



**JOURNAL OF INFORMATION
SYSTEM AND TECHNOLOGY
MANAGEMENT
(JISTM)**
www.jistm.com



FINANCIAL ROBO-ADVISOR SAVINGS2U FOR SHARIAH-COMPLIANT SAVINGS AND INVESTMENT APPLICATION

Mohammad Firdaus Mohammad Hatta^{1*}, Nur Diniey Ezzati Zainorin², Syuhada Jalaludin³, Norzanah Mat Nor⁴, Suriana Ramli⁵

¹ Arshad Ayub Graduate Business School, Universiti Teknologi MARA, Malaysia
Email: firdaus5828@uitm.edu.my

² Arshad Ayub Graduate Business School, Universiti Teknologi MARA, Malaysia
Email: dinieyazzati@gmail.com

³ Arshad Ayub Graduate Business School, Universiti Teknologi MARA, Malaysia
Email: syuhadajalaludin18@gmail.com

⁴ Arshad Ayub Graduate Business School, Universiti Teknologi MARA, Malaysia
Email: norzanah@uitm.edu.my

⁵ Arshad Ayub Graduate Business School, Universiti Teknologi MARA, Malaysia
Email: surianaramli@uitm.edu.my

* Corresponding Author

Article Info:

Article history:

Received date: 12.10.2022

Revised date: 30.10.2022

Accepted date: 15.11.2022

Published date: 01.12.2022

To cite this document:

Hatta, M. F. M., Zainorin, N. D. E., Jalaludin, S., Mat Nor, N., & Ramli, S. (2022). Financial Robo-Advisor Savings2u for Shariah-Compliant Savings and Investment Application. *Journal of Information System and Technology Management*, 7 (29), 70-85.

DOI: 10.35631/JISTM.729006

Abstract:

The growing usage of artificial intelligence such as Robo-Advisor has become one of the biggest developments in the global economy and reduces the level of poverty in the country with a safe, affordable and frictionless environment. In practice, Malaysians have low awareness and not financial discipline about personal savings and financial management. Most of Malaysian people have problems with their retirement planning because they really rely on their EPF funds as their primary source of income. The purpose of this product is to create awareness about the importance of savings and investment for all generations, reduce future financial issues faced by consumers, and encourage people to build wealth based on customer preference. As a result, customers will be more likely to develop a good habit of saving their money for the future and achieving their financial goals. This study used quantitative and secondary data which is collected from The World Bank website. We develop an application of financial Robo-Advisor known as Savings2u that focus on savings and Shariah compliance investment features based on customer risk preference such as conservative or aggressive then let the money grow digitally. In conclusion, Savings2u will help the customer to create and manage the portfolio automatically using the data provided. On the other hand, an increase in total savings would have a beneficial effect on the economic growth, which includes significant investments and an improvement in GDP of the country.



Furthermore, countries with deeper and established financial systems also experienced stronger economic growth.

Keywords:

Robo-Advisor, Savings, Investments, Shariah Compliance, Portfolio Management

Introduction

The percentage of a household's net disposable income that is set aside for savings is known as the household saving rate and it becomes a key economic indicator of capital (Radu, S. 2019). When we discuss the best savers among countries, what we truly mean is; which countries have the highest savings rates in the world. High savings rates are prevalent in a widerange of countries, and the motivations behind such rates are varied between the countries (Jahn, M. 2022). Additionally, the list of the top savings undergoes frequent modifications. The top ten (10) countries with savings rates in the world, according to the World Bank data, were Macao (64.3 %), the Republic of Congo (61.4%), Qatar (58.1%), Ireland (57.6%), Brunei (54.5%), Singapore (53.8%), Luxembourg (53.4%), Gabon (52.2%), United Arab Emirates (47.8%) and China (44.9%) (Jahn, M. 2022).

