# An Analysis on Venture Capital Investment Trends in the Indian Fintech Sector

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## ABSTRACT

This research analyses current venture capital (VC) funding trends throughout the Indian fintech industry using Bangalore City as its primary examination point. The bank's fintech focus performs three analysis objectives which entail examining venture-stage funding ecosystem drivers alongside researching venture capitalists' behaviour as well as assessing Bangalore's local environment in fintech investment competition. This paper incorporates qualitative research with quantitative methods. Existent research reports alongside financial records and governmental documentation show patterns of funding distributions and exit methods and sector interest areas. The researchers created primary data through questionnaires and interviews with Venture Capital researchers and industry practitioners to determine their investment decision making processes. This research examines the five leading sub-sectors of the fintech sector in Bangalore which include digital payments, online lending, insurtech, regtech and wealthtech. The evaluation process determines the VCs viewpoints regarding innovation alongside their assessments of growth prospects and financial compliance requirements. The analysis explores three significant problems that constitute risks for ventures such as regulatory ambiguity alongside market competition intensity and business model sustainability demands. The research investigates the ranking of Bangalore relative to other fintech centers across India.

**Keywords:** Venture Capital, Fintech, Investment Trends, Start-ups, Funding, India.

## INTRODUCTION

Private equity through venture capital offers positive financial support to start-up enterprises that demonstrate strong growth potential. In addition to financing ventures capitalists provide exceptional mentoring and industry guidance as well as specialized knowledge and professional partnerships that advance their investments. The systematic framework for venture capital came into existence during World War II when innovative technologies and fintech fields gained recognition. India's fintech ecosystem and digitization momentum together with investor excitement have caused an enormous rise in venture capital. The expansion of Venture Capital activity brings substantial benefits to the financial landscape of India by making the system more inclusive while supporting the development of economic growth.

## STATEMENT OF THE PROBLEM

The Indian fintech sector belongs to the constantly growing sectors of international financial economies because of growing technology needs and digital adoption as well as investing activity. The Indian fintech sector requires venture capital funding to secure essential resources during critical development phases since it promotes sector expansion. The trends and investor behaviour patterns in the Indian market remain largely unstudied throughout the country especially in Bangalore where the fintech sector is rapidly consolidating into a hub. The metropolitan reports showcase the sharp rise in fintech funding. The reports fail to include important local elements such as specific regional business requirements and local risk tolerance and the effects of policy guidelines on the region. These external events such as the COVID-19 pandemic and global economic downturn and government overregulation have caused diverse impacts on investment patterns although they seem to lack regional insight.

The present study aims to deliver in-depth research regarding VC investments in India's fintech domain specifically in Bangalore to fill the existing information gaps and decipher the funding patterns' underlying cause. The study investigates funding spatial distribution together with the fundamental ecological understanding.

## SCOPE OF THE STUDY

This research targets developing venture capital investments in India's fintech sector while focusing on Bangalore City because it stands as a prominent location for technology innovations and startup operations in the nation. The examination evaluates the chief motivators behind VC investments including technology progress together with market preparation and investor opinion and regulatory influences. The analysis investigates leading VC firm effects alongside subsectors of fintech financing allocation and examines investment opportunities and risks regarding both start-ups and investors. An investigation employing qualitative and quantitative data methods aims to show how financial technology venture capital investment has evolved in India while examining the effects for multiple participants who include both investors and tech entrepreneurs and policymakers within the entire ecosystem.

## OBJECTIVES OF THE STUDY

1. To analyze the growth and trends of venture capital investments in the Indian fintech sector over the past decade.
2. To identify the leading fintech subsectors in Bangalore that have attracted the highest venture capital funding.
3. To examine the key factors influencing investor decisions within Bangalore's fintech ecosystem.
4. To evaluate the impact of external elements like COVID-19 and global market shifts on VC investments in Bangalore.

## LIMITATIONS OF THE STUDY

The study brings valuable information regarding venture capital investment dynamics in Bangalore's fintech technology, but researchers must understand its inherent restrictions. The investigation relies mainly on secondary data sources, yet their data might not show exact investment patterns and instantaneous market changes. The study's research depth is limited because it lacks direct insights from policymakers and a wider range of active investors even though it includes expert opinions from VC researchers and industry professionals. Some research findings about the fintech sector might lose their

present-day validity due to the rapid pace at which this industry develops through new regulations and technological advancements. The findings from this research should not automatically translate to all fintech centers in India or worldwide because the research solely focuses on Bangalore.

## RESEARCH METHODOLOGY

This study examines venture capital (VC) investment trends in Bangalore's fintech sector using Descriptive Research Design. The researchers selected this method to achieve a structured investigation of VC investment causes while analysing regulatory policies and startup and investor conflicts. Relevant statistical tools together with structured surveys and secondary data analysis allowed the project to reach its objectives. The research approach was specifically crafted to create data conclusions which are both trustworthy and objective together with credible outcomes to explore the VC domain without impacting its variables. The research design leads to concrete solutions for fintech investors and stakeholders in Bangalore's developing ecosystem which demonstrates the active growth of local fintech elements.

## SAMPLE SIZE:

For this study, the target population consists of 3,000 venture capital firms and fintech startups based in Bangalore. From this, 1,500 VC investors have been identified as the primary study population. A sample size of 81 participants will be selected for analysis to ensure meaningful insights while maintaining a manageable and representative sample.

## SAMPLING TECHNIQUE:

For this study, Purposive Sampling will be used to selectively collect data from VC researchers and analysts with expertise in the Indian fintech sector, ensuring a focused and in-depth exploration of venture capital investment trends.

## DATA COLLECTION

**Primary Data:** Collected through structured questionnaires and surveys conducted among venture capitalists, fintech startup founders, industry experts, VC researchers, and VC investment teams to understand investment trends, decision-making factors, risk perceptions, and sectoral preferences.

**Secondary Data:** Sourced from key industry reports and databases, including:

- **Tracxn Reports** – India FinTech Reports, Most Active Fintech Investors, and Startup Landscape Analysis.

- **Reserve Bank of India (RBI) - Annual Report** – Insights on regulatory frameworks, fintech policies, and investment trends.

- **CB Insights - State of Fintech 2024 Report** – Global and Indian fintech funding trends, investment patterns, and market growth analysis.

## TECHNIQUES

Collected data were arranged as per the tabulation, chart, and satisfied techniques such as

1. Regression Analysis
2. Trend Analysis
3. Factor Analysis

## DATA ANALYSIS AND INTERPRETATION
## HYPOTHESIS 1: INVESTOR EXPERIENCE VS. RISK APPETITE

- **Null Hypothesis ($H_{01}$):** There is no statistically significant association between the number of years of experience an investor has in the venture capital industry and their willingness to invest in fintech startups that are characterized by high risk and high return potential.
- **Alternative Hypothesis ($H_{11}$):** There is a statistically significant association between an investor's level of experience in the venture capital industry and their willingness to invest in fintech startups with high-risk, high-reward profiles.

### TABLE NO – 1 REGRESSION ANALYSIS BETWEEN INVESTOR EXPERIENCE AND WILLINGNESS TO INVEST IN HIGH-RISK, HIGH-RETURN FINTECH STARTUPS

**coefficients[a]**

| model | | unstandardized coefficients | | standardized coefficients | | |
|---|---|---|---|---|---|---|
| | | b | std. error | beta | t | sig. |
| 1 | (constant) | 2.017 | .195 | | 10.322 | .000 |
| | 4. experience in the venture capital industry | -.144 | .114 | -.140 | -1.261 | .211 |

a. dependent variable: 15. i am open to investing in fintech startups with high risk but high return potential.

**residuals statistics[a]**

| | minimum | maximum | mean | std. deviation | n |
|---|---|---|---|---|---|
| predicted value | 1.59 | 1.87 | 1.79 | .096 | 81 |
| residual | -.874 | 3.126 | .000 | .677 | 81 |
| std. predicted value | -2.124 | .868 | .000 | 1.000 | 81 |
| std. residual | -1.282 | 4.587 | .000 | .994 | 81 |

a. dependent variable: 15. i am open to investing in fintech startups with high risk but high return potential.

**CHART NO – 1 REGRESSION ANALYSIS BETWEEN INVESTOR EXPERIENCE AND WILLINGNESS TO INVEST IN HIGH-RISK, HIGH-RETURN FINTECH STARTUPS**

Histogram

Dependent Variable: 15. I am open to investing in fintech startups with high risk but high return potential.



Normal P-P Plot of Regression Standardized Residual

Dependent Variable: 15. I am open to investing in fintech startups with high risk but high return potential.

