formalities of traditional banking activities. Purposive sampling method was used to identify the respondents and 8 respondents each were interviewed which included four respondents from public sector commercial banks and four from private sector commercial to derive the required responses. J. J. Francis et al., (2010) suggested that a minimum of six respondents is sufficient of achieving data saturation in a qualitative research.

FINANCIAL INNOVATION AND TECHNOLOGY IN BANKING A REVIEW

Financial innovation is transforming the financial service sector and has a substantial economic impact and has resulted in substantial financial inclusion (Bara et al., 2016). The products of financial innovation is gaining importance in both at governmental and regulatory levels and at the banking institutions and the deposit taking institutions invest more in these innovative products with the aim of increasing their productivity (Nyamekye et al., 2023). Financial technology or Fintech which is characterized as part of technological financial innovation is a driving force of the economy in many regions (Tarawneh et al., 2024). Fintech has contributed significantly in enhancing the operational efficiency of the banking sector in the economies by way of automation, artificial intelligence and data analytics. They have resulted in reduced fraud and errors and optimum utilization of resources (Ghandour, 2021; Tarawneh et al., 2024). Fintech is also playing a substantial role in the transforming the risk management practices of the banking sector by the use of advanced tools in the context of rising complexities and volume of financial transactions (Mitra & Karathanasopoulos, 2020).

Blockchain Technology in Banking

Blockchain technology is a form of decentralized database that records every transactions and serves as the foundation for various forms of digital currency and Bitcoin. Blockchain technology guarantees error free record keeping and is very secure. Nowadays electronic transactions are gradually replacing the rational paper based transaction systems bringing in more transparency anus resulting in a rise in transaction volume. Primarily blockchain technology was developed for Bitcoin and Cryptocurrency (Ravichandra et al., 2024). The blockchain technology is considered to be one of the important technological innovation that has potential applications in the banking industry. This technology have the potential to change and enhance the payment clearing system and the banking credit information system by modernizing their fundamental technologies and additionally, they support the development of "multi-center, weakly intermediated" scenarios, which will improve the efficiency of the banking sector (Guo & Liang, 2016). There is a widespread adoption of blockchain technology in the banking sector which can be attributed to the rise in use of bitcoin and cryptocurrencies (Mbaidin et al., 2024). The integration of blockchain technology reduces the fraudulent activities and helps in the formulation of a safe and secure ecosystem for transactions by creating an absolute record of all the transactions that are taking place. It not only helps to reduce the fraudulent activities but also in making the international transactions easier in a more secure and expedient manner (Kumar et al., 2024).

Blockchain technology has the potential to optimize the global financial infrastructure through sustainable development through the use of more efficient resources. In order to promote green technologies and accelerate the economic growth many banks are currently shifting to the adoption of blockchain technology (Cocco et al., 2017). Blockchain technology can be adopted to banking for the up gradation of essential technologies relating to the anti-money laundering and know your customer regulations, which are essential for the facing the issues related to user verification, monitoring of transactions, assets management, and cross-border remittances (Weerawarna et al., 2023). In the infancy stage with growing prominence blockchain transactions face the risk of data security and privacy and efficiency in its operations even though the transactions are anonymous and encrypted which must be taken care off (Xu et al., 2019; Mishra & Kaushik, 2023; Guo & Liang, 2016). Guo & Liang, (2016) also stated that the concept of decentralization and self-governance in the blockchain will dilute the existing concepts of regulation. However every technological innovation is accompanied by factor of risk and hence the technology of blockchain regulation must be adopted sooner for potential benefits than later.

Artificial Intelligence in Banking

Artificial Intelligence (AI) is one among the fastest growing technologies across the world, where banks are identified to be the first adopters of this technology for seamless delivery of services (Vijai, 2019). AI can defined as machine intelligence which is the stimulation of human intelligence into machines. AI works two basic foundations where the working of human brain and their thought process is studied in the first stage followed by the incorporation of these process into machine learning. Thus AI is the stimulation of human intelligence to build smarter machines that is capable doing human works in a smarter way (Kaur et al., 2020).

