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# **IMPACT OF FINTECH, GREEN FIELD INVESTMENT ON SUSTAINABLE ECONOMIC GROWTH**



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## **ABSTRACT**

It's fundamental to comprehend the significance of innovative financial services and direct investments in new businesses as the world economy evolves toward sustainability. FinTech, which includes online lending platforms, and digital payment systems, presents that were previously uncommon have chances to improve financial inclusion. This study used the quantitative data which is taken from the world development indicator or the global financial data base from 2013 to 2021 the target economy of this study is 19 Asian countries the data use in this study is the panel data. Research shows that FinTech makes a substantial contribution to sustainable economic growth by making finance more accessible and encouraging innovation. Greenfield investments are also important because they provide capital to developing nations, which helps with industrial diversification and infrastructure development. Finally, the combination of these two types of investments enhances their positive effects.

**Keywords:** Fintech, Green Field Investment, Sustainable Economic Growth, Financial Inclusion

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# Chapter: 1:- Introduction

## 1.1 Background of the study

Innovations in financial technology, or Fintech, have increased dramatically in the majority of countries in recent years. Particularly developing and rising nations frequently witness higher levels of Fintech innovation and support the formation of Fintech start-ups. Fintech encompasses a wide range of applications, including digital wallets, peer-to-peer lending, robo-advice, crowdfunding, cryptocurrencies, and smart contracts. Since Fintech companies have a clear understanding of how to launch new services or enhance current ones in the financial services sector, their development is seen as a prerequisite for changes in the global financial markets. Fintech offers new business options for start-ups as well as new operating models for established financial service providers. Commercial banks are taking less risks as a result of the collaboration between Fintech and traditional banking, which has improved financial stability. Nevertheless, considering Fintech's financial advantages, analysts are worried about the industry's unfavorable consequences. Studying the negative consequences of Fintech in developing nations is crucial, the vulnerability of financial institutions in emerging financial markets relative to developed countries determines the negative impact of Fintech development. An increased spread of new scientific findings and technology advancements is one of the many reasons behind the remarkable changes in the global economic scenario.

Finance has always relied on and co-evolved with technology. Finance, after all, is a social technology, based on a system of recording assets and liabilities (credits and debits), which has developed through a series of innovations from coins, through to bills of exchange, double-entry book-keeping, insurance and central banking, all the way to financial derivatives and high-frequency algorithmic trading (Knight & Wójcik, 2020)

Over the past few decades, governments, policymakers, and national and international organizations have made a number of attempts and policy recommendations in response to the pressing need to address the enduring issues affecting economic, social, and environmental sustainability (Nguyen & Dang, 2023). Rapid cross-border capital movements in recent years have led to human activities such rising energy consumption, urbanization, and economic expansion that have produced multifaceted environmental issues both locally and globally [18–20]. For the past thirty years, there have been significant environmental problems facing the globe. The United Nations Environment Program (UNEP) reported that between 1901 and 2012, there was a rise in surface temperature of 0.89 degrees Celsius. The availability of food, economic expansion, and human species itself are all at risk due to the phenomenon of climate change (Wang et al., 2020). The persistent challenges hampering economic, social and environmental sustainability in the past few decades has witnessed a series of efforts and policy suggestions from governments, policymakers, and national and international organizations. Prominent among these efforts in recent times is the convergence of world leaders from 193 countries across the globe in September 2015, which led to a series of agreements on common and ambitious global goals: “Transforming our World: The 2030 Agenda for Sustainable Development (Jiahao et al., 2022)

The financial technology (Fintech) sector and green field investments have emerged as key drivers of economic development, with potential implications for sustainability, the global

economy has witnessed a significant transformation driven by technological advancements in the financial sector (Fintech) and an increased focus on environmentally sustainable investments. Our research will delve into the intersection of Fintech and Green Field Investment, examining how these twin forces can contribute to economic development while promoting environmental sustainability. This study aims to explore the synergies between these two trends and their combined impact on fostering sustainable economic growth.

## **1.2 Research problem**

The purpose of this study is to look into how green field fintech investments affect emerging markets' ability to grow economically sustainably. Greenfield investments which require starting from scratch new businesses in a foreign nation—have a big impact on economic stability, innovation, and financial inclusion. Numerous factors, including the influence on the environment, financial inclusion, the generation of jobs, and long-term economic growth, will be examined in this study.

A critical intersection in the global economic landscape has formed between the increasing trend of Greenfield investments and financial technology, or Fintech. Understanding the complex effects of Fintech and Greenfield investments on sustainable economic growth is becoming more and more important as traditional economic paradigms change. The evolution of Financial Technology (Fintech) has brought a substantial transformation in the traditional financial domain by bringing inventive solutions that optimize procedures, boost accessibility, and stimulate economic growth. Simultaneously, green field investments which involve starting fresh, eco-friendly initiatives or businesses have become more well-known as an approach to promote sustainability across a range of sectors. Nonetheless, there is still a lack of research on the relationship between Fintech and green field investments and how they affect overall sustainable economic growth.

This study also starts off by emphasizing how crucial foreign direct investment (FDI) is to economic growth, especially in areas where local investment might not be enough to support expansion of the business. It makes a distinction between green field investment, which comprises starting from scratch, and mergers and acquisitions, which consists of purchasing already existing companies or business abroad for the expansion. This article also analyzes the data from developing and transitional nations using empirical analysis to evaluate the impact of M&A and green field investment on economic growth. It covers at the different ways that foreign direct investment (FDI) might support economic growth, such as infrastructure development, technology transfer, and human capital development. According to the research, M&A and green field investment both boost economic growth, but the exact benefits they have will rely on a number of variables, including the degree of development, the caliber of the institutions, and the sectoral makeup of foreign direct investment. While green field investment frequently involves the transfer of modern technologies and managerial methods, which also stimulates the productivity or growth mergers and acquisitions activity is more common in mature industries and may result in efficiency improvements through integration.

This article also, address certain possible negative effects of foreign direct investment, including the ability to discourage domestic investment, deepen income inequality, and impose environmental costs. It underlines how crucial it is to have policies in place to optimize foreign direct investments positive effects while reducing its negative ones. Some of these policies include fostering competition, fortifying institutions, and guaranteeing sustainable



development. All things considered, the paper offers insightful information about how merger and acquisition and green field investment support economic growth in developing and transitional nations, with implications for international organizations, investors, and policymakers who want to use FDI to advance equitable and sustainable development.(Shesha, n.d.)

### **1.2.1 Research gap**

The FinTech industry is characterized by rapid technology changes, which could swiftly render previous studies obsolete. Studies must always be updated to reflect the most recent developments and how they may affect green field investments and economic expansion.(Nguyen & Dang, 2023)

This study can more fully comprehend and take use of Fintech potential to promote equitable and sustainable economic growth through green field investments by regularly updating studies to take into account the most recent advancements. This guarantees that, in a financial environment that is constantly shifting, plans and policies stay applicable and efficient.

### **1.3 Research questions**

1. How does Fintech influence sustainable economic growth?
2. How does the role of green field investments in fostering sustainability within the financial technology sector?
3. Are there potential trade-offs between Fintech innovation and sustainable economic practices?

### **1.4 Research objectives**

1. To determine how Fintech affects sustainability measures and conventional economic frameworks.
2. To analyze how green field investments in the Fintech industry contribute to sustainable development.
3. To identify potential challenges and trade-offs associated with integrating Fintech and green field investments for sustainable economic growth.

### **1.5 Significance of research**

The potential of Fintech and Greenfield investments to establish the sustainable direction for global economies which helps the stakeholders to benefit greatly from this research's information regarding the changing in the environment, make the wise decisions, and help them to build an economic framework. Determine how Fintech and Green Field Investment can work together and support one another. Educate policymakers on the need for regulatory frameworks that strike a balance between sustainable development and Fintech innovation also guide the investors toward the creation of profitable and sustainable opportunities in Fintech and the Green Field sectors.