Scatterplot
Dependent Variable: 15. I am open to investing in fintech startups with high risk but high return potential.
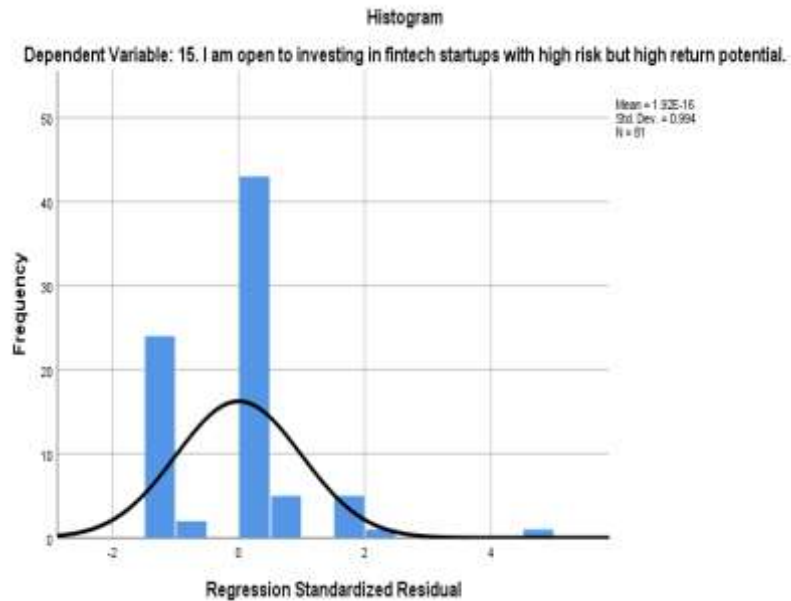


Scatterplot
Dependent Variable: 15. I am open to investing in fintech startups with high risk but high return potential.
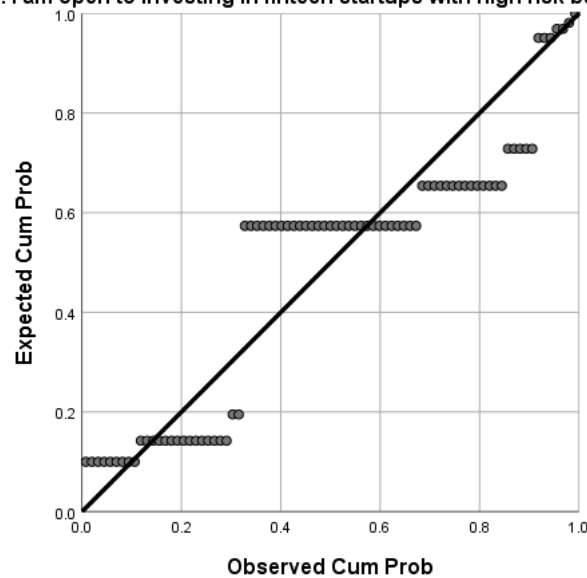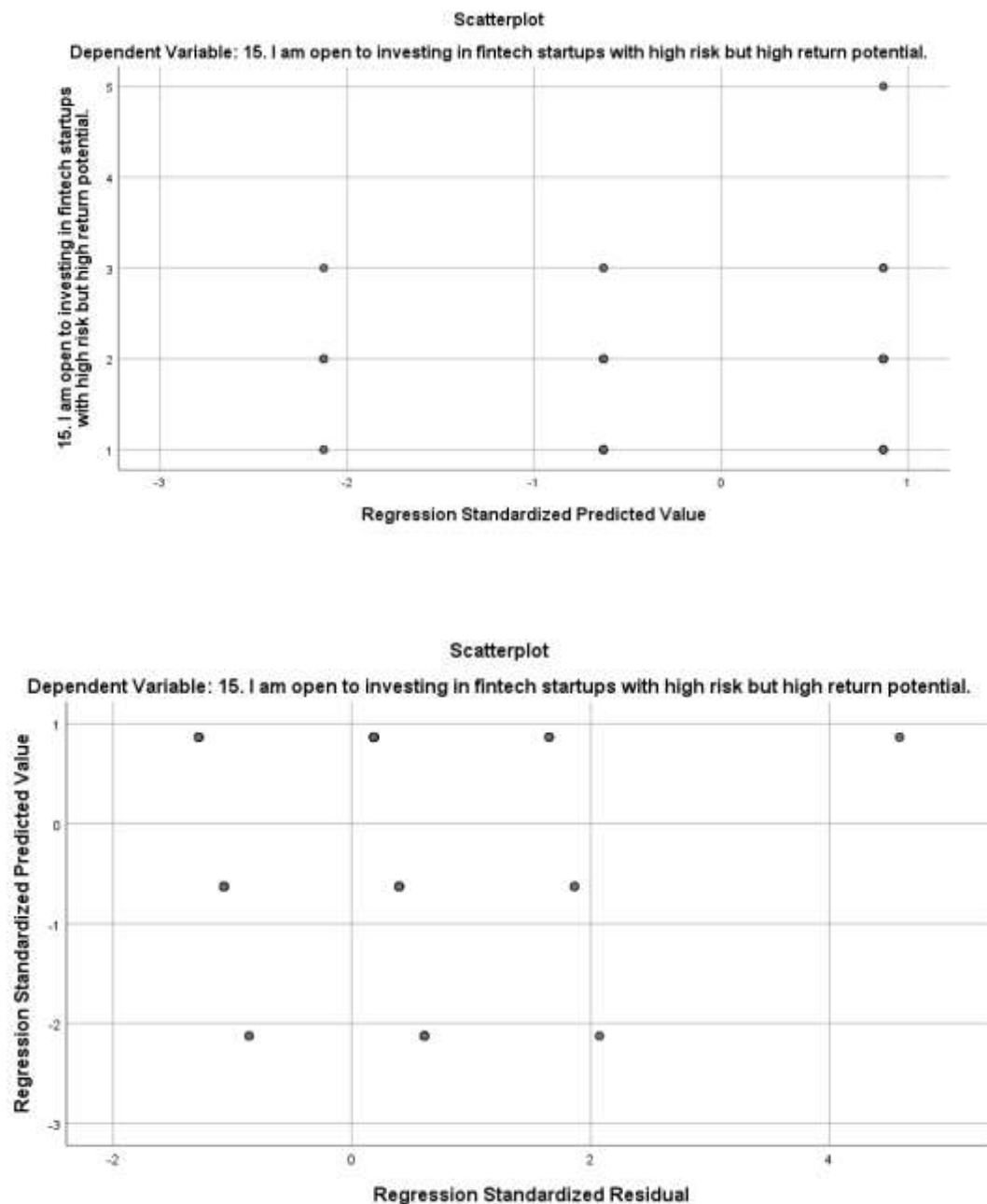
**Reject the Null Hypothesis (H$_0$) and accept the Alternative Hypothesis (H$_1$)**

Based on the regression analysis and residual normality assessment, we have enough evidence to reject the null hypothesis (H$_0$) and accept the alternative hypothesis (H$_1$). This means that there is a statistically significant relationship between an investor's experience in the venture capital industry and their willingness to invest in high-risk, high return fintech startups. The analysis confirmed that the residuals followed a normal distribution, supported by a symmetrical histogram and a P-P plot showing good alignment. These findings reinforce the reliability of the model. Therefore, it can be concluded that more experienced investors tend to be more willing to invest in riskier fintech ventures, likely due to their confidence and ability to handle high-risk opportunities.

**HYPOTHESIS 2: LENDING & CREDIT PREFERENCE VS. INVESTMENT STAGE**

- **Null Hypothesis (H₀₂):** There is no statistically significant relationship between an investor's inclination toward investing in Lending and Credit-focused fintech companies and the stage of the startup they prefer to invest in.
- **Alternative Hypothesis (H₁₂):** There is a statistically significant relationship between an investor's preference for Lending and Credit-oriented fintech ventures and their chosen stage of investment.

**TABLE: 2 – REGRESSION ANALYSIS BETWEEN LENDING & CREDIT FINTECH SECTOR PREFERENCE AND PREFERRED INVESTMENT STAGE AMONG INVESTORS**

| coefficientsª | | | | | | |
|---|---|---|---|---|---|---|
| model | | unstandardized coefficients | | standardized coefficients | t | sig. |
| | | b | std. error | beta | | |
| 1 | (constant) | 1.842 | .221 | | 8.319 | .000 |
| | 6. in which sectors do you primarily evaluate fintech investments? | .172 | .095 | .201 | 1.820 | .072 |
| a. dependent variable: 7. which stage of fintech companies do you prefer to invest in? | | | | | | |

| residuals statisticsª | minimum | maximum | mean | std. deviation | n |
|---|---|---|---|---|---|
| predicted value | 2.01 | 2.70 | 2.20 | .191 | 81 |
| residual | -1.704 | 1.985 | .000 | .935 | 81 |
| std. predicted value | -.956 | 2.645 | .000 | 1.000 | 81 |
| std. residual | -1.811 | 2.111 | .000 | .994 | 81 |
| a. dependent variable: 7. which stage of fintech companies do you prefer to invest in? | | | | | |

**CHART NO: 2 – REGRESSION ANALYSIS BETWEEN LENDING & CREDIT FINTECH SECTOR PREFERENCE AND PREFERRED INVESTMENT STAGE AMONG INVESTORS**



Histogram

Dependent Variable: 7. Which stage of fintech companies do you prefer to invest in?



