

Research Article

Fintech In India: Factors Affecting Consumer Adaptation

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Abstract:

FinTech was introduced in India in 2015 and from that point forward the financial sector has arrived at new statures. The amalgamation of the Technical and the Financial sector has resulted in the new era of FinTech Sector (Financial and technical). The introduction of FinTech has made the Payment processes, lending processes, the wealth technology, regulations technology and insurance technology more efficient, advanced and error prone. This FinTech ecosystem paved a better way to implement these services. Indian FinTech Industry is the fastest growing in the world, with 67% of the more than 2100 FinTech entities in operations have been set up in the two start-up hub cities of India, Bengaluru and Mumbai. India's 12.50% remains unbanked which encouraged the Indian government to support the inclusion and development of the FinTech Innovations.

This research explicates various factors influencing the FinTech adaption and usage of these services. These factors were determined using a questionnaire that was filled by 195 random individuals. On these results, regression tables were drafted, and the significance was determined which has been described throughout the paper. Factor analysis was computed, and the interpretation of this analysis and a result of the interpretation was that the FinTech services are user-friendly and easy to use.

This research also highlights some of the FinTech companies of India such as, Paytm, PhonePe, Zest Money and Policy Bazaar along with their general description, trend analysis of their revenue over the years and next five years and employment number. This was stated to accentuate the contribution of these companies towards the growth of the Indian economy, GDP, unemployment crisis, national income and

the per capita income.

Keywords: FinTech Industry, Adoption strategies, Indian economy, Factor analysis, FinTech Technologies.

INTRODUCTION

Fintech is a portmanteau of the terms “finance” and “technology”, The technology and innovation in it challenges the traditional methods, in this industry technology plays a vital role in terms of finance. FinTech is utilized to facilitate companies, business owners and consumers for the better management of their financial operations, processes, and lives by utilizing specialized software that are used on computers and other alike electronic devices. Initially FinTech arose in the 21st century, it was for the most part utilized by monetary establishments, it was utilized for innovation utilized at the back-end frameworks of these organizations. As the FinTech thrived across the globe, it had made a shift to a purchaser amicable worldview. FinTech is now inclusive of a spectrum of financial services such as Investment management, Cryptocurrency, retail banking, education, fundraising and non-profit organizations, etc. The first global FinTech which was popularly in use even today is PayPal. As indicated by EY's 2017 FinTech Adoption Index, One-Third of purchasers use no less than at least two FinTech administrations and those customers are likewise progressively mindful of FinTech as a piece of their day by day lives.

It transcendently works by unbundling contributions by such firms and making new business sectors for finance industry by extending monetary consideration and utilizing innovation to reduce on functional expenses. The financial business use FinTech for both Back-end measures and Behind-the-scenes observing of record exercises, for instance, the application used to check the bank balance. Organizations utilize these mechanical administrations for the installments handling, internet business exchanges, bookkeeping. In the light of the current worldwide pandemic an ever-increasing number of organizations are adjusting FinTech to empower highlights like contactless installments and comparative other monetary capacities.

India has arisen as Asia's greatest objective for FinTech bargains, trailed by China. With around 33 arrangements esteemed at \$647.5 million. India has the most elevated interest in the FinTech fragment. The accessibility of an talented labor force and the presence of most pieces of monetary administrations and innovation eco-framework makes Bengaluru and Mumbai the main two settled urban areas for FinTech organizations in India. A recent report by Boston Consulting Group (BCG) that states India will realize a FinTech sector valuation of USD 150-160 Billion by 2025, further reinstates India's strong growth potential in the coming years. India has seen an extensive rise in the number of FinTech firms in a very short period. Currently around 2100 FinTech firms exist from which 67% have been set up in the past 5 years.

