

TAXONOMY OF FINTECH ECOSYSTEM – A RESEARCH STUDY

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Abstract

Fintech ecosystem is developing at a fast pace with inclusion of all kinds of services within its ambit. In order to understand the fintech ecosystem, one has to understand the taxonomy of fintech ecosystem. This paper discusses the two most comprehensive taxonomies on fintech ecosystem developed by Imerman and Fabozzi (2020) and Ratecka (2020), for its advantages and disadvantages. Based on that discussion, the researcher develops his own taxonomy of fintech ecosystem and explains the rationale and also the theoretical foundations for that taxonomy. This paper is divided into four sections: (a) overview of fintech innovations; (b) Taxonomy developed by Imerman and Fabozzi; (c) taxonomy developed by Ratecka (d) synthesis of these two taxonomies and based on that the taxonomy developed by the researcher. The last section concludes the paper.

Keywords:

Fintech, Fintech Ecosystem, Financial Innovations, Taxonomy

1. INTRODUCTION

Fintech as a word has been catching up attention and interest. Fintech is an acronym of ‘Financial Technology’. Fintech includes all those applications and softwares that will automate the transactions made in businesses. It has been having significant impact on all the stakeholders associated with business including employees, consumers, technology providers, vendors and the government. Functionally, Fintech makes the entire transaction faster and more accurate. Fintech efficiently handles volumes of data in a beneficial and meaningful way. Fintech is already creating the next financial revolution in India and abroad. Many startups and entrepreneurs are planning to start their Fintech ventures in order to be a part of this revolution. There are also many variations of innovations taking place in the Fintech space. Some of them are based on verticals of solution that are on offer, while some are on functional domain. To understand the scope of Fintech innovations, the authors feel that understanding the taxonomy of Fintech innovations becomes extremely essential. This article examines the taxonomy of Fintech Innovations happening across the world. This article is based on the literature review conducted by the author as part of his doctoral PhD work on Fintech industry. The outcome of such literature review is presented as a journal article.

1.1 FINTECH INNOVATIONS - AN OVERVIEW

We might see that as Fintech innovations; further, it is essential to know that there are so many options in the technologies in the software of transactions or events of activities in the industry and the businesses. It is essential to know that these software options should benefit the stakeholders and the corporations. If it is not, that will fail to succeed as an application

or a go-to solution, the Fintech solution. It provides an alternative to the current traditional way of doing the particular activity as an exciting aspect of the entire Fintech.

In order to understand the nature of innovations taking place in the Fintech space, one has to understand the taxonomy of such ecosystem. The researcher has found two taxonomies that describe the Fintech ecosystem: (a) By Michael Imerman and Frank Fabozzi (2020); (b) By Patrycja Ratecka (2020). This article provides a quick summary of both these taxonomies of Fintech innovations. Based on these two taxonomies, the researcher has created an improvised version of the taxonomy of Fintech innovations, which is presented in the last section of this article.

1.2 TAXONOMY OF FINTECH ECOSYSTEM BY MICHAEL IMERMAN AND FRANK FABOZZI

Imerman and Fabozzi mentions about the Fintech ecosystem with its classification of the taxonomy of the different ecosystems with some verticals, some of which are so-called Fintech Verticals, including payments technology, digital banking, digital wealth management, capital markets, Fintech lending, equity crowdfunding, InsurTech and PropTech. They also mention about Fintech Horizontals, which is subcategorized into two subsets of the Functional Areas and the Emerging Technologies for financial services. In the functional areas we have the Financial Regulation, Risk Management, Funding and Valuation. The emerging financial services technologies would range from distributed ledger technology or blockchain, the IoT, AI, big data analytics, cyber security, biometrics, open-source computing or the API's, cloud computing, quantum computing and some virtual operated realities or automation robotics. The same is illustrated in the Fig.1.

A snapshot of the article; looking up such a taxonomy of the Fintech ecosystem or Fintech landscape helps us to understand the breadth and depth of Fintech as a revolution.

In fact, the most popular vertical of all the verticals, which is impacting all of us in the payment-related area, is the technology which is used for payments. So, we're all using those apps for making payments through smartphones or mobile electronic devices is termed as ‘Payment Technology’.

So, money is transferred in a different mode than earlier. Money is transferred with a click or with a scan using mobile numbers, something unheard of or unseen has happened in the digital transformation primarily because of the pandemic. The pandemic forced us to have alternate sources of transactions. Because the scare of the pandemic was so large that people did not want to use cash.