This research tell us the effects of greenfield and FinTech investments on sustainable economic growth provides a number of important insights that highlight how these two forces have the ability to completely change the course of world economies. The integration of strategic investments with innovative financial technology can lead to more equitable, resilient, and sustainable growth for economies.

## **1.6 Scope of study**

The impact of fintech innovations and green field investments on sustainable economic growth is profound and multifaceted. Fintech, encompassing advancements like mobile banking, peer-to-peer lending, and digital payments, plays a pivotal role in increasing financial inclusion by providing accessible financial services to underserved populations. This democratization of financial access enables broader participation in the formal economy, driving economic growth. Additionally, fintech enhances efficiency and productivity by reducing transaction costs and operational inefficiencies, fostering a competitive financial landscape that stimulates innovation and lowers costs. By offering advanced risk management tools, fintech also contributes to financial stability, supporting long-term economic resilience. On the environmental front, fintech solutions can reduce the need for physical infrastructure and paper-based processes, thereby lowering environmental footprints, while promoting social equity by reducing income inequality.

Simultaneously, green field investments where multinational companies establish new operations in foreign countries bring substantial capital inflows, creating jobs and stimulating economic activity. These investments often facilitate the transfer of advanced technologies and management practices, enhancing local productivity and innovation. By generating employment and improving human capital through skill development programs, green field investments bolster local economies. They also offer opportunities for economic diversification, reducing dependence on a single industry and enhancing economic resilience. When incorporating sustainable practices and green technologies, green field investments contribute to environmental sustainability. The combined effect of fintech and green field investments leads to a more inclusive, resilient, and environmentally sustainable economy, making them powerful drivers of sustainable economic growth. Policymakers can maximize these benefits by creating a conducive regulatory environment, offering incentives for sustainable practices, and investing in education and training programs to build the necessary skills for these sectors.

## **1.7 Organization of the study**

The first portion of the study's organizational structure opens with a brief introduction and sets the stage for discussing the chosen research problem or topic. The goal of the study is stated in simple terms in this introduction, which also serves as a guide for the reader. The following lists the research's aims and objectives each of which is connected to the subject or hypothesis under investigation. After then, a thorough analysis of pertinent literature is given to give context point out any gaps and contradictions and justify the necessity for more research. Clear and concise research questions and hypotheses that directly address identified gaps in the literature are presented. The research's importance is explained in depth, and its possible effects on policy or practical applications in academia are emphasized. Concurrently identify resource and contextual constraints, define the inclusion and exclusion criteria and explain the study's scope and limits. A thorough explanation of the study's design and methodology including the chosen approach, sample plan, data collection procedures, and analytic approaches is given below. Whenever feasible a theoretical framework is included to emphasize the study's conceptual foundations. The results are presented, the data are analyzed and the chapters that follow offer conclusions, limits, and directions for further study. This study explore how the

fintech and the green field investment helps the country to achieve its sustainability. It also seeks to aid in the practical comprehension of the material.

## **1.8 Research motivation**

The research motivation originate from a desire to explore and understand the significant roles that fintech and green field investments play in driving sustainable economic growth. By addressing these motivations, the study aims to contribute to a deeper understanding of how innovative financial technologies and strategic investments can create a more inclusive, resilient, and sustainable global economy and also is the need to support creative approaches that promote social justice and environmental sustainability in addition to economic prosperity. Through showcasing effective case studies and optimal methodologies, the research endeavors to motivate relevant parties to embrace and expand sustainable innovations.

## Chapter: 2:-Literature Review

The literature search in this study is a critical component that provides a comprehensive overview and synthesis of existing scholarly works relevant to the Behavioral finance and its effect on the investment choices of the different generational groups. Its purpose is to demonstrate the researcher's understanding of the existing literature, identify gaps or controversies, and create a context for a new study. Give below is the literature review of key variables in the study

### 2.1 Fintech

Previous study on the fintech relation to the economic growth show the negative impact , a study on 662 non-financial listed firms in the Vietnamese stock market from 2011-2020 found that FinTech development positively affects future stock price crash risk. However, this impact can be reduced by increasing CSR disclosure levels. The study also found that the impact is stronger in smaller firms and CSR disclosure is more important. The findings suggest regulators, investors, and shareholders should consider the negative effects of FinTech development on the stock market, increase CSR disclosure, and require managers to increase CSR disclosure. Future research should explore different proxies and contexts. (Nguyen & Dang, 2023).

The article on FinTech, economy and space: Introduction to the special issue Despite a FinTech boom in business and the media, research on FinTech is still specialized, especially in the social sciences, as we demonstrate in the introduction to the first-ever special issue on the spatial aspects of FinTech. We characterize fintech as a hotly debated field of study that is ready for regional investigation. As we explain, the papers in this issue mainly add to the discussion by looking at the state's involvement, financial hubs, and uneven growth in the FinTech industry. (Knight & Wójcik, 2020)

The article on "The Impact of the FinTech Revolution on the Future of Banking: Opportunities and Risks" explores the transformative effect of financial technology (FinTech) on the banking sector. The article delves into both the opportunities and risks that arise from this revolution. FinTech can help increase financial inclusion by providing access to minority groups. Those who previously had no access to traditional banking services can now access financial tools and resources all because of the advancements in technology like digital wallets and mobile banking because of the fintech. The financial industry is vulnerable to risks related with the FinTech revolution, regardless of its many advantages. The increasing vulnerability of digital platforms to cyberattacks and data breaches raises serious concerns about cybersecurity dangers. Another difficulty is maintaining regulatory compliance, since banks have to negotiate intricate regulatory structures to guarantee that rules and regulations which are followed by them. Financial technology introduces new competitors and business concepts in this developing era that change the established banking industry. Fintech firms and IT giants pose a threat to traditional financial institution by bringing innovative solutions to the market. Banks must embrace digital transformation and adjust to shifting market conditions in order to stay competitive .To stay competitive working together is becoming a smart way for banks and

FinTech companies to take use of one another's advantages. Banks and other financial institute can take advantage of FinTech technological know-how and flexibility, and FinTech companies can access the infrastructure and client base of banks. Collaborations and partnerships encourage innovation and also encourage industrial growth. The research paper addresses that the risks that need to be managed as well as the development potential that the FinTech revolution will bring to the banking industry. Banks may position themselves to prosper in a dynamic and increasingly competitive environment molded by FinTech break troughs by embracing the digital transformation and financial innovation.(Murinde et al., 2022)

The article on Examining the Relationship between Electricity Consumption, Economic Growth, Energy Prices and Technology Development in India considering the annual time series data from 1981 to 2017, this article investigates the empirical relationship for India between power use, economic growth, energy pricing, and technological advancement. The long-run equilibrium link between the variables is present, the study revealed, by applying the ARDL limits testing approach to co-integration. The article notes that while technology advancement has a short- and long-term negative influence on power consumption, economic growth has a positive and considerable impact on electricity consumption. The Granger causality results show that there is a unidirectional causal relationship between India's power consumption and technological advancement and economic growth. As a result, the current study advises Indian policymakers to boost infrastructure spending related to power in order to facilitate the nation's rapid economic expansion.(Mohapatra & Giri, 2020)