The future of FinTech in India is optimistic, as noted in the Mc Kinsey Report “The future of India will continue to see both vertical and horizontal growth”. The horizontal growth will involve existing technologies becoming more accessible to the greater part of the country, thereby can be used by several people, Whereas the vertical growth will implicate the emergence of new financial technologies that can give people new platforms to trade, invest, save money, and restructure their finances. Some the major Indian Fintech Start-ups are Paytm, Policybazaar, MobiKwik, Zebpay, etc.

LITERATURE REVIEW

Guild (2017) Studied the FinTech and the Future of Finance, How the technology affects the financial sector and how the advancement and innovation affect the technological innovations in FinTech. Some of the examples of FinTech innovations include digital cash transfer services in India and Kenya, etc. The focal point of his paper is how FinTech has approached finance for millions of people in developing economies, such as India and China, with an angle of the role of regulatory framework to aid that process. He analyzed that Technological innovation has the capacity to revolutionize global finance by making FinTech more inclusive, decentralized and egalitarian. He also concluded by suggesting that intervention made forcefully to shape the market through policymaking and regulatory intervention could result in undesired effects, with no guarantee that the policy goal of expanded access to finance would be accomplished.

Rajeswari and Vijai (2021) studied the Fintech Industry in India: The Revolutionized Finance Sector. They analyzed, FinTech has changed the customary monetary establishments and is continuously forming the monetary area, their exploration paper breaks down the FinTech Adoption, FinTech News Network, Indian FinTech industry design, and FinTech Start-ups in India, and FinTech Trends in India. The examination furnished with an outline of FinTech Industry, and government supporting drive on FinTech Industry. FinTech furnishes the clients with faster monetary administrations and item. FinTech Industry advancement is fundamental for both Indian and worldwide monetary area.

Vijai (2019) contemplated that the FinTech in India: Opportunities and Challenges, the focus of his paper is the opportunities and the challenges in the FinTech Industry, the evolution of the FinTech technology in India. FinTech facilitates a more secure, fast mode of transaction for the user. His research paper shows that FinTech industry change for the financial services in India. The Indian Government promotes FinTech Industry and new ideas. FinTech is advantageous for the Indian Economy as it is secure, faster, user-friendly and as it reduces costs for financial services thereby making it economical.

Shree, Pratap, Saroy, and Dhal (2021) analyzed those factors such as perception and trust in digital payments, and experience with online frauds influence the payment behavior of their key demographic. Though different variables like gender, pay, and age are the dependable components which decide this decision of utilizing these installment entryways. Alongside these elements an individual's discernment towards the FinTech and their trust on these innovative progressions assumes an indispensable part. With the expanding cash use at the macroeconomic level their discoveries illuminate it the ascent of money exchanges. This investigation has introduced in five areas relating to existing writing, information and system test rundown details, experimental discoveries and end and strategy suggestions.

Dwivedi (2020) studied FinTech an inclusive technological framework for the Indian Financial Ecosystem. In this paper the author has contemplated FinTech in the Indian Financial Ecosystem (IFES), emphasizing the social, economic, Technical, and regulatory drivers which have allowed FinTech to be one of the indispensable components of the Financial Framework in India. The author also stressed on keyword "Financial Inclusion". The role of the regulatory bodies and policymakers in the developing the Financial Ecosystem of the emerging economies such as the Indian Economy. A compact review of two of the latest emerging technological domains in FinTech, viz., Blockchain, and Artificial Intelligence and how they are changing the IFES has also been provided.

Kumar, Painoli, Paul, Dhinakaran, Vijai (2021) analyzed Impact of Fintech on the Profitability of Public and Private Banks in India. They studied how the FinTech evolution has facilitated the Banking sector of India. The main purpose of their study is the impact of FinTech on the Profitability of Private and Public sector Banks in India. The source data for their study had been collected by PwS, KPMG, RBI, and

SSRN. The three aspects their paper revolves around are the historical evolution, the market size and the growth. They analyzed that the upward development of FinTech industry in India will witness the rise of completely new monetary innovations that gives individuals new instruments to exchange, contribute, set aside cash, and rebuild their accounts.

