

Design and Analysis of Financial Management and Budget Application System in Student Business

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Abstract

Technological developments in the digital era have provided important opportunities to improve financial and budget management needs. However, many students who own businesses still face obstacles in implementing this technology. This research aims to help provide the financial and budget management needs for entrepreneurial students through the development of financial management applications. This application is expected to attract students' interest in the application of financial technology, increase the accuracy of financial reports, and support the growth of their businesses. This research was carried out using a qualitative method, namely the method used to collect data in the form of numbers. The data in this research report was also obtained from survey results from a questionnaire form. This research concludes that good financial management and the application of appropriate technology are very important to support student entrepreneurship.

Keywords: Student Entrepreneurship, Financial Applications, Financial Reports

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INTRODUCTION

In today's digital era, technological developments have brought significant changes in various aspects of life, including financial and budget management. However, even though the availability of technology is getting easier, there are still shortcomings in the system used by some students who have businesses. The problem that often occurs is the number of MSMEs (Micro, Small, and Medium Enterprises) who went bankrupt due to financial and budget reports; until August 2021, there were 19% of MSMEs had gone bankrupt, or almost 11 million MSMEs. Then, 21.4% of MSMEs have the potential to go bankrupt, or around 13.7 million MSMEs, according to the survey results conducted four times (Anggraeni, 2022). Data shows

the need for financial and budget management assistance and the use of tools or applications to manage financial statements more efficiently in measuring business performance and obtaining accurate and detailed financial reports.

Financial recording and analysis activities are often ignored because they are considered difficult and complicated and due to limitations in processing financial information. This leads to important information such as sales, purchases, costs, products, financial statements, cash & banks, and fixed assets are not well recorded. As a result, decision-making can be less precise (Rahmawati, 2023). The data above shows that financial recording and analysis activities are often ignored because they are considered difficult and have limitations in processing financial information. As a creative and innovative young generation student, many other students are interested in entrepreneurship. However, one of the obstacles faced is the lack of knowledge and ability in proper financial and budget management. This can hinder the growth and development of the student's business.

Therefore, it is necessary to analyze and design financial and budget management applications to support entrepreneurship students. With the application design analysis, students can optimize the use of technology and obtain accurate and detailed financial reports. This will give young entrepreneurs a competitive advantage and increase their chances of success in the entrepreneurial world (Kapinga et al., 2019; Elia et al., 2020; Jena, 2020; Roundy et al., 2018).

Several previous studies are behind the research on the analysis of entrepreneurial information system design in universities that focus more on providing information about competition and entrepreneurship funding (Saputra & Tasrif, 2019; Hidayati et al., 2023). Likewise the information system on providing microcredit (crowdfunding) for website-based student businesses (Lasmianingsih et al., 2016). However, previous research that focused on analyzing information system design for businesses already running in college students, is still rare, so this research gap is the focus of this research (Rahmawati et al., 2023). This research is expected to provide managerial implications for entrepreneurial students, because with a well-designed information system, entrepreneurs can increase efficiency in their business operations. Information systems can help automate repetitive processes, inventory management, transaction tracking, and customer data management (Arafat, 2017). A good information system not only collects data but also presents it in the form of understandable and relevant information. This helps entrepreneurs make better and faster decisions,

based on accurate and timely data analysis (Chowdurry, 2020).

To enter into the research regarding the application of financial management and the budget of entrepreneurial students who will be developed, the formulation of this research problem is: a). How can efficiency in financial and budget management be increased to support students in entrepreneurship? b). How to attract students by applying financial technology and student budgets to support the development of financial statements, and accurate sales business growth for students? and How to identify the needs of entrepreneurial students in financial and budget management? Based on the formulation of the problem above, the purpose of this writing is to answer how to increase efficiency in financial and budget management that can support students in entrepreneurship, the answer is how to attract students in the application of financial technology and student budget to support the development of financial statements, and accurate sales business growth for students, and the answer to the results of the needs of entrepreneurial students in financial and budget management.