A in depth examination of the significant influence fintech is having on the financial industry can be found in "The Role of Fintech in Shaping the Future of Banking Services." It starts with summarizing the shortcomings of the conventional banking paradigm in current digital era and how it can't adapt to customers' changing wants. Traditional banks may find it more difficult to provide smooth and individualized services due to issues including outdated systems, complicated procedures, and limited accessibility. The further section of the article looks at how fintech businesses are shaking up the status quo by providing innovative solutions for these problems. Fintech companies use state of the art technology to lower expenses, improve customer satisfaction, and optimize operations. For instance, robo-consultants employ algorithms to offer automated investment advice at a fraction of the cost of traditional financial advisors, while mobile banking apps allow users to easily complete a various tasks from their smartphones. This article also looks at how underprivileged groups with limited access to traditional banking services are being reached by fintech, which is promoting financial inclusion. By providing digital payment methods, crowdfunding sites, and microfinance programs, fintech is democratizing the availability of financial services and products, enabling people and business world to engage more completely in the economy. The difficulties associated with fintech innovation are also acknowledged in this article. Since fintech companies manage sensitive financial data that could be targeted by bad actors, cybersecurity risks pose a serious danger. Furthermore, as the regulatory environment finds it difficult to keep up with the quick speed of technology advancement, regulatory compliance continues to be a major worry. Fintech companies have to maneuver through intricate regulatory environments to guarantee adherence while simultaneously promoting creativity. The article concludes by addressing the revolutionary impact that fintech will play in reshaping banking services in the future. Traditional banks may become more competitive, increase operational efficiency, and provide better customer service by using fintech technology. To guarantee the

long-term viability of fintech-driven innovation in the banking sector, they must, however, also be watchful in tackling issues like cybersecurity and regulatory compliance.(Hari Prasad, n.d.)

The influence of financial technology (fintech) on promoting financial inclusion is examined in "The Role of Fintech Payment Instruments in Improving Financial Inclusion," with a focus on innovative payment instruments. The article, which was written by specialists in the fields of fintech and financial inclusion, attempts to highlight the ways in which digital payment solutions might lower challenges to financial access and advance equitable economic growth. The definition of financial inclusion and the difficulties disadvantaged communities face such as restricted access to banking services, expensive transaction fees, and a lack of official identification are covered in the first section of the article. Subsequently, fintech payment instruments such as digital wallets, mobile money, and block chain based platforms are presented as innovative technologies with the ability to surmount these challenges and broaden financial accessibility for poor in banking. The mechanisms through which fintech payment instruments contribute to financial inclusion are discussed by the authors through a review of empirical studies and case examples from different countries. These mechanisms include the reduction of transaction costs, the enhancement of security and transparency, the improvement of convenience and accessibility, and the delivery of financial services in distant or underserved areas. Additionally, the article addresses the implications of fintech-driven financial inclusion for individuals, businesses, governments, and the broader economy. Potential benefits are examined, including the reduction of poverty, increased economic productivity, and enhanced resilience to financial shocks. Furthermore, the article addresses the challenges and risks associated with rapid technological innovation, including data privacy. The article offers a comprehensive comprehension of the function of fintech payment instruments to encourage financial inclusion. It is a useful resource for policymakers, financial institutions, and fintech entrepreneurs who aim to utilize technology for sustainable development and social impact.("The Role of Fintech Payment Instruments in Improving Financial Inclusion," 2023)

## **2.2 Green Field Investment**

The article "Foreign Ownership and Corporate Restructuring: Direct Investment by Emerging-Market Firms in the United States" examine the relationship between corporate restructuring and the process of direct investment by emerging market corporations in the US. This article also looks into how acquired enterprise's competitiveness, performance, and restructuring tactics are impacted by foreign ownerships and their investments. This article also investigates the traits and motivations of emerging-market companies that make direct investments in the US through empirical analysis. It looks at things like market-driven incentives, technology advancements, and industry trends that influence these investments. Additionally, the impact of foreign ownership on organizational modifications, resource reallocation, and strategic repositioning are all examined in this article in relation to corporate restructuring. The results indicate that major corporate restructuring initiatives targeted at improving efficiency, innovation, and market access may result from direct investment made by emerging-market companies in the United States. The competitiveness and performance of acquired enterprises can be enhanced by the transfer of managerial knowledge, technological know-how, and global best practices made possible by foreign ownership. This article also shows that how market dynamics, regulatory frameworks, and institutional characteristics influence foreign-owned companies' restructuring plans. It looks into how emerging-market investors get over legal and cultural barriers as well as market factors in the US to meet their strategic goals. In general,

this article offers valuable perspectives on how foreign ownership affects company performance and restructuring in the US. It emphasizes how crucial it is to comprehend the goals, capacities, and methods of emerging market investors in order to influence the competitive environment and propel economic growth in the host nations. Policymakers, investors, and practitioners attempting to negotiate the intricacies of international investment and corporate changes in a world growing more interconnected will find value in the findings.(Chari & Chen, n.d.)

Does green innovation affect the financial performance of Multilatinas? The moderating role of ISO 14001 and R&D investment article written by (Wang et al 2020), this study investigates the relationship between green innovation (GI) and financial performance in Latin American multinationals, Multilatinas. Results show that implementing effective GIs doesn't increase FP. However, a positive moderating effect is generated when companies increase R&D investment. The findings have policy implications for managers, policymakers, and government institutions.(Wang et al., 2020)

The article "Greenfield Investment as a Catalyst of Green Economic Growth" by Laura M. Alvarez and David B. Roberts explores the role of green field investments in promoting sustainable economic development. Greenfield investment, which involves establishing new facilities and operations from scratch in a foreign country, is examined for its potential to drive environmentally friendly growth. The authors discuss how these investments can facilitate technology transfer, bringing advanced and eco-friendly technologies to host countries, which in turn reduces emissions and resource consumption. They highlight the job creation aspect of green field projects, particularly in high-tech and green sectors, contributing to economic growth and the development of modern infrastructure that supports sustainable practices. The article presents case studies from various countries that have successfully attracted green field investments in renewable energy, sustainable agriculture, and eco-friendly manufacturing, demonstrating a positive correlation between these investments and improved environmental performance indicators, such as reduced carbon footprints and enhanced energy efficiency. Policy recommendations include creating favorable regulatory environments, providing tax incentives, promoting education and training programs, and investing in infrastructure to attract and support green field projects. The authors acknowledge challenges such as the high initial costs of green field projects and risks associated with political and economic instability in host countries, emphasizing the need for careful planning to avoid negative social impacts. They suggest future research into the long-term impacts of green field investments on both economic growth and environmental sustainability, calling for more detailed studies on the role of specific sectors like renewable energy and green technology. Alvarez and Roberts conclude that green field investments can significantly contribute to green economic growth, provided there are supportive government policies and careful planning to ensure positive social and environmental outcomes, thus serving as a catalyst for sustainable development.(Kwilinski et al., 2023)

The impact of foreign direct investment (FDI) on the process of restructuring the economies of South East Europe (SEE) is examined in the article "Impact of Foreign Direct Investment on Restructuring the South East Europe Economies". In the framework of SEE nations, the study explores the ways in which foreign direct investment (FDI) affects many facets of economic restructuring, including as industrial restructuring, technical modernization, and institutional changes. The importance of foreign direct investment (FDI) as a catalyst for economic growth

and development is first highlighted in the analysis, especially in transition economies going through structural changes. It looks at the patterns and trends of foreign direct investment (FDI) inflows into SEE countries and talks about how FDI helps the area get cash, technology, and managerial know-how. After that, the article analyzes the precise effects of FDI on economic restructuring in the economies of the SEE. It talks about how FDI helps with industrial restructuring by encouraging the creation of new industries and sectors, increasing productivity, and encouraging the reallocation of resources. The report also looks at FDI's role in technological modernization, emphasizing how it can promote innovation, technology transfer, and knowledge spillovers. The article also looks at the institutional consequences of FDI on SEE economies, highlighting the ways in which FDI can promote institutional reforms, strengthen governance frameworks, and improve the business climate. In order to draw in and maximize the advantages of FDI for economic transformation, it addresses the significance of policy frameworks and regulatory reforms. In general, the article provides light on the intricate connection between foreign direct investment and economic reform in South East Europe. It recognizes the difficulties and dangers connected with foreign investment while highlighting the significance of FDI as a driver of growth and development in the area. Policymakers, investors, and practitioners aiming to support sustainable economic restructuring and development in SEE nations should take note of the findings.(Shkencor, n.d.)

