



International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

(Special Issue)
“Brawijaya International Conference on Economics, Business & Finance
(BICEBF) 2023”

SAGED (Saham Genetik Education): Digital Platform Media Introduction to App-Based Stock Investment to Address the Economic Challenges of SDGs 2030

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Abstract

The financial understanding of the Indonesian people according to data from the Financial Services Authority (OJK) in the capital market sector is 4.92%, which is the lowest financial understanding compared to other financial sectors. While stock investment education for the community is needed, especially young people as the nation's economic growth in the future. Efforts to improve financial understanding in the investment capital sector are needed as a solution amid the threat of recession. At this time, it is necessary to design an application *platform* that can help learn investment in the capital market easily, up-to-

date and reliable. Therefore, we propose an idea to make it easier to learn about investment in order to increase public understanding, especially the younger generation in the capital market as a solution amid the threat of recession. So we created the SAGED (Saham Genetik Education) application as an application-based learning media that will help in providing an understanding of stock investment. This application plays an important role in providing basic stock investment education for the younger generation so that they can respond to the economic challenges of SDGs 2030.

Keywords: Application, Education, Capital Market, Understanding, SAGED

1. Introduction

Development in the economic sector is directed at solving problems and challenges with the ultimate goal of improving people's welfare (RPJM, 2019). Support in solving economic development problems through one of the main sources of economic growth, namely investment. Investment is closely related to future capital investment activities for initial capital multiplication. This investment activity generates investment that will continue to increase the *capital* stock.

Where an increase in capital stock will increase productivity, capacity and quality of production which will encourage economic growth and increase employment (Sulistawati, 2021). Thus it is concluded that investment will have a good impact through increased employment in improving people's welfare.



Source: Bolasalju.com March 22, 2022

Fig 1: Stock Index Performance Chart

Investment is basically an activity of allocating funds that are desired in the future to get a large profit. However, based on the percentage of local investors in Indonesia, it is still relatively minimal when compared to neighboring countries such as Singapore, Thailand and Vietnam. In Singapore, the number of local investors reaches 30% of the population. Similarly, in Thailand it reaches 36%, and Vietnam 40%. Meanwhile, based on data from the Indonesia Stock Exchange (IDX), as of March 2022, the number of registered sub-accounts was around 4,789,029. Meanwhile, based on official data from the Central Statistics Agency (BPS) in 2021, Indonesia's population is 273.87 million. So it can be concluded in percentage terms that investors are not up to 18% of Indonesia's population. Even then, not all investors actively conduct investment transactions in the capital market. This shows that the investment interest of the Indonesian people is still low.

In creating sustainable development in the economic field, technological assistance is needed as a learning medium in the form of applications. Education and the economy can be united into one learning topic, namely economic development. The lack of source material regarding investing is something that needs to be considered that education and the economy also affect creating quality investors in the availability of appropriate source material. This can show that stock investment education for the community is needed, especially young people as the nation's future economic growth.

Based on these problems, the author proposes the idea of **SAGED (Saham Genetik Education)**: A digital platform for app-based stock investment introduction media to address the economic challenges of SDGs 2030. SAGED is a digital platform as an application-based learning media that will help educate about stock investment. This application is oriented in providing basic stock investment education for the younger generation so that it can realize the goals of SDGs 3, 4, 8, namely Welfare, Quality Education and Economic Growth.

2. Theoretical Basis

2.1 Investment

Investment is a delay in the level of consumption in the present which is put into productive assets for future consumption. There are several types of investment, namely financial and asset investment, education investment, health investment, human capital investment, investment in research and development.

2.2 Shares

Shares are securities as proof of individual or institutional ownership participation in a company. Where shareholders

will get the right to control the company and share profits from the company.

2.3 Capital Markets & Indonesia Stock Exchange (IDX)

According to Capital Market Law No. 8 of 1995, the capital market is an activity related to the public offering and trading of securities, public companies related to the securities issued, as well as institutions and professions related to securities. The Indonesia *Stock Exchange (IDX)* is an institution in Indonesia that acts as a meeting place for sellers and buyers of shares in the organizational structure of the Indonesian capital market.

2.4 Previous Research

IDX Virtual Trading Application in its role to increase stock literacy. *IDX* created a training application in which potential investors can try to practice buying and selling shares online. *The* advantage of this application is that buying and selling shares or what is often referred to as stock *trading* takes place in *real time*. Users can see the buying and selling of shares that occur every minute at the address <https://virtualinvesting.idx.co.id/>

3. Research Methods

3.1 Data Sources and Research Techniques

Sources of data in writing this scientific paper were obtained through library research. Library study is a data collection technique by examining books, literature, notes and reports that have a relationship with the problem being or to be solved.