Increased overall savings would result in more significant investments and improved GDP growth in the country. Because of the high savings rates, there is more capital available, which will enhance economic growth even better in the future (Ribaj & Mexhuani, 2021). However, a number of issues, including the economic fallout from the Covid19 pandemic, the war between Russia and Ukraine, Chinese lockdowns, and supply chain disruptions, are predicted to cause the global economy to grow at a slower rate than previously predicted, falling from 5.7 % in 2021 to 2.9 % in 2022 (The World Bank, 2022). Furthermore, the growing usage of digital financial services with deeper and more established financial systems experience stronger economic growth and faster reductions in poverty and income inequality. The significance of digital financial services in providing consumers and governments with safe, affordable, and frictionless financial instruments has grown as the global struggles with the Covid19 crisis. Currently, over 850 million mobile money accounts are registered across 90 countries, and \$1.3 billion is exchanged through these accounts daily (Pazarbasioglu, 2020).

In addition, Artificial Intelligence (AI) is transforming the global economic system and assisting consumers in saving and investing their money by utilizing better datasets and algorithms. The employment of Robo-Advisor has become one of the biggest developments in this field throughout recent years. By creating and managing investment portfolios automatically using the data provided by users, Robo-Advisor provides viable answers and solutions for the challenges in making complex financial decisions (Smetters, K. 2014). The World Bank will keep collaborating with both public and commercial sectors to assist additional countries in expanding access to digital financial services in a responsible manner. It is anticipated to have both short- and long-term positive effects on economic development (Pazarbasioglu, 2020).

Problem Statement

Islam advises the ummah to practice sound financial management in order to avoid debt and save for the future. God Almighty (Allah) declares in the Holy Quranic verse 12:47-49 that Yusuf said: "For seven consecutive years, you shall sow as normal and that whatever you reap you shall leave in ears, (all) – save a little of it which you may eat." Then will come seven hard

(years) that will eat all you have set up for them, with the exception of a little portion of what you have guarded (stored). Then there will be a year in which the people will receive rain and press (grapes)." According to the passage, the Quran encourages Muslims to work hard, save carefully, and spend effectively without being luxurious (Kassim et al., 2019).

Moreover, people who are able to save more money have less financial stress and a higher quality of life. Malaysians are advised to preserve money due to the country's growing inflation rate and unpredictable economy (Kassim et al., 2019). According to a survey taken by Bank Negara Malaysia, as cited in research by Kassim et al., 2019, Malaysians' financial literacy is lacking in 75% of respondents who had difficulty raising RM1,000 in cash in an emergency. In terms of money, the Malay is more exposed. It is an alarming symptom of Malaysian residents' saving habits, particularly among Muslims. If the current situation continues, it will have a severe influence on the country's economy and population. State bankruptcy, private bankruptcy, bank debt, and debt from other moneylenders are all examples of this.

In practice, personal savings and financial management in Malaysia are extremely problematic. In terms of financial understanding, for example, National Strategy for Financial Literacy 2019-2023 study suggests that Malaysians have poor trust in their own financial expertise, with 1 in 3 Malaysians rating themselves as having low financial awareness. Meanwhile, just 38% of Malaysians realize that inflation indicates that the cost of living is growing, and only 75% understand how inflation affects their purchasing power. Money expands exponentially over time, according to 43% of Malaysians, whereas money grows linearly for 22%. Low-income households have a lower level of financial literacy. Furthermore, just 92% of Malaysians have deposit products, with investment products having a lower take-up rate.

Furthermore, National Strategy for Financial Literacy 2019-2023 expressed concerns about Malaysian savings and budgeting. According to the report, one out of every ten Malaysians believes they are not financially disciplined. and 84% of Malaysians who claim to save on a regular basis do it solely for the short term. For example, they usually withdraw at the end of the month to meet everyday living expenditures. Furthermore, just 76 percent of Malaysians have a budget, yet two-fifths of those who do have a budget find it difficult to stick to it, and one-fifth of Malaysian working adults (MWA) failed to save in the preceding six months. At the same time, three out of ten MWAs require financial assistance to purchase basic necessities.