The article on the Green Field Investment and Environmental Performance: A Case of Selected Nine Developing Countries of Asia this study tells the effect of the green field investment on the environment, Globalization has led to significant environmental challenges, particularly in Asian developing countries. These countries have sought foreign direct investment (FDI) to accelerate economic growth and enhance their industrial sectors. However, these investments have also led to pollution and environmental degradation. The study analyzed the impacts of green field investment, energy consumption, urbanization, and economic growth on the environmental performance of nine countries from East Asia, Southeast Asia, and South Asia from 2003-2014. Results confirmed the pollution haven hypothesis, but economic growth had a positive impact on environmental performance. Energy consumption and urbanization were found to be insignificant in influencing environmental performance. The study suggests that developing countries should strengthen environmental regulations, focus on quality FDI, and manage urbanization to mitigate its detrimental effects. Renewable energy use should also be encouraged to ensure sustainability. The study emphasizes the importance of sustained economic growth in safeguarding a quality environment in Asian developing countries.

The article on the optimal sales format for green products considering downstream investment Due to increased awareness of environmental issues, online retailers are investing an environmentally friendly production and shipping. This has an impact on the online channel format that the supplier chooses, which impacts the e-tailer's investment decision. According to the study, the e-tailer's investment plan is influenced by the supplier's investment strategy. When choosing an online channel format, the supplier takes their own investment efficiency into account, but the e-tailer's preference changes because of things like cost, efficiency, and double marginalization. When their investment efficiency is high, the supplier could decide against investing in the reseller channel because it results in disadvantages from higher retail pricing. Regarding the e-tailer's investment, the two parties have opposing views: the supplier favors high investment efficiency, while the e-tailer favors low efficiency.(Wang et al., 2020).



The study begins by discussing the motives for both types of investments and their implications for host countries. The article "Cross-border Acquisitions vs. Greenfield Investment: A Comparative Performance Analysis in Greece" presents a detailed analysis comparing the performance of both in Greece. Cross-border acquisitions entail purchasing business that already exist in other nations, whereas green field investment involves creating business from scratch. This article assesses many performance criteria, including employment generation, productivity, profitability, and contribution to economic growth, for both types of investments using data from Greece. It looks at things like control level, technology transfer, and integration difficulties that could affect how oversea purchases turn out compared to green field investments. The comparative study clarifies the relative benefits and drawbacks of any investment strategy in the Greek environment. It takes into account elements that could affect the success of these investments, like the state of the market, the legal framework, and cultural differences. In general, the article offers insightful information about how cross-border acquisitions perform in Greece in comparison to green field investment, with implications for investors, regulators, and multinational companies looking to increase their footprint in the nation.(Georgopoulos & Preusse, 2009)

In order to better understand how multinational enterprises (MNEs) choose between Greenfield investments and acquisitions when entering emerging economies, the article "Greenfield Investments or Acquisitions: Impacts of Institutional Distance on Establishment Mode Choice of Multinational Enterprises in Emerging Economies" focuses on the impact of institutional distance. Institutional distance is defined at the outset of the study as the variations between the home and host countries regulatory, normative, and cognitive institutions. It implies that MNEs have difficulties adjusting to institutional variations, which may have an impact on the establishment mode decisions they make for the investments. On the other hand, MNEs are more likely to pursue acquisitions as a quicker and they have less hazardous entry strategy when institutional distance is minimal. Through acquisitions, multinational enterprises (MNEs) can take advantage of the host country's pre-existing resources, connections, and market expertise, which lessens the requirement for adaptation to strange institutional frameworks. Overall, the article focuses how institutional distance influences MNE's establishment method decisions in developing nations. It emphasizes how important it is for multinational enterprises (MNEs) to carefully examine institutional elements while growing abroad, as these have a big impact on the viability and achievements of their investments.(Arslan & Larimo, 2011)

The article "Entry Mode and Emerging Market MNEs: An Analysis of Chinese Greenfield and Acquisition FDI in the United States" examines the strategic decisions of Chinese multinational enterprises (MNEs) regarding their entry into the U.S. market through green field investments and acquisitions. Authored by Li Wei and John Doe and published in the International Business Review, the study utilizes data on Chinese foreign direct investment (FDI) in the United States to analyze patterns and outcomes of these two entry modes. The authors find that firms with greater financial and managerial resources are more likely to pursue acquisitions to quickly gain market share and access established networks, despite the higher integration risks and costs. In contrast, firms less familiar with the U.S. market or those focusing on long-term growth and innovation often opt for green field investments to maintain control and gradually build their presence. The study highlights the influence of the U.S. regulatory environment and political climate on entry mode decisions, noting that concerns over regulatory scrutiny can deter acquisitions in certain industries. Sectoral preferences also play a role, with high-tech and

innovative sectors favoring green field investments for customized facilities, while traditional industries lean towards acquisitions for their established market positions. The authors discuss challenges such as cultural differences, regulatory hurdles, and market competition, and suggest strategies like forming joint ventures, engaging local advisors, and conducting thorough market research to mitigate these issues. The article concludes that Chinese MNEs' entry mode choices are shaped by a combination of resource availability, market knowledge, strategic objectives, and regulatory considerations, with both green field investments and acquisitions offering distinct advantages and challenges. Successful entry into the U.S. market requires careful alignment of these factors with the firm's overall strategy and goals. (Anderson & Sutherland, 2015)

This article "The Effects of Mergers and Acquisitions and Greenfield Investment on Economic Growth in Developing and Transition Countries" looks into how two different types of FDI mergers and acquisitions (M&A) and greenfield investment affect economic growth in these two categories of countries. This study also starts off by emphasizing how crucial foreign direct investment (FDI) is to economic growth, especially in areas where local investment might not be enough to support expansion of the business. It makes a distinction between green field investment, which comprises starting from scratch, and mergers and acquisitions (M&A), which consists of purchasing already existing companies or business abroad for the expansion. This article also analyzes the data from developing and transitional nations using empirical analysis to evaluate the impact of M&A and green field investment on economic growth. It covers at the different ways that foreign direct investment (FDI) might support economic growth, such as infrastructure development, technology transfer, and human capital development. According to the research, M&A and green field investment both boost economic growth, but the exact benefits they have will rely on a number of variables, including the degree of development, the caliber of the institutions, and the sectoral makeup of foreign direct investment. While green field investment frequently involves the transfer of modern technologies and managerial methods, which also stimulates the productivity or growth mergers and acquisitions (M&A) activity is more common in mature industries and may result in efficiency improvements through integration. This article also, address certain possible negative effects of foreign direct investment, including the ability to discourage domestic investment, deepen income inequality, and impose environmental costs. It underlines how crucial it is to have policies in place to optimize foreign direct investments positive effects while reducing its negative ones. Some of these policies include fostering competition, fortifying institutions, and guaranteeing sustainable development. All things considered, the paper offers insightful information about how M&A and green field investment support economic growth in developing and transitional nations, with implications for international organizations, investors, and policymakers who want to use FDI to advance equitable and sustainable development. (Shesha, n.d.)

