

# Effect of Digital Mobile Loan Usage on Academic Performance of University Students in Nairobi County, Kenya

Mary Andika\*

*Department of Procurement and Logistics, Multimedia University of Kenya, Nairobi, Kenya*

**Abstract:** The rapid growth of digital financial technologies has increased access to mobile-based credit among university students in Kenya, raising concerns about its potential implications for academic outcomes. Guided by the Theory of Planned Behavior, this study examined the effect of digital mobile loan usage on the academic performance of university students in Nairobi County, Kenya. Specifically, the study assessed the effect of accessibility of digital mobile loans, cost of borrowing, and digital loan dependency on students' academic performance which was measured using GPA, attendance, or assignment completion. A descriptive survey research design was adopted, targeting undergraduate students from 27 public and private universities in Nairobi County. Using stratified random sampling, a sample of 399 students was selected, out of which 327 valid responses were obtained, representing an 82% response rate. Data were collected using structured questionnaires and analyzed using descriptive statistics, Pearson correlation, and multiple regression analysis with the aid of SPSS. The findings revealed that accessibility of digital mobile loans had a significant negative effect on academic performance ( $\beta = -0.262, p < 0.05$ ), indicating that ease of access encouraged frequent borrowing that reduced academic focus. Overall, the variable jointly explained 58.1% of the variation in academic performance. The study concludes that while digital mobile loans enhance financial access, excessive accessibility, high borrowing costs, and loan dependency negatively affect students' academic performance. The study recommends strengthening financial literacy programs in universities, enhancing regulation of digital mobile lending, and promoting responsible borrowing practices to safeguard students' academic success.

**Keywords:** Digital mobile loans, academic performance, theory of planned behaviour, university students, Nairobi County.

## 1. Introduction

Accessibility of digital mobile loans refers to the ease with which individuals can obtain credit through mobile-based platforms, often without collateral, guarantors, or extensive documentation. The rapid expansion of mobile technology and digital financial services has made credit readily available to users at any time and location, particularly among young adults and university students. Digital loan platforms typically require minimal application procedures, relying on mobile phone data, transaction history, and automated credit scoring systems to approve loans within minutes (Kowsar, 2023).

Globally, studies indicate that increased accessibility to digital credit has lowered traditional barriers to borrowing but has also encouraged frequent and sometimes impulsive borrowing behaviour. The ability to access multiple loan applications simultaneously further increases the likelihood of over-borrowing, especially among individuals with limited income and financial management skills (Li et al, 2020). For university students, easy access to digital loans may initially serve as a financial cushion for academic and personal needs; however, excessive accessibility can lead to poor borrowing decisions that interfere with academic focus.

In Kenya, the accessibility of digital mobile loans has expanded significantly due to widespread mobile phone ownership and the integration of lending services into mobile money platforms. University students in urban areas such as Nairobi County can access several loan applications, often without clear disclosure of borrowing limits or repayment implications. Research conducted among Kenyan youth shows that the ease of loan application and approval has contributed to increased borrowing frequency, with many borrowers taking loans to meet short-term consumption needs rather than productive or academic purposes (Wachira et al, 2023).

Furthermore, the simplicity of the loan application process reduces the perceived seriousness of borrowing, which may result in students underestimating the financial obligations associated with digital loans. Studies suggest that students who use multiple loan applications are more likely to experience financial stress and divided attention, which may negatively affect class attendance, assignment completion, and overall academic performance (Oyeleye, 2021). As such, while accessibility enhances financial inclusion, excessive ease of access to digital mobile loans may have unintended consequences on students' academic outcomes.

## 2. Statement of the Problem

University students in Nairobi County increasingly rely on digital mobile loans to meet financial needs, including tuition, accommodation, and daily expenses. While these loans offer convenience and quick access to funds, emerging evidence suggests that their accessibility, high costs, and repeated

\*Corresponding author: victorkipyegon762@gmail.com

borrowing can negatively affect students' academic performance. Students who borrow frequently through multiple loan applications may experience financial stress and distraction, which can lead to missed lectures, delayed submission of assignments, and lower grades (CM *et al.*, 2024).