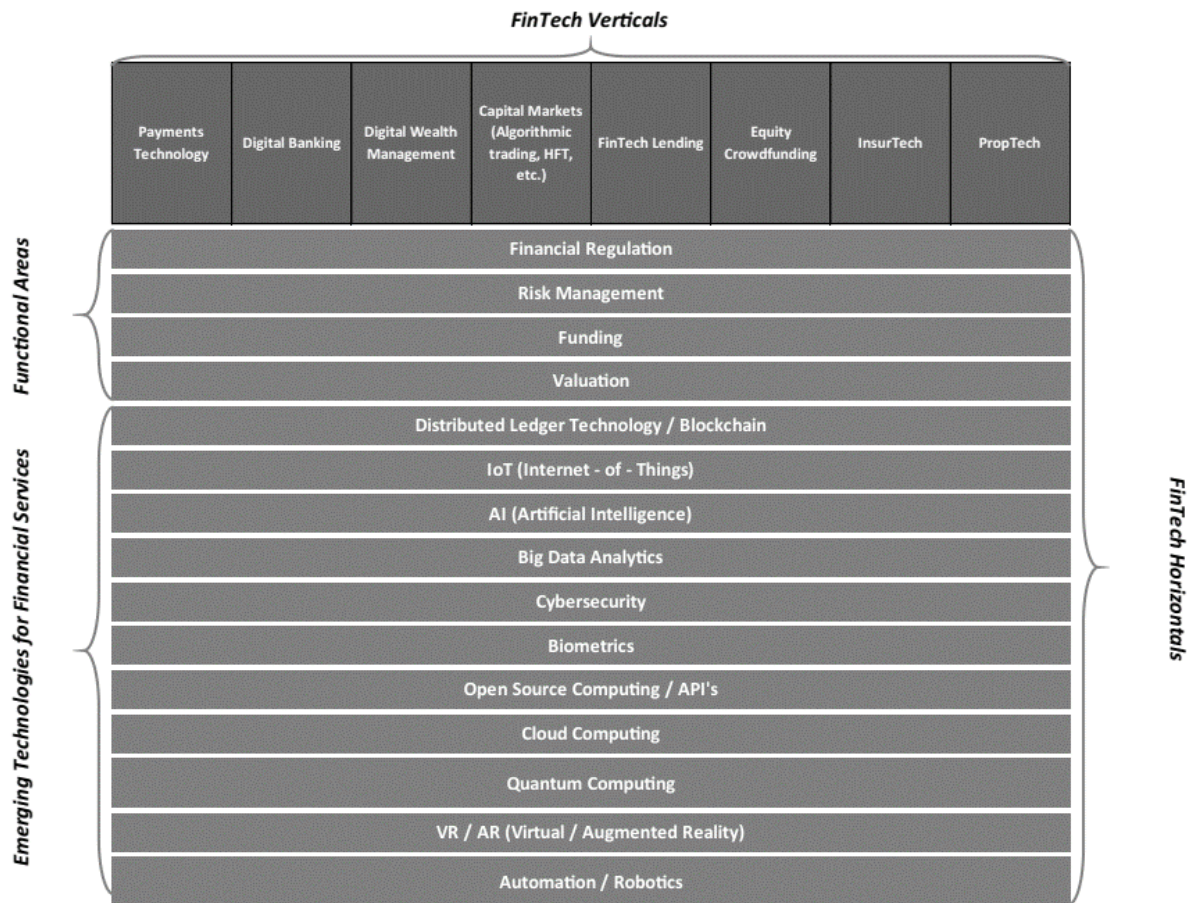


Fig.1. Fintech Ecosystem [1]

For Example, we didn't see notes as an exchange or a mode of exchange. The practical alternative came not wanting to touch the currency notes but scanning without transferring money or currency notes. In this arena, many companies came up with many options for helping people make payments.

This is a preferred type of payment software and technology for many investors. This type of software provided a large amount of acquisition funds. There were many funds raised in the form of public offers. A lot of these acquisitions started in the era of 2010-2019; maybe that's why it's called the 'Financial Revolution Time Zone'.

The second vertical of Fintech, payment technology is an essential aspect of what we discussed. This payment technology has a logical extension of doing banking transactions not by visiting the branch but in a digitized way.

Digital Banking would be of having transactions on online mode either through the computer or mobile, so all the traditional commercial and retail banks started operating differently compared to what they had been doing all these years. It has an impact on how the operations of banks happen. It is essential to know how banks operate. Banks have had their physical branches facilities in terms of cheque processing, having some computers clearing those payments, or some call centres trying to understand the customers.

The queries managing all of these had many resources, including demand power resources. It's essential to note and

observe that there was a revolution and how they operate the Fintech revolution which is an extension of a digital revolution. The Fintech revolution would be an extension of a digital process because the way the banks operate now would be completely different, everybody's comfortable using a banking app and mobile banking.

Every bank offers us technology or an interface that is safe, friendly and easy to handle for transactions. Mobile banking is important where real solutions have to be driven by an important aspect known as Data Storage or Data Capture, or Data Retrieval-Related Technologies. So, terms like cloud computing and artificial intelligence-driven become a standard reference here because there's so much of an inflow of technology-driven businesses. The startups offering services to banking and these new-age banks, which have a lot of software and technology-driven services, are giving tough competition to the older traditional banks, which have not been able to catch up so much, compared to the new-age banks. But is it safe in all aspects? This is a valid question at this juncture. These startups have taken due care in their service offerings as the risk we are discussing is a major one.

The next logical extension to digital banking is Digital Wealth Management which is a subset of Fintech, that uses technology to provide financial advice and investment management services to individuals and institutions. This technology-driven approach to wealth management enables users to access investment services

online, typically at a lower cost than traditional financial advisory services.

Digital wealth management platforms use algorithms and other data-driven tools to analyse an individual’s financial situation and investment goals. Based on this analysis, the platform generates a customized investment portfolio for the user, which is managed automatically by the platform.

