

# MOBILE APPLICATION PROTOTYPE DESIGN FOR FINANCIAL PLANNING OF TELKOM UNIVERSITY FIRST-YEAR STUDENT OUTSIDE BANDUNG

## ZCASH: FINANCIAL PLANNING APPLICATION PROTOTYPE FOR TELKOM UNIVERSITY FIRST-YEAR STUDENTS

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**Abstract:** According to Gitayuda (2023), many students lack sufficient financial knowledge, leading to poor money management decisions. This research aims to enhance financial planning by providing basic financial knowledge and strategies vital for students' present and future well-being. A qualitative approach, data was gathered through interviews and observations to identify user needs. Design thinking principles were applied to create a user-centered mobile application prototype. A S.W.O.T analysis evaluated existing financial planning resources, while the AISAS model helped understand students' decision-making processes. The outcome is a financial planning application prototype designed to guide students in managing their finances and improving their financial habits, with a focus on setting and achieving savings goals. This application not only supports students in making wiser financial decisions but also aligns with the government's goal of expanding financial accessibility, ultimately preparing them for future economic challenges.

**Keywords:** Financial Literacy, Mobile Application, User Interface, University Students

## INTRODUCTION

Financial planning is a structured, multistep process that begins early to integrate financial literacy, assess an individual's current situation, and develop strategies aligned with personal goals, needs, and priorities to achieve desired future outcomes (Andoko, 2020). It is essential for effective money management, yet university students in Indonesia face significant challenges, with a financial literacy rate of only 56.42%, according to the Survei Nasional Literasi dan Inklusi Keuangan (SNLIK) 2024. This rate is

below the national average of 65.43%, highlighting the urgent need for targeted financial education programs. Many students rely on informal sources like social media for financial knowledge, which can lead to poor decision-making. Research indicates that a lack of knowledge about effective saving methods is a primary reason young people do not save (Goodstats, 2024). This underscores the necessity for structured financial education adapted to students' real-life experiences and long-term goals.

Current financial planning initiatives in universities are inconsistent and lack continuity, contributing to incomplete financial knowledge among students. This study proposes a user-friendly financial planning application prototype designed to enhance financial planning and promote effective money management among university students. By integrating educational content, gamification, and a rewards system, the application aims to empower students to develop sustainable financial habits and achieve long-term financial independence. Students face significant financial challenges due to limited income and insufficient savings, making informed financial decisions difficult (Suryanto, 2017). Many Indonesian university students rely on informal sources like social media and mobile apps for financial planning, which often provide misleading information.

Financial instability arises when prolonged stability encourages excessive borrowing and risk-taking, a situation that aligns with the challenges many university students face today, particularly regarding student loan debts (Singh, 2021). Eventhough, some universities and financial institutions offer workshops, these efforts are inconsistent and lack continuity. Consequently, students often possess incomplete financial knowledge, leading to poor decisions influenced by social pressures. A survey by Goodstats (2024) reveals that 26.2% of young people do not save due to a lack of knowledge about effective saving methods. Other reasons include external factors (20.8%), insufficient income (20.8%), immediate spending habits (20.1%), and unfamiliarity with the importance of saving (20.1%).

These findings highlight the need for targeted financial education and practical tools, as many students struggle with knowledge and behaviors related to saving.

Strengthening current strategies by integrating financial planning into the curriculum, developing mentorship programs, and creating interactive applications for real-world financial decision-making is essential. Mobile applications for financial planning offer significant advantages, particularly in accessibility, allowing students to access educational resources anytime and anywhere. For instance, financial planning apps like Blu by BCA Digital, Whiz, and Krom Bank provide varying functionalities to support savings. However, the limitations of each application, along with the lack of accessible resources and guidance, make it difficult for students to develop consistent saving habits due to their limited financial knowledge and support.

This research proposes a prototype for a financial planning application featuring a user-friendly, visually appealing interface. The application will allow secure tracking of savings and goal-setting while providing engaging financial planning content to enhance financial behavior. An integrated rewards system, weekly pocket features, and gamification streaks will motivate users to achieve their savings goals. Designed for first year university students aged 18 and older. The application aims to develop effective financial management skills and promote long-term financial independence through education and practical tools.

