A Framework to Enhance the Reliability OF financial Technology Lending Applications by Integrating with Central Banks

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Abstract

The biggest near-term threat for the most of Central Banks Across All Countries comes from Fintech Companies as the financial ecosystem is changing rapidly due to the increased use of information technologies by financial institutions and over the past few years Fin-Tech has become a major force that is disrupting and transforming financial services on a global scale, the present period is considered crucial for financial services practitioners. Due to the massive number of technical advances that have altered the way businesses operate, money is transferred, and daily transactions are conducted, the FinTech (financial technology) industry has grown up to be one of the most significant industries receiving support from decision-makers globally

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So let us first know the fintech (Financial Technology) word Definition in order to find out the concept Fintech it is a portmanteau of the words "financial" and "technology". It refers to any app, software, or technology that allows people or businesses to digitally access, manage, or gain insights into their finances or make financial transactions.

The increase in financial technology usage is reshaping our financial world. People's money is easier to access, and there is more they can do with it. Fintech provides new ways to share, save, invest, Lend and manage money making life better for the people it touches while helping reach those underserved by legacy financial options.

Those Applications Mainly Operating on Three Different Platforms:

- **APIs:** Financial APIs (application program interfaces) safely and securely connect consumers' bank accounts to fintech apps and services so they can share financial data, transfer funds, and verify their identities.
- **Mobile applications:** Most fintech companies offer a mobile app so that users can access their funds and insights at any time. Whether it be a digital banking app, a financial management tool, or an investment platform, mobile apps are nearly synonymous with fintech.
- **Web-based solutions:** On top of offering a mobile app, some (but not all) FinTech's also offer a web-based solution where users can log in

via a web browser and perform the same functionality they can perform on the mobile app.

Types of fintech and fintech products: Fintech covers a wide range of use cases across business-to-business (B2B), business-to-consumer (B2C), and peer-to-peer (P2P) markets. The following are just some examples of the types of fintech companies and products that are changing the financial services industry.

i) **Digital payments:** **payment apps and services have become more and more common. That's because receiving payments via direct bank transfer is significantly less expensive than using credit cards, and getting users signed up and authenticated has become faster and easier Like**

(FAWRY, INSTA-PAY, PAY-MOB)

ii) **Personal financial management (PFM):** **PFM apps help users consolidate financial information from various accounts into a single dashboard, making it easier to stay up-to-date with their finances. These services help people to manage, budget, and make sense of their money like (Sahoula – Banking mobile Applications)**

iii) **Wealth management:** **Fintech solutions help financial advisors and wealth management platforms aggregate held-away account information to better grow assets under management (AUM) while delivering more holistic financial advice like (Thndr - Dash)**

iv) *<u>Fintech lenders:</u>* Lenders often struggle to gain a full and accurate picture of their applicants due to the amount of work and time it takes to collect income information, account balances, and asset history. In addition, it can be a cumbersome process to get borrowers to connect their bank accounts to receive and repay loans Like (Valu – Contact – Lucky – Sympl).

We Have Just Scanned Few Categories for the existing FinTech Companies in the market as Fintech is continually evolving, with more efficient and effective financial solutions being available for integration in a variety of financial industries. More startups and businesses are using FinTech as a critical component in reaching out to and serving the demands of more people.

Fin-Tech is technologically enabled financial innovation that could result in new business models, applications, processes or products. An estimate of US$160b was invested in the Fin-Tech sector over the last five years and total revenue is expected to reach US$265b in 2025. (Harvard Annual Articles - 2022).

Our Article Here Will Concentrate on Lending fintech sector as we found that Gap is exists on Limit Amount proposed to Customers who demand Lending this Gap is occurred as Those fintech Companies Depending only on I-SCORE lending Limit which is daily File not an Instant so customers Can Overlimit if they request Lending Amount from two different Fintech companies at same day as it will not reflect till Day After

From the Previous We found Fraud Cases, foggy Customer Limit, Financial Risk crises, increasing of Inflation Rate and Unseen Lending and Investing transaction for Central Bank, Customers Financial Data Unprotected and Every Day Crises added by Revolution of Applications Without Regulation and Central Platform is Established. We all need to understand that certain barriers take time to be overcome. Which brings us to the following question:

"Can Traditional Banks Be Fintech? "or "Can Fintech Vendors Play Banks Role in future? "

Those questions are very hard to answer, mainly because both of them have different advantages and Disadvantages. but in our thesis will find and begin with the first step which Stated in One Word **Integration** Process to Make a Module Solution executed and Integrated the Financial Cycle Between Central Banks and Fintech Companies.