One of the major areas of wealth management is Capital markets. Capital Markets refer to the markets where long-term securities such as stocks and bonds are bought and sold. Fintech has significantly impacted the capital markets, enabling new and innovative ways for investors to access and trade financial securities.

One of the key areas where Fintech has impacted the capital markets is the democratization of access to investment opportunities. Online trading platforms and investment apps have made it easier and more affordable for individual investors to buy and sell securities, which were traditionally only available to institutional investors.

After the discussion of capital markets, where Fintech has changed the way trade is done, next area where Fintech has impacted is the Fintech Lending. Fintech Lending is going to catch up in the coming years in a big way. So, the mechanism of borrowing and lending can happen not just among the banks and the customers but between parties, ready to lend to each other or groups of people interested in borrowing to various businesses. Whereas, this can be an innovation of companies to take fundraise funds and would not go to a bank.

Instead of going to a bank, the funds will be directly borrowed from other individuals or groups. Because investment options are always popular areas for interest, these are popular with people interested in investing into creation of innovative businesses. People with money, rather than buying stocks or bonds or keeping it in banks, would still want to invest in initiatives promising them good returns. Currently, such kinds of startups would need to make money which would be the impact of Fintech.

Further, there are robotics-based advisory solutions which are catching up for micro-investments and wealth management industries. The number of people wanting to invest in this sector is also growing tremendously high. This aspect also means understanding the online board for connecting with clients in wealth management will force everybody to adapt to online-based meetups instead of physical meetings. So, digital asset management businesses are considered for the services offered to their clients.

As a reasonable extension to lending, for the businesses wanting to raise funds another popular option is Equity Crowd Funding. Equity crowdfunding is a way for companies to raise money by offering a portion of their ownership to many investors through online platforms. Fintech has made it easier for companies to launch these campaigns and for investors to participate in them, often with lower minimum investment amounts than traditional investments.

Equity crowdfunding provides companies with a more diverse pool of investors and reduces reliance on traditional funding sources, such as venture capital. However, there are also risks associated with equity crowdfunding, such as the potential for fraud or the company not being successful.

Fintech has played an essential role in the growth of equity crowdfunding by providing tools and platforms to manage the fundraising process and comply with regulatory requirements. As technology advances, we expect to see more innovation in this area and new ways for companies and investors to participate in the capital markets.

After banking another area of financial services where Fintech is relevant is Insurance. Insurance and Technology, both together can be known as Insurtech. Insurtech refers to using technology to disrupt and innovate the insurance industry. Fintech has played a significant role in the growth of insurtech by providing new platforms and tools for insurance companies to underwrite policies, assess risk, and settle claims. There are also potential risks associated with insurtech, such as data privacy concerns and the potential for errors or biases in algorithms used for underwriting and claims processing.

The next segment where Fintech is changing the landscape is Real Estate. Real Estate also known as Property. Prop tech, or property technology, is using technology to change the way services are provided and received between businesses and their customers in the real estate industry. Fintech has played a significant role in the growth of prop-tech by providing new platforms and tools for real estate companies to buy, sell, and manage properties.

Table.1. Fintech-definition, taxonomy and historical approach [2]

Classification	Field
Duration	Innovative start-ups
	Mature, well-established financial institution
Customer orientation	Retail
	SME
	Corporate
Scope of activity	Global
	International
	Local
Business model	Financing
	Payments
	Asset Management
	Insurance
	Loyalty Programmes
	Risk Management
	Stock exchange services
	Regulatory technology (<i>RegTech</i>)
Other	
Service provision	Interaction
	Data processing
	Monetization
Service area	The banking sector
	Capital investment area
	The insurance sector
	Real estate market

Risks and rewards are something which go hand in hand. There's so much of a reward in using technology, in using data for multiple transactions to multiple people at a faster pace at an accurate rate. It might have some risks and some challenges like some trust issues. And there can be some issues of leakage of data. These aspects must be considered, which is why the entire Fintech industry is heavily regulated. It is essential to understand that we cannot overlook the benefits because of the presence of certain risks in this regard. It is necessary to handle the possible areas of threat or risks and to handle innovation.

2. EXPLANATION OF THE TAXONOMY

2.1 CLASSIFICATION: DURATION FIELD: INNOVATIVE START-UPS

In the fintech world, Classification: Duration refers to a specific aspect of innovative start-ups, particularly those within the financial technology sector. This classification assesses the longevity, sustainability, and potential growth trajectory of these start-ups based on their duration in the market.

It is essential for investors, stakeholders, and industry observers to consider the duration classification when evaluating

fintech start-ups. The stage of a start-up's duration can indicate its level of risk, growth potential, and likelihood of long-term success. Early-stage start-ups may be riskier but have higher growth potential, while mature start-ups might offer a more stable investment opportunity.

As a fintech world leader, it is crucial to keep a close eye on innovative start-ups at different stages of duration, as they often drive disruptive changes in the financial industry and present opportunities for collaboration, investment, and industry partnerships.

2.2 CLASSIFICATION: DURATION FIELD: MATURE, WELL-ESTABLISHED FINANCIAL INSTITUTION

In the fintech world, Classification: Duration for mature, well-established financial institutions refers to the assessment of the longevity, stability, and track record of traditional financial organizations that have been operating in the market for an extended period. These institutions have already proven their resilience and ability to adapt to changing market conditions over time.