Malaysians' financial behavior is also backed by (RinggitPlus, 2020), which claims that Malaysians' financial habits have not changed since 2019, with 53 percent of respondents claiming that if they lose their work, they will be unable to live for more than three months on their savings. The good news is that the number of responders who do not save any money each month has decreased somewhat (19 percent vs 21 percent in 2019). There is not much else to say in a favorable light. Since the 2019 study, there has been no progress (also 53 percent). More Malaysians are spending precisely what they earn or more in 2019 than they were in 2018, with a 3 percent rise to 46%. Despite this, the majority of respondents (76%) believe they have control over their finances. In terms of readiness for an unforeseen life event, according to National Strategy for Financial Literacy 2019-2023, up to 52% of Malaysians have trouble saving RM1,000 in an emergency fund, and just 17% of Malaysians have life insurance or takaful coverage.

The most recent financial management topic that has been raised concerns retirement planning. According to National Strategy for Financial Literacy 2019-2023, 41% of Malaysians rely on their EPF funds as their primary source of retirement income, and almost half of Malaysians are concerned about having enough money in retirement. Furthermore, 16 percent of Malaysians are particularly concerned about household costs in their later years, and 68 percent of active EPF members do not meet the necessary Basic Savings for their age group. At age 55, a minimum of RM240,000 in basic savings is advised, which provides for a monthly withdrawal of RM1,000 for the next 20 years after retirement. On the other hand, six out of ten Malaysian individuals are self-employed, unemployed, and uninsured. These retirement topics are also supported by RinggitPlus, 2020, which found that nearly 68 percent of respondents believe their EPF savings can only last them for less than 10 years, and 70 percent of respondents believe that their EPF savings alone are insufficient for retirement, but 45 percent of this group has yet to begin retirement planning.

As a result, all of the problems highlighted by the authors, as stated above, have prompted us to develop a new product to raise awareness about savings and investment among Malaysians of all generations, reduce future financial issues, and build wealth based on customer preferences, in which customers can develop a good habit of saving money for their future to achieve their goals.

Objective

Saving itself might turn into a risk for the consumer because it can reduce the value of money due to inflation. The financial Robo-advisor becomes a tool of a future financial simulator and savings plan which is focused on asset and wealth management that include savings and investment features. The purpose of this product is to create awareness about the importance of savings and investment for all generations in Malaysia, reduce future financial issues faced by consumers by providing user-friendly financial tool for the potential investor, and encourage people to build wealth based on customer preference as preferred by the financial simulator. As a result, customers will be more likely to develop a good habit of saving behaviour among young generations and achieving their financial goals in the future. This study supports the improvement of product using secondary data gathered from The World Bank website on Malaysia's gross savings (percent) and how it compares to other Asian countries such as Brunei, Singapore, Thailand and Indonesia for the continuous 11 years, 2010 until 2021.

Significance of Product

The financial institution is one of the key or important entities that will give profit from our offerings. This category includes investment banks and Islamic financial institutions. This is important since it is the financial institution's responsibility to inform and create awareness in the public about the advantages of investing and saving especially in Shariah compliance securities in order to accomplish their goals and objectives in the future. This product also enhances service to the potential customer with user-friendly tool. In this way, we can attract more customers for the financial Robo-Advisor application, which seems to become a tool for saving and investing with safe, affordable, and frictionless financial instruments. This investment is focus on Shariah compliance securities that suitable for everyone in the country especially for Muslim user. Since AI has emerged as one of the most crucial factors in the development of a global financial system, we decided to present our financial Robo-Advisor in other countries in order to expand our business and promote the advantages of application for their future.

Literature Review

Money is a valuable item that plays a significant role in our everyday lives, particularly in the present economic climate. Many basic human needs cannot be met well without money. Money is said to be not everything, but in truth, it is required for practically all aspects of life. It is crucial not only for people who are currently employed, but also for students, and so money must be managed effectively (Zulfaris et al., 2020). However, according to studies conducted by National Strategy for Financial Literacy 2019-2023 and RinggitPlus, 2020, Malaysians still lack financial management behavior and awareness in terms of financial understanding, savings and budgeting, preparation for unforeseen life events, and even retirement planning.