Badrudin (2017) contemplated Conceptualization of the Effectiveness of Fintech in Financial Inclusion. She introduced an exploration paper that is conceptualized and depends on the auxiliary information gathered from different assets like diaries, books, sites, and so on She proposed that the advancement of FinTech has decreased expenses as well as builds effort and entrance of the Microfinance model. She closed her investigation by expressing that the current situation is apparent about the viability of the FinTech. Even though there are difficulties looked by this industry

Mohanasundaram, Sathyanarayana, and Rizwana (2021) contemplated that Disturbances on India's FinTech scene: The 5G wave. They investigated that with the 5G, the fifth-Generation versatile organization the whole FinTech standpoint has been disturbed, the 5G is relied upon to make another FinTech biological system in India. 5G innovation offers expected highlights to empower the FinTech Industry to get a huge change the banking and money area in India. In this investigation the creators have inspected the impact of 5G on the developing bank advancements, with an uncommon consideration towards FinTech.

Yoon, Jung Ryol Kim, Yen Yoo You, Kim (2016) studied the User Behaviors for Consulting of Fintech Companies, they utilized the casual analysis method through various linear regression analysis as a statistical analysis method. This method had a leverage of analyzing the isolated influence between variables affecting the dependent variables. Their findings stated that as different users from various countries had different cultures as well as social perceptions, the responses for the dependable variables differed to the respective countries. Thus, the companies who want to establish a global market entry must device an entry strategy and consumer acquisition and expansion strategy depending upon the country they want to expand or establish their business.

Shashidhar K.J (2020) analyzed Regulatory Sandboxes: Decoding India's Attempt to Regulate Fintech Disruption. He studied that the mechanical advancements are disturbing the conventional monetary area, and the RBI's administrative sandbox practice is an endeavor to be more coordinated and assimilate a portion of this interruption. His paper analyzes the present status of administrative sandboxes in India and assesses the triumphs and difficulties toddler his somewhat new administrative system and apparatus. Alongside this, his paper likewise illuminates the hole the business sees as key and layouts future assumptions. Taking everything into account it remarks on the explanation of the controllers need to assemble other conventional instruments of empowering development.

Kandpal and Mehrotra (2019) studied financial inclusion: The role of FinTech and digital financial services in India. As the credit only exchanges are acquiring prevalence step by step, when the market becomes globalized and the advancement of the financial area an ever-increasing number of individuals moves from money to a credit only framework. The credit only framework isn't only a need yet additionally a need of the present request. The alterations to the financial demonstration unmistakably show the Government, RBI and Banking organizations purpose to guarantee stable development of the economy by guaranteeing a sound BFSI. With help from the Government, enormous innovation organizations are utilizing better approaches for contacting the rustic masses and instruct them about the different monetary items, hence guaranteeing that their well-deserved pay is appropriately contributed. Regularly client's certainty and confidence in customary banking framework will make clients less inclined to receive new advancements. New advancements won't be fruitful until clients are happy with

protection and security angles. It additionally requires some an ideal opportunity to acquire certainty among the clients even it is simpler and less expensive than the conventional strategies.

Krishna Priya and Anusha (2019) contemplated Fintech Issues and Challenges in India. At this start the article centers around the essential sorts of monetary innovations and their capacities and furthermore talks about the chances and difficulties it has in the Indian business climate. In all sections of monetary administrations there is a plenty of balance Techs arising in India. By noticing the speed of balance specialists rise, the way that India has huge pioneering potential can't be denied. There are near 1500 Fin Tech startup firms working in India, and of these, almost half were begun in the previous two years. Both actually and monetarily the balance tech firms should be prepped well. We can see a greater part of effective new businesses in an installments space, and it is normal the equivalent with the other monetary portions too. The balance tech industry needs to be energized further with various drives by the government and other administrative bodies.