Technological advancements in the field of artificial intelligence can bring in significant potential for automation in the banking industry with some associated risk (Beckmann & Hark, 2024). Being an open innovation Ai is becoming more prevalent in the financial sector and the adoption of chatbots will have a prevalent advantage for this sector and the use of AI technology like chat GPT will have a positive effect on the performance expectancy, system quality, consumer awareness, facilitating conditions and innovativeness (Bouteraa et al., 2024). Banks are using big data analytics systems driven by AI and machine learning more frequently to provide customers with individualized and expedited services, which would also help in automating routine procedures and tasks that reduce costs and the possibility of human error, and free up time for more value added operations. Banking organizations can be more innovative, make better decisions, and solve difficult challenges more effectively and efficiently with the use of AI technologies. Moreover, banks can employ AI technologies like machine learning, neural networks, and predictive analytics to generate more accurate forecasts and react correctly and quickly to new concerns. As a result, banks may keep ahead of the competition in the market by utilizing AI. (Ghandour, 2021). Application of AI in the banking sector can take various forms in the field of banking which can take the forms of core banking activity, operational performance, customer support and analytics which can be through offering self -service terminals to offer value added services like bill payments, e-governance services and for storing relevant data require for offering better customer services to the new age customers. Nowadays banks offer automated passbook printing through the system of AI incorporated passbook printing machines and with virtual assistants, or chatbots, are innovative tools that make interacting with computers easier for people. The Cash Deposit Machines, ATM Machine Help line, smart valets, Voice assisted Banking, Blockchain Technology in Banking and AI-based Algorithms for Fraud Detection where AI can detect suspicious conduct and provide recommendations for risk mitigation in real time. Financial institution servers, personal robots, and end-user devices are able to incorporate applications that analyze vast amounts of data and generate personalized financial projections, calculations, and advise. Through research on numerous customized investment opportunities, loans, rates, fees, etc., these applications can also construct financial plans and strategies and track their progress. Thus AI is offering numerous benefits to the banking sector and is pushing towards a shift in the traditional banking activities (Kaur et al., 2020; Vijai, 2019).

Banking organizations can be more innovative, make better decisions, and handle difficult challenges more effectively and efficiently with the use of AI technologies. Moreover, banks can employ AI technologies like machine learning, neural networks, and predictive analytics to generate more accurate forecasts and react correctly and quickly to new concerns. At the same time when the opportunities presented by AI are fully utilized, there are a number of traps that must be taken care off while adopting the AI which may include data availability and quality issues, employment loss, privacy violations, and strategic AI-business alignment worries (Ghandour, 2021).

Digital Platforms in Banking

The digital world is driving a significant metamorphosis in the modern environment which is marked by swift changes and subtle economic shifts. This is why it is crucial that financial technology be incorporated into financial services, especially in banking institutions (Alattass, 2023).Digital platforms are made available by e-banking to mark simple to intricate financial needs on electronic devices. Nowadays with the advancement in technology customers are more oriented towards the use of e- banking services in their day- to- day task (Rupal & Singh, 2023). Digital transformation has resulted in more customer centric, mobile and flexible operations that can enhance product and services creating new digital capabilities, leveraging information, integrating and redefining core elements by optimizing all digital and physical elements for a radically reshaped value proposition for better customer experience (Yıldırım & Erdil, 2024). Inorder to provide the customers the ease of use and enable digitalization, banks must provide digital platforms like internet banking sites, mobile banking applications etc. to access the banking services from anytime anywhere basis (Thetlek et al., 2024).

In the developing word the availability of digital banking technologies like internet banking and mobile banking and is considered as a foundation for developing financial inclusion. The forms of digital platforms in banking can take the form of internet banking platforms where the transactions can be completed through bank websites or applications installed in a mobile phone or computer. The PoS device which accept the payments using the debit card or credit card through card swiping. The use of mobile wallet which enables the users to transfer money to others manually or by scanning the QR code and the UPI payment system run by National Payment Corporation of India which enables easy transfer of funds between bank accounts through Bharat Interface for Money and QR code scanning (Ligon et al., 2019).

RESEARCH GAP

From the review of existing literatures it was identified that the financial technologies and innovations are adopted in the modern banking but little or no attention has been given to the adoption of these technologies into the export credit delivery services of commercial banks which must be given due consideration as far as a developing economy is considered. Hence in this study an attempt is made to project how the integration of this financial technologies and innovations into export credit activities of commercial bank could benefit the export community and the banks in making an efficient delivery of these services.

FINANCIAL INNOVATION AND TECHNOLOGY INTEGRATION IN EXPORT CREDIT ACTIVITIES OF COMMERCIAL BANKS – CONTENT ANALYSIS

With the aim of analyzing the possibility of integrating the financial technology and innovation into the export credit activities of the commercial banks the awareness on the part of commercial banks employees dealing in export credit regarding the procedures to be followed in credit delivery is enquired followed by their awareness on various technological innovations in the field of banking and financial is identified and the possibilities of incorporating technological innovations into the export credit activities were identifies and content analysis is performed using the responses derived from the sample respondents and the findings of the interview can be summarized as follows.