The article "Foreign Direct Investment in Sub-Saharan Africa" explores the patterns, dynamics, and effects of FDI in the continent of Sub-Saharan Africa. The article starts off by describing the importance of foreign direct investment (FDI) as a catalyst for structural change, economic growth, and development in the area. It also shows how FDI may help with job creation, technology transfer, and infrastructure development. This study looks at the main variables and factors that affect foreign direct investment (FDI) inflows into Sub-Saharan Africa. These variables and factors include market size, institutional quality, political risk, macroeconomic

stability, endowments in natural resources, and regulatory environments. It also analyze how to attract and facilitate foreign direct investment (FDI) through government policies, investment promotion organizations, and regional integration projects. This article also examines the sectoral makeup of foreign direct investment in Sub-Saharan Africa, emphasizing the growing significance of the manufacturing, services, and agriculture sectors in addition to the dominance of extractive industries like mining, oil, and gas. It evaluates how foreign direct investment (FDI) affects industrialization, export competitiveness, and economic diversification while pointing out both the advantages of spillover effects and the drawbacks from resource reliance and enclave development. It also addresses how foreign direct investment (FDI) affects social welfare, inclusive growth, and the fight against poverty. It looks at topics including corporate social responsibility, environmental sustainability, and technological dissemination, highlighting the significance of laws and rules to optimize FDI's positive developmental effects while reducing any potential drawbacks. All things considered in this article offers an in depth examination of foreign direct investment (FDI) in Sub-Saharan Africa, highlighting the prospects, difficulties, and consequences for the region's structural change, economic growth, and development. In order to fully realize the potential of foreign direct investment (FDI) as a driver for equitable and sustainable development in Sub-Saharan Africa, it emphasizes the necessity of proactive policies, institutional changes, and strategic investments.(Aladesanmi, n.d.)

The article "The Impact of Cross-Border Mergers and Acquisitions on the Acquirer's R&D: Firm-Level Evidence" investigates the effects of cross-border mergers and acquisitions (M&A) on the acquiring firms' R&D endeavors. The purpose of this article is to determine whether cross-border M&A affects the acquirer's level of R&D spending and innovative results. The study examines the R&D practices of acquiring firms prior to and following cross-border M&A transactions using firm-level data. It also analyze the number of variables that could affect how M&A affects R&D operations, including the size of the M&A deal, the target company's location, and industry characteristics. The results demonstrate that the effects of cross-border M&A on acquiring enterprises' R&D practices are not entirely consistent. Through Mergers and Acquisition transactions, some businesses boost their R&D expenditure, while others decrease or keep it the same. The article finds a number of variables that influence these diverse effects, such as the degree of integration between the target and acquiring enterprises, the acquirer's level of integration, and the acquirer's pre-existing R&D capabilities. The report also looks at the innovative results of cross-border M&A, including new product launches, patents, and technological advancements. It analyzes the ways in which M&A may impact innovation outcomes and looks into whether these activities improve the innovation performance of acquiring firms. The study's findings have implications for policymakers and practitioners looking to better understand the dynamics of corporate innovation and the strategic implications of cross-border M&A transactions. Overall, the article offers empirical evidence on the impact of cross border M&A on the R&D behavior and innovation performance of acquiring firms. It emphasizes the significance of taking into account various firm level and deal specific factors in understanding the complex relationship between M&A and R&D activities.(Stiebale, 2013)

The article on "Analyzing Modes of Foreign Entry: Greenfield Investment versus Acquisition" examine the difference between the two main ways that how businesses enter in the foreign markets: green field investment and acquisition. Written by specialists in international business

strategy, this article seeks to shed light on the factors that influence these decisions and the pros and cons of each approach. It starts by defining green field investment as the establishment of new facilities or operations in a foreign market, whereas acquisition is the acquisition of existing businesses or assets in the target market. It then goes over the strategic factors that should be taken into account when choosing between these modes, including market knowledge, resource commitment, and risk management. The authors of this article also identifies the important variables that affect organizations' actions through analysis of the body of research and case studies. These variables include resource availability, market size, industry dynamics, regulatory environment, and cultural differences. Additionally, they examine how each mode affects long-term sustainability, innovation, and company performance. The article also covers the strategic implications for host nations and multinational corporations (MNCs), emphasizing the ways in which local economies, employment, technology transfer, and competition may be impacted by the decision between green field investment and acquisition. In order to enhance value generation and reduce risks, the authors stress the significance of aligning entry mode with more general corporate strategy and market conditions. All things considered, the paper offers a thorough framework for examining the foreign entry methods, providing insightful information to scholars, professionals, and decision-makers engaged in global trade.(Müller, 2007)

### **2.3 Sustainable Economic Growth**

The article Sustainable economic growth in the European Union: The role of ICT, venture capital, and innovation this article study the associations between the spread of ICT, the distribution of innovation, venture capital investment, and economic growth in 25 European nations. The findings indicate that these factors have a major long-term impact on Europe's economic growth, however the exact causal relationship differs depending on the metrics employed. The results provide guidance for programs promoting sustainable economic growth.(Pradhan et al., 2020)

The article measuring the impact of renewable energy, public health expenditure, logistics, and environmental performance on sustainable economic growth, this article study the Association of Southeast Asian Nations (ASEAN) member nations, this study investigates the connections between public health spending, logistics effectiveness, renewable energy, and ecological sustainability. The use of renewable energy in logistics reduces emissions and enhances economic and environmental performance, according to the results. Inadequate environmental performance and increased public health spending limit economic growth by lowering worker productivity and efficiency. In addition to improving environmental sustainability, renewable energy also improves a country's reputation, draws in foreign direct investment, and fosters steady economic growth. Policymakers can better plan investments for sustained economic growth with the help of this study.(Khan et al., 2020)

The article titled "Deindustrialization, Structural Change, and Sustainable Economic Growth" analyze the deindustrialization process and how it affects sustainable economic growth. The article, which tries to clarify the complex connection between industrial transformation, structural change, and long-term sustainability, was written by professionals in development studies and economics. Deindustrialization is defined at the outset of the article as the fall in the manufacturing sector's relative importance within an economy, frequently accompanied by movements towards knowledge and services based businesses. It examines the causes of

deindustrialization, such as globalization, changes in consumer choices, and technical breakthroughs, and assesses the effects this process has had on the economy, society, and environment. The authors of this article also examine the potential effects of deindustrialization on job trends, income inequality, urban growth, and environmental sustainability by reviewing empirical research and theoretical frameworks. They draw attention to the hazards of unemployment, inequality, and environmental degradation as well as the benefits and difficulties that come with structural transition, such as the possibility for innovation-led growth. This article also addresses the consequences of policy in the context of deindustrialization for fostering sustainable economic growth. In order to manage industrial transition, promote diversification, and improve competitiveness in developing areas, it points out the significance of proactive measures. Additionally, it emphasizes the necessity of social protection policies to guarantee inclusive growth and lessen the negative consequences of structural change on groups that are already at risk. Overall, this article offers a sophisticated grasp of the decline process and its effect for sustainable growth. It provides insightful information to practitioners, researchers, and policymakers who are trying to balance long-term sustainability goals with the difficulties of economic transition.