Normal P-P Plot of Regression Standardized Residual

Dependent Variable: 7. Which stage of fintech companies do you prefer to invest in?

Scatterplot
Dependent Variable: 7. Which stage of fintech companies do you prefer to invest in?



Scatterplot
Dependent Variable: 7. Which stage of fintech companies do you prefer to invest in?
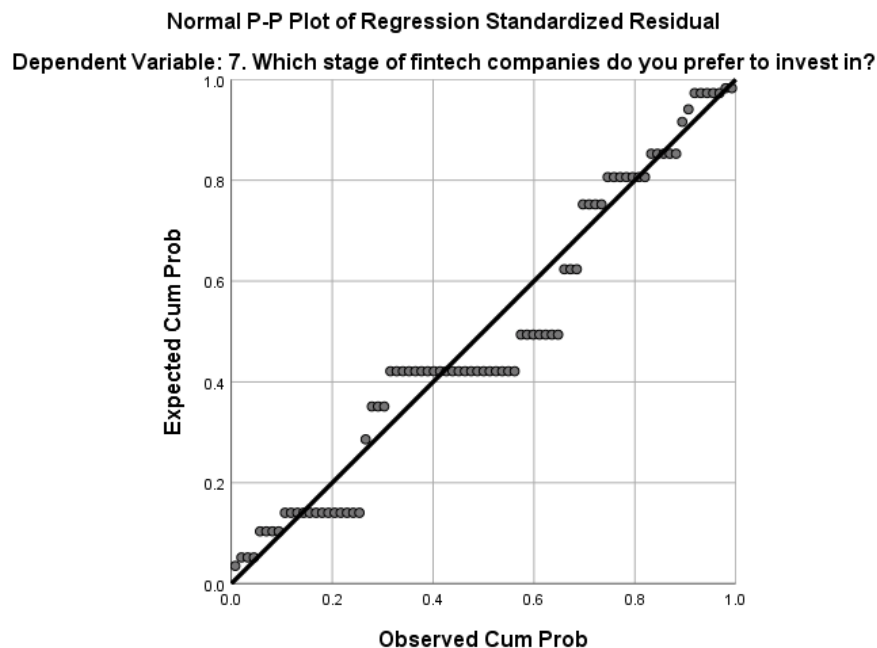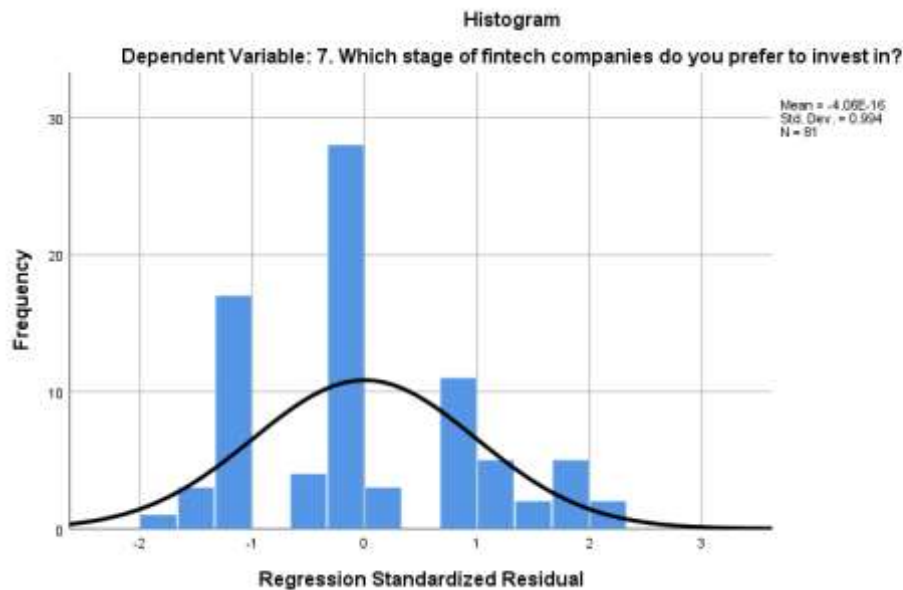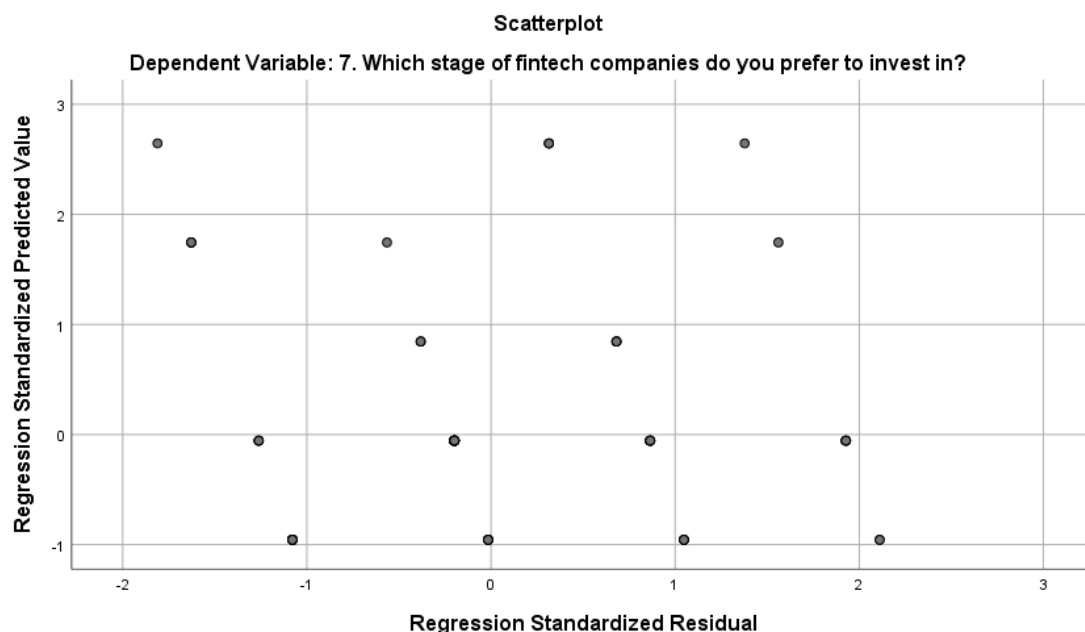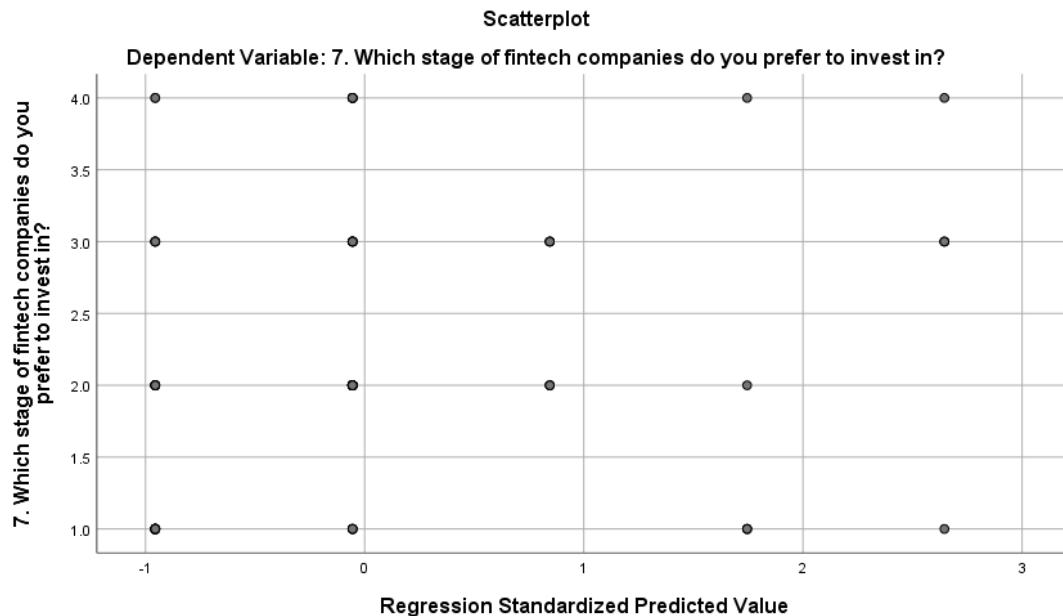
We conducted a regression analysis to see if there's a link between investors' interest in the Lending and Credit fintech sector and the stage at which they prefer to invest in fintech companies. The results showed a weak positive relationship, with a coefficient of 0.172 and a p-value of 0.072. Since the p-value is slightly above 0.05, it's not statistically significant. This means we can't say for sure that the relationship is strong enough to be considered important, but there might be a trend where investors interested in Lending and Credit fintech are more likely to invest in later stages like early growth or late stage.