In Malaysia, personal savings and financial management are incredibly difficult. Financial literacy is a word that is used to describe a person's ability to manage their money. It demonstrates that those who are financially literate have the capacity and abilities to make wise financial decisions (Kassim et al., 2019). National Strategy for Financial Literacy 2019-2023 reveals that Malaysians have little faith in their own financial competence, with one-third of Malaysians assessing themselves as having low financial awareness. Financial literacy is poorer among low-income households. Furthermore, just 92% of Malaysians have deposit products, with investment products attracting a lesser percentage of the population. Moreover, consumers who utilize the Internet as their primary source of financial information have greater financial literacy, which has a favorable impact on the amount of money set aside for investment (Sabri & Aw, 2019).

On the other side, in terms of financial well-being, it differs statistically among those in different marital statuses (married and single) and household income groups (lower, middle, and high-income), and there was a significant link between financial well-being and financial literacy, money attitude, financial strain, and financial capability (Sabri & Zakaria, 2015). This is also supported by Abdullah et al, 2019 and Muhamad and Norwani, 2019 which resulted in financial literacy, debt management, and money attitudes (inadequacy, effort/ability, and retention) all having positive relationships with financial well-being. This is also backed by Yahaya, R., Zainol, Z., Abidin, J. H. O. @ Z., & Ismail, R. 2019, which found that the majority of respondents have a basic understanding of finance but when compared to individuals who did not take any Financial Management courses, those who completed the Financial Management course had a greater degree of financial understanding.

There are also past researchers that are concerned about religious and Islamic financial knowledge. For instance, although there is no evidence of a link between religiosity and saving behavior, it is possible that persons who are religious choose to donate to sadaqah because they feel that the benefits of sadaqah will continue to flow even after the donor has passed away. They offer charity as a reflection of saving, for which they will get rewards both now and in the future (Kassim et al., 2019). However, in terms of Islamic financial knowledge, research by Md and Ahmad, 2020, reveals that students who studied muamalat-related classes scored higher on financial literacy exams, indicating the value of Islamic-based finance and business knowledge for all university students and expanding previous studies. This is also backed by Sabri & Zakaria, 2015, in which many respondents are unfamiliar with savings and Islamic financial products. Hence, Curricula should be customized to their learning environment, as well as their values and customs. According to the findings, personal financial and muamalat-based information and behaviors should be delivered in relation to their Islamic program emphasis. This should take place during the students' academic years and during all academic

program orientations. Both research also underlines the importance of implementing Islamic financial literacy exams and education instruments that are in line with Muslims' unique Islamic identities and it must be made more widely available to Malaysians, particularly among young employees.

On the other side, there were several money managements concerns among university students. The majority of the issues are on money management and saving (Mohamad et al., 2021). A lack of financial literacy can lead to reckless spending, according to Nawi, H. M., 2018, who performed a study on the factors of financial literacy among students at private universities in Malaysia. Due to a lack of financial awareness, students may experience difficulties. Academic performance, mental and physical well-being, and even the capacity to find work after graduation may all be harmed by poor money management. Mohamad et al., 2021 reported that lack of management expertise, high living expenditures at university, and the influence of internet purchasing are all factors that contributed to the financial difficulty among university students and the author suggested that for student wellbeing, they should be introduced to wise financial planning and kept up to date on current events at university. Moreover, money management has a good link with financial literacy and parental socialization; nevertheless, peer pressures and self-control have a negative relationship with money management. This is due to the fact that the majority of students claim they lack self-control when it comes to money management (Zulfaris et al., 2020). In this study, parent socialization was found to have a strong link with money management, implying that parents play an important role in helping their children develop money management skills. However, Hazudin et al, 2018 believe that having campus life completely financed might be sufficient to achieve financial success, as the average amount of money received is often more than a study loan, which indebted students must return and which would be a financial burden for many years. It argues that free financial help, such as scholarships, is necessary for students' financial literacy and well-being, and that other forms of free financial aid, such as grants, maybe beneficial as well.

In terms of retirement concerns, Tan & Singaravelloo, 2020 who conducted research about retirement planning among government officers in Malaysia, concluded that the financial literacy of officers is unaffected by their age or gender. Malaysian government employees have a high level of financial knowledge and strong financial habits in general, with the exception of retirement planning, which is considered average. Despite the fact that there was no significant relationship between age and gender and financial literacy, the study found that education and personal income substantially influenced financial literacy among Malaysian government officials. It was also observed that there was no link between financial literacy and retirement planning among Malaysian government officials. Furthermore, financial literacy had no influence on the relationship between financial behavior and retirement planning, according to the study. Because the research population in this study focussed on only one specific type of government employee, the Management and Professional group, the data obtained purportedly indicated no significant variances across main characteristics within the same group of respondents. They also brought out the need for financial literacy in retirement planning, especially among Malaysian government employees and the general population. As a result, future research on financial literacy in retirement planning should be focused on multigroup.