The data collection technique used in the preparation of this scientific paper is to use the method of extracting secondary data obtained through archives, books, and scientific articles. In addition, researchers also made observations related to economic problems and the potential of the younger generation in investing which aims to extract data in developing SAGED (Saham Genetik Education).

3.2 Writing Design

In writing this scientific paper, it describes in detail the concept of the SAGED Application and the implementation plan and the expected impact of the development of SAGED as a digital media platform for introducing application-based stock investment in order to address economic challenges and scale up the Indonesian economy. This discussion is carried out by describing in depth the theories that have been discussed with the support of relevant data from the results of research that has been carried out by correlating with the problems to be discussed.

3.3 Writing Stages

The writing stages in writing this scientific paper are carried out through 6 stages, as follows:

1. Reviewing data related to economic problems and the lack of public knowledge related to stocks.
2. Identify problems related to the topic being studied.
3. Formulate a problem formulation based on the focus of the problem being studied.
4. Collecting data and material on the focus of the problem which aims to support the sharpness of the problem analysis and as supporting material. development platform SAGED to optimize the potential of the community in the world of capital markets.
5. Analyze and discuss the concept of the SAGED

platform in helping revitalize the community's potential for stock investment.

6. Draw conclusions based on the formulation of existing problems.

3.4 Data Analysis Technique

The data analysis technique used in writing this scientific paper is the SWOT analysis technique. Basically, SWOT analysis is a method used to evaluate strengths, weaknesses, opportunities, and threats in a field (Fatimah, 2020). Thus, SWOT analysis can be carried out to systematically identify various factors in order to formulate strategies or policies in a field. In addition, the data obtained previously was also analyzed through the EFAS (External strategic Factor Analysis Summary) and IFAS (Internal strategic Factor Analysis Summary) matrices, which then compiled a matrix of internal and external strategic factors.

3.5 Framework of Thought

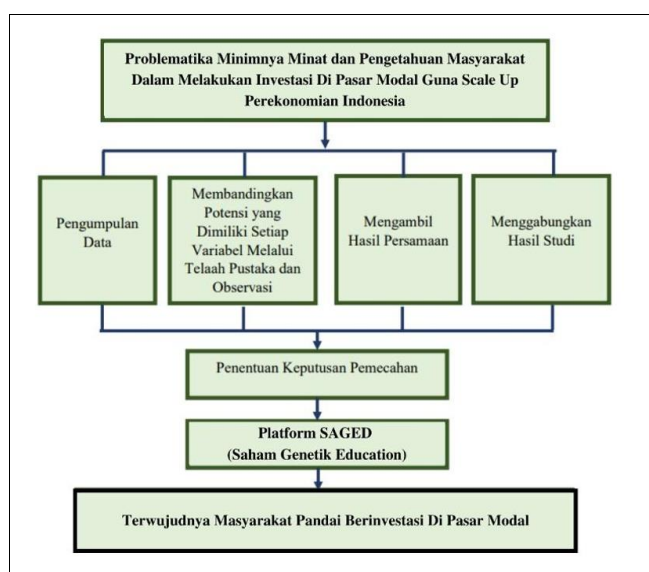


Fig 2: SAGED App Idea Thinking Framework

4. Results and Discussion

4.1 SAGED Concept Design

SAGED (Saham Genetik Education) is a digital application that provides education to the public regarding investment. Where this application supports that investment is an aspect that is very close to human life, it will also have an impact on all sides of life for the surrounding community. One of them is the economic side in accordance with the SAGED reference, namely: *"Easy Start, Easy Grow"*.

The SAGED application has 6 excellent features, namely News, Education, Dictionary, Forum, Educational Videos and evaluation games about stocks that have their own uses. SAGED provides various language options, such as Indonesian and English as a supporting language for

customers. The making of the SAGED application aims as a medium of education and introduction to investment for the community.

The application that we will implement is SAGED (Saham Genetik Education). The name of the application is taken from the Javanese language "SAGED" which means can. The name SAGED is short for stock genetic education. The application has an orientation to educate and protect novice investors in terms of investing in stocks so as to gain profits and reduce the risk of loss. SAGED (Saham Genetik Education) as a digital platform has a reference in motivating that all people are SAGED or can invest in stocks.

