

Fintech Credit usage, Impulsive Buying and Debt Accumulation among Gen Z in Bengaluru: A Financial Vulnerability Perspective

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Abstract—The growing field of fintech credit in India has increased opportunities for digital credit facilities; yet, the lack of knowledge regarding financial management among Generation Z has resulted in increased vulnerability to debt. This research explores the relationship between fintech credit usage, impulsive buying behaviour and financial vulnerability among the Gen Z population in Bengaluru, where impulsive buying is hypothesised to mediate the relationship between fintech credit usage and financial vulnerability. Drawing on the S-O-R framework, the Theory of Planned Behaviour and Financial Socialisation Theory, a quantitative cross-sectional research design was adopted in which primary data were obtained through a self-report questionnaire (n = 300) and analysed using IBM SPSS and Hayes' PROCESS (Model 4) with bootstrapping (5,000 samples) for Pearson correlation, linear regression and mediation. All three hypotheses were validated: fintech credit usage positively influenced impulsive buying behaviour ($\beta = 0.624, p < .001$), impulsive buying behaviour predicted debt vulnerability ($\beta = 0.571, p < .001$), and impulsive buying behaviour partly mediated the fintech credit usage–financial vulnerability relationship (indirect effect = 0.257, 95% BC-CI [0.189, 0.328]). While fintech credit democratises financial access, inadequate financial knowledge promotes impulsive spending alongside debt vulnerability across Gen Z.

Keywords—Debt accumulation, Financial distress, Fintech credit, Generation Z, Impulsive buying behaviour, S-O-R model.

I. INTRODUCTION

A. Background and Context

The Indian fintech industry is developing fast, thanks to NPCI-enabled platforms such as UPI and RuPay [1]. Lending is becoming a fundamental source of income for fintech businesses. The income from Paytm's loans increased by almost 100 per cent, from Rs. 280 crore in Q1 of FY 2025 to Rs. 545 crore in Q4 of FY 2025 [2].

Members of Gen Z are highly active online and are more likely to be exposed to fintech credit motivators. Hedonism, peer validation and ease of use all contribute to impulsive buying behaviour [3], making fintech credit a frictionless means of financing purchases.

Bengaluru, the centre of India's fintech landscape, offers the ideal research environment.

B. Problem Statement

The financial vulnerability of Gen Z is increasing due to loan disbursement via applications that occurs instantly with little documentation compared with bank loans [4]. While frictionless credit access promotes financial inclusion, it simultaneously normalises debt-taking behaviour. Despite growing evidence of digital credit misuse, empirical research integrating fintech credit, impulsive buying and financial vulnerability within a unified framework for Indian Gen Z consumers remains limited.

C. Aim and Objectives

This study analyses the direct and mediated impact of fintech credit usage on impulsive buying behaviour, debt accumulation and financial vulnerability among Generation Z in Bengaluru. The specific objectives are as follows:

- To analyse the impact of fintech credit usage on Generation Z in Bengaluru.
- To identify the relationship between fintech credit services and impulsive buying.
- To examine the impact of impulsive buying on credit accumulation.
- To assess the role played by financial literacy in reducing financial vulnerability among the youth.

D. Scope and Significance

This study holds practical relevance for fintech firms (identifying behavioural drivers of non-performing assets), policymakers (providing an empirical basis for digital lending regulation) and educators (reinforcing the need for applied financial literacy programmes targeting Gen Z).

II. LITERATURE REVIEW

A. Fintech Credit: Concept and Trends

The Buy Now Pay Later (BNPL) model is central to fintech credit expansion.

Guttman-Kenney et al. [5] show that financially insecure young people are those who use BNPL most, and although the loans involve interest-free instalments, they carry high risks of systemic lending. This is because BNPL makes it easier to take loans through the concealment of overall loan amounts from users who lack adequate literacy skills.

According to Berg et al. [6], fintech lending lowers transaction costs and removes processing delays. This is the competitive edge that fintech lending has, and it also forms a risk vector for impulsive credit usage.

B. Impulsive Buying Behaviour

Impulsive purchases, characterised by unanticipated and emotionally driven buying choices, have been noted to be highly correlated with financial strain. According to Juita et al. [7], digital financial literacy is positively related to increased use of BNPL services, which implies that familiarity with the platforms facilitates borrowing. In addition, Guttman-Kenney et al. [5] find that financial strain among adolescents increases their reliance on BNPL services, implying a feedback loop between financial vulnerability and impulsive spending.