From the savings and money management behavior perspective, according to Kassim et al., 2019, it is influenced by family history, attitude, financial literacy, and location. Regarding

family background, parents' support and motivation will instill excellent habits in their children's conduct. Furthermore, children may inherit their parents' attitudes and behaviors, which will undoubtedly impact their money management as they grow older. Meanwhile, in terms of attitude, people who spend less on unneeded products, keep track of their spending, make an effort to save money, and spend intelligently are more likely to have good saving behavior. According to the authors, persons who live in rural regions are more likely to have fewer savings. The majority of individuals in rural regions are middle- and low-income earners. They have a large number of jobless individuals, a scarcity of companies who would sponsor their retirement plan, a lack of desire and understanding, and limited access to financing. The author also found that there is no correlation between household income and saving habits. The growing prices of houses and rents have a greater impact on those who reside in cities. Aside from that, educational and medical expenditures are rising. People are forced to spend a considerable amount of their earnings to meet such bills, reducing their savings. The link between age and saving behavior yields significant findings as well. The reason for this is that rising living costs are putting a lot of pressure on both young and senior people. Meanwhile, the younger generation loves to spend money on fashionable clothing, meals, and music. Saving money is not their top concern when it comes to covering all of their costs.

Methodology

This study used a qualitative method and the data are collected mainly from the World Bank sources to identify present financial difficulties among the population which has been identified by previous researchers and already been mentioned in the problem statement and literature review. Since AI has emerged as one of the most crucial factors in the development of a global financial system, we presented financial Robo-Advisor by using modern technology of financial tools and make it integrated with Shariah principles. Few contracts of Islamic finance have been referred to and they became the main principles to ensure the product developed is Shariah compliant.

Results and Discussion

Results from Secondary Sources

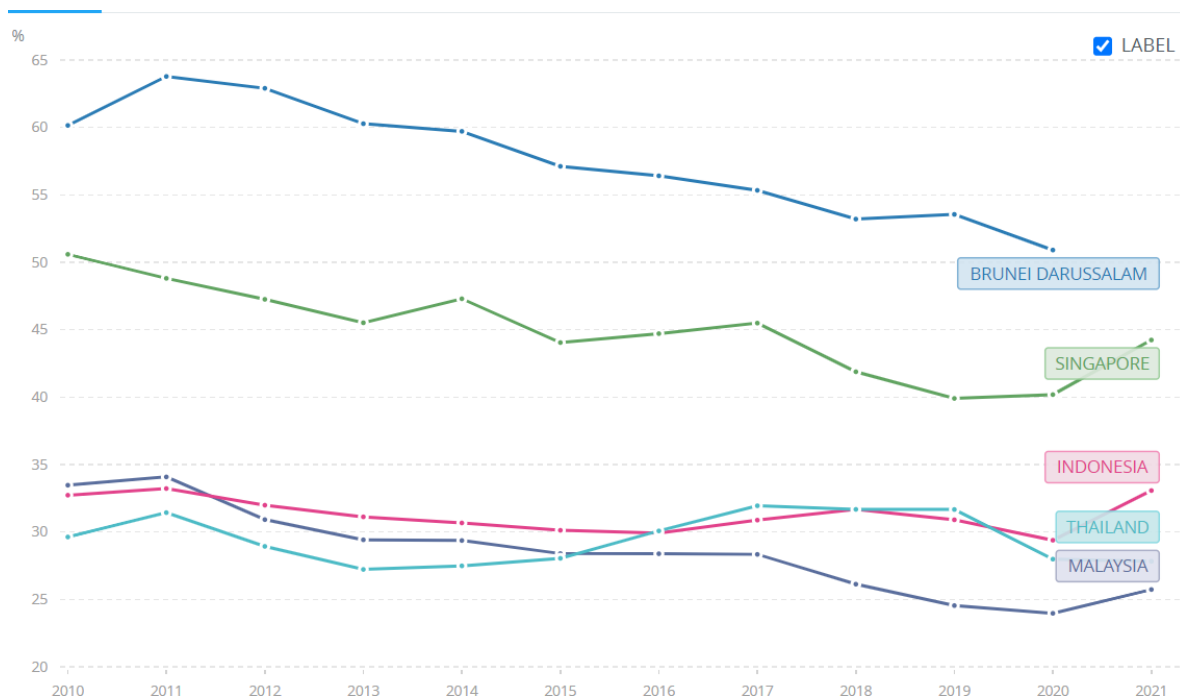
We used data from The World Bank to compare gross savings between Malaysia and a few Southeast Asian countries, as shown below:

Table 1: Gross Savings between Malaysia and Southeast Asian Countries

Year/Country	Gross Savings (%)				
	Malaysia	Brunei	Singapore	Thailand	Indonesia
2010	33.47	60.15	50.59	29.63	32.73
2011	34.08	63.78	48.81	31.43	33.22
2012	30.92	62.90	47.25	28.93	31.99
2013	29.42	60.28	45.52	27.22	31.12
2014	29.37	59.71	47.29	27.49	30.67

2015	28.40	57.12	44.05	28.04	30.12
2016	28.38	56.41	44.71	30.08	29.92
2017	28.34	55.34	45.49	31.94	30.88
2018	26.13	53.20	41.88	31.68	31.68
2019	24.54	53.55	39.90	31.67	30.90
2020	23.97	50.91	40.19	27.99	29.39
2021	25.73	-	44.24	27.89	33.07

Sources: World Bank

**Figure 1: Gross Savings between Malaysia and Southeast Asian Countries**

Sources: World Bank

The data above shows gross savings (% of GDP) in comparison between Malaysia and other countries in Southeast Asia which are Brunei, Indonesia, Thailand and Singapore. The data implying that the lowest three (3) countries that lack of financial information and awareness about investing and saving management are Indonesia, Malaysia and Thailand. This might be effected by the number of populations in the country itself, compare to Brunei and Singapore which their population is lower than the other bottom three countries. As a result, we have come up with a plan to raise knowledge across Malaysia's whole generation, as Malaysia is still have the lowest savings among all of the countries in comparison. In hopes in future, it can prevent future financial concerns, and develop wealth based on their own preferences.

Products Enhancement

Savings2u, our suggested idea or solution, is an application of financial Robo-Advisor that focuses on investment and savings features based on customers' preferences as well as short term and long-term goals. Robo-Advisor is a future financial simulator and savings plan in which customers create their own financial objectives by entering their information and letting their money grow virtually based on the financial simulator's recommendations, with the application assisting them in accomplishing their objectives. Customers may also calculate future value depending on the amount of money they need to save and invest each month in order to meet their financial goals. It will also assist the client in making a better financial plan for the future, and they will be able to set objectives depending on their preferences, whether short-term or long-term. Travel, buying something (gadgets, handbags), paying off debt, continuing higher education, paying down payment on a car or house are examples of short-term goals, and long-term goals include future education for children, emergency savings, and retirement.

Customers can change the classification or name of the contribution, the amount needed to meet the goals, the start and end dates of the contribution, and the monthly investment (amount of money that they can afford to invest every month or anytime based on their preference). They will have a better chance of achieving their goals in the future if they give more money. They may also amend, extend the period, establish other objectives, or top up the amount of money if they want to, and the amounts in the account from the active goal are also not fixed. It is possible to remove or transfer it at any time.

This application will present consumers with a personalised approach to achieve their objectives. We have an application recommendation, for example, which is the expected range of financial outcomes based on historical economic data. We also have Self-edit, which is based on the customer's preferences and allows them to alter their plan until they are satisfied with the outcome. Customers who become High Net Worth investors (save and invest more than RM100,000) will receive a special dividend every quarter.