Awareness among Bankers Regarding the Provisions of Export Credit

The Reserve Bank of India has published a master circular containing the provision and procedure to be followed in the delivery of export credit services. In making an in depth interview with the participants they revealed that the master circular serves as the basic guideline on the basis of which export credit is being delivered to the exporters. In certain cases it was found that the bankers have updated knowledge about the services that are frequently required by the exporters but we cannot state that they are negligent about the existences of various schemes and provisions that are less availed by the exporters. Most of the respondents opined that the exporters have very limited knowledge regarding the exemptions and benefits available to them under the scheme and hence various workshops, seminars etc. must be conducted for knowledge enrichment of the exporter's knowledge regarding the export credit services offered by the commercial. It is identified that the mere knowledge of the bank employees will not serve the purpose of enhanced credit delivery rather the awareness of both exporters and the bank employees in this regard matters when we comes to the efficient delivery of the credit. Some of the respondents also opined that their banks may issue respective guidelines to be followed by them on the basis of the norms and provisions contained in the master circular which serves as the foundation of export credit services of commercial bank in our country. All the respondents were of the opinion that a proper understanding and reviewing of the RBI guidelines helps them in seamless delivery of credit services to their customers.

Awareness among Bankers regarding various Technological Innovations in Banking and Finance

While analyzing the awareness among the bank employees regarding various technological innovations in the field of baking, majority of the respondents have a better picture relating to the field of Artificial Intelligence and Machine Learning that is being used in the field of banking which is followed by the use digital platforms which can be considered as a part of AI technology. But from the analysis it can be identified that the working of blockchain technology is the one that the bankers are less familiar with since the blockchain technology has a very limited role to play in the field of day to day banking activities and is aligned more towards the trading the cryptocurrencies and the bitcoin. Ravichandra et al., (2024) in his article also reported that the awareness relating to blockchain technology and thus a proper understanding must be created regarding the technology and procedures that ensure security in the working of blockchain technology which could further improve the potentials of the blockchain applications a s that of AI and Machine Learning.

Potential of incorporating Financial Technology and Innovation in Export Credit Delivery System

The enquiry into the integration of Financial Technology like blockchain, artificial intelligence and digital platforms are not yet fulfilled in the area of export credit delivery system of the commercial banks. At the present scenario of digitalization era also the banking system followed for export credit operations is the traditional banking activities. Miah et al., (2023) has stated the adoption of blockchain technology in the field of trade finance can bring in numerous opportunities by enhancing the financial transactions and the payment through letter of credit. Additionally, it facilitates the integration of blockchain-based logistics tracking and trade finance procedures. This may help with trade-related issues with customs clearance, insurance, logistics, and automation in other situations where confidence is lacking. However, by collecting, evaluating, and applying important data for bank endorsement, letters of credit, insurance, and other trade finance procedures, the fundamental enabling aspects of blockchain technology could still be improved. The digital financial services have the potential to offer a number reasonable and appropriate banking services through pioneering solutions like digital platforms, mobile banking, electronic mobile banking etc. (Rana et al., 2020). The content analysis of the data extracted from the bank employees relating to the integration of financial innovation and technology to the export credit services of commercial banks revealed that the adoption of automation and digital technologies would benefit the banks as well as the customers. It saves time and effort which can be utilized for more productive activities. At the same time the respondents opined that the proper security measures must be ensured along with appropriate training must be provided to the employees and users of the technology regarding the use of these technologies in order to ensure seamless flow of credit and other services to the export community.

FINDINGS AND DISCUSSION

From the study it is clearly evident that the financial technologies and innovation has a significant role to play in the field of banking and finance ensuring easy and safer banking activities. However the literatures depict that the customers have very less knowledge regarding the working of the financial technologies like the blockchain technologies and are also unsure about the security of transactions that are done through these measures. When we come to the context of Artificial Intelligence it is found to be more time saving and easier to use and is found to be prominent among the fintech innovations ad has gained wider acceptance. With the benefits outweighing the challenges and difficulties associated with the use of financial technologies, they are being widely used in the banking sector to facilitate easiness.

The integration of financial technological innovation into the export credit activities have a huge potential for growth in the situation of numerous export credit agencies providing seamless financial assistance to the exporters with limited procedural formalities. Automation of the credit sanctioning procedures can ensure easy availability of trade finance at lower rates which could further enhance the capabilities of the exporters which in turn leads to increased exports from the country and also on the other hand it enhances the banks performance in a better way which enable them to offer more credit at lower rate and procedural formalities.

CONCLUSION, LIMITATION AND SCOPE FOR FURTHER RESEARCH

From the study it is evident that the incorporation of the financial technologies and innovations in to the export credit activities of the commercial banks can enhance the credit delivery system along with enabling the exporters with easy access to low cost credit with minimum paper works and procedural formalities. This could enhance the productivity of the export sector there by contributing to the rise in national product and export intensity.

But in the study only a qualitative approach has been undertaken to explore the potentialities of incorporating the technologies like block chain, artificial intelligence and digital platforms into the export credit activities. The major possibilities and potential for growth and also the possible security issues can also be extracted out in further studies and also a suitable model for the incorporation of automation can be identified and tested in order to measure its suitability and prospects in the export sector

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