A Comprehensive Review of Digital Financial Platforms for Teenagers: Financial Literacy, Parental Oversight, Security and Responsible Digital Payments

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ABSTRACT

The rapid expansion of digital payments and financial technology has changed the way young people interact with money. Teenagers are increasingly exposed to online purchases, mobile payments, digital wallets and technology-enabled financial services while still developing the knowledge required for responsible money management. This review examines research related to teen-oriented digital finance from the perspectives of personal finance management, digital wallets, financial education, parental involvement, digital-payment adoption and intelligent financial assistance. Eight research papers are synthesized, including three studies focused on Finexa, a school-oriented RFID digital wallet, and an AI-powered financial consultant, together with five additional studies addressing digital and financial literacy, Indian mobile-wallet adoption, family financial socialization and parent-child financial conversations. The reviewed literature indicates that expense visibility, budgeting, financial education, secure digital payments and parental involvement are recurring requirements for younger users. It also shows that existing systems commonly emphasize one or two of these dimensions rather than integrating them into a single age-appropriate financial ecosystem. The review therefore identifies a research gap at the intersection of teen financial independence, parent-guided oversight, digital payment functionality, financial literacy and security. The paper proposes directions for future research into integrated, privacy-aware and educational financial platforms for teenagers. The review is intentionally non-implementation-oriented and does not present the design, development, testing or experimental results of the proposed platform.

Keywords: Digital Financial Literacy, Teenagers, Digital Payments, Digital Wallet, Personal Finance Management, Parental Oversight, Financial Education, FinTech, Payment Security, Youth Finance.

INTRODUCTION

Digital financial services are becoming a normal part of everyday life, including for teenagers and students. Young people may use digital wallets, QR payments, online banking, and mobile applications to receive pocket money and make small payments. However, knowing how to use a digital payment system does not always mean that a young person understands budgeting, saving, responsible spending, privacy, or financial security. Therefore, digital financial platforms for teenagers should provide not only payment convenience but also support for better financial awareness and decision-making. Lo Prete [4] also highlights the importance of combining digital literacy with financial literacy when people use digital financial services.

Several studies show different ways in which technology can support young users in managing money. Waje et al. [1] presented Finexa, a personal finance management application with features such as expense tracking, budgeting, financial goals, and educational support. Sari et al. [2] studied a digital wallet and RFID-based payment system for school students and highlighted the role of parents in monitoring student expenses. Lakshmi et al. [3] proposed an AI-powered financial consultant that combines financial management with intelligent guidance and financial education. Together, these studies show that digital finance can go beyond simple transactions and can also help users understand and manage their financial activities.

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Other research shows that trust, financial knowledge, and family support are also important for young users. Hasan et al. [5] found that factors such as trust, perceived value, compatibility, and social influence affect the intention of Indian youngsters to use digital payments. Agnew and Sotardi [6] and Cordero and Mateos-Romero [7] showed that family practices and financial discussions can influence financial confidence and financial literacy among young people. Alvarez Padilla, Loibl, and Boone [8] also examined ways to encourage financial conversations between children and their families. These studies suggest that a teen-focused financial platform should consider both technology and the social environment in which young people learn about money.

Based on these studies, there is a need to examine how digital payments, personal finance management, financial education, security, and suitable parental involvement can work together in a single teen-oriented environment. This review brings together the eight selected studies to identify their major contributions, limitations, and common research gaps. The findings provide a research foundation for the future development of the proposed platform, while implementation, testing, and user evaluation of the proposed platform remain outside the scope of this review.

This review focuses on literature relevant to financial platforms that may be used by teenagers or students.

Objectives

• To examine existing digital personal-finance and digital-wallet approaches relevant to younger users.

• To analyze the role of budgeting, expense tracking, financial education and financial guidance.

• To examine parental involvement and family financial socialization in adolescent financial development.

• To review factors affecting digital-payment and mobile-wallet adoption.

• To identify security, privacy and trust considerations for teen-oriented digital finance.

• To synthesize the reviewed literature and identify a research gap relevant to the proposed platform.

• To identify future research directions without presenting implementation results.

LITERATURE REVIEW

Digital Personal Finance Management and Digital Wallets

Waje et al. [1] presented Finexa, a personal finance management web application designed to support expense tracking, budgeting, financial goal setting, real-time financial summaries, and financial guidance. The study identifies students and young professionals as potential users who may experience difficulties in maintaining traditional budgeting and expense-tracking practices. Its contribution to the present review lies in demonstrating how financial activities can be organized and presented in a way that supports financial awareness and planning.