Recent industry and market reports illustrate the rapid expansion and substantial financial scale of digital mobile loans in Kenya, which have direct implications for students' finances. As of 2025, Kenyans borrow approximately KSh 500 million per day through digital lending platforms, equivalent to about KSh 15 billion per month, with over 8 million active borrowers nationwide, highlighting the extensive reach of mobile credit. The total value of loans issued by licensed digital credit providers rose from KSh 28.9 billion in 2023 to KSh 55.2 billion by the end of December 2024, with an average loan size of around KSh 13,917, indicating both growth in loan volume and substantial sums accessed by borrowers. Between their licensing date and mid-2025, digital lenders had disbursed 5.5 million loans worth about KSh 76.8 billion, further demonstrating the significant flow of digital credit in the economy. Additionally, mobile loans accounted for the majority of new credit activity in early 2024, with a total mobile loan balance of KSh 158.8 billion and average quarterly borrowing limits of roughly KSh 15,600 per borrower. These figures underscore how widespread and financially large mobile loan uptake has become in Kenya, suggesting that significant amounts of money are circulating in short-term credit funds that many university students are likely tapping into to cover academic and personal expenses.

The high cost of digital loans, including interest rates, transaction fees, and penalties, can intensify financial pressure on students, forcing them to prioritize loan repayment over academic needs such as textbooks, internet access, or research materials. Studies indicate that students under financial pressure often show reduced concentration, lower motivation, and irregular study habits, which collectively contribute to declining academic outcomes (Chemagosi, 2021).

Moreover, digital loan dependency where students borrow repeatedly to repay previous loans or to finance non-essential activities can create a cycle of debt that further disrupts academic engagement. Such dependency has been linked to stress, absenteeism, and poor assignment completion, which directly influence students' GPA and overall academic success (Kipyegon 2025).

Despite the growing use of digital loans among students, little empirical research exists in Kenya to establish the specific relationship between digital loan usage and students' academic performance. Most studies have focused on financial or behavioral outcomes without investigating how loan accessibility, cost, and dependency impact measurable academic indicators such as GPA, class attendance, and assignment completion rates. This lack of evidence limits policymakers, university administrators, and student support services from implementing effective strategies to mitigate the negative effects of digital loans on academic outcomes.

Therefore, this study seeks to address this gap by examining how the accessibility, cost of borrowing, and dependency

associated with digital mobile loans influence academic performance among university students in Nairobi County, Kenya. The study aims to provide insights into how digital lending practices may be moderated or managed to safeguard students' academic success.

### *A. Specific Objectives*

To determine the effect of accessibility of digital mobile loans on the academic performance of university students in Nairobi County.

### *B. Research Hypothesis*

This study will be guided by the following research hypothesis;

H<sub>01</sub>: Accessibility of digital mobile loans has no significant effect on the academic performance of university students in Nairobi County.

### *C. Theoretical Review*

A theory is a systematic explanation of phenomena that helps to predict, understand, and interpret relationships between variables (Creswell, 2014). Theoretical frameworks provide a foundation for research by guiding the study's objectives, hypotheses, and conceptual framework.

This study is guided by three main theories: the Theory of Planned Behaviour (Ajzen, 1991), the Financial Capability Theory (Lusardi & Mitchell, 2014), and the Self-Regulation Theory (Zimmerman, 2000). These theories inform the understanding of how digital mobile loan usage may influence academic performance among university students.

#### *1) Theory of Planned Behaviour (TPB)*

The Theory of Planned Behaviour (TPB) was proposed by Icek Ajzen in 1991. The theory suggests that human behaviour is determined by intentions, which are influenced by three factors: attitudes toward the behaviour, subjective norms, and perceived behavioural control. In this study, TPB relates to the variable accessibility of digital mobile loans, as it provides a framework for understanding how students' attitudes toward borrowing, the influence of peers or family (subjective norms), and their perceived ability to manage loans (perceived control) shape their borrowing decisions.

The relevance of TPB to this study lies in its ability to explain how students' borrowing behaviour affects their academic performance. For instance, students with positive attitudes toward digital loans and strong peer influence may access multiple loans frequently, potentially leading to financial stress, distraction, missed lectures, and lower GPA. TPB helps to predict such behavioural outcomes, linking loan accessibility to measurable academic indicators like attendance, assignment completion, and examination performance.