ANALYSIS

Tables showing the regression between the independent variables Age and Gender with the dependent variable “How often you use FinTech services”

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Gender, Age ^b	.	Enter

- a. Dependent Variable: How frequently do you use these apps
- b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Durbin-Watson
1	.075 ^a	.006	-.005	.978		1.723

- a. Predictors: (Constant), Gender, Age
- b. Dependent Variable: How frequently do you use these apps

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.993	2	.496	.519	.596 ^b
	Residual	176.077	184	.957		
	Total	177.070	186			

- a. Dependent Variable: How frequently do you use these apps
- b. Predictors: (Constant), Gender, Age

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.758	.433		6.369	.000
Age	.105	.116	.067	.903	.368
Gender	.092	.146	.047	.629	.530

a. Dependent Variable: How frequently do you use these apps

Residuals Statistics^a

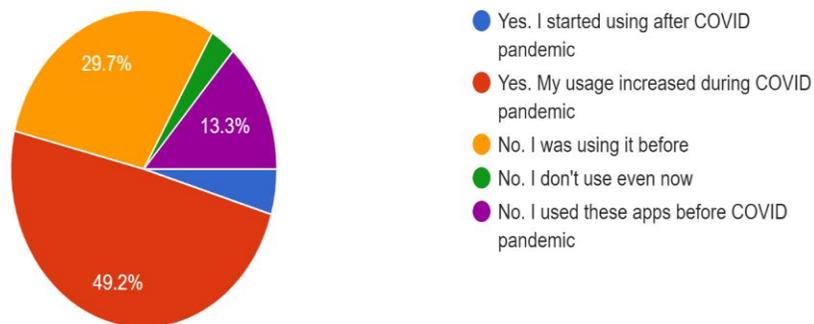
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.05	3.36	3.19	.073	187
Residual	-2.362	1.940	.000	.973	187
Std. Predicted Value	-1.997	2.321	.000	1.000	187
Std. Residual	-2.415	1.983	.000	.995	187

a. Dependent Variable: How frequently do you use these apps

The above tables indicate the relationship between Age and gender of a person and how that influences the frequency of usage of FinTech services. The sig. value from the regression table appears to be 0.368 (Age) and 0.530 (Gender). This indicates that the age and the gender does not influence the frequency of the FinTech services usage.

The usage of these FinTech services have been altered due to the impact of the Covid-19 Pandemic, the following Pie chart is a result of a survey conducted via questionnaire.

Did COVID 19 affected your usage of these apps
195 responses



As seen above, 49.20% of the consumers have increased and 4.60% have started using the FinTech applications to encourage Cash-less transactions, which was highly promoted by the world Governments

and health professionals. This caused a boom in the FinTech Industry. The pandemic enlivened all the age groups to inculcate the FinTech services in their transactions.

This growth in the usage of FinTech has been Gender neutral, which signifies that FinTech services are not only used by Corporates but also by consumers for household transactions such as Grocery, Rental payments, Transit expenses, daily wages to house helpers, gardeners, etc.

This argument can be backed by the article “Statista- India female labor force participation rate, only 20.7% are a part of working class” The rest of them use FinTech services only for household expenses.

Table demonstrating the regression relationship between the independent variables Age and Gender with the dependent variable “Are you willing to try new FinTech Applications”

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.189 ^a	.036	.025	.741	1.687

- a. Predictors: (Constant), Gender, Age
- b. Dependent Variable: Adaption of new FinTech

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.741	2	1.870	3.407	.035 ^b
	Residual	101.008	184	.549		
	Total	104.749	186			

- a. Dependent Variable: Adaption of new FinTech
- b. Predictors: (Constant), Gender, Age

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.355	.328		4.133	.000
	Age	-.021	.088	-.018	-.239	.811
	Gender	.278	.111	.185	2.512	.013

- a. Dependent Variable: Adaption of new FinTech

The above tables indicate the relationship between Age and gender of a person and how that influences the Adaptation of new FinTech applications. The sig. value from the regression table appears to be 0.811 (Age) and 0.013 (Gender). This indicates that the age of the person densely influences the variable “Are you willing to try new FinTech services” (adaptation to new FinTech services) but the Gender does not influence the variable.