Low self-control was identified as the main mediator of the relationship between social media marketing and impulsive purchase behaviour by Nyrhinen et al. [8]. On-demand borrowing [6], together with a lack of perceived financial constraint at purchase moments, makes the situation even more dangerous for Gen Z customers.

C. Debt Accumulation in Digital Finance

The instalment EMI system creates a façade of affordability, allowing individuals to spend using credit even beyond their repayment ability. Yue et al. [9] found a strong correlation between online borrowing behaviour and financial distress experienced at the household level, especially among financially literate households that understate their debt burden.

According to Mukhlisah et al. [10], borrowers use new digital loan facilities to pay off previous debts, creating a vicious cycle of indebtedness that defeats the objective of financial inclusion. This is confirmed by Yue et al. [9], while impulsive buying behaviour [8] makes matters worse.

D. Financial Vulnerability Frameworks

Educational achievement is cited as an important moderating factor for financial vulnerability by Fernández-López et al. [11]. In contrast, according to Juita et al. [7] and Mukhlisah et al. [10], digital financial literacy can make an individual more financially vulnerable because it increases comfort in using fintech credit, which implies that education and digital literacy follow different paths.

Herman et al. [12] show that credit risks affect consumer borrowing behaviour positively, since young borrowers use credit to resolve existing financial gaps. Moreover, high interest rates on EMIs add to this problem as they turn temporary financial relief into a prolonged problem. Guttman-Kenney et al. [5] corroborate these findings, showing that BNPL and previous financial problems reinforce each other.

E. Gaps in Existing Research

Four key gaps in the previous literature form the basis for this study. The first is the use of credit card transaction data for studying BNPL services, which limits applicability to mobile application-based financial technologies. Secondly, no study in India tests impulsivity as a mediator between fintech credit and financial vulnerability through mediation analysis. Thirdly, existing research lacks statistical reliability testing and Pearson correlation analysis in the context of financial vulnerability. Lastly, there is a gap in the literature on the relationship between transaction behaviour and impulsivity in India.

III. THEORETICAL FRAMEWORK AND HYPOTHESES

A. Theoretical Underpinning

1) Theory of Planned Behaviour: According to the Theory of Planned Behaviour, behavioural intention — influenced by attitudes, subjective norms and behavioural control — becomes the immediate predictor of actual behaviour [13]. In the case of fintech adoption, Gen Z members' attitudes towards financial technology, their subjective norms created by peer support [14], along with the sense of behavioural control enabled by instalment financing, result in higher fintech credit usage and impulse purchasing intentions.

2) The S-O-R Model: S-O-R theory views behaviour as a stimulus–organism–response sequence. According to Zhang et al. [15], the S-O-R framework can be applied to impulsive buying, where promotional cues and fear of missing out influence the psychological state of consumers, resulting in impulse purchasing reactions. In the fintech environment, easy access to loans and platform offers remove financial limitations, causing spontaneous purchases.

3) Financial Socialisation Theory: Financial Socialisation Theory posits that financial attitudes and behaviours are learned by observing and interacting with parents [16]. However, where formal financial education is lacking, as in India, peer actions and online platforms take over as dominant forces of financial socialisation [17]. This clarifies why Gen Z is characterised by both high fintech use and low financial literacy, which can be seen as the immediate reason behind debt accumulation.

B. Conceptual Framework

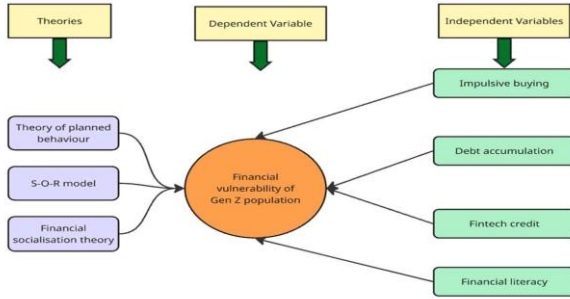


Fig. 1 Conceptual Framework

As shown in Fig. 1, fintech credit use is the independent variable, impulsive shopping behaviour acts as the mediator and financial vulnerability is the dependent variable. Financial literacy is treated as a contextual variable. The theoretical framework for the study consists of the S-O-R Model, the Theory of Planned Behaviour and Financial Socialisation Theory.