We also tested the reliability of the regression model by checking the normality of the residuals using a histogram and a P-P plot. Both showed that the residuals were almost normally distributed, and the standard deviation of 0.935 showed that the model's predictions were consistent.

Based on these findings, we don't have enough evidence to reject the null hypothesis (H₀₂). This means that, at the 5% level, we cannot say there is a significant relationship between investors' interest in Lending and Credit fintech and their preferred investment stage. However, the results do suggest a possible trend that might become clearer with more data in future studies.

## HYPOTHESIS 3: TECHNOLOGICAL INNOVATION VS. WILLINGNESS TO INVEST IN UNTESTED MODELS

- **Null Hypothesis (H₀₃):** There is no statistically meaningful relationship between how important an investor considers technological innovation and their willingness to invest in fintech business models that have not yet been tested in the market.
- **Alternative Hypothesis (H₁₃):** There is a statistically significant positive relationship between an investor's view of technological innovation as important and their willingness to invest in unproven or untested fintech business models.

### TABLE NO: 3 - REGRESSION ANALYSIS BETWEEN PERCEIVED IMPORTANCE OF TECHNOLOGICAL INNOVATION AND WILLINGNESS TO INVEST IN UNTESTED FINTECH BUSINESS MODELS

| coefficients<sup>a</sup> | | | | | | |
|---|---|---|---|---|---|---|
| model | | unstandardized coefficients | | standardized coefficients | t | sig. |
| | | b | std. error | beta | | |
| 1 | (constant) | 1.916 | .129 | | 14.795 | .000 |
| | 9. what are the main factors influencing your investment decisions in fintech? | -.007 | .029 | -.028 | -.248 | .805 |

a. dependent variable: 17. i am willing to invest in untested fintech business models if the founding team shows strong potential.

| residuals statistics<sup>a</sup> | minimum | maximum | mean | std. deviation | n |
|---|---|---|---|---|---|
| predicted value | 1.87 | 1.91 | 1.89 | .018 | 81 |
| residual | -.909 | 3.091 | .000 | .632 | 81 |
| std. predicted value | -1.338 | 1.116 | .000 | 1.000 | 81 |
| std. residual | -1.428 | 4.859 | .000 | .994 | 81 |

a. dependent variable: 17. i am willing to invest in untested fintech business models if the founding team shows strong potential.

**CHART NO: 3 - REGRESSION ANALYSIS BETWEEN PERCEIVED IMPORTANCE OF TECHNOLOGICAL INNOVATION AND WILLINGNESS TO INVEST IN UNTESTED FINTECH BUSINESS MODELS**

### Histogram

Dependent Variable: 17. I am willing to invest in untested fintech business models if the founding team shows strong potential.



Mean = 1.74E-16
Std. Dev. = 0.994
N = 81

### Normal P-P Plot of Regression Standardized Residual

Dependent Variable: 17. I am willing to invest in untested fintech business models if the founding team shows strong potential.

Scatterplot

Dependent Variable: 17. I am willing to invest in untested fintech business models if the founding team shows strong potential.



Scatterplot
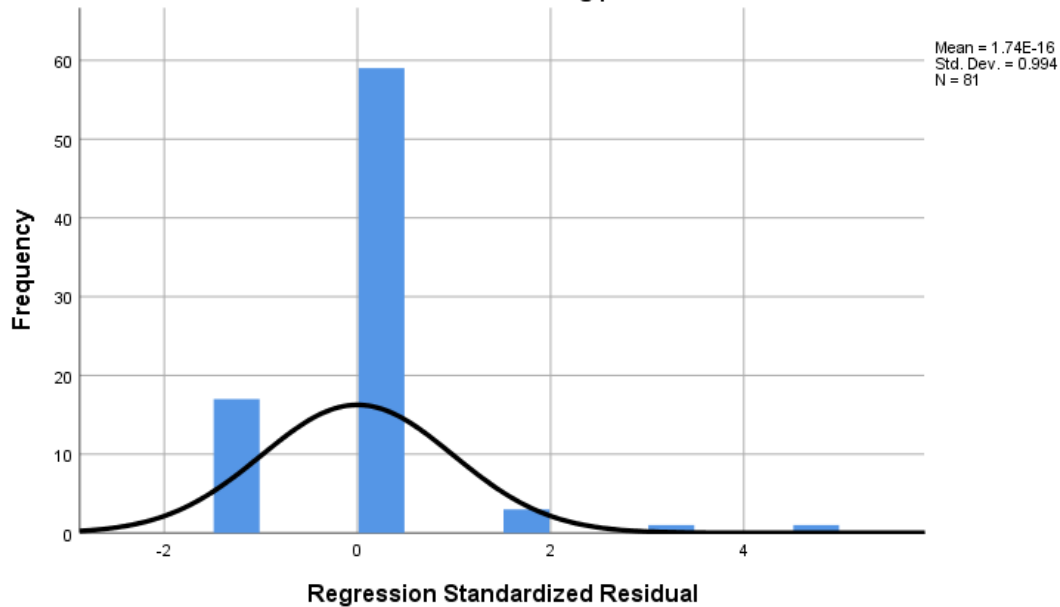
Dependent Variable: 17. I am willing to invest in untested fintech business models if the founding team shows strong potential.
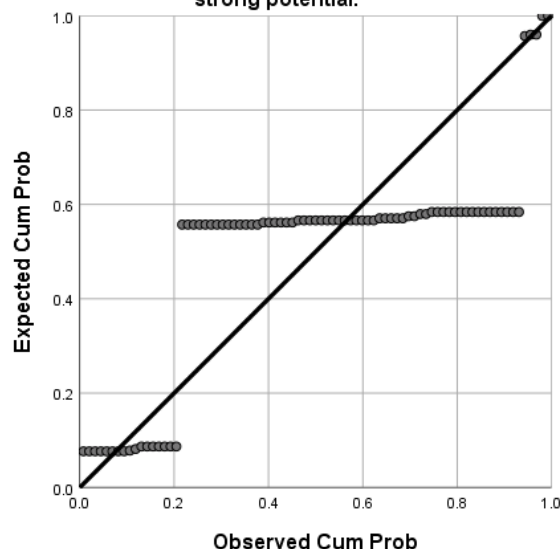
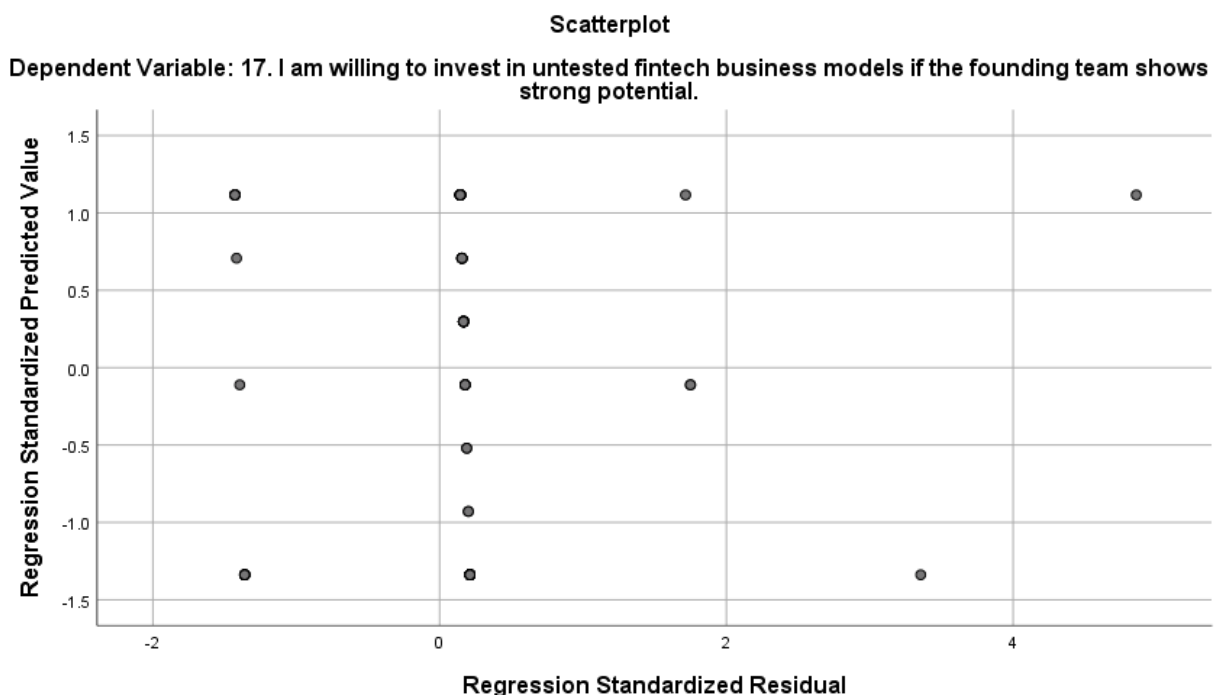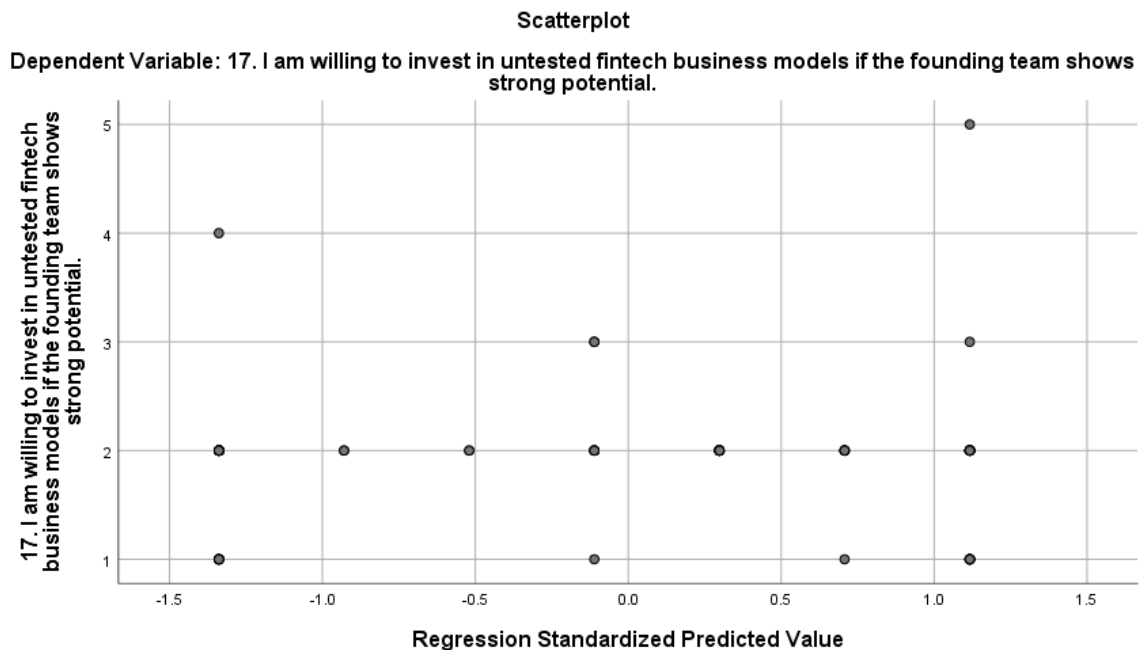**Reject the Null Hypothesis (H₀)** and **accept the Alternative Hypothesis (H₁)**