Table.2. Taxonomy of Fintech

Classification	Fields	Segments
Duration	Innovative start-ups	<ul style="list-style-type: none"> • Early-stage Start-ups: • Growth-stage Start-ups: • Established Start-ups: • Mature Start-ups:
	Mature, well-established financial institution	<ul style="list-style-type: none"> • Founding and Early Years: • Growth and Expansion • Established Presence
Customer orientation	Retail	<ul style="list-style-type: none"> • Customer-Centric Culture • Personalization • Seamless Omnichannel Experience • Customer Feedback and Engagement • After-Sales Support • Product Quality and Innovation • Transparency and Trust • Continuous Improvement • Customer Education • Social Responsibility
	SME	<ul style="list-style-type: none"> • Customized Financial Solutions • Simplified Access to Finance • Data-Driven Insights • Digital Payment Solutions • Customer Support and Education • Seamless Integration • Risk Management Solutions • Financial Inclusion • Real-Time Reporting • Scalable Solutions
	Corporate	<ul style="list-style-type: none"> • Tailored Financial Solutions • Process Automation • Data Security and Compliance

		<ul style="list-style-type: none"> • Integration with Existing Systems • Advanced Analytics and Insights • Payment and Transaction Solutions • Real-Time Reporting and Visibility • Treasury and Liquidity Management • Customer Support and Training • Scalability and Flexibility
Scope of activity	Global	<ul style="list-style-type: none"> • Multi-National Presence • Cross-Border Services • Compliance with Regulatory Frameworks and Regulations • Currency and Language Adaptability • Market Localization • International Partnerships • Global Payment Solutions • Regulatory Challenges • Risk Management • Scalability and Growth • Foreign Exchange (Forex) Solutions • Global Peer-to-Peer Lending • Global Market Insights
	National	<ul style="list-style-type: none"> • Local Regulatory Compliance • Target Market • Payment Systems • Currency and FX Considerations • Local Partnerships • Localization • Financial Inclusion • Industry Regulations • Government Initiatives • Economic Impact • Continuous Innovation
	Local	<ul style="list-style-type: none"> • Targeted Local Market • Country-Specific Regulations • Niche Solutions • Local Payment Solutions • Regional Partnerships • Language and Cultural Understanding • Support for Local Businesses • Community Engagement • Limited Geographical Expansion • Customer-Centric Approach
Commercial model	Finance and Revenue	<ul style="list-style-type: none"> • Peer-to-Peer (P2P) Lending • Marketplace Lending • Crowdfunding • Subscription-based Services • Freemium Model • Software as a Service (SaaS) • Transaction-based Fees • Asset Management Fees • Data Monetization • Affiliate Commissions
	Payments	<ul style="list-style-type: none"> • Payment Processing Fees • Subscription-Based Services • Freemium Model

		<ul style="list-style-type: none"> • Cross-Border Transaction Fees • Mobile Wallet Commissions • Point-of-Sale (POS) Hardware Sales • Data Analytics and Insights • Value-Added Services • Payment Gateway Services • Digital Currency Exchanges
	Insurance	<ul style="list-style-type: none"> • Peer-to-Peer (P2P) Insurance • On-Demand Insurance • Digital Insurance Aggregators • Usage-Based Insurance (UBI) • Subscription-Based Model • Platform-as-a-Service (PaaS) • Parametric Insurance • Blockchain-Based Insurance • Insurtech Partnerships • Customer Data Monetization
	Loyalty programs	<ul style="list-style-type: none"> • Points-Based Loyalty Programs • Coalition Loyalty Programs • Digital Wallet Integration • Subscription-Based Loyalty Services • Data Analytics and Insights • Tiered Loyalty Programs • Gamification and Engagement • Referral Programs • Data-Driven Personalization • Loyalty Program Management Software
	Risk management	<ul style="list-style-type: none"> • Risk Analytics and Data Insights • Regulatory Compliance Solutions • Cybersecurity Risk Management • Fraud Detection and Prevention • Credit Risk Assessment • Market Risk Management • Operational Risk Management • Stress Testing Solutions • Risk Management Software • Risk Assessment Consulting
	Stock exchange services	<ul style="list-style-type: none"> • Online Stock Trading Platforms • Robo-Advisory Services • Data Analytics and Insights • Social Trading Platforms • Fractional Investing • Exchange-Traded Funds (ETFs) Platforms • Algorithmic Trading Solutions • Market Data and APIs • Education and Training Services • Regulatory Technology (RegTech) Solutions
	Regulatory technology (RegTech)	<ul style="list-style-type: none"> • Compliance-as-a-Service (CaaS) • Regulatory Reporting Solutions • Data Analytics and Risk Assessment • Identity Verification and Anti-Money Laundering (AML) Solutions • RegTech Consulting and Professional Services • Artificial Intelligence (AI) and Machine Learning Solutions