C. Hypotheses

H1 (Null): There exists no significant influence of fintech credit usage on impulsive buying behaviour among the Gen Z population in Bengaluru.

H1 (Alternative): There exists a significant positive influence of fintech credit usage on impulsive buying behaviour among the Gen Z population in Bengaluru.

H2 (Null): There exists no significant influence of impulsive buying behaviour on debt formation among the Gen Z population in Bengaluru.

H2 (Alternative): There exists a significant positive influence of impulsive buying behaviour on debt formation among the Gen Z population in Bengaluru.

H3 (Null): Impulsive buying behaviour does not play a mediating role between fintech credit usage and financial risk among the Gen Z population in Bengaluru.

H3 (Alternative): Impulsive buying behaviour plays a significant mediating role between fintech credit usage and financial risk among the Gen Z population in Bengaluru.

IV. METHODOLOGY

A. Research Design

A quantitative cross-sectional research design was applied to establish relationships between fintech credit usage, impulsive buying behaviour, debt accumulation and financial vulnerability among Generation Z members in Bengaluru [18].

B. Research Sampling

A purposive sampling technique was used to select participants belonging to Generation Z (aged 18 to 26 years) who resided in Bengaluru and used any fintech credit service such as BNPL, digital lending apps or pay-later facilities. This guarantees that the selected respondents are relevant to the study objectives [19].

C. Data Collection

Primary data were gathered using a structured questionnaire delivered on the Google Forms platform. The instrument contained 15 Likert-scale questions covering four constructs, each with five options (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree): Fintech Credit Usage (4 items), Impulsive Buying Behaviour (4 items), Debt Accumulation (4 items) and Financial Vulnerability (3 items).

D. Data Analysis

Data analysis was performed using IBM SPSS Statistics (v26), covering descriptive statistics, alpha reliability, Pearson's correlation and linear regression (ANOVA). Testing for simple mediation (Model 4) was achieved through Hayes' PROCESS (v4.2), which uses bootstrapping with 5,000 samples and a bias-corrected 95 per cent confidence interval. This procedure has become the accepted methodology in mediation studies in the social and behavioural sciences because, unlike the Sobel test, it does not require a normal distribution of the indirect effect [20], [21].

E. Ethical Considerations

Participation was voluntary and informed: all respondents provided consent and were briefed on the study purpose. Moreover, the data were captured anonymously and privacy was strictly maintained.

V. RESULTS

A. Frequency Distribution

TABLE I DEMOGRAPHIC PROFILE OF RESPONDENTS (N = 300)

Characteristic	Category	Percentage (%)
Age	18–20	23.67
	21–23	44.00
	24–26	32.33
Gender	Female	54.67
	Male	21.67
	Prefer not to say	23.66
Employment	Employed (full-time)	33.67
	Unemployed	18.67
	Employed (part-time)	18.00
	Self-employed	15.33
	Student	14.33

Those aged 21–23 years accounted for the majority (44.00 per cent), whereas those aged 24–26 and 18–20 made up 32.33 per cent and 23.67 per cent respectively, indicating a relatively mature Gen Z sample. There were more females than males, comprising 54.67 per cent and 21.67 per cent of the sample respectively. In addition, full-time employees form the largest employment category (33.67 per cent), while students represent 14.33 per cent.

B. Reliability Analysis

A reliability test was conducted using Cronbach's alpha for each construct scale before testing the hypotheses. Reliability above 0.70 is regarded as acceptable, while reliability above 0.90 is considered excellent [22]. The results are presented in Table II.

TABLE II
CRONBACH'S ALPHA RELIABILITY STATISTICS

Construct / Scale	Items	Cronbach's α
Fintech Credit Usage	4	0.891
Impulsive Buying Behaviour	4	0.903
Debt Accumulation	4	0.886
Financial Vulnerability	3	0.912
Overall Scale	15	0.937

Note: $\alpha > 0.70$ = acceptable; $\alpha > 0.90$ = excellent [22].

All four scales showed an exceptionally high level of internal consistency, with alpha values ranging from 0.886 to 0.912. This is corroborated by an overall scale alpha of 0.937, which clearly indicates that the scale can be considered highly reliable.

C. Pearson Correlation Analysis

The relationships among the four main constructs were analysed using the Pearson correlation test, as summarised in Table III.