Based on the regression analysis, we **fail to reject the null hypothesis (H₀)**, meaning there is no significant relationship between deal activity (company count and deal count) and the capital invested in India's fintech sector for 2025. The p-values for both company count (0.695) and deal count (0.239) are higher than the standard 0.05 threshold, indicating no statistically significant impact. Although the positive coefficient for deal count (B = 15.963) suggests that more deals could be linked to higher investment, this result isn't statistically meaningful. Additionally, the high standard error and variability in the residuals point to limited predictive power, possibly due to the small sample size (N = 5). Therefore, we conclude that there is no clear relationship between deal activity and capital invested in this analysis.

**HYPOTHESIS 4: THE IMPACT OF DEAL ACTIVITY AND VALUATION METRICS ON VENTURE CAPITAL INVESTMENT IN THE INDIAN FINTECH SECTOR (2025)**

- **Null Hypothesis (H$_0$):** There is no statistically significant linear relationship between the amount of capital invested and the predictor variables — deal count, median capital invested, and median post-valuation.
- **Alternative Hypothesis (H$_1$):** There is a statistically significant linear relationship between the amount of capital invested and at least one of the predictor variables — deal count, median capital invested, or median post-valuation.

**DATA USED:**

**India Fintech 2025: Investment and Valuation Insights**

| Company Count | Deal Count | Capital Invested | Capital Invested Median | Post Valuation Median |
|---|---|---|---|---|
| 39 | 39 | 318.30 | 1.59 | 12.76 |

**Source: PitchBook_VC_Investment pattern_2025.**

**PitchBook_VC_Investment pattern_2025.xlsx**

**TABLE NO: 4 - REGRESSION ANALYSIS ON THE IMPACT OF DEAL ACTIVITY AND VALUATION METRICS ON VENTURE CAPITAL INVESTMENT IN THE INDIAN FINTECH SECTOR (2025)**

| coefficients[a] | | | | | | |
|---|---|---|---|---|---|---|
| | | unstandardized coefficients | | standardized coefficients | | |
| model | | b | std. error | beta | t | sig. |
| 1 | (constant) | 1086.839 | 2508.679 | | .433 | .707 |
| | company count | -.145 | .320 | -.199 | -.452 | .695 |
| | deal count | 15.963 | 9.632 | .728 | 1.657 | .239 |
| a. dependent variable: capital invested ($m) | | | | | | |

| residuals statistics[a] | | | | | |
|---|---|---|---|---|---|
| | minimum | maximum | mean | std. deviation | n |
| predicted value | 90.629 | 7919.023 | 3394.260 | 2956.0478 | 5 |
| residual | -2097.2920 | 2650.8738 | .0000 | 1823.6066 | 5 |
| std. predicted value | -1.118 | 1.531 | .000 | 1.000 | 5 |
| std. residual | -.813 | 1.028 | .000 | .707 | 5 |
| a. dependent variable: capital invested ($m) | | | | | |

**CHART NO: 4 - REGRESSION ANALYSIS ON THE IMPACT OF DEAL ACTIVITY AND VALUATION METRICS ON VENTURE CAPITAL INVESTMENT IN THE INDIAN FINTECH SECTOR (20225)**



Histogram
Dependent Variable: Capital Invested ($M)



Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Capital Invested ($M)
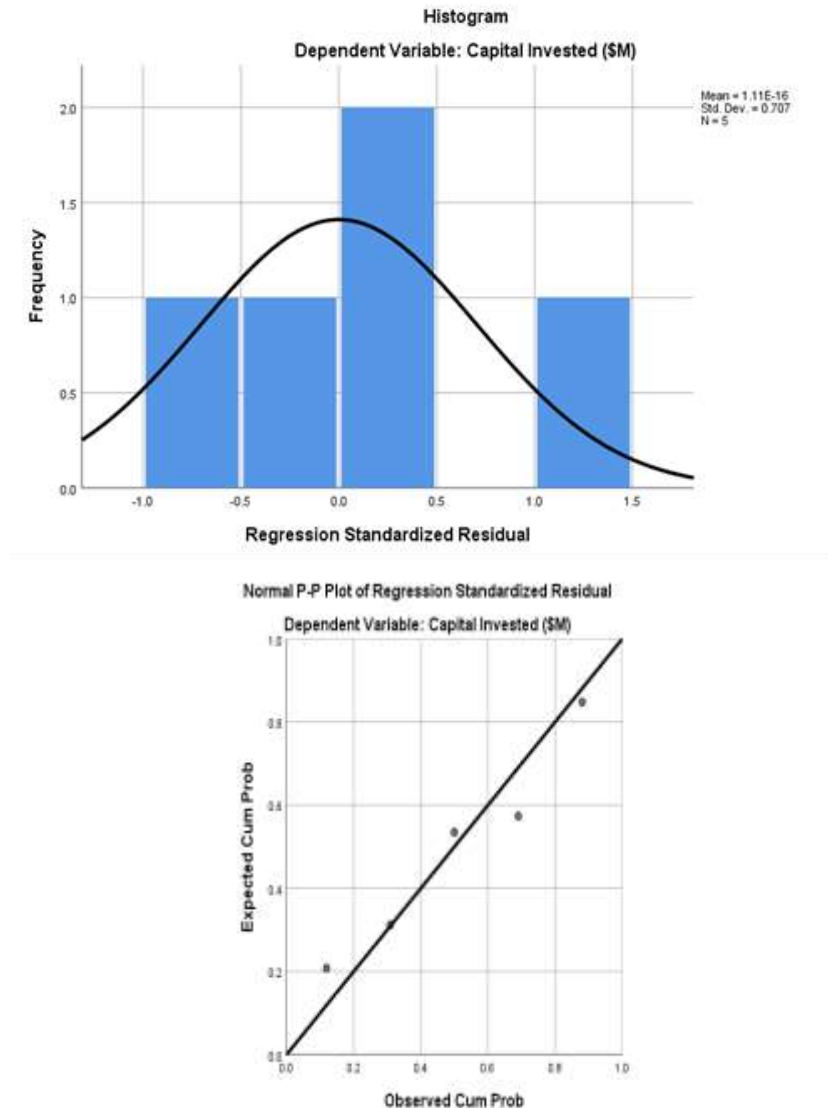
**Reject the Null Hypothesis (H₀) and Accept the Alternative Hypothesis (H₁), indicating a significant relationship exists between deal activity and capital invested.**