Analysis of Entrepreneurial Information System Design

Analysis of entrepreneurial information system design involves an in-depth process to design an information system that supports entrepreneurial business activities. The first step in information system design analysis is to understand the needs of the entrepreneur's business. This includes identifying key business processes, problems encountered, and goals to be achieved through implementing information systems. Next is the data collection and analysis stage. This process involves collecting data about business operations, user preferences, and system needs. This data is then analyzed to identify specific patterns, trends, and needs to design the appropriate information system. The system design stage includes developing a plan or blueprint of the information system to be built. This includes the right technology selection, database design, user interface, and overall system architecture. After the design, the team can develop the system based on predefined specifications. System implementation includes hardware installation, software, and system configuration, as well as testing to ensure the system works properly. System integration with existing business processes must also be done

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carefully to ensure a smooth transition and minimal disruption (Mukaromah et al., 2020; Zhang, 2023).

After implementation, the information system requires continuous maintenance and technical support to ensure optimal performance. This includes troubleshooting, system upgrades, and regular security updates. The information system should be evaluated regularly to meet established business objectives. This evaluation can result in improvement or improvement recommendations to improve efficiency, security, or system responsiveness to changes in the business environment. Analysis of entrepreneurial information system design is about technology and how it can empower entrepreneurs to achieve their business goals more effectively and efficiently. That's why, an in-depth understanding of business processes, user needs, and technological capabilities is very important in every stage (Mulyadi & Susila, 2021).

Programming Language, User Interface and User Experience

A programming language is a basic instruction from a programmer or programmer to a computer to perform a task or from a programmer to a computer to do something. For the computer to understand all programmer commands, it is made in the form of words consisting of many lines (Naufal, 2023). User Interface (UI) is all items that the user interacts with, including buttons that will be clicked by the user, text, images, and text entry fields. This includes all minor interactions such as layouts, animations, transitions, etc. User Experience (UX) is the user's experience with a product or technology when they use it, the product's user can be considered good if they have psychological elements and user behavior when using it (Akbar, 2023).

Business Model and Business Development

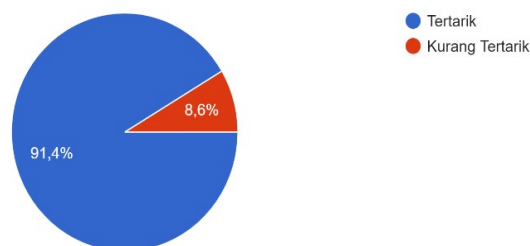
Business model and business development are two concepts closely related in the context of the development and growth of a business. The business model describes how the company generates revenue streams, cost structure, distribution channels, customer relationships, value proposition, and key resources and activities needed to achieve competitive advantage. Business development (business development) is a strategic function or activity that aims to create long-term growth opportunities for a company. An effective business model provides the foundation for successful business development, by ensuring that business development strategies are centered on creating and increasing customer value (Amitt & Zott, 2015; Krauss et al., 2019).

METHOD

Preliminary Research

Based on student survey data at the University of Business and International Logistics, it was found that as many as 68.6% of students who have businesses still use the process of recording written reports on their finances and budgets for their businesses. This shows that some students have not used technology optimally in managing financial aspects of the business. In addition, a student problem, namely a lack of motivation in entrepreneurship, can hinder the desire to do business because students lack confidence in information about business financial administration. But if the student has the courage to act about business financial administration, it is very influential in starting entrepreneurial activities (Agung, 2022). The data shows that a lack of motivation in entrepreneurship and a lack of trust and confidence in information about business financial administration can hinder students' desire to do business. Therefore, it is important for students to gain knowledge and skills in business financial administration to increase self-confidence and develop the ability to be entrepreneurs.

Apakah anda tertarik untuk menggunakan aplikasi manajemen keuangan untuk bisnis anda?
35 jawaban



Picture 1. Diagram of questionnaire results

Related surveys show that 91.4% of students are interested in using financial management applications for entrepreneurial development. Sales financial statements can provide important information in measuring business performance and making strategic decisions. However, recording written reports used by some students, as well as income and business expenses, is difficult to track accurately.

Analysis and Design of financial management and budget of entrepreneurial students using the SLDC Waterfall method. This software development model provides a sequential or sequential software flow

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approach starting from needs analysis, design, Implementation, Verification and testing, and maintenance with a qualitative approach based on expert judgment.