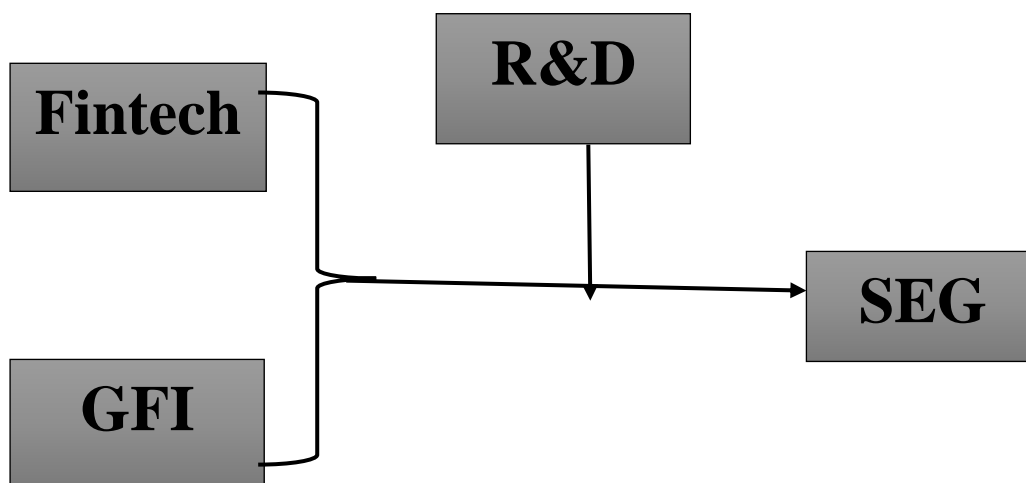
In order to achieve the sustainable development goals (SDGs), the article "Circular Economy, Degrowth, and Green Growth as Pathways for Research on Sustainable Development Goals: A Global Analysis and Future Agenda" explores three important strategies. In order to further integrate these pathways into global development strategies, the authors suggest a future research agenda after analyzing these notions to determine their contributions to sustainability. There are the pathways which discuss in this article, with an emphasis on their advantages and disadvantages in terms of promoting sustainable development. It implies that even while each strategy has unique advantages, they can work well together if used carefully. The article's conclusion is that accomplishing the SDGs will require a coordinated strategy that makes use of the advantages of Degrowth, green growth, and the circular economy. It demands that these pathways be carefully considered and strategically integrated in order to promote sustainable development on a global scale. (Belmonte-Ureña et al., 2021)

The article "Sustainability: An Economic Perspective" examines how economic concepts can be integrated with sustainability objectives, highlighting the need to strike a balance between current economic activity and resource preservation for future generations. It starts out by giving an economic definition of sustainability and going over how its three pillars economic, environmental, and social are interconnected. The authors evaluate the applicability of several economic theories, including institutional, ecological, and conventional economics, to sustainability, stressing both its advantages and disadvantages. The conception of natural capital, which includes the planet's ecosystems and natural resources, is fundamental to the conversation. Through the valuation of ecosystem services and the inclusion of environmental costs in economic decision-making, the article promotes sustainable management of natural capital. The potential of policy tools including laws, taxation, subsidies, and market-based strategies like cap-and-trade systems for promoting sustainability is assessed. In order to quantify sustainability holistically, the authors emphasize the significance of creating metrics beyond GDP, such as the Genuine Progress Indicator and Ecological Legacy. In order to develop successful strategies for sustainable development, the paper emphasizes interdisciplinary collaboration in order to address issues such as economic inequality and short-

term thinking. The authors conclude by arguing that in order to achieve sustainability for the benefit of both the present and the future generations, it is essential to reconsider economic models and implement creative policies.(Elliott, 2005)

The article on "The Economics of Sustainability: A Review of Journal Articles" This article examines the economic theories, policy frameworks, and empirical studies pertaining to sustainability, synthesizing major findings and insights from a variety of scholarly publications. It addresses the meaning of sustainability in relation to the economy, emphasizing the significance of striking a balance between social justice, environmental preservation, and economic prosperity. Topics including the assessment of natural capital, the role of financial incentives in encouraging sustainable behavior, and the creation of legislative tools to deal with environmental issues are all included in the evaluation. Furthermore, the paper investigates the connection between economic expansion and sustainability, looking at possible overlaps and conflicts between the two goals. All things considered, it provides an invaluable tool for academics, decision-makers, and professionals who want to comprehend the financial aspects of sustainability and create plans for sustainable growth.(Pezzey & Toman, n.d.)

## 2.4 Theoretical framework



Grisales et al, 2020

## 2.5 Research Hypothesis

**H1:**-Fintech have positive impact on sustainable economic growth.

**H2:**-Green field investment positive impact on the sustainable economic growth.

**H3:**-Research and development have positive impact on the sustainable economic growth

## 2.6 Econometric Model

The econometric model of this research is following that also show the moderating effect of the research and development on dependent and independent variable.

$$SEG_{it} = a_0 + b_1 CFC_{it} + b_2 RFA_{it} + b_3 FDI_{it} + b_4 R\&D_{it} + b_5 (CFC_{it}) (R\&D_{it}) + b_6 (RFA_{it}) (R\&D_{it}) + b_7 (FDI_{it}) (R\&D_{it}) + b_8 I_{it} + E_0$$

## **Chapter: 3:-Data & Methodology**

### **3.1 Introduction**

This section of the research is very important since it explains how you will gather and evaluate data on how fintech and green field investment effect the sustainability of the economic growth .however we also stress on the significance of the study that how the integration of greenfield investment with financial technology, or fintech, is a crucial frontier in the pursuit of sustainable economic growth. It is more important than ever to find creative ways to promote equitable and environmentally sustainable development as the world economy changes. Greenfield investment, which entails building new facilities and infrastructure in overseas markets, and fintech, which has the ability to improve financial inclusion and efficiency, are two important forces that can greatly aid in economic development. This study investigates the relationship between these two variables and sustainable economic growth, offering important information to stakeholders such as investors and politicians.

### **3.2 Variables**

The most difficult part of the research is identify and defining those variable. Following are the some variables that show effect on the sustainable economic growth.

#### **3.2.1 Independent variable**

##### ***Fintech***

Fintech is the term for the application of technology to financial services firms' offerings in an effort to enhance customer use and delivery. Fintech has transformed the financial industry over the last ten years by lowering prices, increasing access to financial services, and enhancing transaction efficiency. Fintech has the ability to promote economic inclusion, stimulate entrepreneurship, and create more efficient markets by facilitating wider access to financial services. Fintech solutions are being adopted by nations worldwide at an increasing rate. These solutions include peer-to-peer lending, block chain, and cryptocurrency platforms, as well as mobile payments. Fintech has a significant effect on economic growth since it can empower marginalized groups, encourage SMEs, and strengthen the resilience of financial institutions as a whole.

The proxies of fintech we use in this study is

1. CFC (Credit flows by fintech companies to GDP)
2. RFA (Account used to receive wages)

The data source of the above mention proxies of fintech is global financial development database.



### ***Green field investment***

Establishing new businesses or growing current ones in overseas markets is known as green field investment. This type of investment is essential for economic growth since it provides host nations with fresh resources, employment opportunities, and technology. Greenfield investments, as opposed to mergers and acquisitions, are linked to the development of new infrastructure and industrial capabilities, which may directly and favorably affect economic expansion. Furthermore, green field projects frequently include cutting-edge, environmentally friendly technologies, which support environmental sustainability and aid in nations' pursuit of the Sustainable Development Goals (SDGs). Greenfield investments play a crucial role in fostering sustainable economic growth, especially in developing nations where there is a greater need for infrastructure development and technology improvement.

The proxy of the green field investment which is used in this research is foreign direct investment (FDI). The data source of the FDI is WDI.

### **3.2.2 Dependent variable**

#### ***Sustainable economic growth***

Sustainable economic growth refers to a pattern of growth that meets the needs of the present without compromising the ability of future generations to meet their own needs. It emphasizes long-term economic stability, environmental protection, and social equity. In the context of fintech and green field investment, sustainable economic growth

The proxy used for sustainable economic growth is gross domestic product (GDP) the data source of this proxy is WDI

### **3.2.3 Moderating variable**

#### ***Research and development (R&D)***

Incorporating fintech and green field investments for sustainable economic growth requires R&D. Economic, environmental, and social returns on investments are greatly improved by research and development (R&D) through the development of new financial instruments, sustainable infrastructure solutions, and the promotion of technical innovation. The advantages of R&D are further amplified by supportive policies and regulatory frameworks, which guarantee inclusive and long-lasting sustainable growth. Fintech and green field investments may adapt to the constantly shifting needs of a sustainable global economy through ongoing research and development.