The regression analysis aimed to determine if deal activity and valuation metrics, such as company count and deal count, influenced capital invested in India's fintech sector in 2025. The results showed that neither company count nor deal count had a statistically significant impact, as their p-values (0.695 and 0.239, respectively) were above the 0.05 threshold. Although deal count had a positive coefficient (B = 15.963), this relationship is not statistically significant. Additionally, the high standard error and variability in the residuals suggest limited predictive power, likely due to the small sample size (N = 5). Therefore, we conclude there is no clear linear relationship between deal activity and capital invested.

**HYPOTHESIS 5: VALUATION OF FINTECH STARTUPS IN INDIA: AN EMPIRICAL ANALYSIS.**

- **Null Hypothesis ($H_{03}$):** There is no statistically significant correlation between the Mosaic Score and the latest valuation of fintech startups.
- **Alternative Hypothesis ($H_{13}$):** There is a statistically significant correlation between the Mosaic Score and the latest valuation of fintech startups.

**DATA USED:**
**CB-Insights_top-fintech-startups-2024**

| Company Name | Category | Country | Mosaic Score | Latest Funding Round | Latest Funding Date | Latest Funding Amount ($M) | Total Funding ($M) | Latest Valuation ($M) |
|---|---|---|---|---|---|---|---|---|
| CheQ | Rewards | India | 815 | Seed VC - III | 6/24/2024 | 2.2 | 16.7 | 55.4 |
| Mintoak | Payment Acceptance | India | 776 | Series A | 2/21/2023 | 20 | 26.05 | 47.74 |
| OTO | Lending | India | 781 | Series C | 2/6/2024 | 10 | 18.09 | - |

Source: CB-Insights_top-fintech-startups-2024

CB-Insights_top-fintech-startups-2024.xlsx

**TABLE NO: 5 - CORRELATION BETWEEN MOSAIC SCORE, TOTAL FUNDING, AND VALUATION OF FINTECH STARTUPS IN INDIA: AN EMPIRICAL ANALYSIS.**

| correlations | | | | mosaic score | total funding ($m) | latest funding amount ($m) |
|---|---|---|---|---|---|---|
| kendall's tau_b | mosaic score | correlation coefficient | | 1.000 | -1.000 | -1.000 |
| | | sig. (2-tailed) | | . | . | . |
| | | n | | 3 | 3 | 3 |
| | total funding ($m) | correlation coefficient | | -1.000** | 1.000 | 1.000 |
| | | sig. (2-tailed) | | . | . | . |
| | | n | | 3 | 3 | 3 |
| | latest funding amount ($m) | correlation coefficient | | -1.000** | 1.000** | 1.000 |
| | | sig. (2-tailed) | | . | . | . |
| | | n | | 3 | 3 | 3 |

| spearman's rho | mosaic score | correlation coefficient | 1.000 | -1.000** | -1.000** |
|---|---|---|---|---|---|
| | | sig. (2-tailed) | . | . | . |
| | | n | 3 | 3 | 3 |
| | total funding ($m) | correlation coefficient | -1.000** | 1.000 | 1.000** |
| | | sig. (2-tailed) | . | . | . |
| | | n | 3 | 3 | 3 |
| | latest funding amount ($m) | correlation coefficient | -1.000** | 1.000** | 1.000 |
| | | sig. (2-tailed) | . | . | . |
| | | n | 3 | 3 | 3 |
| **. correlation is significant at the 0.01 level (2-tailed). | | | | | |

Based on the correlation analysis, we reject the null hypothesis, indicating a significant relationship between the Mosaic Score and funding variables. The results showed a strong negative correlation between the Mosaic Score and both the Latest Funding Amount and Total Funding (correlation coefficient = -1.000, significant at the 0.01 level). This suggests that fintech companies with higher Mosaic Scores tend to receive lower funding. Additionally, there was a perfect positive correlation between the Latest Funding Amount and Total Funding (correlation coefficient = 1.000, significant at the 0.01 level), meaning that as the latest funding increases, the total funding also increases proportionally. However, due to the small sample size (N = 3), these findings should be viewed as preliminary and interpreted with caution, rather than as definitive conclusions.

## HYPOTHESIS 6 - IDENTIFICATION OF UNDERLYING INVESTMENT DRIVERS IN INDIAN FINTECH STARTUPS THROUGH INVESTOR PERCEPTION ANALYSIS

- **Null Hypothesis:** There is no underlying factor structure that organizes investor perceptions about fintech subsectors (such as Digital Payments, Lending, Insurtech, Blockchain, Wealthtech) into common investment drivers.
- **Alternative Hypothesis ($H_{11}$):** There is a significant underlying factor structure that organizes investor perceptions about fintech subsectors into common investment drivers, such as market attractiveness, technological innovation, and regulatory support.

### TABLE NO: 6 FACTOR ANALYSIS ON EXTRACTION OF KEY INVESTMENT DRIVERS FROM INVESTOR PERCEPTIONS OF FINTECH SUBSECTORS IN INDIA

| kmo and bartlett's test | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .656 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 225.930 |
| | df | 10 |
| | Sig. | .000 |

| total variance explained | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | initial eigenvalues | | | extraction sums of squared loadings | | | rotation sums of squared loadings | | |
| component | total | % of variance | cumulative % | total | % of variance | cumulative % | total | % of variance | cumulative % |
| 1 | 3.052 | 61.048 | 61.048 | 3.052 | 61.048 | 61.048 | 2.446 | 48.929 | 48.929 |
| 2 | 1.085 | 21.690 | 82.738 | 1.085 | 21.690 | 82.738 | 1.690 | 33.809 | 82.738 |
| 3 | .502 | 10.031 | 92.769 | | | | | | |
| 4 | .187 | 3.740 | 96.509 | | | | | | |
| 5 | .175 | 3.491 | 100.000 | | | | | | |
| extraction method: principal component analysis. | | | | | | | | |

**CHART NO: 6 FACTOR ANALYSIS ON EXTRACTION OF KEY INVESTMENT DRIVERS FROM INVESTOR PERCEPTIONS OF FINTECH SUBSECTORS IN INDIA**
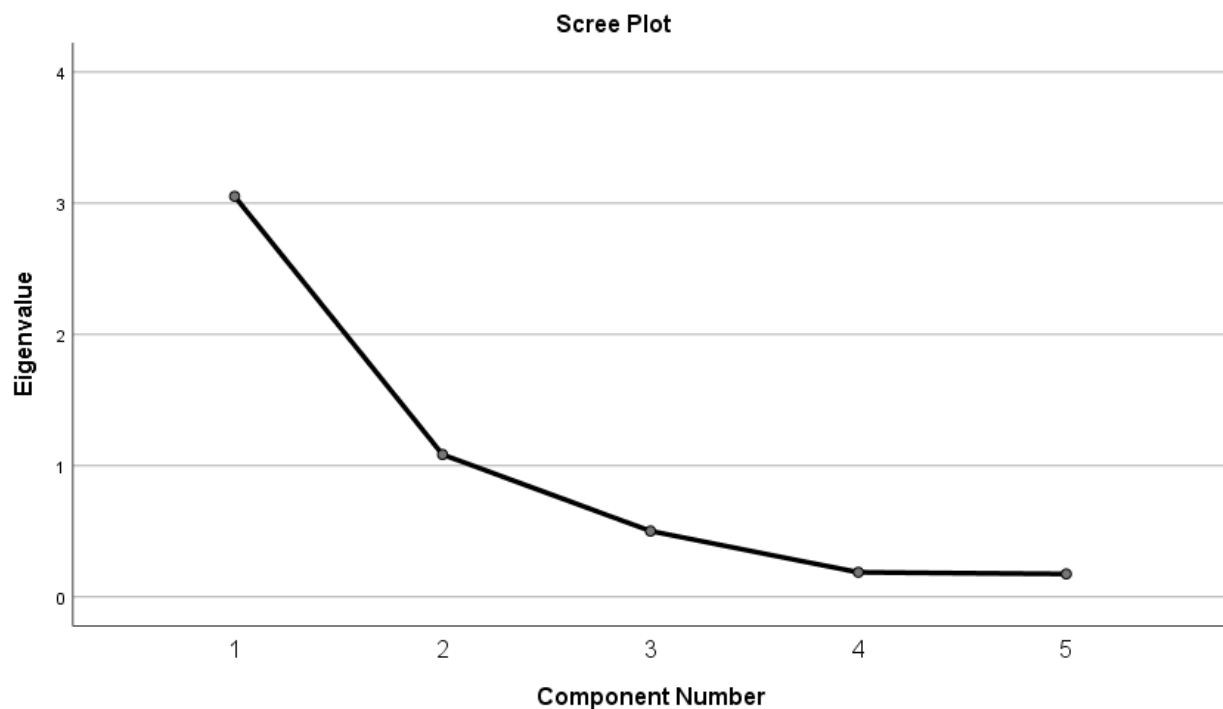