## **RESEARCH METHODOLOGY**

Qualitative methods have been selected for this research to explore the underlying behaviors and experiences of university students related to financial planning. Thematic analysis and grounded theory will facilitate the identification of patterns and the development of a theoretical framework based on students' real-world financial decision-making processes. As cited in the Elsevier e-book by Gray, Grove, and Sutherland (2017) define qualitative data analysis as involving categorizing and the cognitive processes used to interpret and assign meaning to the data. Initially, observations collected will systematically capture university students' behaviors and interactions

related to financial decision-making, providing comprehensive insights into their real-world financial practices. This combined approach allows for a deeper understanding of students' spending habits, challenges in goal-setting, and overall financial behaviors, which will inform the development of a financial planner application directly to their needs.

The application effectively supports students in managing their finances, setting achievable goals, and responsible financial habits. In addition, open-ended interviews will be conducted with first year university students and experts in UI/UX and finance to gather in-depth perspectives on financial planning and money management. These interviews will enable the identification of patterns and themes that emerge from the participants' experiences. The insights gained will directly inform the design and development of a financial planning application prototype. By incorporating diverse viewpoints, the application will effectively address the challenges faced by students in their financial journeys.

Lastly, design thinking is a human-centered approach to problem-solving that emphasizes understanding users and challenging assumptions. It consists of five non-linear phases, such as, Empathize, Define, Ideate, Prototype, and Test. This methodology fosters deep user empathy and encourages the generation of creative ideas. Through continuous prototyping and testing, design thinking effectively addresses complex problems and refines solutions. By combining user needs design thinking helps create simple and effective financial planning application prototypes that enhance money management for users.

## **RESULTS AND DISCUSSION**

According to the Tamoco website written by James Ewen (2020), Intuitive design focuses on developing interfaces that users can easily comprehend and use without requiring extensive guidance. Based on a qualitative research method, the application is

customized to address the financial challenges and needs identified through direct engagement with students. Financial planning significantly impacts a person's ability to make informed decisions, particularly during the transition to adulthood. For university students, early access to fundamental financial knowledge is crucial in building responsible money management habits that will support them throughout their academic journey. Although financial planning may not be a primary concern for many students, the increasing awareness of personal finance issues among young adults highlights the need for accessible and engaging tools that guide them in developing these skills.

By understanding these behavioral tendencies, students can develop more deliberate financial habits, increasing their confidence and reducing the likelihood of overspending (Lusardi & Mitchell, 2014). In response to this need, The role of user interface is crucial in designing and refining interfaces that allow users to interact intuitively with complex systems, such as product configurators, by employing user-centered design approaches to develop visually appealing and easy-to-use interfaces that enhance usability and overall user experience (Sandrin, E., Leitner, G., & Forza, C., 2023). However, user experience includes all aspects of the end-user's interaction with the company, its services, and its products (Norman. 2013). The developed mobile application prototype, Zcash, is designed as a financial planning platform adapted specifically for university students.

It aims to provide a supportive environment where students can learn, plan, and take charge of their financial future. By integrating features such as goal-based saving, gamification, and personalized financial insights, ZCash encourages users to practice responsible financial behaviors from the start of their higher education journey. Through this approach, ZCash empowers students to make thoughtful and confident financial decisions. The platform goes beyond basic functionality by offering guidance, promoting financial independence, and, most importantly, preparing the path for continued financial growth. ZCash uses a user-centric design to make financial planning meaningful by helping students set goals and track progress through intuitive, engaging features.



Image 1. ZCash Application Home Page

Source: Author's Private Document, 2025

On this page, of the financial planning application features a soft, pastel-themed interface with a clean and modern graphic style, creating a friendly and visually consistent experience. Users can view their total balance, monitor their financial goals, track saving progress, and access insights and features such as “Weekly Pocket” and “Streak”. In addition, users have quick access to features such as Rewards, Wallet, Settings, and Profile to help manage and improve their money habits effectively. Given the focus on this research, the concept of ZCash is strategically designed to visually guide university students toward greater financial planning and confidence. The design emphasizes clarity, simplicity, and a modern aesthetic to effectively engage a younger audience.

ZCash embodies a modern, youth-centric approach, with the “Z” symbolizing Generation Z, individuals navigating the challenges of adulthood, higher education, and personal finance in a fast-paced digital environment. The name and concept directly address the needs and aspirations of this target group, offering relevant solutions aligned with their lifestyles and behaviors. Through a clean and accessible visual strategy, ZCash promotes meaningful interaction with financial tools, supporting informed decision-making and long-term financial well-being. This approach not only enhances understanding but also resonates with the values and goals of its target users. Ultimately, ZCash aims to become a trusted companion in students' journey toward financial independence.