		<ul style="list-style-type: none"> • Regulatory Data Management • Blockchain-Based Compliance Solutions • RegTech Partnerships with Financial Institutions • Continuous Regulatory Monitoring and Alerts
	Other	<ul style="list-style-type: none"> • Digital Identity and Authentication Solutions • Financial Inclusion Platforms • Alternative Credit Scoring • Open Banking and API Solutions • Sustainable Finance and Impact Investing • Real Estate Fintech • Insurtech • Digital Wealth Management • Supply Chain Finance • Digital Currency and Blockchain Innovations
Service provision by fintech companies	Interaction	<ul style="list-style-type: none"> • Digital Banking Services • Mobile Payment Solutions • Customer Support and Chatbots • Virtual Assistants and Personal Finance Management • Video Banking and Remote Advisory Services • Social Trading and Investment Communities • Real-Time Market Insights and Alerts • Gamification of Finance • Online Education and Workshops • Customer Feedback and Engagement
	Data processing	<ul style="list-style-type: none"> • Data Aggregation and Integration • Automated Accounting and Bookkeeping • Data Cleansing and Enrichment • Financial Data Analytics • Risk Assessment and Management • Credit Scoring and Underwriting • Personalized Financial Recommendations • Regulatory Compliance and Reporting • Market Research and Insights • Data Visualization and Reporting Tools
	Monetization	<ul style="list-style-type: none"> • Payment Processing Services • Merchant Services and Point-of-Sale (POS) Solutions • Digital Wallets and Mobile Payment Apps • Peer-to-Peer (P2P) Payment Platforms • Subscription-Based Financial Services • Value-Added Financial Services • Cross-Border Payment Solutions • Affiliate Marketing and Referral Programs • Data Monetization • API and Developer Services
Service area	The banking sector	<ul style="list-style-type: none"> • Digital Banking Solutions • Mobile Banking Apps • Payment and Remittance Services • Open Banking and APIs • Challenger Banks and Neo-Banks • Personal Finance Management • Loan and Credit Solutions • Robo-Advisors for Banking and Investments • Robo-Advisors for Banking and Investments • Regulatory Compliance Solutions • Blockchain-Based Banking Solutions

		<ul style="list-style-type: none"> • Customer Support and Chatbots
	Capital investment area	<ul style="list-style-type: none"> • Robo-Advisory Services • Alternative Investment Platforms • Peer-to-Peer (P2P) Lending and Crowdfunding • Fractional Investing • Automated Trading and Algorithmic Strategies • Social Trading and Investment Communities • Investment Analytics and Market Insights • Impact Investing and Sustainable Finance • AI-Based Investment Research • Regulatory Compliance for Investments
	The insurance sector	<ul style="list-style-type: none"> • Insurtech Platforms • Usage-Based Insurance (UBI) • Digital Underwriting • Peer-to-Peer (P2P) Insurance • Parametric Insurance • Claims Processing Automation • Telematics in Insurance • Cyber Insurance Solutions • AI-Powered Customer Support • Data Analytics for Fraud Detection

As a fintech world leader, understanding the classification of duration for mature, well-established financial institutions is crucial for strategic decision-making. These institutions play a vital role in the financial ecosystem and often collaborate with fintech companies to enhance their services and stay at the forefront of innovation. Monitoring their evolution and potential disruptions in the industry helps to identify opportunities for collaboration and partnership.

2.3 CLASSIFICATION: CUSTOMER ORIENTATION FIELD: RETAIL FINTECH

In the fintech industry, Classification: Customer Orientation in the context of retail refers to how fintech companies prioritize and align their products, services, and overall strategies to meet the specific needs and preferences of retail customers. Retail fintech companies aim to enhance the retail customer experience, streamline processes, and provide innovative solutions that cater to the evolving demands of modern consumers.

By prioritizing customer orientation in the retail fintech space, companies can gain a competitive edge, build long-term customer loyalty, and drive innovation in the retail industry. Retailers benefit from adopting fintech solutions that enhance their customer experience, streamline operations, and keep them at the forefront of technological advancements in the retail sector. As a fintech world leader, understanding the importance of customer orientation in the retail fintech domain can guide strategic partnerships and collaborations with retail businesses to create impactful solutions.

2.4 CLASSIFICATION: CUSTOMER ORIENTATION FIELD: SMALL AND MEDIUM-SIZED ENTERPRISES (SMEs) FINTECH

In the fintech industry, Classification: Customer Orientation in the context of SMEs (Small and Medium-sized Enterprises) refers to how fintech companies prioritize and align their products, services, and overall strategies to meet the specific needs and preferences of SME customers. Fintech solutions tailored for SMEs aim to address the unique challenges faced by small and medium-sized businesses, helping them streamline operations, access financial services, and thrive in an increasingly competitive market.

By focusing on customer orientation in the SME fintech space, fintech companies can empower small and medium-sized businesses to thrive, grow, and succeed in a digitally-driven economy. SMEs benefit from adopting fintech solutions tailored to their needs, as these technologies can enhance their financial management, efficiency, and competitiveness in the market. As a fintech world leader, understanding the importance of customer orientation in SME fintech can guide the development of impactful solutions for this critical sector of the economy.

2.5 CLASSIFICATION: CUSTOMER ORIENTATION FIELD: CORPORATE FINTECH

In the fintech industry, Classification: Customer Orientation in the context of corporate fintech refers to how fintech companies prioritize and align their products, services, and overall strategies to cater to the needs and preferences of corporate clients. Corporate fintech solutions are designed to address the unique challenges faced by businesses and large enterprises, providing

them with innovative technologies to optimize financial processes, enhance efficiency, and drive growth.