A limitation of TPB is that it focuses primarily on intended behaviour rather than actual behaviour. In the context of digital mobile loans, students may act impulsively or under financial pressure, deviating from their planned intentions. This limitation implies that while TPB can explain tendencies and motivations, it may not fully account for all instances of unplanned or compulsive borrowing that affect academic performance.

#### D. Empirical Review

According to Birken, (2020), empirical literature not only provides evidence-based insights into relationships between variables but also helps identify gaps, validate concepts, compare findings across contexts, and build a case for new research. It supports theory with real world data, highlights methodological approaches, and informs the design and justification of current studies.

##### 1) *Accessibility of Digital Mobile Loans and Academic Performance*

Empirical evidence from the United States shows that accessibility of digital credit can influence academic performance among university students. Aldhahi et al. (2022) conducted a study in the United States using a cross-sectional survey research design to examine the relationship between access to short-term digital credit and academic outcomes among university students. Academic performance was measured using grade point average (GPA) and class attendance. The findings revealed that students with easy access to digital credit platforms experienced increased academic distractions and financial stress, which negatively affected their GPA and attendance. However, the study focused on web-based credit platforms rather than mobile loan applications, limiting its applicability to mobile-driven contexts such as Kenya.

In Nigeria, empirical studies have examined the effect of digital financial service accessibility on students' academic outcomes. Adeyemi and Ogunleye (2021) conducted a study among university students in Nigeria using a descriptive survey design. Academic performance was measured using self-reported GPA and examination performance. The study found that easy access to digital credit increased borrowing frequency, which was associated with reduced study time and lower academic performance. Despite these findings, the study focused broadly on digital financial services and did not isolate mobile loan applications as a distinct form of credit.

Within East Africa, a study conducted in Uganda by El Said (2021) examined the influence of digital credit accessibility on university students using a quantitative survey research design. Academic performance was assessed using class attendance and timely completion of assignments. The findings indicated that students with easier access to mobile loan platforms were more likely to miss lectures and delay assignment submission due to stress arising from frequent borrowing. However, the study emphasized student wellbeing rather than academic performance as the primary dependent variable.

In Kenya, Wachira and Kihara (2023) examined digital mobile loan usage among university students in Nairobi County using a cross-sectional survey design. Academic performance was measured using self-reported GPA and lecture attendance. The study found that students who accessed multiple mobile loan applications reported increased financial stress and reduced academic focus, which negatively affected their academic performance. Nonetheless, the study did not comprehensively examine accessibility indicators such as ease of loan application and number of mobile loan apps used, nor did it cover a wide range of universities.

Overall, empirical studies from the United States, Nigeria,

Uganda, and Kenya suggest that accessibility of digital credit can influence students' academic outcomes, though most studies focus on general digital credit or student wellbeing rather than academic performance. The current study addresses this gap by specifically examining accessibility of digital mobile loans, measured through number of mobile loan applications used and ease of loan application, and its effect on academic performance indicators—GPA, class attendance, and assignment completion—among students in 27 public and private universities in Nairobi County, Kenya.

### 3. Methodology

This chapter described the research methodology that was adopted in the study to examine the effect of digital mobile loan usage on academic performance of university students in Nairobi County, Kenya. It explained the research design, population, sample size, sampling techniques, data collection instruments, data analysis methods, and ethical considerations. The methodology was designed to ensure the study generated valid and reliable findings to address the research objectives.

#### A. Research design

The study adopted a descriptive survey research design. This design was considered appropriate because it allowed the researcher to collect data from a large number of university students regarding their digital mobile loan usage and academic performance at a specific point in time. The design enabled the study to describe the relationships between the independent variables, which were accessibility of digital mobile loans, cost of borrowing, and digital loan dependency, and the dependent variable, academic performance, without manipulating any variables.