To effectively reach a wider audience and increase user engagement, supporting media will be implemented, The AISAS model, captures the varied behaviors of contemporary consumers while simultaneously reflecting real-world activities. It serves as a comprehensive framework that anticipates the complexities of consumer interactions in today's digital landscape, ensuring that it aligns with the practical realities of consumer behavior (Sugiyaman & Andree, 2011). AISAS stands for Attention, Interest, Search, Action, and Share. This model shows how consumers engage with products or services in a more interactive and flexible way.

Furthermore, the model highlights the important stages to optimize their strategies of the AISAS framework according to the e-book of "The Dentsu Way" (Sugiyama & Andree, 2011), such as, The Attention phase focuses on capturing awareness, while Interest aims to awaken the user's curiosity and engagement. During the Search stage, users actively look for more detailed information. Action represents the moment a user decides to proceed, such as downloading an app, making a purchase, or using the service. Finally, in the Share stage, users provide feedback or recommend the product to others, contributing to its visibility and credibility.

*Table 1 AISAS Model*

<b>Stage</b>	<b>Communication Objective</b>	<b>Achievement</b>	<b>Media</b>
Attention	Capture Awareness	Notify the existence of a financial planning app as a tool to manage personal finances.	<ul style="list-style-type: none"> <li>• In-app notifications</li> <li>• Application features</li> <li>• App onboarding screens</li> </ul>
Interest	Spark curiosity	Attract users' attention by building curiosity around the financial planning app.	<ul style="list-style-type: none"> <li>• Interactive feature demonstrations within app</li> <li>• Personalized features</li> </ul>

Search	Promote Exploration	Encourage users to learn more about the financial planning app by highlighting its features and advantages.	<ul style="list-style-type: none"> <li>• In-app FAQ/support</li> <li>• Help center</li> </ul>
Action	Facilitate Implementation	Invite users to download and start using the app for savings and to gain financial knowledge.	<ul style="list-style-type: none"> <li>• Step-by-step goal setup</li> <li>• Saving tools within app</li> </ul>
Share	Inspire Share and Feedback	Encourage users to share their experiences and provide testimonials or feedback.	<ul style="list-style-type: none"> <li>• Built-in share buttons</li> <li>• Gamified achievement sharing (badges, progress sharing)</li> </ul>

Source: Author's Private Document, 2025

According to this research, the target users are first-year Telkom University students at the age of 18 – 20 or above. This group particularly includes individuals who are digitally savvy and actively use mobile platforms. According to Bannan (2014), mobile applications have become essential in contemporary life, transforming how people interact and access information. In addition, Advertising on social media, especially Instagram, is the most effective approach to reach them. For offline engagement, flyers can be placed in various spaces such as, financial planning events, universities, and student centre. Xbanners can be displayed at the entrance of venues hosting financial workshops or seminars. This multi-channel approach ensures the application is visible to the intended audience across digital and physical locations.

## CONCLUSION

This study highlights the urgent need to enhance financial planning skills among first-year students at Telkom University living outside Bandung. The research identifies challenges such as impulsive spending and limited financial planning, which hinder

effective money management as students transition to independent living. A user-centered mobile application was developed, focusing on simplicity and accessibility to cater to varying financial knowledge levels. By using, qualitative methods, including interviews and focus groups, the study gathered insights into students' financial behaviors, ensuring the application addresses real challenges. Strategic tools like SWOT analysis and the AISAS model guided the design process, while benchmarking against existing applications informed best practices.

The findings indicate that integrating educational content and personalized insights within the application can significantly enhance students' financial awareness and promote mindful spending. This technology-driven solution empowers students to manage their finances effectively, fostering financial independence and stability. By integrating educational content with practical planning features, the application helps bridge the gap between financial knowledge and real-world decision-making. These implications underscore the value of developing targeted digital tools to support students' financial well-being. Ultimately, this contributes to a more financially literate and responsible generation.

While this study provides valuable insights into financial planning challenges, its focus on first-year students at a single university may limit broader applicability. The qualitative methodology, though rich in contextual understanding, restricts the ability to generalize findings across diverse student populations. Self-reported data used in the research may also reflect biases, as participants might not always accurately represent their financial habits. Additionally, the prototype's effectiveness in real-world settings requires further testing with a wider user base. These limitations highlight the need for cautious interpretation of the results and further validation.

Finally, suggestions should expand the research scope by involving students from different universities to make the results more widely applicable. Exploring different interactive formats for financial education such as modules or peer-learning features, could enhance engagement and knowledge. Comparative studies with similar

applications may identify best practices for optimizing usability and effectiveness. Finally, integrating mentorship components or community-based financial support could strengthen the application's impact on users' financial decision-making.

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