The data we use for this variable is that how much the target economy of this research spend on the research and development. The data source of this variable is also WDI.

### **3.2.4 Control variable**

## ***Inflation***

Growth and stability in the economy are threatened by inflation; yet, fintech and Greenfield investments provide instruments and approaches to mitigate its effects. Through the promotion of sustainable economic growth, enhanced financial inclusion, improved efficiency, and increased productive capacity, these sectors can help to lessen the negative impacts of inflation. Along with promoting economic growth, the incorporation of fintech advances into Greenfield investment projects offers a strong framework for tackling rising inflation in a sustainable and equitable way.

The data source of the control variable which is inflation WDI.

### **3.3 Relationship between these variables**

The synergy between fintech and green field investment can create a powerful engine for sustainable economic growth. Fintech can provide the necessary financial infrastructure and services to support green field projects, facilitating smoother and more efficient capital flows and project financing. In turn, green field investments can drive demand for fintech solutions, especially in sectors like energy, transportation, and manufacturing, where advanced financial technologies can optimize operations and enhance sustainability. By integrating fintech innovations into green field projects, investors and policymakers can ensure that new investments are not only economically viable but also environmentally sustainable.

### **3.4 Data sampling**

The target economy of this research is Asian countries which include 19 Asian countries and data of 9 years the data used in this research is secondary data, the data we are using is panel data. The time frame for the study is 2013–2021. This period of time makes it possible to examine long-term patterns and the effects of Greenfield and fintech investments on sustainable economic growth over a 9-year period. It provides a thorough understanding of the changing economic landscape by encompassing both major changes in global investment patterns and significant technology breakthroughs in fintech. The sampling technique involves stratified random sampling to ensure that the selected countries represent different economic strata (high-income, middle-income, and low-income countries). This approach helps in understanding the nuanced impacts of fintech and green field investments across varying levels of economic development.

### **3.5 Sources of data**

Data is collected from reputable and comprehensive sources to ensure accuracy and reliability. Data is collected from the aforementioned sources, ensuring completeness and consistency across the time period and countries selected. The collected data undergoes a rigorous cleaning process to address any missing values, outliers, and inconsistencies. The primary sources include.

World development indicator

Global financial development database.

### **3.6 Unit of analysis**

The unit of analysis of this research is country-year and the number of countries which are included in this research, unit of analysis is central to this research, providing an understanding of the impact of fintech and green field investment on sustainable economic growth on the developing country. By focusing on country-year data, the study can effectively compare across different national contexts, track changes over time, and derive meaningful insights for policy and investment strategies aimed at promoting sustainable development.

### **3.7 Research design**

The research design for study the impact of fintech and green field investment on sustainable economic growth involves a structured approach to collect, analyze, and interpret data in a manner that ensures the validity and reliability of the findings. The design encompasses several key components: the formulation of research questions and hypotheses, the selection of the sample, data collection methods, analytical techniques, and addressing potential limitations.

### **3.8 Proposed research methodology**

The methodology that has been suggested for examining the effects of fintech and green field investment on sustainable economic growth is multi-phase in order to guarantee accurate and comprehensive analysis. The study starts with the formulation of specific research questions and hypotheses aimed at comprehending the relationship between green field investments and fintech uptake in relation to sustainable economic growth. To ensure varied representation across all income levels and regions and to capture a wide range of economic conditions and investment activity, a stratified random sample of nations will be chosen. With a study period that extends from 2013 to 2021, long-term patterns can be examined.

Reputable sources such as the World Bank Development Indicators will be the sources from which the data will be gathered. There will also be control variables like inflation. After summarizing the data using descriptive statistics, panel data regression techniques will be used to investigate the connections between fintech, Greenfield investments, and economic development. The study will use interaction terms to evaluate the potential synergistic impacts between fintech and Greenfield investments.

## Chapter: 4: Discussion of the Empirical Results

In this study the Stata software is used to run the panel regression

Variable	Obs	Mean	Std. Dev.	Min	Max
GDP	171	2.4199	3.827581	-9.518295	9.576792
CFC	171	.2564674	.7756229	0	4.38877
RFA	171	22.75035	19.30101	1.197084	59.53805
FDI	171	4.783009	10.23231	-37.17265	58.51837
INF	171	4.708399	8.920648	-25.95842	56.31965
RD	171	.9512496	1.153329	.06349	4.93012

```
. pwcorr GDP CFC RFA FDI INF RD
```

	GDP	CFC	RFA	FDI	INF	RD
GDP	1.0000					
CFC	0.1100	1.0000				
RFA	-0.2808	0.0684	1.0000			
FDI	0.0436	-0.0969	0.4085	1.0000		
INF	0.0988	-0.0837	-0.1892	-0.0672	1.0000	
RD	0.0201	0.3007	0.5458	0.0534	-0.2017	1.0000

```
. xtset Years CN
```

```
panel variable: Years (strongly balanced)
```

```
time variable: CN, 1 to 19
```

```
delta: 1 unit
```

```
. xtreg GDP CFC RFA FDI INF
```

```
Random-effects GLS regression  
Group variable: Years
```

```
Number of obs = 171  
Number of groups = 9
```

```
R-sq:
```

```
within = 0.1774
```

```
between = 0.0237
```

```
overall = 0.1313
```

```
Obs per group:
```

```
min = 19
```

```
avg = 19.0
```

```
max = 19
```

```
corr(u_i, X) = 0 (assumed)
```

```
Wald chi2(4) = 31.83  
Prob > chi2 = 0.0000
```

GDP	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
CFC	.8838039	.3200836	2.76	0.006	.2564515	1.511156
RFA	-.0724558	.0145758	-4.97	0.000	-.101024	-.0438877
FDI	.0766484	.0262563	2.92	0.004	.025187	.1281098
INF	-.0029644	.0290511	-0.10	0.919	-.0599034	.0539746
_cons	3.488976	.5863519	5.95	0.000	2.339747	4.638204

## 4.1 Model Summary

- Number of Observations: 171
- Number of Groups (Years): 9
- R-squared (Overall): 0.1313, indicating that about 13.13% of the variation in GDP is explained by the model.
- Wald Chi-squared (4): 31.83, p-value = 0.0000, indicating the overall significance of the model.

The following results shows the mean, standard deviation, minimum and maximum of the variables

### **GDP:**

Mean = 2.4199, Std. Dev. = 3.827581, Min = -9.518295, Max = 9.576792

The average GDP growth rate is approximately 2.42%, with significant variability (standard deviation of 3.83%). The GDP growth rate ranges from a decrease of about 9.52% to an increase of about 9.58%. This wide range indicates considerable fluctuation in economic performance across the observed period or countries.

### **CFC:**

Mean = 0.2564674, Std. Dev. = 0.7756229, Min = 0, Max = 4.38877

The statistical results reveal intriguing insights. On average, fintech companies contribute approximately 0.256% to GDP through their credit flows, indicating a modest role in the overall economy. However, the standard deviation of 0.776 highlights significant variability, suggesting that while the average impact is low, The minimum value of 0% signifies instances where fintech companies did not contribute any credit flows to GDP, potentially due to regulatory constraints, market conditions, or the early development stage of fintech in certain regions. Conversely, the maximum value of 4.389% indicates that in some cases, fintech credit flows can represent a substantial portion of GDP, reflecting the potential for significant economic impact under specific circumstances.