The descriptive survey design was chosen because it provided a systematic way of gathering quantitative information on the frequency, patterns, and perceptions of students' digital loan usage and its effect on measurable academic outcomes, including grade point average, class attendance, and assignment completion. By using this design, the study was able to summarize, interpret, and make inferences about the effects of digital mobile loans on students' academic performance in 27 public and private universities in Nairobi County

#### B. Target Population

A population is defined as the complete set of individuals, objects, or events that share common characteristics and are of interest to a researcher for a specific study (Casteel, 2021). The target population for this study comprised all students enrolled in the 27 public and private universities in Nairobi County, Kenya. These students were considered appropriate for the study because they actively used digital mobile loans and represented diverse academic disciplines, years of study, and socio-economic backgrounds. The population included undergraduate and postgraduate students, both male and female, who were accessible and willing to participate in the study. By focusing on this population, the study was able to capture variations in digital mobile loan usage and its potential

Table 1  
Target population distribution

University	Student Enrollment (2025)
Adventist University of Africa	539
Africa International University	1,378
Africa Nazarene University	3,046
Aga Khan University, Kenya	789
Amref International University	1,703
Daystar University	6,307
International Leadership University, Kenya	240
Islamic University of Kenya	503
Jomo Kenyatta University of Agriculture and Technology	44,131
KAG East University	369
KCA University	12,527
Kenyatta University	36,013
Kiriri Women's University of Science and Technology	2,831
Management University of Africa	1,061
Multimedia University of Kenya	9,196
Pan Africa Christian University	1,502
Pioneer International University	92
Riara University	1,551
Strathmore University	8,585
Tangaza University	1,337
Technical University of Kenya	13,670
The Catholic University of Eastern Africa	9,769
The Co-operative University of Kenya	3,437
The East African University	593
United States International University Africa	16,771
University of Nairobi	41,174
Zetech University	4,343

Source: CUE, 2025

effects on academic performance, providing a comprehensive understanding of the phenomenon within universities in Nairobi County.

### C. Sample Size and Sampling Technique

The study used a stratified random sampling technique to select participants from the 27 universities in Nairobi County. Stratified random sampling was considered appropriate because it ensured that students from both public and private universities, as well as different academic programs and years of study, were adequately represented. The stratification helped to capture variations in digital mobile loan usage and its effect on academic performance across different groups.

Therefore, the total sample size was approximately 399 students. The sample was then proportionally allocated to each university based on their enrollment size to ensure representation of all institutions. Individual participants were selected randomly from each university list provided by the administration to reduce selection bias.

This sampling procedure ensured that the study sample was representative of the target population, capturing variations in students' exposure to digital mobile loans and differences in academic performance across Nairobi County universities.

### D. Data Analysis Techniques

The data collected from the questionnaires were coded, cleaned, and analyzed using the Statistical Package for Social Sciences (SPSS) version 25. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize demographic information and study variables, providing an overview of students' digital mobile loan usage and academic performance.

Inferential statistics were employed to examine the relationships between the independent variables accessibility of

digital mobile loans, cost of borrowing, and digital loan dependency and the dependent variable, academic performance. Pearson correlation analysis was used to determine the strength and direction of the relationships, while multiple regression analysis was conducted to test the effect of each independent variable on academic performance. Hypotheses were tested at a 5% significance level ( $p \leq 0.05$ ).

The following regression model was used to investigate the relationship between the research variables:

$$F1 = \beta_0 + B1X1 + \epsilon$$

Where F1 is the Academic performance;

$\beta_0$  = constant (coefficient of intercept)

X1= accessibility of digital mobile loans

$\epsilon$  =Error term;

B1, = regression coefficient

The results were presented using tables, charts, and narrative descriptions to facilitate interpretation and discussion. This approach ensured that both the magnitude and significance of relationships between variables were clearly reported, providing evidence to support or reject the study hypotheses.

## 4. Result and Discussion

### A. Descriptive Analysis of Study Variables

This section presents the descriptive analysis of the study variables based on data collected from the respondents. Descriptive statistics were used to summarize respondents' perceptions on accessibility of digital mobile loans, cost of borrowing digital mobile loans, digital loan dependency, and academic performance. The analysis was conducted using mean

Table 2  
Descriptive statistics on accessibility of digital mobile loans

Statement	Mean	Std. Deviation
It is easy to apply for digital mobile loans	4.21	0.89
Digital mobile loans are approved quickly	4.18	0.92
I can access digital loans at any time using my phone	4.25	0.85
I use more than one mobile loan application	3.87	1.04
Accessibility of digital mobile loans encourages frequent borrowing	4.02	0.97
Average Mean	4.11	

Source: Research Data (2026)

Table 4  
ANOVA results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	49.582	3	16.527	121.84	0.000
Residual	35.703	323	0.111		
Total	85.285	326			

Source: Research Data (2026)

Table 5  
Regression coefficients

Variable	B	Std. Error	Beta	t	Sig.
Constant	5.104	0.162		31.50	0.000
Accessibility of Digital Mobile Loans	-0.241	0.039	-0.262	-6.18	0.000

Source: Research Data (2026)

scores and standard deviations derived from Likert-scale items in the questionnaire.