The SAGED (Saham Genetik Education) app has the tagline *"Easy Start, Easy Grow"* which invites users to learn about the stock market starting from the most basic understanding. The tagline explains that investing is an easy thing to start as well as grow.

The SAGED (Saham Genetik Education) concept design is realized in features that can provide complete education to the public regarding investment. These features include the following:

1. News: The latest news about the world of stock investment. When accessing this feature users will see some of the latest information related to stock investment so that they can consider which stocks are most suitable to enter and provide increased profits or trading.

2. Education: Content of understanding and education about stock investment. This feature will make it easier for users to understand a stock investment because there are several articles that can be read to increase knowledge related to investment.

3. Dictionary: Vocabulary around the world of investment. For people who have never been involved in the capital market, the dictionary feature is very helpful because in this lightning, people can understand important vocabulary related to the world of investment.

4. Forum: A discussion forum for users to share ideas and opinions with each other so that users can exchange ideas and build an educational and supportive stock community.

5. Educational Video: Educational videos about stocks that are easy for users to understand.

6. Evaluation Quiz Feature: The quiz in the SAGED app is in the form of multiple choice questions that are directly related to stock investment with the aim of providing an evaluation of the user's understanding after using the SAGED app.

4.2 Prediction of Idea Success

The prediction of the success of the idea aims to determine the extent to which the idea of SAGED (Saham Genetik Education) can solve the problem of failure and lack of investment interest. SAGED is predicted to provide stock education services and facilitators that are relevant to the needs of the community.

Table 1: Predicted Success

S. No	Comparator	Before Application	After Application	Literature Review
1.	Availability of empowerment relevant to HR needs related to equity investment.	Still not available, so that the existing potential is not accommodated and organized well.	SAGED provide relevant public stock education services to support the enhancement of the Company's Economy.	According to, Sukmawati <i>et al.</i> (2021) Relevant empowerment can be done by accommodating all potentials.
2.	Community skills in optimizing their potential to enter the market Capital.	Still low, thus negatively impacting the economy in Indonesia.	The community can optimize their potential through educational features and forum group discussions in SAGED platform.	According to, Oktavia (2020) The existence of facilitators with good skills for success invest.
3.	Availability of investment-related information.	Investment potential that has not been distributed because people tend to hesitate.	SAGED providing investment-related information that aligned with the needs of the community.	According to, Wijaya (2022) Digital technology to distribute potential in order to help scale up the Indonesian economy.
4.	The economic condition of Indonesian society.	Low, impacting on their well-being	The economic condition of the Indonesian people is predicted to be better after SAGED implemented.	According to, Atmaja <i>et al.</i> , (2021) Life Skills is one of the steps to empower the community towards welfare and economic independence.

4.3 Implementation Technique

In implementing SAGED (Saham Genetik Education), there needs to be parties and comprehensive steps. The parties involved in the SAGED implementation process.

Table 2: Parties Involved

S. No	Executive	Role
1	Authority Financial Services	The Financial Services Authority (OJK) has the function of organizing an integrated system of regulation and supervision of the overall activities in the financial services sector.
4	Economic Agency Creative	Play a role in assisting economic activities through more creative business creations.
5	Facilitator Empowerment	Empowering and assist community from preparation, implementation, planning, execution and monitoring related to investment.
6	UI/UX Designer	Play a role in determining the SAGED mechanism
7	Programmer	Play a role in analyzing needs, designing and modeling systems, debugging programs, and testing the program.
8	Influencer	Play a role in optimizing SAGED socialization (Saham Genetik Education) on social media.
9	Company	Play a role as a job provider.
10	Community	Act as an object of self-potential empowerment in investing in the capital market.

To realize SAGED (Saham Genetik Education), seven stages are required:

1. Research and Analysis Phase, obtaining data on the needs of the community in investing. At this stage, the IFAS matrix was analyzed to determine the platform's internal strengths and weaknesses, and EFAS to determine external opportunities and threats.

Table 3: IFAS matrix analysis

IFAS (Internal Strategic Factor Analysis Summary)	
Strengths	Weakness
<ul style="list-style-type: none"> ▪ The SAGED platform is relevant to technological developments in the 21st century ▪ Provide facilitators who can assist the community in providing investment-related education. ▪ Have a continuous flow by providing investment information. ▪ Provides beginners with a simulated experience in investing. 	<ul style="list-style-type: none"> ▪ Requires a complex realization process. <ul style="list-style-type: none"> ▪ Requires availability of internet connection to operate. ▪ Possibility of error or maintenance ▪ Requires stable internet access.