Factor Analysis

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Adequacy.	Measure of Sampling	.687
Bartlett's Test of Sphericity	Approx. Chi-Square df	906.915 28
	Sig.	.000

KMO test is significant with a value of .687.

Communalities

	Initial	Extraction
Ease of usage	1.000	.869
User-Friendly	1.000	.878
Availability of device	1.000	.751
Personal information secure	1.000	.676
Trust-worthy services	1.000	.707
Fraud is easily committed	1.000	.661
FinTech related risk	1.000	.731
Adaption of new FinTech	1.000	.125

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.173	39.659	39.659	3.173	39.659	39.659
2	2.226	27.823	67.482	2.226	27.823	67.482
3	.934	11.670	79.152			
4	.832	10.397	89.549			
5	.324	4.055	93.604			
6	.256	3.199	96.803			
7	.161	2.012	98.815			
8	.095	1.185	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix^a

	Component	
	1	2
Ease of usage	.787	.499
User-Friendly	.794	.497
Availability of device	.727	.472

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Personal information secure	.716	-.403
Trust-worthy services	.768	-.342
Fraud is easily committed	-.271	.767
FinTech related risk	-.424	.743
Adaption of new FinTech	-.192	.296

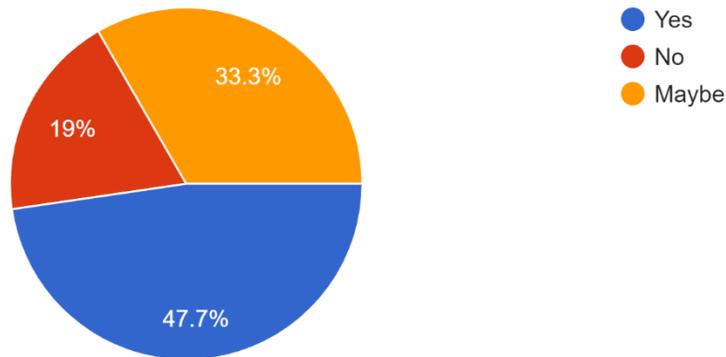
Extraction Method: Principal Component Analysis.

a. 2 components extracted.

According to the survey conducted the pie chart describes the willingness to adapt thereby providing a concluding proof towards the above argument.

Are you willing to try new FinTech Applications

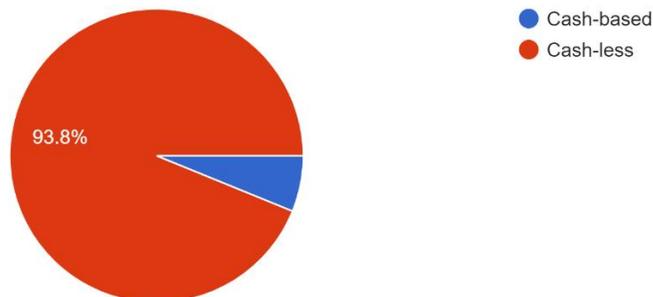
195 responses



Some of the other findings from the survey that was conducted in respect of this research paper which might give a more descriptive picture of survey (Questionnaire) are as follows:

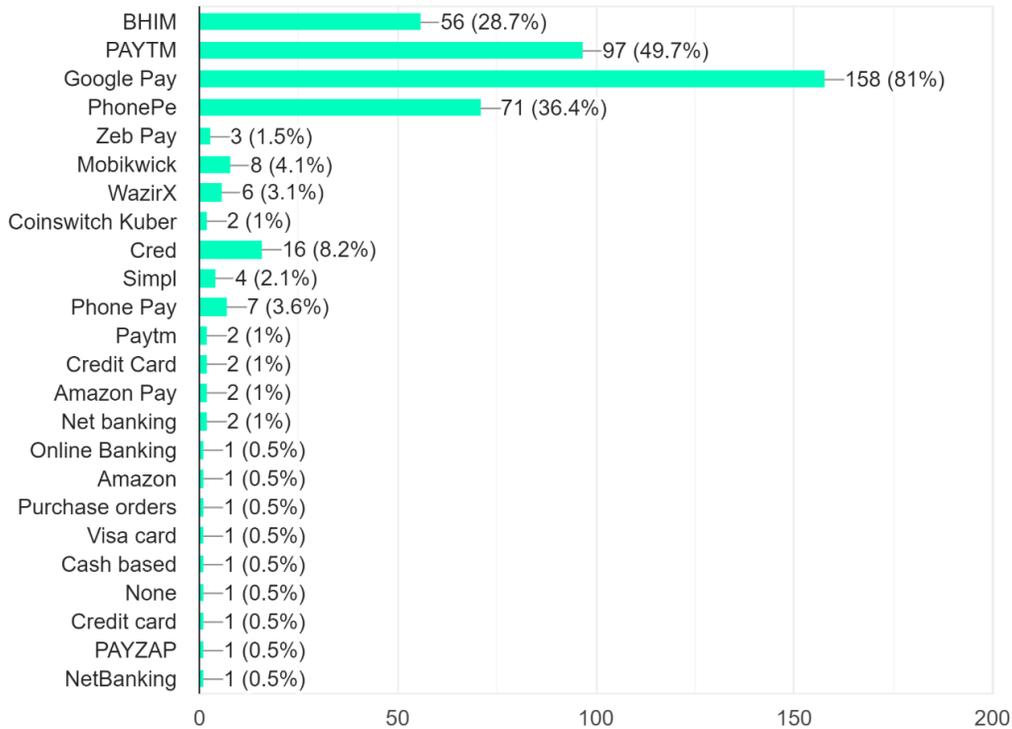
Mode Of Transactions

195 responses



If you answer to previous question was Cash-less, please specify the app you use

195 responses



Some of the notable responses to one of the questions asked “Where do you see India's FinTech Industry in the next 5 years” are stated below

Sankalp Chapalgaonkar stated “I think one important point here to mention is the advancements in crypto space. India is still struggling to gain the confidence of customers considering the massive rate shifts and volatility. But five years down the line I believe this is going to be one the main source of transaction (where there is no chance of hacking). Even government would want the piece of the pie and it might introduce something like GovCoin. Also, with the second layer chain coming up alongside main Ethereum chain (Matic or Polygon Network), I think it will be efficient for customers to carry out faster and more reliable transactions.”

Priti Priyash Gupta states “Seeing the current situation after the pandemic hit. I would say that India is going to be the cashless countries amongst others in the world. Everything can be done within the applications.”

Pramod states “A radical transformation on the traditional financial services, emergence of innovations that will facilitate holistic financial services over single mobile interfaces.”

Manish Rewanwar states “It is now common man's tool for financial transaction. Even local vegetable vendors are using it for transactions. It can bring tax revolution also”

Amit Sidham states “The accelerated growth has happened at time of demonetization. Growth now will be at par with increase in smart phone users. Even the fintech players have stopped incentivizing

customers. This could be an indicator of slowing growth. And the industry will see consolidation like telecom with few players remaining.”

Pallavi states “FinTech industry will definitely flourish in next 5 years. It will be the most convenient way of dealing money. People should be given some education on the safety aspects of it. So that these transactions will be safer.”

Influence of Gross Domestic Product (GDP) due to the acceleration of FinTech in India

The FinTech industry was introduced in India in 2015, The GDP in that year was 2.1 lakh crores USD (2015) and in 2016 there was a rise of 7.10%. The table below shows the GDP % of the years 2015 to current available data. The following data is an extraction from the Ministry of Statistics and Programme Implementation (Government of India).