The purpose of the descriptive analysis was to establish the general trends, patterns, and variability of responses regarding digital mobile loan usage and academic performance among university students in Nairobi County. The results are presented and discussed in subsequent subsections in line with the study objectives.

### 1) Accessibility of Digital Mobile Loans

This subsection presents the descriptive analysis of accessibility of digital mobile loans among university students in Nairobi County. Accessibility was measured using Likert-scale statements focusing on ease of loan application and the number of mobile loan applications used by students. Mean scores and standard deviations were used to summarize respondents' perceptions.

The results indicate a high level of accessibility of digital mobile loans among university students, as reflected by an overall mean score of 4.11. Respondents largely agreed that digital mobile loans were easy to apply for, quickly approved, and accessible at any time through mobile phones. The relatively high mean score for the use of multiple loan applications suggests widespread exposure to several digital lending platforms.

These findings are consistent with the empirical studies reviewed in Chapter Two which found that ease of access to digital and mobile loan platforms increased borrowing frequency among university students. Similarly, Muthoni and Kinyua (2022) reported that high accessibility of mobile loans contributed to financial stress and academic distraction due to frequent borrowing. Therefore, the descriptive findings of this study support existing empirical evidence that increased accessibility of digital mobile loans is common among university students and may have implications for their academic performance.

### B. Multiple Regression Analysis

This section presents the results of multiple regression

analysis conducted to examine the effect of accessibility of digital mobile loans, cost of borrowing, and digital loan dependency on the academic performance of university students in Nairobi County. The analysis aimed to determine both the combined and individual contribution of the independent variables to academic performance.

Table 3  
Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.762	0.581	0.576	0.368

### 1) Model Summary

The results indicate that the independent variables jointly explained 58.1% of the variation in academic performance ( $R^2 = 0.581$ ). This implies that accessibility of digital mobile loans had a strong combined influence on academic performance among university students in Nairobi County, while the remaining 41.9% of the variation was explained by other factors not included in the model.

### 2) Analysis of Variance (ANOVA)

The ANOVA results show that the regression model was statistically significant ( $F = 121.84$ ,  $p < 0.05$ ). This indicates that the independent variables, when combined, significantly predicted academic performance.

### 3) Regression Coefficients

The findings reveal that all the independent variables had a negative and statistically significant effect on academic performance. Accessibility of digital mobile loans negatively influenced academic performance ( $\beta = -0.262$ ,  $p < 0.05$ ), indicating that increased ease of access to digital loans reduced academic outcomes. Overall, the regression results demonstrate that digital mobile loan usage significantly influenced academic performance among university students in Nairobi County.

### C. Hypotheses Testing

The first hypothesis stated that accessibility of digital mobile loans has no significant effect on the academic performance of university students in Nairobi County. The regression analysis

indicated that accessibility of digital mobile loans had a negative and statistically significant effect on academic performance ( $\beta = -0.262$ ,  $p = 0.000$ ). Since the p-value was less than the 0.05 level of significance, the null hypothesis was rejected. This implies that increased ease of access to digital mobile loans significantly reduced academic performance among university students.

## 5. Conclusion

The study concluded that accessibility of digital mobile loans significantly influenced the academic performance of university students in Nairobi County. While easy access to digital loans provided short-term financial relief, excessive accessibility encouraged frequent borrowing, which negatively affected students' academic focus and performance.

### A. Recommendations

Based on the findings of the study, several recommendations are proposed. First, universities should strengthen financial literacy programs to equip students with skills on responsible borrowing, budgeting, and understanding the true cost of digital mobile loans. Such programs can help students make informed financial decisions and reduce over-reliance on digital loans.