Table 4: EFAS Matrix Analysis

EFAS (External Strategic Analysis Summary)	
Opportunities	Threats
<ul style="list-style-type: none"> ▪ Technological Advances of the 21st Century ▪ The stock market is booming in Indonesia compared to the previous year <ul style="list-style-type: none"> ▪ There are still few people who have not recognize the stock, giving it still high upside. 	<ul style="list-style-type: none"> ▪ There is potential competition with similar platforms. ▪ Plagiarization of business core values ▪ Emergence of bugs that interfere with application performance

2. Design stage, making User Interface and User Experience (UI/UX) designs on all SAGED (Saham Genetik Education) features using Adobe Illustrator CC software. The approach used in designing this application is the Elements of User Experience which will produce an attractive design design and in accordance with the development of the state of society. UI / UX must be made by paying attention to things as: User needs; Functions and specifications; Media structure; UI UX components such as buttons and toggles; Design that will be captured by the human senses.

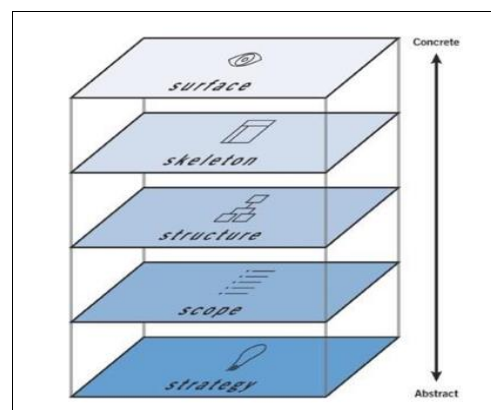


Fig 3: SAGED Application Design Stage

3. Material Collecting stage, collecting all the materials needed such as designs, images, animations, and various other materials.

4. The Assembly stage, designing the entire concept, follows these steps:

- a. List the features and their uses;
- b. Create a database schema;
- c. Create a list of classes and relationships between classes;

- d. Prepare the required images, animations, texts, and videos into one folder;
- e. Open Android Studio and create program code;
- f. Inserting images, animations, texts, videos and others into the system according to the desired design;
- g. Save the media creation document;
- h. Checking work results.

5. Test Phase, testing the performance of SAGED (Saham Genetik Education) Furthermore, evaluation is carried out to improve the quality of the application.

6. Implementation Phase, socializing the urgency of implementing SAGED as an investment education platform available on the Play Store or App Store.

7. Maintenance and Development stage, carried out to provide periodic maintenance on SAGED (Saham Genetik Education).

8. The implementation of the SAGED (Saham Genetik Education) digital platform requires the management of the following positions and responsibilities:

Table 5: Division of HR Positions

S. No	Position	Role
1	Chief Executive Officer (CEO)	Serve as SAGED leader and responsible in SAGED's strategic plan implementation process.
2	Chief Technology Officer (CTO)	Play a role in management of and development of the SAGED application.
3	Chief Marketing Officer (CMO)	Play a role in SAGED's market research and public relations strategy.

SAGED (Saham Genetik Education) can be implemented well if it is supported by widespread and targeted socialization, good understanding of the application mechanism, commitment of all parties involved, and regular monitoring and evaluation.

5. Closing

The capital market in Indonesia is now experiencing a significant increase, especially in welcoming the sustainable development of SDGs 2030. This is because the majority of people want quick profits in the stock market. However, the rapid increase in the number of stock market investors in Indonesia has not been matched by knowledge and experience in the investment field, giving rise to several problems and challenges for novice investors such as losses. Through this it can be concluded that good and correct self-preparation has not been carried out by novice investors in the stock market both intellectually, experientially, and financially. The majority of people still lack knowledge about financial management to just follow the trend in investing. This is motivated by problems and solutions in the form of educational applications about stocks, namely SAGED (Saham Genetik Education) as an educational platform for beginners in investing in the stock market and reducing the risk of loss from these activities. With the existence of stock market education media, it is hoped that it can motivate the public so that the number of investors increases and make the stock market stronger in Indonesia. The design of the SAGED (Saham Genetik Education) educational application media visualization is designed based on research and the needs of the target audience where the target audience is the wider community,

especially people with an age range of 18 to 25 years to dare to learn and start investing in the Indonesian stock market. In implementing this application, some further relevant research is needed around the approach to make it easier to understand the world of stocks so that lay people and parents can make it easier to understand.

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