So Let Us Say: "It's time to Integrate Banks and fin-tech Services under Central Banks Umbrella for better serve and reinforce Financial Process and Economic Status"

For this purpose, An Approach of Instant Systematic Conceptual Framework to enhance and strengthen the reliability of integrity Between Fintech Companies and Central Banks is Proposed in this thesis to Integrate, Construct, Perform and evaluate the Threats Which Could Occurred between customers and Fintech Vendors Scoping Egypt Zone, Depending On the mentioned Proposed Systematic

Platform Application Owned By CBE (Central bank of Egypt) In order to track and regulate fintech activities Across each other's and Banks instead of daily reporting file .

Keywords: Fintech, Central Banks, BNPL, Financial Industry

إطار لتعزيز موثوقية تطبيقات إقراض التكنولوجيا المالية من خلال التكامل مع البنوك المركزية

الملخص

ثورة الاتصالات والمعلومات أدت إلى ظهور تغيرات جوهرية في طبيعة عمل القطاع المالي والتغيرات السريعة في استخدامات الهواتف الذكية والإنترنت بالإضافة الى التوافر الضخم للبيانات والمعلومات ادي الي وجود التجارة الالكترونية والتي أصبحت تتميز بخصائص عديدة تميزها عن التجارة التقليدية مما ادي الي تزايد دخول العديد من المؤسسات المالية غير المصرفية مثل شركات التأمين وشركات التمويل ومنافستها للبنوك، حتى أصبحت العديد من هذه المؤسسات يقوم بتقديم خدمات مصرفيه منافسه للبنوك , تلك المؤسسات بالفعل ساعدت ملايين من العملاء من الاندماج المالي، وذلك نتيجة سهولة الوصول الى الخدمات المالية فشركات التكنولوجيا المالية تتمتع بقدرة حقيقية على تغيير هيكل الخدمات المالية، وجعلها أسرع وأرخص، وأكثر أمنا وشفافية واتاحة، و هذا النجاح سمح لهذه الشركات بالنمو الانتشار في مختلف دول العالم مما قد يؤدي الي وجود مخاطرماليه نتيجه لعدم شفافيه ووجود معياريه للحدود الائتمانيه المتاحه للعملاء وعدم وجود حد ائتماني محدث لحظيا يمكن من خلاله معرفه التسهيلات المستخدمه من جانب العميل حيث انه يتم الاعتماد فقط علي ملف ال ISCORE و هو ملف يومي غير محدث ولذلك يلزم وجود طريقه لعمل اتصال لحظي يمكن لتلك الشركات مزاوله ذلك النشاط تحت رقابه و تحكم البنك المركزي و وجود اليه رقابيه تتم من خلال البنوك المركزيه لمعرفه الحجم الحقيقي للعمليات الائتمانيه التي تتم اضافه الي الي وجود ربط حقيقي بين شركات التكنولوجيا التسلفيه و البنوك مما يساعد في انخفاض تلك المخاطر وهي لها تاثير مباشر علي حجم الشراء و التضخم الخاص بالعمله .هدف البحث هو الحد من مخاطر استخدام التكنولوجيا

المالية على أداء القطاع المصرفي و علي اقتصاد الدوله ككل عن طريق وضع ارضيه موحده من خلال تطبيق متاكمل يتم ادارته من خلال البنك المركزي لمراقبه العمل و التاكمل بين تلك الشركات و البنوك حيث أصبحت الخدمات المالية سواء كانت البنكية أو غير البنكية شديدة التطور فى ظل التكنولوجيا المالية والتى تقوم على التكامل بين تكنولوجيا المعلومات و الاتصال من جانب وبين الخدمات المالية من جانب أخر. و يمكن ملاحظه ذلك من خلال دراسة تطبيقية علي عينة من البنوك المصرية وذلك عن العام المالي 2021/2022 , توصل البحث إلى انه من المتوقع أن تستمر الزيادة في خدمات التكنولوجيا المالية بشكل كبير، كون أن التكنولوجيا المالية ال تتعلق بقطاع الخدمات المالية فقط، ولكن بكل الاعمال التجارية التى تتعامل مع قطاع الخدمات المالية.