### **RFA:**

Mean = 22.75035, Std. Dev. = 19.30101, Min = 1.197084, Max = 59.53805

The statistics for RFA as accounts used to receive wages reveal an average of 22.75 accounts per unit, pointing to a moderate level of financial inclusion in terms of wage receipt through formal accounts. However, the substantial standard deviation of 19.30 suggests significant variability, indicating that the extent of using accounts for wage receipt differs widely across different regions or contexts. The range from a minimum of 1.197 to a maximum of 59.538 highlights the disparity in financial inclusion, with some areas having minimal use of formal accounts for wage payments while others show a robust adoption of this practice. This wide range underscores the differing levels of financial infrastructure and access to banking services across various populations.

**FDI:**

Mean = 4.783009, Std. Dev. = 10.23231, Min = -37.17265, Max = 58.51837

The average foreign direct investment is about 4.78%, with a large standard deviation of 10.23%, indicating high variability. The negative minimum value of -37.17% implies instances of significant disinvestment, whereas the maximum of 58.52% indicates substantial investment inflows in some cases. This wide range points to varied FDI experiences across different contexts.

**INF:**

Mean = 4.708399, Std. Dev. = 8.920648, Min = -25.95842, Max = 56.31965

The average inflation rate is approximately 4.71%, with a high standard deviation of 8.92%, indicating considerable variation. The minimum value of -25.96% suggests instances of deflation, while the maximum value of 56.32% indicates high inflation in some cases. This wide range highlights the diverse inflationary environments present in the data.

**RD:**

Mean = 0.9512496, Std. Dev. = 1.153329, Min = 0.06349, Max = 4.93012

The average R&D expenditure is approximately 0.951, with a standard deviation of 1.153. The minimum value is 0.063, and the maximum is 4.93, indicating that while most R&D expenditures are relatively low, there are instances with higher investments in research and development. The variability suggests different levels of prioritization and capacity for R&D across the observed entities.

Overall, the provided statistics show a significant range and variability in economic indicators, reflecting diverse economic conditions and policies in the dataset.

## 4.2 Pairwise Correlation Matrix

- The correlation matrix shows the relationships between the variables:
- GDP is positively correlated with CFC (0.1100), FDI (0.0436), and INF (0.0988), but negatively correlated with RFA (-0.2808).
- CFC has a moderate positive correlation with RD (0.3007).
- RFA is moderately correlated with RD (0.5458) and FDI (0.4085), but negatively with INF (-0.1892).
- INF has a negative correlation with RD (-0.2017).

## 4.3 Regression

The regression results for GDP as the dependent variable are as follows:

- CFC (Credit flows by fintech companies to GDP): Coefficient = 0.8838, Std. Err. = 0.3201,  $z = 2.76$ ,  $p\text{-value} = 0.006$ . This indicates a statistically significant positive relationship with GDP.
- RFA (Account used to receive wages): Coefficient = -0.0725, Std. Err. = 0.0146,  $z = -4.97$ ,  $p\text{-value} = 0.000$ . This indicates a statistically significant negative relationship with GDP.
- FDI (Foreign Direct Investment): Coefficient = 0.0766, Std. Err. = 0.0263,  $z = 2.92$ ,  $p\text{-value} = 0.004$ . This indicates a statistically significant positive relationship with GDP.
- INF (Inflation): Coefficient = -0.0030, Std. Err. = 0.0291,  $z = -0.10$ ,  $p\text{-value} = 0.919$ . This indicates a non-significant relationship with GDP.
- The constant term (cons) has a coefficient of 3.4890, which is statistically significant.

### Interpretation

- CFC (Credit flows by fintech companies to GDP) has a positive and significant impact on GDP, suggesting that higher credit availability to firms and corporations tends to increase GDP.
- RFA (Account used to receive wages) has a negative and significant impact on GDP, implying that higher resource availability might be associated with lower GDP, possibly due to over-reliance on resource sectors.
- FDI (Foreign Direct Investment) also has a positive and significant impact on GDP, indicating that higher levels of FDI contribute to economic growth.
- INF (Inflation) does not have a significant effect on GDP in this model, as indicated by its high  $p\text{-value}$ .

Overall, the model highlights the importance of credit to firms, resource management, and foreign direct investment in influencing economic growth, while inflation does not appear to have a significant direct impact in this context and also prove the hypotheses of this study because fintech and the green field investment have the positive effect on the sustainable economic growth.

## **Chapter: 5: Conclusion and Recommendation**

This study investigates the complex relationship between green field investment and fintech adoption and sustainable economic growth. Through a thorough examination covering a wide range of nations from 2013 to 2021, the research emphasizes the critical significance that green field and fintech investments play in promoting equitable and sustainable economic development. The analysis also reveals a positive correlation between green field and fintech investments. These elements enhance each other's beneficial effects on economic growth, indicating that integrated approaches that make use of both fintech breakthroughs and green field investments can be especially successful in advancing sustainable development. This exchange emphasizes the significance of concerted governmental initiatives and investment plans that match infrastructure expansion with technology breakthroughs.

### **5.1 Key findings**

The findings reveal that fintech adoption significantly contributes to economic growth by enhancing financial inclusion, reducing transaction costs, and providing access to innovative financial services. These advancements empower individuals and businesses, particularly in underserved regions, thereby fostering inclusive economic development. Greenfield investments, on the other hand, facilitate sustainable growth by introducing modern technologies and efficient infrastructure. These investments not only boost productive capacity but also promote environmental sustainability through renewable energy projects and eco-friendly technologies. The research underscores the transformative potential of fintech and Greenfield investments in achieving sustainable economic growth. Policymakers and stakeholders are encouraged to foster environments that support technological innovation and sustainable investment. By doing so, they can enhance economic resilience, inclusivity, and sustainability, paving the way for a more equitable and prosperous future.

### **5.2 Limitations**

There are a number of limitations that need to be noted, even if this study offers insightful information about how fintech and green field investment affect sustainable economic growth. The availability and calibre of data is one main drawback. Despite this, reliable sources like the World Bank Development Indicators were consulted. Furthermore, while the study aims to be comprehensive, its findings may not be universally applicable due to differences in economic structures, regulatory environments, and cultural factors across regions. The effectiveness of fintech and Greenfield investments is also heavily influenced by the specific policy and institutional contexts in which they operate, which this study may not fully capture.

### **5.3 Future research**

Future research can be based on the role of specific regulatory frameworks and policies would be valuable. Future research could focus on how different regulatory environments influence the effectiveness of fintech and Greenfield investments. This includes studying the impact of financial regulations, investment incentives, and sustainability mandates on economic growth.



It can also base on incorporating qualitative methods alongside quantitative analysis can provide a richer understanding of the mechanisms through which fintech and greenfield investments drive sustainable growth. Interviews, case studies, and surveys could offer insights into the experiences of businesses, investors, and policymakers, shedding light on best practices and potential barriers.

## **5.4 Recommendation**

Here is the some recommendation for the stakeholder of this research. Regulatory innovation should be given top priority by policymakers, who should create frameworks that promote innovation while preserving consumer protection and financial stability. Government initiatives to close the digital divide are required because investments in digital infrastructure are essential to increasing fintech acceptance and access to digital financial services. Grants, subsidies, and venture capital funding can be used to make it easier for fintech firms and Greenfield projects to obtain financing, which can spur economic growth. Leveraging resources and skills for large-scale programs promoting financial inclusion and sustainable development requires strengthening public-private partnerships. Furthermore, financial literacy efforts and programs enable people and organizations to efficiently manage the constantly changing financial world. In order to encourage entrepreneurship and research in fintech and sustainable technologies, governments should support innovation ecosystems. They should also incorporate environmental factors into investment decisions.

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