For teenagers, these functions may provide opportunities to understand spending patterns and develop budgeting habits. However, Finexa is primarily a general personal finance management application rather than a platform centered on parent-child financial interactions. Therefore, its contribution is most directly relevant to financial management features, while its suitability for supervised financial independence among minors requires further investigation [1].

Sari et al. [2] examined a digital wallet and RFID-based payment system for primary-school students. The proposed system addresses difficulties associated with cash handling in school environments and provides a mechanism for cashless payments and parental monitoring through an online portal. The study highlights convenience, transaction visibility, and parental involvement as important aspects of digital payments for younger users.

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Compared with the general financial management approach of Finexa, this study provides a more direct connection between student payments and parental oversight. However, its focus on primary-school transactions and RFID-based payments differs from the broader financial needs of teenagers, who may require budgeting, money requests, financial education, and opportunities for greater independence. Thus, the study provides a useful foundation for supervised spending but does not establish the effectiveness of a comprehensive teen-oriented financial platform [2].

Lakshmi et al. [3] proposed an AI-powered financial consultant that integrates financial management with intelligent assistance. The system addresses budgeting, expense tracking, reminders, financial education, and financial decision support. Its main contribution is the possibility of combining routine financial activities with guidance that helps users understand their financial decisions.

This approach complements Finexa by emphasizing intelligent assistance alongside financial management. For teenagers, educational explanations and age-appropriate reminders may be more useful than advanced financial advice. Nevertheless, the proposed consultant is oriented toward general personal finance management, and its suitability for minors requires consideration of age-appropriate content, privacy, and safety. The study therefore supports the potential role of educational assistance without demonstrating its effectiveness for teenage users specifically [3].

Digital and Financial Literacy and Payment Adoption

Lo Prete [4] investigated the relationship between digital literacy, financial literacy, digital-payment use, and personal finance decisions. The study indicates that digital-payment use is associated with digital literacy, whereas more informed personal finance choices are associated with financial literacy. This distinction suggests that the ability to operate digital financial services does not necessarily imply the ability to make informed financial decisions.

This finding complements the technology-focused studies [1]–[3]. While digital wallets and financial management applications provide tools for managing money, financial literacy helps users understand the meaning and consequences of their financial activities. For teenagers, this supports integrating financial education with practical budgeting and transaction feedback rather than concentrating exclusively on payment convenience. However, the findings should not be interpreted as adolescent-specific unless the study's population supports that conclusion [4].

Hasan et al. [5] examined behavioural intention to use digital payments among Indian youngsters and identified factors including trust, perceived value, compatibility, and social influence. The study provides an Indian-context perspective on the factors that may influence digital-payment adoption.

Compared with Lo Prete [4], which emphasizes the complementary roles of digital and financial literacy, Has-an et al. [5] focus on behavioural and adoption-related factors. Together, these studies suggest that a digital financial platform needs both understandable financial features and an environment that users perceive as trustworthy and compatible with their needs. Nevertheless, adoption intention is distinct from actual financial behaviour, and findings from a broader youth population should not automatically be generalized to all teenagers or minors.

Family Financial Socialization and Parental Guidance

Agnew and Sotardi [6] examined family financial socialization among New Zealand adolescents and its relationship with financial confidence, intentions, and behaviours. The study highlights the importance of openness within the family and the influence of the home environment on adolescent financial development. It also indicates that financial confidence, intentions, and actual behaviour do not necessarily align.

This research contributes a developmental perspective that complements the technological approaches discussed earlier. While digital platforms can provide spending information and budgeting tools, family interaction may help adolescents interpret their financial experiences and develop responsible habits. Parental

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involvement should therefore be understood not only as monitoring but also as guidance and support for developing financial capability [6].

Cordero and Mateos-Romero [7] explored the role of the family environment in explaining students' financial literacy using Spanish PISA 2022 data. Their findings associate home-based financial practices and family interactions with student financial-literacy levels. The study emphasizes the importance of the household as an environment for financial learning.

In comparison with Agnew and Sotardi [6], which focuses on adolescents' financial confidence, intentions, and behaviours, Cordero and Mateos-Romero [7] examine family-related factors associated with student financial literacy. Both studies support the relevance of family financial socialization, although their populations, contexts, and outcomes differ. These findings suggest that practical financial experiences and family discussions could complement educational features in a teen-oriented platform. However, associations between family practices and financial literacy do not, by themselves, demonstrate that a particular digital platform will improve financial outcomes.