RESULTS AND DISCUSSION

This research shows that students are currently still using the written report method on their business financial statements; the main cause is the lack of assistance in financial and budget management and the absence of efficient use of tools or applications in financial statements, resulting in bankruptcy. Many students have businesses who use manual recording, where 68.6% of them have not made optimal use of technology. As a result, business income and expenses are difficult to trace accurately, hindering strategic decision-making. In addition, the lack of confidence in financial management is caused by the lack of knowledge and skills in business financial administration, which hinders students' desire to do business and makes business growth unstable. However, there is a high interest in using financial management applications, with 91.4% of students interested in using them for entrepreneurial development. This shows the need to develop applications that are easy to use and effective in business financial management. Unfortunately, financial recording and analysis activities are often ignored because they are considered difficult and complicated, as well as limitations in processing financial information. As a result, important information such as sales, purchases, costs, products, financial statements, cash & banks, and fixed assets are not well recorded, causing business decisions to be inaccurate.

Business Model

In this research, using the canvas model business method as presented at Figure 2:

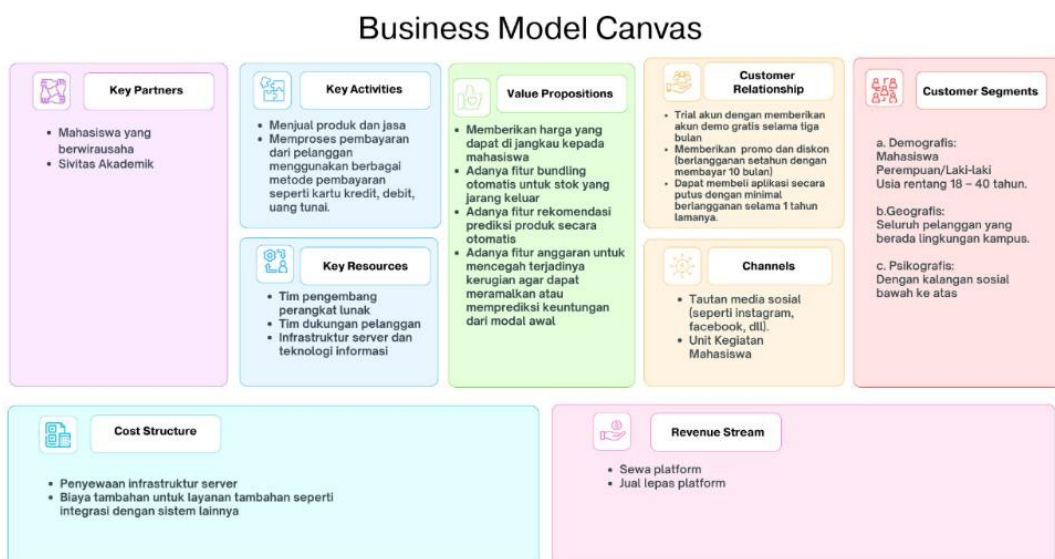


Figure 2. Business Model Canvas
<https://ejournal.unesa.ac.id/index.php/jdbim>

Business Development.

In this research, Business Development is as presented by Figure 3:

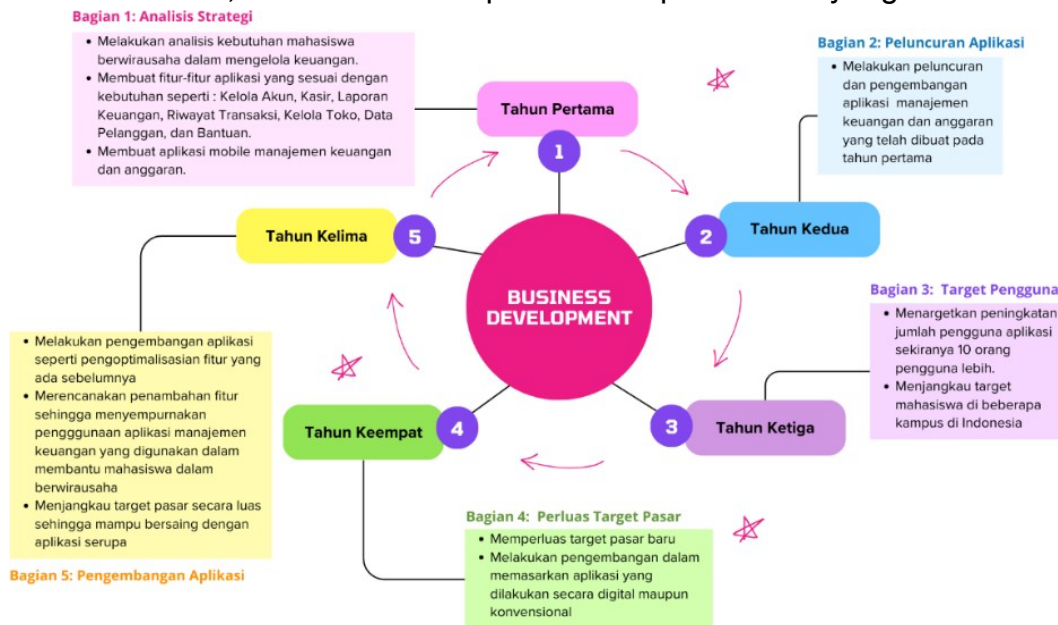


Figure 3. Business Development

Application system analysis and design

Students who run small businesses often face obstacles such as losses in managing sales and inventory due to limited knowledge about business management and time constraints. This financial and budget management platform can be an effective solution. The platform has features such as a simple sales report that can help students manage their small businesses more efficiently and manage finances. With this platform, it is hoped that it can help entrepreneurial students in Bandung market and sell their products to the wider community, allowing them to develop further and increase their income.

Running System Analysis

The purpose of analyzing the running system is to know a better understanding of the operating system and to find out the problems faced by the system. Many entrepreneurial students still manage their own business budgets and finances manually. Errors may occur frequently and take a lot of time to resolve. In addition, they do not have access to the latest financial data. The following is the flow of recording the student's finances and budgets manually and in writing:

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1. Students record in writing business income and expenses every day.
2. Students manually group categories, income, and expenses.
3. Students make financial statements manually, such as income statements and balance sheets.
4. Students analyze financial statements to understand the strengths and weaknesses of their entrepreneurial finances.
5. The process of recording, grouping transactions, making financial statements, financial analysis, and decision making is carried out continuously.

For more details, Figure 4 explains the flow chart of the ongoing analysis system for students in doing financial records manually as follows:

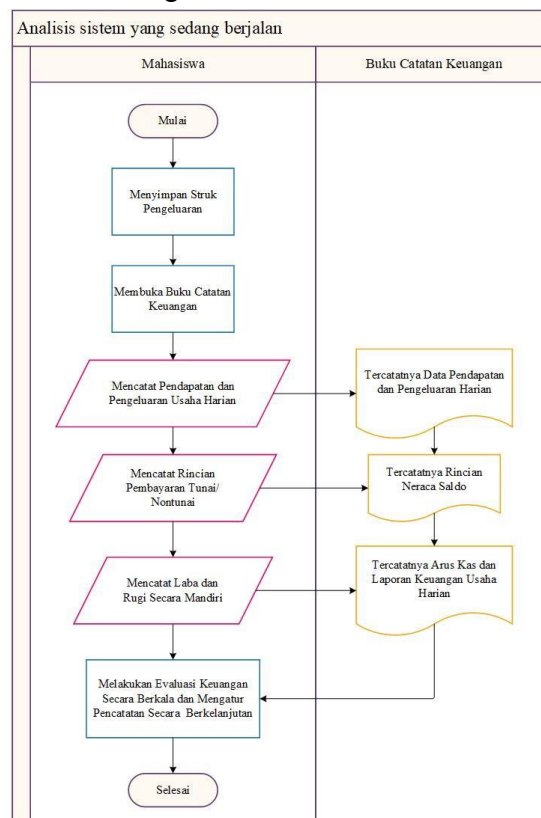


Figure 4. Analysis of Running System

Running System Analysis

Based on the analysis of the ongoing system that has been described in managing the finances and budget of students in their business, there are still shortcomings in it, the following are:

1. Manual systems are more time- and labor-consuming than digitization systems.
2. Manual systems are more susceptible to mistakes made by humans.
3. Manual systems are more difficult to produce complex financial statements.

Analysis of the Built System

From the analysis of the system that is running, it shows that there are still shortcomings, therefore a new system is needed in the form of the use of information technology to make it easier for users who are still using the manual method so that it will solve the shortcomings in the system that has been running before as presented by Figure 5.