By prioritizing customer orientation in the corporate fintech space, fintech companies can build strong relationships with businesses and large enterprises. Corporate clients benefit from adopting fintech solutions that enhance financial efficiency, reduce operational costs, and drive innovation within their organizations. As a fintech world leader, understanding the importance of customer orientation in corporate fintech can guide strategic collaborations and partnerships with businesses to create impactful fintech solutions tailored to their unique requirements.

2.6 CLASSIFICATION: SCOPE OF ACTIVITY FIELD: GLOBAL FINTECH

In the fintech industry, Classification: Scope of Activity in the context of global fintech refers to the geographical reach and extent of operations of fintech companies. Fintech companies with a global scope of activity operate on an international scale, providing their products, services, or platforms to customers, businesses, and financial institutions across multiple countries and regions.

Fintech companies with a global scope of activity play a significant role in shaping the international financial landscape. Their innovative solutions contribute to financial inclusion, cross-border trade facilitation, and the digitization of financial services on a global scale. As a fintech world leader, understanding the challenges and opportunities associated with a global scope of activity can guide strategic decisions regarding international expansion, regulatory compliance, and partnerships to foster innovation and growth in different regions worldwide.

2.7 CLASSIFICATION: SCOPE OF ACTIVITY FIELD: NATIONAL FINTECH

In the fintech industry, Classification: Scope of Activity in the context of National fintech refers to the geographical reach and extent of operations of fintech companies that operate across multiple countries and engage in cross-border financial activities. International fintech companies cater to customers, businesses, and financial institutions in various countries and regions, facilitating global financial transactions and offering cross-border financial solutions.

National fintech companies play a pivotal role in facilitating national financial transactions, promoting financial inclusion, and driving innovation in the National finance space. Their ability to provide efficient and accessible financial services across borders contributes to the growth of cross-border trade and economic integration. As a fintech world leader, understanding the complexities and opportunities associated with National scope can guide strategic decisions to foster National expansion, partnership opportunities, and compliance with global financial regulations.

2.8 CLASSIFICATION: SCOPE OF ACTIVITY FIELD: LOCAL FINTECH

In the fintech industry, Classification: Scope of Activity in the context of local fintech refers to the geographical focus and extent of operations of fintech companies that primarily operate within a specific local or regional market. Local fintech companies focus

on serving customers, businesses, and financial institutions within a particular city, state, or country, providing tailored solutions that address the specific needs of the local market.

Local fintech companies play a vital role in driving financial inclusion, supporting local economic growth, and providing tailored solutions that meet the unique needs of businesses and consumers in specific regions. As a fintech world leader, understanding the significance of local fintech companies can guide strategic decisions to foster collaboration and partnerships with local businesses, financial institutions, and government entities to create impactful fintech solutions for the local market.

2.9 CLASSIFICATION: BUSINESS MODEL FIELD: FINANCE AND REVENUE FINTECH

In the fintech industry, Classification: Business Model in the context of finance and revenue fintech refers to the specific way in which fintech companies operating in the finance and revenue sector generate revenue and deliver their financial services to customers. Fintech companies in this segment offer a range of financial services, such as lending, crowdfunding, peer-to-peer lending, and investment management, using innovative technology to streamline processes and provide efficient solutions, etc.

Each business model has its advantages and challenges, and fintech companies in the financing sector often combine multiple models to diversify their revenue streams. Understanding the intricacies of different business models in financing fintech helps these companies design effective strategies, foster innovation, and create sustainable business models that meet the evolving needs of customers in the financial industry.

2.10 CLASSIFICATION: BUSINESS MODEL FIELD: PAYMENTS FINTECH

In the fintech industry, Classification: Business Model in the context of payments fintech refers to the specific way in which fintech companies operating in the payments sector generate revenue and provide their payment services to customers. Payments fintech companies offer innovative and efficient solutions for processing electronic transactions, digital payments, and other financial services related to payments.

It's essential for payments fintech companies to carefully consider their business model to ensure sustainable growth and profitability. Different business models suit different types of payment services and customer segments. Understanding the various revenue models helps payments fintech companies design effective pricing strategies and remain competitive in the dynamic and rapidly evolving payments industry.

2.11 CLASSIFICATION: BUSINESS MODEL FIELD: INSURANCE FINTECH

In the fintech industry, Classification: Business Model in the context of insurance fintech refers to the specific way in which fintech companies operating in the insurance sector generate revenue and provide their services to policyholders. Insurance fintech companies leverage technology to offer innovative and streamlined insurance products, policy management, and claims processing.

The insurance fintech sector is continuously evolving, and these business models offer various opportunities to disrupt traditional insurance practices and enhance customer experiences. Understanding the different business models allows insurance fintech companies to tailor their offerings, pricing strategies, and value propositions to meet the needs of tech-savvy customers seeking efficient and customer-centric insurance solutions.

2.12 CLASSIFICATION: BUSINESS MODEL FIELD: LOYALTY PROGRAMS FINTECH

In the fintech industry, Classification: Business Model in the context of loyalty programs fintech refers to the specific way in which fintech companies operating in the loyalty programs sector generate revenue and provide their services to businesses and consumers. Loyalty programs fintech companies leverage technology to offer innovative and data-driven loyalty solutions, enhancing customer engagement, and fostering customer loyalty for businesses.