Alvarez Padilla, Loibl, and Boone [8] examined the Money Talks intervention, which was designed to encourage financial conversations between parents or caregivers and middle-school students. The study shifts attention from financial knowledge alone toward communication between children and adults about financial matters.

Compared with the broader family financial socialization studies [6], [7], this research focuses on an intervention intended to encourage parent-child financial conversations. It therefore provides a relevant basis for considering guided communication as a potential platform feature. Nevertheless, a financial-conversation intervention differs from a digital-payment system, and its findings should not be treated as direct evidence of the effectiveness of integrated financial platforms [8].

Comparative Analysis and Implications

The eight studies address complementary dimensions of digital financial capability. Waje et al. [1] emphasize budgeting and personal finance management, Sari et al. [2] focus on school payments and parental monitoring, and Lakshmi et al. [3] explore the integration of financial management with intelligent guidance. Lo Prete [4] highlights the complementary roles of digital and financial literacy, while Hasan et al. [5] examine factors associated with digital-payment adoption in India. Agnew and Sotardi [6], Cordero and Mateos-Romero [7], and Alvarez Padilla et al. [8] contribute evidence concerning family financial socialization, student financial literacy, and parent-child financial conversations.

The studies differ in their populations, research objectives, and outcomes. In particular, primary-school students, middle-school families, adolescents, students in broader educational settings, and general consumer groups should not be treated as equivalent populations. Similarly, research on proposed financial systems, payment adoption, family relationships, and educational interventions provides different forms of evidence. These differences limit the extent to which findings can be generalized across all teenagers.

Taken together, the literature supports the relevance of financial management tools, financial education, parental guidance, trust, and secure digital payments. However, the reviewed studies do not collectively establish the effectiveness of a single platform integrating all these dimensions for teenagers. This provides a basis for further research into an age-appropriate digital financial environment that combines budgeting, transaction visibility, educational assistance, proportionate parental oversight, privacy, and security while supporting the development of financial independence.

LITERATURE SYNTHESIS TABLE

Study	Research focus / population	Main contribution / findings	Limitations and relevance to teenagers	Implication for the proposed platform
Waje et al.	Personal finance	Expense tracking,	General personal-finance	Supports budgeting,

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[1]	management; students and young professionals are identified as potential users.	budgeting, financial goals, real-time summaries, and financial guidance.	orientation; effectiveness for minors and parent-child financial management is not established in the current manuscript.	transaction visibility, savings goals, and financial guidance.
Sari et al. [2]	RFID-based digital wallet for primary-school students.	Cashless school payments, parental monitoring, and transaction transparency.	Focuses on school purchases and younger children rather than teenagers' broader financial needs.	Supports supervised spending and parent-facing transaction visibility.
Lakshmi et al. [3]	AI-powered financial consultant; target population and study design require verification.	Integrates budgeting, expense tracking, reminders, financial education, and intelligent financial assistance.	General financial-management orientation; suitability and effectiveness for minors require further evaluation.	Supports age-appropriate educational guidance alongside financial management.
Lo Prete [4]	Digital literacy, financial literacy, digital-payment use, and personal-finance decisions.	Indicates complementary roles for digital literacy and financial literacy in digital financial activity and informed decisions.	Findings should not be treated as adolescent-specific without confirming the study population.	Supports combining payment functionality with financial education.
Hasan et al. [5]	Digital-payment adoption among Indian youngsters.	Identifies trust, perceived value, compatibility, and social influence as factors associated with intention to use digital payments.	Adoption intention does not establish actual usage or improved financial behaviour; applicability depends on participant ages.	Supports trust, usability, transparency, and attention to the Indian context.
Agnew and Sotardi [6]	Family financial socialization among New Zealand adolescents.	Examines family financial openness and its relationship with financial confidence, intentions, and behaviours.	Country-specific context; confidence and intentions do not necessarily correspond to actual behaviour.	Supports parent-child guidance, financial discussions, and supervised independence.
Cordero and Mateos-Romero [7]	Family environment and student financial literacy using Spanish PISA 2022 data.	Reports associations between home-based financial practices, family interactions, and student financial literacy.	Context-specific findings do not independently establish causation or digital-platform effectiveness.	Supports connecting practical financial experiences with family-based learning.
Alvarez Padilla et al. [8]	Money Talks intervention involving parents or caregivers and middle-school students.	Examines an intervention intended to encourage financial conversations within families.	Focuses on financial conversations rather than an integrated payment platform; generalization depends on study context.	Supports guided financial conversations and constructive parental involvement.