الكلمات المفتاحية: التكنولوجيا المالية، البنوك المركزية، BNPL، الصناعة المالي

Introduction:

Innovation is a term that often sparks debate within the technology sector. It necessitates a structured framework to enable safe and regulated innovation. The term 'financial technology,' or Fintech, can be applied to any innovation in how people conduct business and handle financial operations. More recently, it has been enhancing and automating the delivery and use of financial services (Marin Luetic,2021). At its core, Fintech is employed to assist companies, business owners, and consumers in better managing their financial operations, processes, and daily lives. Fintech relies on specialized software and algorithms used on both computers and smartphones, Over the last decades, digital inclusion, fueled by sharp growth in mobile internet and smartphone adoption, has improved significantly across both developed countries and emerging markets. This makes mobile payment or the e-wallet a more convenient and user-friendly alternative to conventional modes. For example, the total transaction value via e-wallet worldwide is estimated to be $350 billion by 2017 and the number is expected to increase to over 1.6 trillion by 2022 (Agarwal *et al.*, 2019). In contrast to card, digital wallets (i.e., PayPal) do not require POS machines or any disclosure of bank account information. Consumers can transfer money into e-wallets using net banking, and even physical machines through designated bank branches and pay vendors by scanning the vendor's Quick Response code or through applications (i.e., Uber for taxi services). In the future, digital wallets are expected to transform a range of existing transaction options, such as boarding passes, peer-to-peer transfer, keys to cars and rooms, into an integrated system.

Our objective is to establish an integration methodology between Fintech companies and CBE Bank, as previously mentioned in the abstract, to enable Fintech operations to be supported and authorized by CBE Bank."
As Innovation is one of the controversial Word in Technology Field which must Followed by Framework to let Innovation Takeoff with Safety Rules and agreements. So broadly, the term "financial technology" – Fintech can apply on any innovation in how people transact business, from the invention of digital money to double-entry bookkeeping. Since the internet revolution. financial technology has grown explosively. Also, it seeks to improve and automate the delivery and use of financial services. At its core, fin-tech is utilized to help companies,

business owners, and consumers better manage their financial operations, processes, and lives. It is composed of specialized

software and algorithms that are used on computers and smartphones.

When fin-tech emerged in the 21st century,

the term was initially applied to the technology employed at the backend systems of established financial institutions, such as banks. Then from 2012 to 2017, there was a shift to consumer-oriented services. Fintech now includes different sectors and industries such as education, retail banking, fundraising and nonprofit, and investment management (Luis Marinelli , 2022).

Fin-Techs increasingly recognize the significant costs of customer acquisition in financial services and barriers to cross-border business that banks are well-equipped to bridge. Furthermore, more emerging Fin-Techs recognize the opportunity to have a role as part of a broader banking ecosystem, developing technology that can help transformation process. Industry, not just support one bank, But Banks have many innovative ideas, the challenge is validating which to actively pursue and embedding the technology. The complexity, scale and soloed nature of banks mean they often struggle to do this effectively. This Thesis Aims to Strength the relation between Fintech Companies and Central Banks into another aspect, Our Framework Will integrate It with Central Bank to be Safer, Secured, Authorized and Controlled.

Research Importance:

This Study Aims to Establish New Framework Integrity between Fintech Companies and Central Banks Depending on Instant Systematic Integration as large global banks are utilizing a multitude of approaches to engaging with Fin-Techs. And Many Other banks innovation opportunities address the challenge of structural costs, with benefits reaped over an extended time frame. By contrast, performance measurement and compensation cycles are usually short. In an uncertain economic environment, there is
understandably some apprehension about accepting the additional risk of these investment costs. Banks need to resolve this inherent conflict. This means banks need to define guidelines within a Fin-Tech strategy.

The process must be driven from the top (Country's Central Banks),

An Integration adoption framework is needed to support innovation, with clear accountabilities, decision-making frameworks and criteria for success with achievement of Pure separated Criteria. New ideas should be encouraged and suggestions for innovation should be welcomed, while balancing innovation with risk and vulnerabilities Considering Daily and instant financial transactions risks.

Problem Statement:

Based On several Previous Studies, we found that Financial Risk Raised However central bank has no view or authority to find the Delinquent customers or to determine the provision for Fintech Companies and segment of the credit rating for customers with Unseen of Financial Transaction Applied also Double Protection Is required of Customers from Unauthorized protection for Fintech Fintech Companies and Other Applications from a Fraudulent person, so a solution must be placed and taken to coordinate performing Process for the Fintech Companies Which Can Be Categorize into Main Popular Sections: (**Lending – Capital Raising "Investment"**)
Also, we have to Note that Fintech Revolution is constantly evolving and The Sections mentioned above are going to expand or perhaps even change entirely in the upcoming years. Fintech Startup Companies Which Specialized on Lending Sector "BNPL" May Cause Economic Crises and Help Increasing Inflation Rate by Depending on Lending process based on Goodwill and Stable Income for Retail and Corporate

or Inability of Customers ignoring Negative earning Installments Payment.