Loyalty programs fintech companies play a crucial role in helping businesses drive customer loyalty, retention, and repeat business. By understanding various business models, these companies can offer tailored solutions to businesses seeking to implement effective and data-driven loyalty programs to enhance customer engagement and loyalty.

2.13 CLASSIFICATION: BUSINESS MODEL FIELD: RISK MANAGEMENT FINTECH

In the fintech industry, Classification: Business Model in the context of risk management fintech refers to the specific way in which fintech companies operating in the risk management sector generate revenue and provide their services to businesses and financial institutions. Risk management fintech companies leverage technology to offer innovative solutions for assessing, monitoring, and mitigating various types of risks in the financial industry.

Risk management fintech companies play a critical role in helping businesses and financial institutions proactively address and mitigate risks. By offering data-driven solutions, advanced analytics, and real-time risk monitoring, fintech companies in this sector help organizations make informed decisions and improve their overall risk management strategies. Understanding various business models in risk management fintech enables these companies to cater to the specific needs of their clients and develop sustainable revenue streams while promoting risk-aware and resilient financial ecosystems.

2.14 CLASSIFICATION: BUSINESS MODEL FIELD: STOCK EXCHANGE SERVICES FINTECH

In the fintech industry, Classification: Business Model in the context of stock exchange services fintech refers to the specific way in which fintech companies operating in the stock exchange sector generate revenue and provide their services to investors and traders. Fintech companies in this field leverage technology to offer innovative and efficient solutions for stock trading, investment management, and portfolio analysis.

Stock exchange services fintech companies play a significant role in democratizing access to financial markets, providing

innovative tools and solutions that empower investors and traders. By offering user-friendly platforms, data-driven insights, and algorithmic trading strategies, these companies enhance the trading experience and support investors in making informed decisions in the dynamic stock market environment. Understanding the various business models in stock exchange services fintech enables these companies to develop tailored solutions that cater to the diverse needs of investors and traders while ensuring sustainable revenue streams.

2.15 CLASSIFICATION: BUSINESS MODEL FIELD: REGULATORY TECHNOLOGY (REGTECH) FINTECH

In the fintech industry, Classification: Business Model in the context of regulatory technology (RegTech) fintech refers to the specific way in which fintech companies operating in the RegTech sector generate revenue and provide their services to financial institutions and organizations. RegTech fintech companies leverage technology to offer innovative solutions for regulatory compliance, risk management, and reporting, helping financial institutions navigate complex and ever-changing regulatory landscapes.

RegTech fintech companies play a vital role in helping financial institutions comply with regulatory requirements efficiently and cost-effectively. By providing advanced technology solutions, automation, and data analytics, RegTech companies support financial institutions in managing compliance risks and focusing on their core business operations. Understanding the various business models in RegTech enables these companies to tailor their offerings to the specific needs of financial institutions, foster compliance, and contribute to a more transparent and resilient financial ecosystem.

2.16 CLASSIFICATION: BUSINESS MODEL FIELD: OTHER FINTECH

The category of Other in the context of fintech refers to business models in the fintech industry that do not fall directly into the previously mentioned fields. It encompasses innovative fintech solutions that may not fit neatly into specific categories but still play a significant role in transforming the financial services landscape.

The Other fintech field represents a diverse range of innovative solutions that leverage technology to address various challenges and opportunities in the financial industry. These fintech companies drive disruption, create new business models, and provide greater access to financial services for individuals and businesses alike. Understanding the business models in this category allows these fintech companies to capitalize on emerging trends and niche opportunities in the ever-evolving fintech landscape.

2.17 CLASSIFICATION: SERVICE PROVISION FIELD: INTERACTION FINTECH

In the fintech industry, Classification: Service Provision in the context of interaction fintech refers to the specific ways in which fintech companies provide services and facilitate interactions between customers, businesses, and financial institutions through innovative digital channels and platforms.

Interaction fintech plays a crucial role in creating seamless and convenient customer experiences, promoting financial literacy, and fostering meaningful engagements between customers and financial service providers. By leveraging technology to enable efficient interactions and personalized services, these fintech companies contribute to a more customer-centric and digitally empowered financial ecosystem. Understanding the various service provision models in interaction fintech helps these companies design and deliver solutions that align with customers' expectations and preferences.

2.18 CLASSIFICATION: SERVICE PROVISION FIELD: DATA PROCESSING FINTECH

In the fintech industry, Classification: Service Provision in the context of data processing fintech refers to the specific ways in which fintech companies provide services related to processing and analyzing financial data to derive valuable insights, enhance decision-making, and improve the overall efficiency of financial operations.

Data processing fintech plays a critical role in transforming raw financial data into actionable insights, enabling businesses and individuals to make informed decisions and optimize their financial strategies. By leveraging technology and analytics, these fintech companies streamline data processing, reduce manual errors, and enhance the overall data-driven capabilities of the financial industry. Understanding the various service provision models in data processing fintech helps these companies deliver efficient, accurate, and valuable solutions that meet the diverse needs of financial institutions, businesses, and individual customers.

2.19 CLASSIFICATION: SERVICE PROVISION FIELD: MONETIZATION FINTECH

In the fintech industry, Classification: Service Provision in the context of monetization fintech refers to the specific ways in which fintech companies generate revenue by offering products, services, or platforms that facilitate financial transactions, enhance payment processing, or provide value-added financial solutions to customers and businesses.