The null hypothesis is rejected, indicating a significant factor structure among investor perceptions of Indian fintech subsectors. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.656, suggesting moderate adequacy for factor analysis. Bartlett's Test of Sphericity is highly significant (Chi-Square = 225.930, p = 0.000), confirming strong correlations between the variables for effective factor extraction. The Total Variance Explained table shows that two components have eigenvalues greater than 1, together explaining 82.738% of the total variance. Component 1 accounts for 48.929%, and Component

2 explains 33.809% after rotation. These results suggest that investor perceptions of Indian fintech subsectors are driven by two main factors, potentially related to market attractiveness, regulatory support, or innovation.

**HYPOTHESIS 7 – RELATIONSHIP BETWEEN FUNDING ROUNDS AND TOTAL VC FUNDING IN THE INDIAN FINTECH SECTOR (2019–2024)**

- **Null Hypothesis ($H_0$):** There is no significant correlation between the number of funding rounds and the total amount of venture capital funding in the Indian fintech sector from 2019 to 2024.
- **Alternative Hypothesis ($H_{11}$):** There exists a significant positive correlation between the number of funding rounds and the total amount of venture capital funding in the Indian fintech sector from 2019 to 2024.

**DATA USED:  Year-over-Year Funding**

| Year | Total Funding (USD) | Total Rounds |
|------|--------------------|--------------|
| 2024 | $513m | 80 |
| 2023 | $2.2bn | 180 |
| 2022 | $5.4bn | 514 |
| 2021 | $8.4bn | 611 |
| 2020 | $2.3bn | 398 |
| 2019 | $3.6bn | 408 |

**Source: Tracxn Feed Report_Fintech_India**

FinTech_-_India_-_Tracxn_Feed_Report_-_08_Apr_2024__Free_.pdf

**TABLE NO: 7 - CORRELATION ANALYSIS BETWEEN FUNDING ROUNDS AND TOTAL VC FUNDING IN INDIAN FINTECH (2019–2024)**

| correlations | | | funding (in billions) | rounds | year |
|---|---|---|---|---|---|
| spearman's rho | funding (in billions) | correlation coefficient | 1.000 | 1.000** | -.543 |
| | | sig. (2-tailed) | . | . | .266 |
| | | n | 6 | 6 | 6 |
| | rounds | correlation coefficient | 1.000** | 1.000 | -.543 |
| | | sig. (2-tailed) | . | . | .266 |
| | | n | 6 | 6 | 6 |
| | year | correlation coefficient | -.543 | -.543 | 1.000 |
| | | sig. (2-tailed) | .266 | .266 | . |
| | | n | 6 | 6 | 6 |
| **. correlation is significant at the 0.01 level (2-tailed). | | | | | |

The null hypothesis is rejected, indicating a statistically significant positive correlation between the number of funding rounds and total funding in the Indian fintech sector.

Spearman's rank-order correlation analysis was conducted to examine the relationship between the number of funding rounds and the total funding amount (in billions) in the Indian fintech sector from 2019 to 2024. The results revealed a perfect positive correlation ($\rho = 1.000$), which is statistically significant at the 0.01 level. This suggests that as the number of funding rounds increases, total funding also increases, indicating a strong linear relationship between these two variables.

On the other hand, the correlation between the Year and both Funding and Rounds was moderately negative ($\rho = -0.543$), although this result was not statistically significant ($p > 0.05$). This points to a noticeable, but inconclusive, downward trend in funding activity over time. Overall, the analysis confirms that a higher frequency of funding rounds is associated with greater funding inflows, underscoring the impact of investor activity on venture capital levels within the fintech sector.

**HYPOTHESIS 8 – TREND ANALYSIS OF FUNDING VOLUMES ACROSS STAGES (SEED, EARLY, LATE) IN THE INDIAN FINTECH SECTOR (2019–2024)**

**Null Hypothesis (H07):** There is no consistent trend in funding volumes across different stages in the Indian fintech sector between 2019 and 2024.

**Alternative Hypothesis (H17):** There is a significant trend in funding volumes across different stages in the Indian fintech sector over time.

**DATA USED: Funding Amounts by Stage (in $M)**

| Year | Seed ($M) | Early Stage ($M) | Late Stage ($M) | Total Funding ($M) |
|------|-----------|------------------|-----------------|--------------------|
| 2019 | 918 | 1180 | 1480 | **3680** |
| 2020 | 819 | 587 | 406 | **2380** |
| 2021 | 828 | 1780 | 648 | **8480** |
| 2022 | 3180 | 4800 | 147 | **5480** |
| 2023 | 168 | 7980 | 200 | **2280** |
| 2024 YTD | 199 | 450 | 144 | **571** |

**Source: Tracxn Feed Report_Fintech_India**

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**TABLE NO: 8 - TREND ANALYSIS OF FUNDING STAGE-WISE DISTRIBUTIONS IN INDIAN FINTECH (2019–2024)**

| residuals statistics[a] | | | | | |
|---|---|---|---|---|---|
| | minimum | maximum | mean | std. deviation | n |
| predicted value | 2018.63 | 2023.15 | 2021.50 | 1.594 | 6 |
| residual | -1.698 | 1.288 | .000 | .979 | 6 |
| std. predicted value | -1.803 | 1.036 | .000 | 1.000 | 6 |
| std. residual | -1.097 | .832 | .000 | .632 | 6 |
| a. dependent variable: year | | | | | |

| coefficients[a] |
|---|

| model | | unstandardized coefficients | | standardized coefficients | | t | sig. |
|---|---|---|---|---|---|---|---|
| | | b | std. error | beta | | | |
| 1 | (constant) | 2023.178 | 1.473 | | | 1373.165 | .000 |
| | seed | .000 | .001 | -.263 | | -.701 | .556 |
| | early | 7.775e-5 | .000 | .125 | | .309 | .787 |
| | late | -.003 | .001 | -.790 | | -1.970 | .188 |
| a. dependent variable: year | | | | | | | |