Which May Lead and affect the Three Triangle Sides include the Following:

A) Central Banks

B) Fintech Companies

C) Customers

Let Us Find how the Presence of Risk Impact Financial Process after define the Following **Example:** A customer Need Loan for Buying a New Mobile It Costs Around 30,000 EGP, the customer went to Bank and find that he can lend About 10,000 EGP after bank check the customer Income Pay slip, The Customer Get the Loan from Bank then He went to FINTECH Company at same Day and demand Loan in order to buy Mobile, as mentioned Previously they depend on Goodwill, Customer Net Income, Customer properties, sport club membership and self-employer or employee adding I-SCORE which is not updated Daily Here Gap is Exists . They Lend Him 20,000 EGP However on same day He went to Another Fintech Company with same Process He Gained 20,000 EGP So from This Point of View Let us Brief it in points:

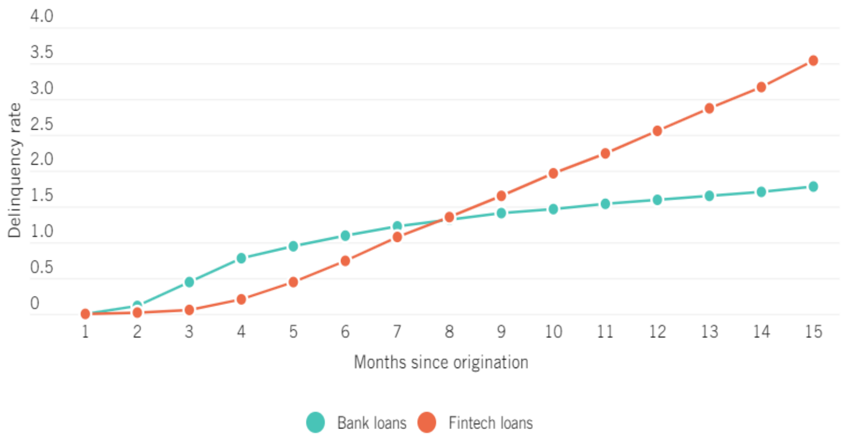
-Customer Limit Depending on Bank Study: 10,000 “Most Accurate”
-Customer Limit After Lending from Fintech Companies:50.000

So, Customer Gain Overlimit Fund with 40,000.
This is a critical Existing Case occurred Daily in Financial Market which may cause financial crises Including delinquent Customers and Inflation of Egyptian currency
Because of High demand and High initiation for Buying goods and Products ,On another Hand for Investing Sector Like Money Saving which may Facilitate Money Launderings by investing Flow of money Neglecting The source of money However for uncertified and Unauthorized Fintech Applications Which Gain Money from Customers with Unreal High Interest rate, Then the owner for this Fintech Company closed the Application Suddenly after He Liquidate the Company Capital to His assets. Which Already Occurred in Egypt 2022 by “Hogg Pool” Application. (Masry ELyoum - 2023)
Then If We Take One of popular Section which mentioned Before Like Lending Section We Will find the Threats of lack of integrity between Fintech Companies and Central Banks as the interest rates of Fintech loans are generally higher than the interest rates that you’ll find through a bank With a high credit Rating For Customers or corporate Limit Which Depend on

Income, Life style and Assets Own without Consider of Customer Liabilities ,That’s one trade-off for increasing the odds of getting approved, and doing so quickly.

Another trade-off is the newness of Fintech business loans. Fintech lending’s popularity exploded in the years following the financial crisis a decade ago

Fintech loans are twice as likely to be delinquent after 15 months than bank loans.



From the previous Chart we found that Financial Risk Raised also central bank has no view or authority which may lead to increased risk of direct disruption in providing financial services or critical infrastructure with High Rate of Inflation, Encouraging the attack vendors of the entire economy because the more systems that are connected, the more vulnerabilities there will be for a cyber-criminal to exploit.

Experts knows, the more systems are connected together, the more vectors there are for cyber-attack. Also, Areas that lack the legislative coverage are Data storage, Digital authentication, AML/KYC, crowdfunding, and cryptocurrency.

So, as mentioned before This Study Aim to Create a Solution to fill the existing Gap by building Centralized Platform in shape of framework is needed to Enhance and Control the relation between Central Banks and Fintech Companies Especially in Economically Religious Countries to Apply Governance/process Control and Financial Risk Assessment.

Research Questions:

The Following Research Questions need to be addressed:

1- DETERMINE THE APPROXIMATED ECONOMIC SIZE DELIVERED BY FINTECH COMPANIES?

2- Re-evaluate the customers Financial Transaction needs and benefits Delivered by Fintech Companies?

3- the threats which Faced by Central Banks from Existing of Fintech Companies?

4- The Dependency of Manual Daily reporting score Files which used now.