Year	Quarter	Financial, real estate & Professional services	GDP
2015	Q1	11.3	11.3
	Q2	11.3	9.9
	Q3	10.9	9.2
	Q4	11	11.5
2016	Q1	13.4	12.2
	Q2	13	11.9
	Q3	7.2	11.5
	Q4	8.7	11.6
2017	Q1	7.8	10.1
	Q2	4.7	10.7
	Q3	10.2	12
	Q4	7.9	11.2
2018	Q1	12.5	13.9
	Q2	13.6	11.9
	Q3	13.2	12.2
	Q4	13.8	4.7
2019	Q1	13.2	9.6
	Q2	11.2	6.2
	Q3	8.3	6.5
	Q4	8.7	8.8
2020	Q1	-5.2	-22.3
	Q2	-7.6	-4.4
	Q3	9.9	5.2
	Q4	11.4	8.7
2021	Q1	10.6	31.7

The GDP from the year 2015 has seen an upward inclination which suggests that the FinTech industry has contributed towards the GDP growth. The years 2019 and 2020 is drastically influenced by the current Covid-19 Pandemic.

FinTech industry not only contributes to the GDP, but it also contributes to the Employment crisis, CSR, National income and more. Some of the companies that are contributing to the economy are as follows:

PAYTM

Paytm (a partial abbreviation for "**pay through mobile**) is an Indian MNC that represents considerable authority in computerized installment framework, web-based business and money, situated in Noida.

Services	<ul style="list-style-type: none"> • Payment system • Mobile payments • Online shopping
Revenue	₹3,281 crore (US\$460 million) (FY 2020) ₹3,115 crores (USD \$426 Million) (FY 2019) ₹774 crores (USD \$106 Million) (FY 2018) ₹814 crores (USD \$111.40 million) (FY 2017) ₹899 Crores (USD \$123 million) (FY 2016)
Net income	▼ ₹-2,597 crore (US\$-360 million) (FY 2020)

Number of employees (2017) – 13,000.

CSR Activities: Republic Day Campaign for the underprivileged soldiers and families.

Carbon credits system for e-waste.

Independence Day Campaign for India-Skilled training of youth and many more.

PhonePe

Using PhonePe, users can send and receive money, recharge mobile, DTH, data cards, make utility payments, pay at shops, invest in tax saving funds, liquid Funds, buy insurance and mutual funds and gold.

Services	<ul style="list-style-type: none"> • Digital payments • Financial services • Advertising • Merchant payments
Revenue	₹372 Crores (FY 2020) ₹245.80 crores (FY 2019) ₹49.03 crores (FY 2018) ₹3.02 crores (FY 2017) ₹0.19 crores (FY 2016)

Number of Employees: 3470 (www.growjo.com)

ZEST MONEY

Zest Money is built as a platform that can meaningfully improve the lives of more than 300 million households in the country, who currently have no access to credit cards or any other formal financing options because of insufficient credit history.

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Services	<ul style="list-style-type: none">• EMI payment platform• Card less EMI
Revenue	₹72 crore (FY 2020-21) ₹65.87 crores (FY 2019) ₹21.71 crores (FY 2018)

Number of employees (June 2020): 303 (www.craft.co)

The presence of this company is not widespread enough to make a drastic impact on the economy, but as the company is reaching new heights and holds a great potential of growth, it would soon make big contributions to the economy.

POLICY BAZAAR

Policybazaar is an Indian insurance aggregator and multinational financial technology company based in Gurgaon. It gives a computerized stage - site and application - where clients look at monetary administrations from significant insurance agencies.

Services	<ul style="list-style-type: none">• Term life insurance• Health insurance• Investment plans• Retirement plans• ULIPs
Revenue	₹771.29 crore (FY 2020) ₹310.3 crore (FY 2019) ₹158.3 crore (FY 2018) ₹49.06 crores (FY 2017) ₹213 crores (FY 2016)

Number of employees: More than 10,000