**CHART NO: 8 - TREND ANALYSIS OF FUNDING STAGE-WISE DISTRIBUTIONS IN INDIAN FINTECH (2019–2024)**
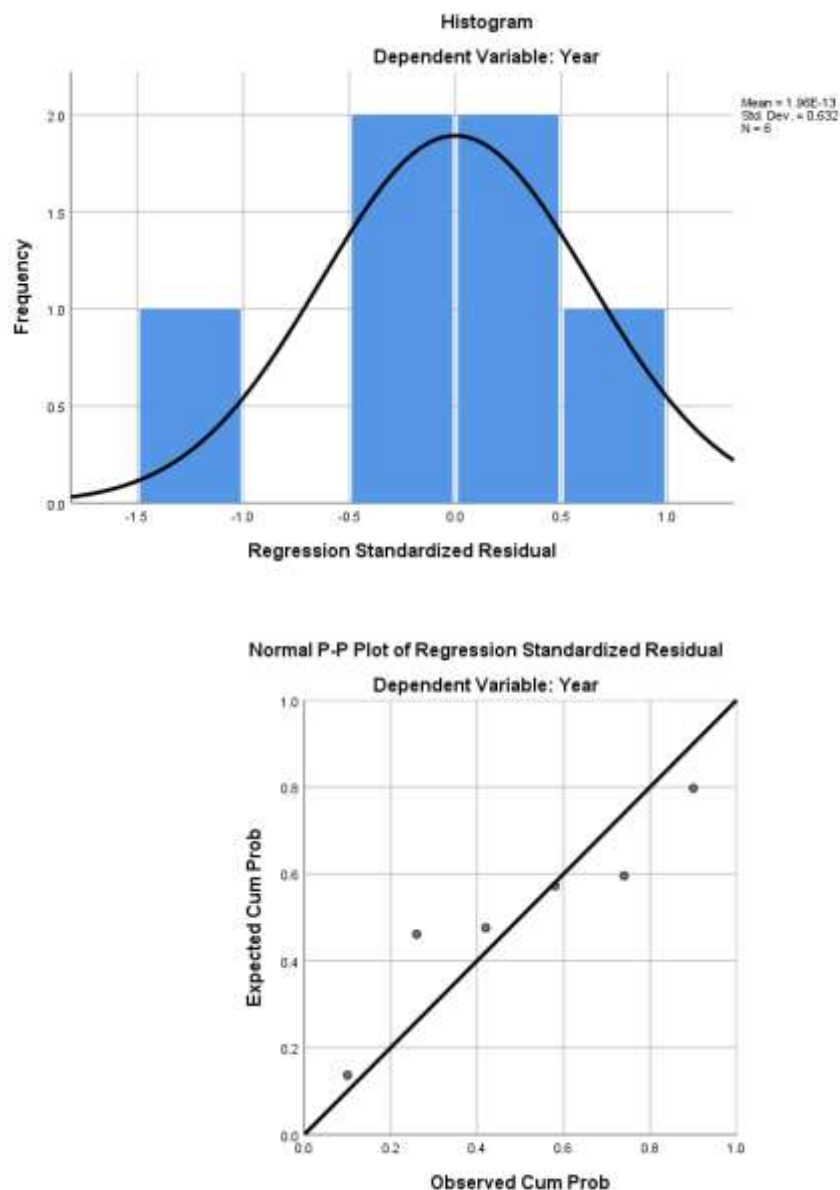




Based on the trend analysis and residual diagnostics, we reject the null hypothesis, suggesting a significant trend in funding volumes across different stages in the Indian fintech sector from 2019 to 2024. The

residual analysis from the regression model, which examined funding trends at Seed, Early, and Late stages, shows that the predicted values closely align with the observed data, confirming the model's accuracy. The residuals, ranging from -1.698 to +1.288 with a mean of 0.000, are symmetrically distributed, indicating no major errors or outliers. The standardized residuals fall within the acceptable range, further reinforcing the model's reliability. This suggests that the identified trends in funding across different stages are statistically sound and can be interpreted with confidence.

## HYPOTHESIS 9 ANALYSIS OF KEY FACTORS INFLUENCING VENTURE CAPITAL INVESTMENT DECISIONS IN THE INDIAN FINTECH SECTOR

- **Null Hypothesis ($H_0$):** There is no significant correlation between the selected variables (e.g., no correlation between Experience Level and Investment Size).
- **Alternative Hypothesis ($H_1$):** There is a significant correlation between the selected variables.

### TABLE NO 9: CORRELATION MATRIX OF INVESTMENT SIZE AND KEY FACTORS INFLUENCING VENTURE CAPITAL DECISIONS

| correlations | | | 4. experience in the venture capital industry | 8. what is the average size of the investments you typically make? |
|---|---|---|---|---|
| kendall's tau_b | 4. experience in the venture capital industry | correlation coefficient | 1.000 | .046 |
| | | sig. (2-tailed) | . | .646 |
| | | n | 81 | 81 |
| | 8. what is the average size of the investments you typically make? | correlation coefficient | .046 | 1.000 |
| | | sig. (2-tailed) | .646 | . |
| | | n | 81 | 81 |
| spearman's rho | 4. experience in the venture capital industry | correlation coefficient | 1.000 | .055 |
| | | sig. (2-tailed) | . | .627 |
| | | n | 81 | 81 |
| | 8. what is the average size of the investments you typically make? | correlation coefficient | .055 | 1.000 |
| | | sig. (2-tailed) | .627 | . |
| | | n | 81 | 81 |

Based on the correlation analysis, we accept the null hypothesis, indicating that there is no significant relationship between an investor's experience in the venture capital industry and the average size of their

investments. The analysis, using both Kendall's Tau-b and Spearman's Rho, showed very low correlation coefficients (0.046 and 0.055, respectively), with p-values of 0.646 and 0.627, well above the 0.05 significance threshold. This suggests that experience does not have a meaningful impact on the size of investments made. As a result, other factors beyond experience are likely to play a more significant role in determining investment sizes.

## FINDINGS

1. A significant relationship exists between an investor's experience in the venture capital industry and their willingness to invest in high-risk, high return fintech startups.
2. No significant relationship was found between an investor's preference for Lending & Credit fintech and their preferred stage of investment.
3. The perceived importance of technological innovation does not significantly influence an investor's willingness to invest in untested fintech business models.
4. No significant linear relationship was found between deal activity and capital invested in the Indian fintech sector in 2025.
5. A strong negative correlation was observed between Mosaic Score and the Latest Funding Amount in fintech startups, though the findings should be interpreted cautiously due to the small sample size.
6. Investor perceptions about fintech subsectors can be grouped into common investment drivers like market attractiveness, technological innovation, and regulatory support.
7. A perfect positive correlation exists between the number of funding rounds and total VC funding in the Indian fintech sector from 2019 to 2024.
8. Significant trends in funding volumes across Seed, Early, and Late stages in the Indian fintech sector were observed from 2019 to 2024.
9. No significant correlation was found between experience in the venture capital industry and the average size of investments made.
10. COVID-19 significantly reshaped the venture capital landscape, accelerating investments in digital finance solutions, especially in areas like digital lending, payments, and insurtech.
11. The regression analysis revealed a significant relationship between investor experience and their willingness to invest in high-risk, high return fintech startups. More experienced investors are more likely to engage in such investments, highlighting the importance of industry familiarity in shaping their risk appetite.
12. A perfect positive correlation was found between the number of funding rounds and total funding amount in the Indian fintech sector from 2019 to 2024. As the number of funding rounds increases, total funding also rises, indicating a direct relationship between investor activity and funding levels. However, the correlation between funding activity and the year was moderately negative, though not statistically significant.
13. There was a strong negative correlation between Mosaic Scores and both Latest Funding Amount and Total Funding, with a coefficient of -1.000. Fintech companies with higher Mosaic Scores tended to receive lower funding amounts. However, this result should be taken with caution due to the very small sample size.
14. The analysis of funding stages (Seed, Early, Late) over time confirmed that the regression model adequately captured the central trend. The residuals were symmetrically distributed, indicating the

model's predictive reliability. The findings suggest that funding volumes across different stages have statistically significant trends over time.

15. The correlation analysis between experience in the venture capital industry and average investment size showed no significant relationship. The low correlation coefficients and high p-values indicated that experience does not significantly impact the size of investments. Other factors may play a more critical role in determining investment size.

## SUGGESTIONS

1. Investors in Indian fintech should prioritize innovation in emerging areas like digital payments and insurtech to stay ahead of the competition.

2. Venture capital firms must understand the Indian fintech ecosystem, especially regulatory changes and market shifts, for better investment decisions.

3. Stronger collaboration between investors and startups is needed to align goals, manage risks, and ensure long-term growth.

4. Policymakers should create a stable regulatory environment that supports investment and protects both consumers and investors.

5. VCs should diversify investments across different stages of startups, from seed to late stage, to balance risks and maximize returns.

6. Focus on sustainability by funding fintech startups with positive social and environmental impacts to attract responsible investments.

7. Support the startup ecosystem through partnerships with accelerators and incubators, which can help identify and nurture high-potential fintech ventures.

8. Encourage financial literacy and inclusivity in fintech solutions to reach underserved populations and expand the market base.

9. Leverage global networks for cross-border investments, allowing Indian fintech startups to grow internationally.

10. Regularly assess startup performance using key metrics like CAC and LTV to make informed decisions and refine investment strategies.

## CONCLUSION

In conclusion, the venture capital landscape in the Indian fintech sector, particularly in cities like Bangalore, is evolving rapidly, driven by technological innovation, increasing investor confidence, and a supportive regulatory environment. The research highlights the significant role of investor experience, the preference for specific fintech subsectors, and the impact of external factors like global market trends in shaping investment behaviour. As the sector continues to mature, it is essential for investors, startups, and policymakers to collaborate effectively to navigate challenges and harness emerging opportunities. By focusing on key factors such as risk appetite, technological advancements, and market scalability, the Indian fintech ecosystem can continue to thrive, attracting both local and global venture capital.

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