5- The Risks which exists regarding this traditional lending scoring Method.

6- What are the main Requirements to implement Systematic Framework Integration Process (Methodology & Physically)?

7- The Measurable Impact After deploy the proposed Systematic Framework Applications?

Research Objectives:

1. Develop a Novel Integration System Framework that fosters a stronger connection between Fintech Companies and Central Banks.
2. Establish a New Credit Rating Tool featuring real-time customer ratings, alongside or in conjunction with traditional I-Score assessments.
3. Strengthen Central Banks' oversight over untraceable transactions and financial flows.
4. Implement measures to restrict engagements with unauthorized and uncertified Fintech Companies.
5. Lower inflation rates by reducing loans that rely solely on formulas approved by Central Banks.
6. Enhance the governance of the lending process.
7. Establish a new integrating system framework that fosters seamless collaboration between fintech companies and Central Banks.
8. Develop a new credit rating tool that provides instant customer credit scores, eliminating the reliance on external credit rating agencies like I-Score.

9. Strengthen the authority of Central Banks in controlling unseen financial transactions and funds.
10. Implement measures to prevent unauthorized and uncertified fintech companies from operating in the financial ecosystem.
11. Evaluate the impact of the new integration system on the country's economic stability.

Research Hypothesis:

This study is working on 4 research Hypothesizes:

- **H1:** *Perceived benefit positively impacts on Existing of Fintech Companies and Its Services on Countries Economic sector.*
- **H2:** *Perceived benefit positively impacts OF Existence of Central Banks Authority on Fintech Companies and How it reflects on* Countries Economic sector.
- **H3:** Central Framework perceived the Framework Which Moderates the Integration between Central Banks and Fintech on Countries Economic sector.
- **H4:** Impact After Deploying and Implementing a Framework on Fintech Integration with central Banks on Countries Economic sector.

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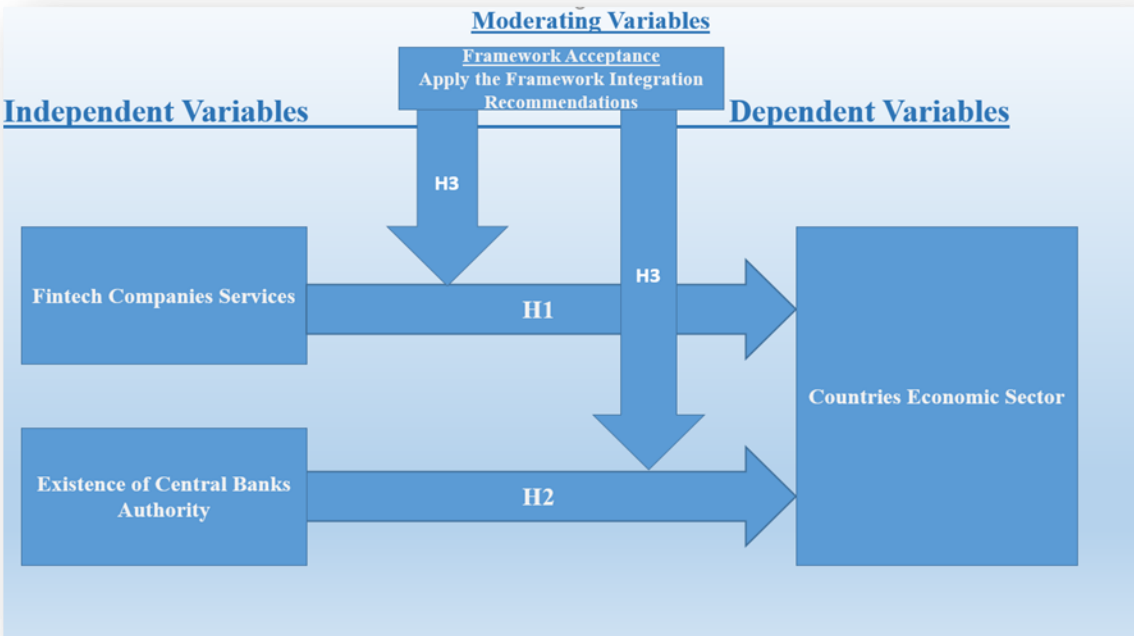

The model constructed by the researcher.

Literature Review

Fintech Definition and Innovation:

- “Development of Traditional Digital Financial Services” (**European Research Studies Journal,2021**)

This Study Show the development changes occurred On Financial Sector from Physical Paper and transactions passing through Technological changes (ATM – POS) till Financial Apps.