TABLE III
PEARSON CORRELATION MATRIX (N = 300)

Variable	FCU	IBB	DA	FV
FCU	1.000	0.712**	0.654**	0.668**
IBB	0.712**	1.000	0.698**	0.641**
DA	0.654**	0.698**	1.000	0.724**
FV	0.668**	0.641**	0.724**	1.000

Note: ** $p < .01$ (two-tailed). FCU = Fintech Credit Usage; IBB = Impulsive Buying Behaviour; DA = Debt Accumulation; FV = Financial Vulnerability.

All four variables were found to be highly and significantly correlated with each other at a significance level of $p < .01$. The highest correlations among the four constructs were obtained between debt accumulation and financial vulnerability ($r = 0.724$) and between FCU and IBB ($r = 0.712$).

The correlations therefore provide strong support for assessing the hypothesised relationships, which require further justification through regression and mediation analysis.

D. Hypothesis Testing

1) *Effect of Fintech Credit Usage on Impulsive Buying Behaviour*: A linear regression was fitted with Fintech Credit Usage as the predictor variable and Impulsive Buying Behaviour as the dependent variable.

TABLE IV
ANOVA — H1 (FCU → IMPULSIVE BUYING BEHAVIOUR)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	261.843	1	261.843	197.624	<.001
Residual	394.887	298	1.325	—	—
Total	656.730	299	—	—	—

TABLE V
REGRESSION COEFFICIENTS — H1

Model	B	Std. Error	Beta	t	Sig.
(Constant)	0.923	0.148	—	6.236	<.001
Fintech Credit Usage	0.624	0.048	0.624	13.001	<.001

Note: $R^2 = 0.399$; Adjusted $R^2 = 0.397$.

The model is statistically significant, as indicated by the ANOVA result ($F = 197.624$, $p < .001$). The standardised coefficient ($\beta = 0.624$, $p < .001$) suggests that fintech credit usage is a significant and positive predictor of impulsive buying behaviour, explaining about 39.9 per cent of the variance. H1 (Alternative) is therefore supported.

2) *Effect of Impulsive Buying Behaviour on Debt Accumulation*: A second linear regression was conducted with Impulsive Buying Behaviour as the predictor and Debt Accumulation as the dependent variable.

TABLE VI
ANOVA — H2 (IBB → DEBT ACCUMULATION)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	248.911	1	248.911	183.547	<.001
Residual	404.318	298	1.357	—	—
Total	653.229	299	—	—	—

TABLE VII
REGRESSION COEFFICIENTS — H2

Model	B	Std. Error	Beta	t	Sig.
(Constant)	0.847	0.152	—	5.572	<.001
Impulsive Buying	0.571	0.049	0.571	11.651	<.001

Note: $R^2 = 0.381$; Adjusted $R^2 = 0.379$.

The ANOVA output ($F = 183.547, p < .001$) and the beta coefficient ($\beta = 0.571, p < .001$) show that impulsive purchasing is a significant positive determinant of debt creation, accounting for about 38.1 per cent of the variation. The alternative hypothesis H2 is therefore verified.

3) *Mediation Analysis — Impulsive Buying as Mediator:* Testing H3 involved conducting a simple mediation analysis using Hayes' PROCESS macro (Model 4, v4.2) with 5,000 bootstrap samples and bias-corrected 95 per cent confidence intervals [20]. This method assesses whether the total influence of fintech credit usage (X) on financial vulnerability (Y) is partially mediated by impulsive purchasing (M), and whether the mediation effect is statistically significant irrespective of the normality assumption. Mediation is indicated when the bootstrapped 95 per cent confidence interval of the product of the coefficients ($a \times b$) excludes zero.

TABLE VIII
SIMPLE MEDIATION ANALYSIS — PROCESS MACRO MODEL 4
(BOOTSTRAP N = 5,000)

Path	B	β	t	Sig.
a: FCU → IBB	0.624	0.624	13.001	<.001
b: IBB → FV (controlling FCU)	0.412	0.401	6.647	<.001
c': FCU → FV (direct effect)	0.424	0.415	7.312	<.001
c: FCU → FV (total effect)	0.681	0.668	15.486	<.001

Note: Indirect effect ($a \times b$) = $0.624 \times 0.412 = 0.257$. Bias-corrected bootstrapped 95% CI: [0.189, 0.328]; the confidence interval does not include zero, indicating significant mediation.