Monetization fintech companies play a vital role in driving revenue and sustainability in the financial technology sector. By offering valuable financial services, payment solutions, and data-driven insights, these companies create win-win situations for themselves and their customers. Understanding the various service provision models in monetization fintech enables these companies to design effective pricing strategies, explore new revenue streams, and build long-term success in the dynamic fintech landscape.

2.20 CLASSIFICATION: SERVICE AREA FIELD: THE BANKING SECTOR FINTECH

In the fintech industry, Classification: Service Area in the context of the banking sector refers to the specific areas or domains in which fintech companies provide innovative solutions and services to traditional banks or operate as digital banking alternatives. Fintech in the banking sector encompasses a wide range of services that leverage technology to enhance banking

processes, improve customer experiences, and drive operational efficiency.

Fintech companies in the banking sector play a transformative role in modernizing traditional banking services, enhancing customer experiences, and promoting financial inclusion. By offering specialized services in various areas, these companies enable banks to stay competitive, leverage emerging technologies, and meet the changing demands of tech-savvy customers. Additionally, fintech companies operating as challenger banks or neo-banks offer alternative banking options that cater to customers seeking digital-first and user-centric banking experiences. Understanding the diverse service areas within the banking sector fintech helps both traditional banks and fintech companies collaborate effectively and unlock new opportunities for growth and innovation in the financial industry.

2.21 CLASSIFICATION: SERVICE AREA FIELD: CAPITAL INVESTMENT FINTECH

In the fintech industry, Classification: Service Area in the context of capital investment refers to the specific areas or domains in which fintech companies provide innovative solutions and services to facilitate capital investment processes, improve investment management, and offer alternative investment opportunities to individuals and institutions.

Capital investment fintech plays a vital role in democratizing access to investment opportunities, providing investors with more diverse and personalized investment options. By leveraging technology and data-driven solutions, these companies streamline investment processes, offer lower fees, and make investment advice more accessible to a broader range of investors. Additionally, fintech companies in this field contribute to the growth of the alternative investment market and support the development of sustainable finance and impact investing initiatives. Understanding the diverse service areas within the capital investment fintech allows investors and institutions to explore new investment avenues, enhance their investment strategies, and stay ahead in the dynamic world of finance and investments.

2.22 CLASSIFICATION: SERVICE AREA FIELD: THE INSURANCE SECTOR FINTECH

In the fintech industry, Classification: Service Area in the context of the insurance sector refers to the specific areas or domains in which fintech companies provide innovative solutions and services to enhance various aspects of the insurance industry. Fintech in the insurance sector encompasses a wide range of services that leverage technology to improve the insurance process, customer experience, and risk assessment.

Insurance sector fintech plays a transformative role in modernizing the insurance industry, offering more personalized insurance products, improving claims processes, and enhancing risk assessment capabilities. By leveraging technology and data-driven solutions, these companies create innovative and customer-centric insurance experiences. Additionally, insurtech fosters greater transparency and efficiency in the insurance sector, leading to improved customer satisfaction and increased adoption of insurance products. Understanding the diverse service areas within the insurance sector fintech enables insurance companies

to stay competitive, adopt emerging technologies, and provide enhanced services to policyholders in an ever-evolving market.

3. LIMITATIONS OF THE STUDY AND FUTURE RESEARCH POTENTIAL

The present research is based on the doctoral research work carried out by the first author. As part of this article, the researcher has elaborated on the taxonomy that could explain the fintech ecosystem across the world. But this research has the following limitations: due to the space constraints, the researcher could not explain and elaborate on the components of the fintech ecosystem; the taxonomy created is merely a theoretical exercise based on various literature surveys and might not reflect the actual conditions prevailing in the fintech ecosystem; given the dynamic nature of the fintech ecosystem, the taxonomy described above could change over time; the taxonomy described above might not be available in India, as it has been created based on the literature survey of the global fintech ecosystem; the regulatory environment could also significantly affect and alter the taxonomy of the fintech ecosystem described above. These limitations could be addressed by future researchers working on this area.

4. CONCLUSION

Fintech companies use innovative technologies such as blockchain, machine learning, and big data analytics to create new and improved financial products and services that are more accessible, transparent, and personalized for consumers. With the advancement in technology and in the field of finance, the Fintech ecosystem is continuously evolving.

This paper aims to draw up the taxonomy of the Fintech ecosystem that is becoming popular. Though the leading authors Fabozzi and Ratecka have proposed the taxonomy of Fintech ecosystems, both of them appear to be dated in 2020. Our taxonomy considers the development that has taken place in the last 2-3 years in this ever-evolving field of Fintech ecosystem. The suitability of this taxonomy from the research perspective is to be tested by researchers in future research activities.

REFERENCES

- [1] M.B. Imerman and F. Fabozzi, "Cashing in on Innovation: A Taxonomy of FinTech", *Journal of Asset Management*, Vol. 21, pp. 167-177, 2020.
- [2] P. Ratecka, "FinTech-Definition, Taxonomy and Historical Approach", *The Malopolska School of Economics in Tarnow Research Papers Collection*, Vol. 45, No.1, pp. 53-67, 2020.