- “FinTech uses innovative technologies for financial products, services, and procedures. In the last five years, FinTech attracted substantial courtesy from researchers and financial players due to its ability to simplify complex business procedures with digitalization”

(**Emerald Publishing Limited,2023).**

The aim of this review is to reflect the current state of Financial Technology (FinTech) research along with its journey of development and contribute to literature by exemplifying that FinTech is a mixed set of threats and opportunities

- “How FinTech Innovations are altering and reshaping the universe of financial service providers, challenging traditional business models and infrastructures" (**Robin Jarvis, 2021**)

This Article show How Fintech Change the Market Business Flows and how it impacts versus old financial Methods.

1.1 Impact of Fintech During *Covid-19 Pandemic:*

The COVID-19 pandemic is forcing a mass upgrading of people's digital knowledge across different ages and social groups worldwide (Li, 2020; Carletti *et al.*, 2020). It is expected that when the COVID-19 pandemic is over, people will continue using the digital solutions provided by organizations during the pandemic instead of returning to traditional products and services (Carletti *et al.*, 2020).

- "the acceleration of digital transformation in the financial sector by documenting the impact of COVID−19 on fintech adoption worldwide. We estimate that the pandemic's spread has led to between a 21% and 26% increase in the relative rate of daily downloads of finance−related mobile applications" (**Journal of Financial Intermediation, 2022**)
- "Fintech Growth During Covid-19" (**Telecoms, 2021**)

Discussed uncertainties that COVID-19 brought upon economies worldwide, Fintech across the globe reported

growth on average in Q1 and Q2 2020 (University of Cambridge, 2020). Though this growth was not the same for all regions. and markets, the industry as a whole was quick to respond to the challenges of the pandemic by tweaking their products and services or adding new ones based on ongoing market conditions When the pandemic began, the usage of digital wallets surged to 83% and pundits project the industry will be worth over $10 trillion a year by 2025

“Evaluated the FinTech performance in MENA region that responded to the Global COVID-19 FinTech Market Rapid Assessment Study to analyze the growth all over the regions globally” (**Rowan et al.,2020**)
A huge number of studies have been done on the topic of how FINTECH utilization and usage can be related to the risky conditions of the ongoing pandemic compared to such usage before the COVID-19 crisis. Can the population perceive the risk of virus exposure as an opportunity to change their attitudes towards FINTECH instruments? Can they consider increasing their FINTECH to change their quality of life? For the purpose of answering these questions, we formed two hypotheses.

“The COVID-19 pandemic has pushed FinTech to the front of the debates about the future of the world economy“. **(Arner et al. 2020)**

Argue that FinTech helped to keep the financial system working, facilitating financial flows in an online mode.

Impact of Fintech on *Encouraging Financial Transactions:*

- "It is claimed in the literature that fintech activities may improve consumer welfare in the form of cheap and easy access to capital in addition to providing connivance and fast financial services "(**Sangwan *et al.*, 2019; Vives, 2017; Gomber *et al.*, 2017; Xiao and Tao, 2020; Anagnostopoulos, 2018**)

several studies have indicated that fintech firms might positively affect economic growth and are usually associated with higher growth in countries.

- "The number of deal counts increased from 1,628 to 2,693 during the same period. The venture capital investments in fintech firms worldwide had risen from US$1.89bn in 2010 to US$53.3bn in 2019" (**KPMG, 2020a**)

Financial institutes and technology firms seem to be increasing their investments in fintech innovations following the financial crises of the year 2008

- "Banking is necessary, banks are not "(**Conference bill Gates – 2021)** State the effect of Financial Services on our life not depend on one section like

- banks but depend on Any other Familiar way to deal with.

"Fintech firms would take some market share away from banks, it is not expected that fintech firms would substitute banks. However, banks are required to accelerate their adoption of innovations and advanced technology to compete with fintech firms. It is also proposed that strategic partnerships and cooperation could happen between banks and fintech companies in a way that benefits both sides" (**Haitham Mohamed Elsaid , 11 October 2021**)

This paper aims to provide a review of literature directions regarding the potential impact of fintech operators on the financial services market globally. This paper reviews the literature to identify possible benefits or challenges that fintech firms can have for the traditional banking system.

- "Technologically enabled financial innovation that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services" **(FSI, 2017)**

1.4 The negative impact fintech services Without Authority:

Several studies have highlighted concerns about the negative impact fintech services might have on consumers' behavior and economic growth. (Agarwal and Chua 2020) stated that fintech lending's convenience had encouraged borrowers to raise their consumption of goods and services and increase their standard of living, rather than improving their financial conditions.