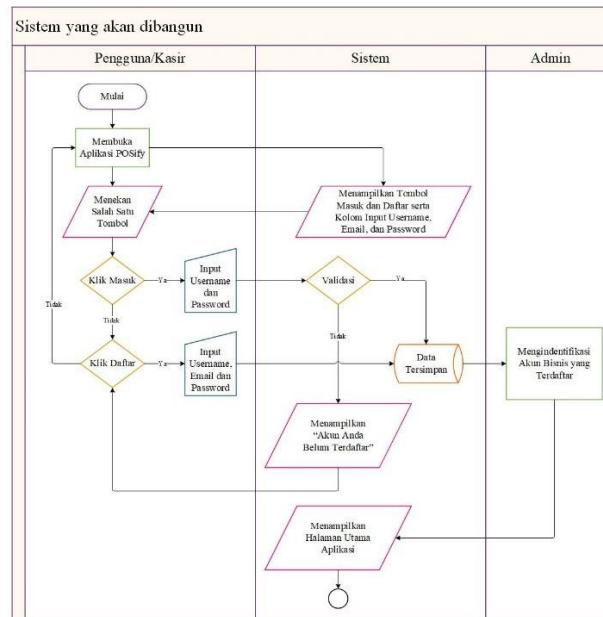


Figure 5. System Analysis to be built

Mockup Digital Design

Designing a financial statement and budget application mockup to support entrepreneurial students involves several important elements. The following explains how features in the financial and budget report platform can be used to support entrepreneurial students.

1. On the main page, there is a summary of managed business finances, such as the number of products sold, the revenue of some of the best-selling products, and bundling packages in managed stores as presented by Figure 6.

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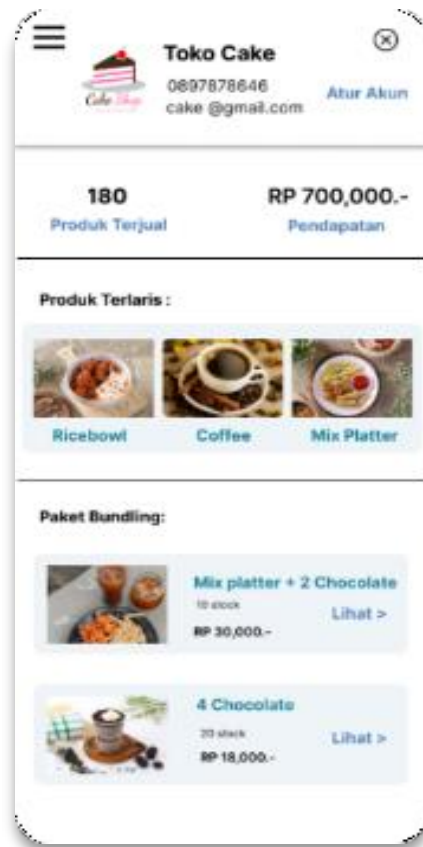


Figure 6. Home Page Mockup

1. The Cashier feature displays the product menu and the Basket button at the top and bottom of the cashier page view (Figure 7).



Figure 7. Cashier Page Mock Up

CONCLUSION

The importance of financial and budget management for entrepreneurial students to maintain financial health or sales financial statements that can increase success in the long term. Many MSME students have difficulty in managing finances manually, which often leads to bankruptcy. However, the survey shows a high interest in students to use financial management applications, reflecting the urgent need for tools that can help them record and manage finances efficiently.

Applying technology can increase efficiency, accuracy, and speed in financial management. In addition, forming an early entrepreneurial character is very important to developing a strong mentality and independence in entrepreneurship. The management of the application of good and proper financial technology is very necessary to support entrepreneurial students. The development of technology regarding financial and budget management applications for entrepreneurial students can help students manage student business finances better, improve the efficiency of financial reports, and increase student business success. This supports previous research on system design evaluations that can produce recommendations for improvements to efficiency, security, or system responsiveness to changes in the business environment. The limitations of this research are that there is no evaluation of the effectiveness of the system design based on the user (user research survey), so the recommendation for the next research is to add a user research survey as a tool to analyze the effectiveness of the system design in supporting the entrepreneurial business activities of application users.

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