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Research Gap

Fragmented treatment of requirements

The reviewed studies demonstrate strong work in individual areas such as expense management, digital wallets, financial education, AI assistance and family financial socialization. However, these dimensions are usually addressed separately.

Limited parent-teen financial ecosystem

The school-wallet study provides direct parental monitoring, but its setting is primarily school payments. General personal-finance systems such as Finexa do not center the parent-child relationship.

Financial education is not consistently integrated with transactions

Several studies recognize financial literacy as important, but there is room to connect everyday financial activity with age-appropriate learning in a single ecosystem.

Controlled independence requires further study

The literature supports parental guidance, but there is less emphasis on how teenagers can progressively gain financial independence while parents retain appropriate safeguards.

Teen-specific security and privacy

Digital-payment adoption literature emphasizes trust and security, while youth-focused studies emphasize parental control. More work is required to balance security, privacy, parental visibility and teen autonomy.

Indian teen context

The Indian mobile-wallet literature provides useful adoption evidence, but there remains a specific research opportunity around teenagers, parent-guided payments, financial literacy and safe digital financial behaviour in India.

CHALLENGES AND LIMITATIONS

• Financial immaturity: teenagers may have limited experience in evaluating financial consequences.

• Impulsive spending: frictionless digital payments may make frequent or unnecessary spending easier.

• Fraud and social engineering: inexperienced users may have difficulty recognizing suspicious payment requests.

• Privacy: financial and personal information belonging to minors requires careful protection.

• Parental over-control: excessive monitoring may reduce autonomy and trust.

• Trust and adoption: users and parents must perceive the platform as reliable, transparent and secure.

• Digital inequality: access to devices, connectivity and digital financial services is not uniform.

• Regulatory complexity: financial services involving minors must account for applicable financial and data-protection requirements.

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FUTURE RESEARCH DIRECTIONS

- Develop teen-specific financial literacy approaches that connect financial education with real-world financial activities.

- Investigate parent-child financial management models that balance parental supervision with teenagers' financial independence.

- Evaluate the effectiveness of budgeting tools, savings goals, spending controls and transaction feedback in promoting responsible financial behaviour.

- Explore privacy-preserving security mechanisms and age-appropriate safety measures for digital financial platforms designed for teenagers.

- Examine the potential of AI-based financial education assistance, particularly its effectiveness, reliability, safety and privacy for young users.

DISCUSSION

The eight studies collectively suggest that a useful digital financial environment for teenagers should be evaluated across multiple dimensions rather than through payment convenience alone. Finexa demonstrates the value of expense tracking, budgeting, goals and financial guidance [1]. The RFID school-wallet study demonstrates the value of cashless transactions combined with parental monitoring and transparency [2]. The AI-powered financial consultant demonstrates the potential of integrating financial management with educational assistance [3].

The additional literature provides the behavioural and social foundation: digital and financial literacy are complementary [4], trust influences mobile-wallet adoption in India [5], and family financial socialization can influence adolescents' financial confidence and behaviour [6], [7], [8].
A central theme across these studies is that financial technology can support financial capability only when users can understand and manage what they are doing. For teenagers, this means that a successful system should not simply make payments faster. It should make financial activity understandable, visible and appropriately supervised.

The literature also indicates that parental involvement has multiple dimensions. Parents may act as educators, role models, guides and safeguards. Consequently, a parent-facing component should not be reduced to transaction surveillance. The stronger research direction is guided financial independence, where teenagers gain practical experience while parents retain proportionate safeguards.

Security and trust are similarly connected with adoption. A technically functional payment mechanism may still fail if users do not trust its handling of money and personal data. Therefore, future research should treat usability, security, privacy, financial education and parental involvement as interconnected design requirements rather than independent features.

CONCLUSION

This review examined research on digital financial services, personal finance management, digital wallets, intelligent financial assistance, digital and financial literacy, digital-payment adoption and family financial socialization. Eight studies were synthesized, including the three selected papers and five additional relevant research papers.

The literature shows that teenagers represent a distinctive financial-technology user group. They require practical access to digital financial tools while simultaneously developing financial knowledge, confidence and responsible habits. Existing research provides strong evidence for the value of expense visibility,

budgeting, financial education, parental involvement, trust and secure digital payments. Nevertheless, these dimensions remain fragmented across different research streams.

The major research opportunity is therefore the development and evaluation of integrated, teen-centred financial ecosystems that support controlled financial independence. Such systems should balance four core considerations: financial capability, parental guidance, security and privacy. The findings provide a literature-based foundation for future implementation research, while the actual implementation and empirical evaluation should remain part of a separate research contribution.

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