- "Expressed their fears that fintech firms could contribute to over-consumption, over-borrowing and over-investment which would lead to instability in the financial system and macro-economy" (**Agarwal and Chua -2020**)

This Study highlight the negative impact of Fintech on Economy

- "Prior studies asserted that there might be a conflict of interest between investors and fintech lending platforms" (**Thakor, 2020**)

Aims to clarify the Existing Variance of interest between Banks and fintech Companies May Cause Economical Funding Disasters.

- "Lending Club was accused of mislabeling the loans it sold to its investors. This was a violation of the company's business practices and a lack of full disclosure during the review" (**ConsumersInternational, 2017**).

State a real Incident Occurred in US Show the negative side for fintech if there is no Real authority And Integration

- "the growth of fintech firms may be halted if there is an event (such as major crises or scandals in fintech lending) that erodes trust; this would cause funding to dry up and lead fintech borrowers to return to banks"(**Thakor and Merton-2019**)

1.4 The necessity of integration between fintech and central banks:

From the Previous Studies the integration must be created for actions taken by central banks in response to fintech must be in pursuit of their legal objectives as established in their central bank law as Fintech Companies open up their IT infrastructures, they face heightened risks of Technology dependency, money laundering, fraud and cybersecurity. These risks require further monitoring and must be taken into account in banks' governance and risk appetite frameworks.

- "Many banks have acknowledged being threatened by the growth of fintech companies. They have also formally voiced their concern about fintech competition and regulation held to exactly the same rigorous standards" (**Bunea, Kogan, & Stolin, 2016)**

the landscape of the financial services sector has been gradually changing due to an overhaul in financial regulation but also because of great advances in financial technology innovation.

"The services and products offered by Fintech are the same as banks, the difference is they utilize technology that makes Fintech becomes more efficient "(**Navaretti, Calzolari, Fernández, & Pozzolo, 2017**).

The Recently Opened Digitalized Channels with Supervision of Fintech Concepts deliver Customers need and raise the economic Activity leading to establish new

Concept for Economical Services.

The Properties for Proposed Systematic Framework:

aims to establish a unique centralized platform to achieve instant, accurate credit scoring in the lending process, serving both banks and fintech companies. Additionally, it aims to provide comprehensive supervision over interest rates for wealth management fintech companies. The Proposed Software Integration Platform will be Desktop System Software, a cross platform framework that will be later allowed for Both Android and IOS Applications and will be connect to Centralized Database Owned by Central Bank to Store and retrieve Required Information.

SRS – Functionality – User class & characteristics:
Functionality of system Software Categorized into Three Comities:

A) Central Bank User:

- User Able to Add the Certified and Authorized New Fintech Company.
- User Able to Remove Existing Fintech Company.
- User Able to Take Admin Rule for Create Users and align Role for Each User Depending on Fintech Companies Role and Sector.
- User Ability to execute Batch Migrate the new KYC recorded on Banks Daily.
- User Ability to Check Participated Companies Information and Operations.
- User Ability to extract Report for Participated Fintech Companies Performance.

B) Fintech Companies User:

- User Able to Check Instant Customer Credit Rating.
- User Able to Update /Modify Customer Limit after Lending/ Settlement process.
- User Able to Enter the Accepted Lending Formula for Lending Sectors.

C) User Able to Enter the Accepted Interest Rate Formula for Investment Sectors.User Ability to Enter the variables on the required Agreed Operation to Find out the Proposed Lending Amount or The Proposed Interest Rate.

Retail Customer User:

- User Ability to check Authorized Fintech Companies.
- User Ability to find and Check His Instant Credit Rating.

Non – Functional Requirement:

- Performance Requirement: the System Application should load and ready to use within 15 Seconds, user Should Interact within 5 Seconds and Database should be optimized to Ensure Fast Query Performance.

- Security Requirements**:** The System Application Should Ensure Secure Transactions and Protect User Data by double authentication with acceptable Security Criteria.
- Availability**:** The System Application Should Have Availability to Ensure That Integration is Available 24/7
- Correctness: The System Application Should Accurately Display Rates and Ensure Each Transactions.
-Maintainability: The system Application should continuously integrated so that features, Updates and Bug Fix can be deployed rapidly Without Downtime.
- Usability: the System Application Interface should be intuitive and easy to navigate, allowing Users to Perform their Role Smoothly.

THE PROPOSED SYSTEM APPLICATION OBJECTIVES:

Our proposed System will be owned by the CBE itself. All financial sectors will rely on instantaneous integration rather than traditional file data transfers, allowing for the evolution of instant credit scoring through a centralized platform.

So Let Us show Comparison between the Daily file and Our Instant system Credit rating.