Results from the PROCESS macro analysis indicate partial mediation. The total effect of FCU on financial vulnerability was significant ($\beta = 0.668, p < .001$). The indirect effect of FCU on financial vulnerability through impulsive buying behaviour was 0.257 (95% BC-CI [0.189, 0.328]). Since the confidence interval does not contain zero, the indirect effect is statistically significant at $\alpha = .05$. The direct effect of FCU on financial vulnerability remains significant ($\beta = 0.415, p < .001$) even when IBB is included as a mediator, indicating partial mediation. Hypothesis 3 (Alternative) is therefore accepted, suggesting that impulsive buying behaviour partially mediates the effect of fintech credit.

VI. DISCUSSION

According to the demographic insights, the 24–26 age group showed the highest fintech credit use, which aligns with increased financial autonomy.

More than 70 per cent confirmed that fintech applications offered immediate and convenient credit facilities, and an almost identical percentage favoured fintech services over regular bank services, which is in line with BNPL adoption trends [5].

Impulse buying was influenced by fintech credit use (H1: $\beta = 0.624, p < .001$), which supports the S-O-R model. Over 67 per cent admitted to engaging in spontaneous shopping using digital credit services, and about 71 per cent admitted that deals made them purchase spontaneously. Financial irresponsibility was evident in lower worry about money spent compared with cash, buyer's remorse, poor management of debts and delayed payments.

The Pearson correlation test revealed significant positive relationships between all variables ($r = 0.641$ – 0.724 , all $p < .01$), with debt accumulation and financial vulnerability having the strongest relationship ($r = 0.724$). The PROCESS macro Model 4 bootstrapping method for mediation analysis using 5,000 samples demonstrated partial mediation by impulse buying behaviour, with a significant indirect effect (0.257; 95% BC-CI [0.189, 0.328]) and also a significant direct effect ($\beta = 0.415, p < .001$), showing that fintech credit directly increases financial vulnerability through mismanagement of debt and consistently delayed payments. The reliability of the instrument used was very high ($\alpha = 0.937$), which evidences financial vulnerability among Gen Z in Bengaluru.

VII. LIMITATIONS OF THE RESEARCH

Several constraints in this research need to be taken into account. First, a cross-sectional design makes it impossible to draw causal conclusions, since longitudinal information would be necessary to confirm the temporal sequence between fintech credit use, impulsive purchases and financial vulnerability. Second, there was an evident gender bias within the sample, where women accounted for 54.67 per cent while men made up only 21.67 per cent; stratified sampling techniques are recommended for future work. Third, although students form an essential part of the Gen Z target audience, they accounted for only 14.33 per cent of the sample, and their financial vulnerability may differ from that of employed respondents.

Fourth, the paper exclusively employs self-report Likert-scale data, which is prone to social desirability bias; actual fintech transaction records would provide more accurate behavioural data. Fifth, although the PROCESS macro Model 4 produces assumption-free mediated effects using bootstrapping of observed variables, the technique assumes no measurement error in the constructs.

Using SEM with confirmatory factor analysis would permit the simultaneous testing of all paths, the modelling of latent variables and an assessment of overall model fit using metrics such as CFI and RMSEA. Lastly, the viewpoint of the fintech organisations that formulate these credit products was not explored here and is another potential avenue for further investigation.

VIII. CONCLUSION

This research paper analysed the relationship between fintech credit usage, impulsive buying behaviour, debt creation and financial vulnerability among Generation Z residing in Bengaluru ($n = 300$). All the hypotheses were found to be valid based on the analysis conducted using SPSS 26.0. Fintech credit usage significantly predicted impulsive buying ($H1: \beta = 0.624, p < .001$); impulsive buying predicted debt accumulation ($H2: \beta = 0.571, p < .001$); and impulsive buying partially mediated the fintech credit–financial vulnerability relationship ($H3$: indirect effect = 0.257, 95% BC-CI [0.189, 0.328], bootstrapped via PROCESS macro Model 4 with 5,000 resamples). A meaningful direct effect remained ($\beta = 0.415, p < .001$), proving that fintech credit makes users financially vulnerable independent of impulsive purchasing.

From an applied perspective, fintech companies should incorporate debt monitoring systems and expenditure summaries; government policy should impose limits on credit exposure and requirements for total cost disclosure; and educational institutions should introduce digital financial literacy into their programmes. Fintech credit makes access to finance more democratic, but this research makes clear that access without financial literacy is itself a form of vulnerability.

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