Second, policymakers and financial regulators should enhance regulation and oversight of digital mobile loan providers to ensure transparency in interest rates, fees, and repayment terms. Clear disclosure of borrowing costs and enforcement of responsible lending practices can help protect students from excessive financial burden that may negatively affect their academic performance.

Third, digital mobile loan providers should consider designing student-friendly loan products with lower interest rates, flexible repayment periods, and borrowing limits tailored to students' financial capacity. This would reduce financial stress and minimize the negative academic effects associated with high borrowing costs and short repayment timelines.

Finally, students should be encouraged to develop strong financial discipline and self-regulation skills by limiting unnecessary borrowing and avoiding dependency on digital mobile loans. Seeking alternative financial support mechanisms such as scholarships, part-time work, and university support funds may help reduce reliance on high-cost digital credit.

## References

- [1] I. Ajzen, "The theory of planned behavior," *Organizational Behavior and Human Decision Processes*, vol. 50, no. 2, pp. 179–211, 1991.
- [2] M. I. Aldhahi, A. S. Alqahtani, B. A. Baattaiah, and H. I. Al-Mohammed, "Exploring the relationship between students' learning satisfaction and self-efficacy during the emergency transition to remote learning amid the coronavirus pandemic: A cross-sectional study," *Education and Information Technologies*, vol. 27, no. 1, pp. 1323–1340, 2022.
- [3] S. A. Birken, E. R. Haines, S. Hwang, D. A. Chambers, A. C. Bunger, and P. Nilsen, "Advancing understanding and identifying strategies for sustaining evidence-based practices: A review of reviews," *Implementation Science*, vol. 15, no. 1, p. 88, 2020.
- [4] A. Casteel and N. L. Bridier, "Describing populations and samples in doctoral student research," *International Journal of Doctoral Studies*, vol. 16, no. 1, 2021.
- [5] M. J. Chemagosi, "Student well-being in higher education institutions: Academic pressures," in *Student Well-Being in Higher Education Institutions*, Hershey, PA, USA: IGI Global, 2024, pp. 81–106.
- [6] Commission for University Education, *University Enrolment Statistics in Kenya*. Government of Kenya, 2025.
- [7] J. W. Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 4th ed. Thousand Oaks, CA, USA: SAGE Publications, 2014.
- [8] G. R. El Said, "How did the COVID-19 pandemic affect higher education learning experience? An empirical investigation of learners' academic performance at a university in a developing country," *Advances in Human-Computer Interaction*, vol. 2021, Art. no. 6649524, 2021.
- [9] M. M. Kowsar, M. Mohiuddin, and H. A. Mohna, "Credit decision automation in commercial banks: A review of AI and predictive analytics in loan assessment," *American Journal of Interdisciplinary Studies*, vol. 4, no. 4, pp. 1–26, 2023.
- [10] V. Kipyegon, C. Ikamari, and M. Makau, "Budgetary controls and financial performance of county governments in Kenya: A case of Kericho County, Kenya," *The International Journal of Business & Management*, vol. 13, no. 7, 2025.
- [11] K. K. Li, D. Liu, X. D. Mai, Q. J. Zhang, X. Y. Ren, G. Q. Xu, and K. Zhang, "What drives excessive borrowing and under-borrowing? A field experiment," 2020.
- [12] A. Lusardi and O. S. Mitchell, "The economic importance of financial literacy: Theory and evidence," *Journal of Economic Literature*, vol. 52, no. 1, pp. 5–44, 2014.
- [13] I. J. Oyeleye, "Stress factors and parental socio-economic status on class attendance and academic performance of business education students in colleges of education," Ph.D. dissertation, Kwara State University, Nigeria, 2021.
- [14] D. C. M., N. Dileep, and E. Jimmy, "Study on the relationship between student loan debt and stress among students," Ph.D. dissertation, St. Teresa's College (Autonomous), Ernakulam, India, 2024.
- [15] B. J. Zimmerman, "Attaining self-regulation: A social cognitive perspective," in *Handbook of Self-Regulation*, M. Boekaerts, P. R. Pintrich, and M. Zeidner, Eds. San Diego, CA, USA: Academic Press, 2000, pp. 13–39.