): Comparison between Daily file & Proposed System2.1Table (

Features	Daily File	Proposed System
Data	Daily Files Transfer	API Methodology
Credit Rating	Updated Daily	Instant Update
Owned by	Local Company	Central banks
Cover	Banks – Fintech Companies	Banks – Fintech Companies or any new authorized financial Technology
Authority and roles	Just Scoring Retail and Corporate Vendors	Scoring Retail and Corporate Vendors with supervision of central banks on Lending Formulas
Accuracy	40% depending on File sent from each institute and time frequency for sending file	100% as it reflects Instant on Application which is already owned by Central Banks
Availability	File sent and Update only on Working Days	Application Updates and Available 24/7
Data Security	Data May be Copied and customers data transferred if file copied or transferred to illegal Persons	Data Is fully secured as it is already Automated and centralized by One Comity

The Launching Strategy for the Proposed System Application:

The application will have a user-friendly interface, and existing users with national IDs, already verified by banks ("OWN KYC"), will have their information seamlessly migrated. Activation passwords will be sent to the mobile numbers and email addresses linked to the "KYC" information.

Let's summarize the services addressed by the application:

Table (2.2): Application Services

Vendors	Description	Fees on Pilot Phase	Fees On Production Launching Phase
Retail Score	For Retail Customers Who Request Proposed System	No Fees	Fees Applied on every Request
Corporate Score	For Corporate Customers Who Request Proposed System	No Fees	Fees Applied on every Request
Banks	Banks will use this Platform on Traditional Lending Loans	No Fees	No Fees
FINTECH Companies	For Fintech Applications Who Request Proposed System	No Fees	Monthly Subscription Fees

Our primary goal is to implement a fully integrated system between the Central Bank of Egypt (CBE), fintech companies, and customers, with the ownership of this product resting with

the Central Bank. Which Will cause Instant Authority and Income Cash flow to central banks.

Technical Methods/Approaches:

The technical methods and approaches are structured around the following key steps:

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tandalone Proposed Application: designed to operate on both mobile and desktop platforms. To achieve this, the power of two leading technologies, JAVA and .NET. These technologies provide the foundation for seamless and efficient applications tailored to the needs of both users and financial institutions.

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PI Technology: At the core of our approach is the utilization of API technology. Our application will leverage this advanced method to establish seamless communication with banking and fintech applications. By using API technology, we ensure a highly secure and efficient means of data exchange

SWOT Analysis:

A comprehensive SWOT analysis For the Proposed Application to assess its strengths, weaknesses, opportunities, and threats. This analysis guides our strategies and risk mitigation plans:

Strengths:

- **Central Bank Ownership:** it is a fully integrated application owned and supervised by CBE Bank, instilling trust and confidence in its operations.
- **Market Uniqueness:** It stands as a unique solution in the market, offering fully controlled credit scoring, which is not offered comprehensively by competitors like I-SCORE.
- **Comprehensive Oversight:** it provides a 360-degree view of the financial ecosystem, covering banks, fintech companies, and customers.

Weaknesses:

- **Availability:** The application's uptime is crucial, and any downtime could significantly impact lending services. To mitigate this weakness, we've implemented robust backup and maintenance procedures, ensuring minimal service interruptions

Opportunities:

- **Instant Customer Credit Rating:** it provides an opportunity to revolutionize credit rating, offering instant evaluation and more accurate assessments.
- **Fintech Performance Evaluation:** It enables the evaluation of fintech companies' performance, particularly in the lending sector, ensuring better risk management.
- **Supervision and Control:** it allows for effective supervision of lending processes, benefiting both banks and fintech companies.
- **Economic Strengthening:** Enhanced market cash flow, facilitated by it contributes to economic stability and growth.

Threats:

- **Fintech Companies' Attraction:** One potential threat is the reluctance of fintech companies to adopt our product's facilities. To mitigate this, we employ a proactive marketing and communication strategy to highlight the benefits of Proposed Application.
- **Formula Adherence:** There is a risk that fintech companies may not follow the agreed and accepted lending formulas, impacting the uniformity and control that Proposed Application offers. This threat is managed through strong regulatory oversight and enforcement.

The Output for the Proposed system Application and Research Recommendations:

The results of this research Fintech firms are recognized as innovation drivers in the financial services field and are predicted to play a significant role in the financial services industry. Digital transformation and technology advancements enabled numerous fintech firms to address their customers' needs efficiently and at a low cost. It is argued that conventional banks need to keep up with the pace of innovation to stay competitive in the market, as fintech firms are said to be growing faster, generating higher revenue and having high prospects of success so Central Banks have no Option or choice rather than setup a Strong independent Platform Consolidate and gather all Startup and existing fintech with direct and instant integration with banks in order to achieve The peak benefit from the fintech revolution with Clear authority and manipulation.

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