Customers can also select a risk profile depending on their personal risk tolerance. In order to help the customer, diversify their risk, funds can be divided into short-term and long-term goals as well as a variety of Shariah-compliant and Riba-free securities, which are:

- **Money Market:** Investors can monitor capital stability, offer short-term liquidity and regular income, hedge against inflation, and protect against risk by investing in a diverse portfolio of money market instruments.
- **Emerging Market Stocks:** Offer a significant opportunity for direct and diversified investing in emerging market firms that correspond to Islamic investment principles for portfolio expansion. Due to the exposure from the expanding output and market capitalization of developing market countries, which are less developed than developed economies, it has a higher risk but offers a higher return to the investors.
- **Global Stocks:** These stocks are primarily direct and diversified to international and established corporations in developed markets that follow Islamic investment guidelines.
- **Sukuk:** Offer ethical and Shariah-compliant financial products free of

excessive uncertainty, interest, or Riba'. The underlying asset is owned by the Sukuk holder, who is also entitled to any income earned by the Sukuk asset. The investment must also be asset-backed or asset-based and interest-free.

- Gold: Offers prospective investment due to the advantage of diversification and significant exposure to gold prices for long-term capital growth as well as serving as an inflation hedge.
- Cash: Offers a return in the form of a short-term commitment, typically lasting less than 90 days, in the form of payment. In comparison to other investments, it usually gives a lower return.

This application contains five different sorts of risk preferences:

- Very Conservative: Sukuk (90%) and Cash (10%)
- Moderately Conservative: Sukuk (70%), Global Stocks (20%), Gold (5%) and Cash (5%)
- Moderate: Global Stocks (45%), Sukuk (44%), Emerging Market Stocks (5%), Gold (5%) and Cash (1%).
- Moderately Aggressive: Global Stocks (59%), Sukuk (30%), Emerging Market Stocks (5%), Gold (5%), and Cash (1%)
- Aggressive: Global Stocks (85%), Emerging Market Stocks (10%) and Money Market (5%).

The enhancement of our product is that we incorporate the aspects of Hibah Amanah service as optional to the customers, in which it becomes an instrument for the customer to accelerate wealth distribution and prevent taking a long time to operate the property after they have passed away. It is hoped that it would also assist owners in planning the transfer of their savings and assets to beneficiaries according to their preferences. Customers who use this service will also be charged an annual administrative fee for managing and maintaining their information. As an appreciation to the clients for choosing this product, administration costs will be waived from the first to the third year of registration and discounts will be granted in the meanwhile.

Products Comparison

The table below shows an enhancement of our products, compare to existing products that have been introduced by Maybank, CIMB, BMB, and Wahed Investment:

Table 2: Comparison of Products

	SAVINGS2U	MAYBANK	CIMB	BMB INVESTMENT	WAHED INVESTMENT
Savings Features	/	/	/		
Wealth Accumulation Simulator	/	/	/		
Investment Features	/	/		/	/
Risk Assessment	/	/			/

Risk Profiling	/	/		/	/
Past Economic Data	/	/			
Portfolio of Shariah Investment	/	/		/	
Short Term Goals	/		/	/	/
Long Term Goals	/	/		/	/
Financial Goal Calculator	/	/	/		
Goals Modification	/		/		
Flexible Self-edit Section	/	/	/		
Save on Auto-Pilot	/	/	/		
Robo Advisor (Financial Adjustment Plan)	/	/		/	
Assist by Financial Advisor	/	/		/	
User-Friendly (Mobile Devices)	/	/	/	/	/
Investment Information	/	/	/	/	/
Portfolio Projection	/	/			/
Portfolio Performance Monitoring (Rebalancing and Financial Health Checks)	/				
Hibah Amanah Service	/				
Rewards for High Net Worth investors	/				
News about latest market condition	/				

Benefit of the Products

The employment of Robo-advisors has become one of the biggest developments in the global economy because it helps customers to create and manage the portfolio automatically using the data provided as well as enhance wealth-tech journeys in the country. We design an application of financial Robo-Advisor which is a digital platform based on the customer's goals and risk tolerance. It also can raise awareness and diminish financial difficulties among people in the country. Numerous advantages of this product can benefit the consumer.

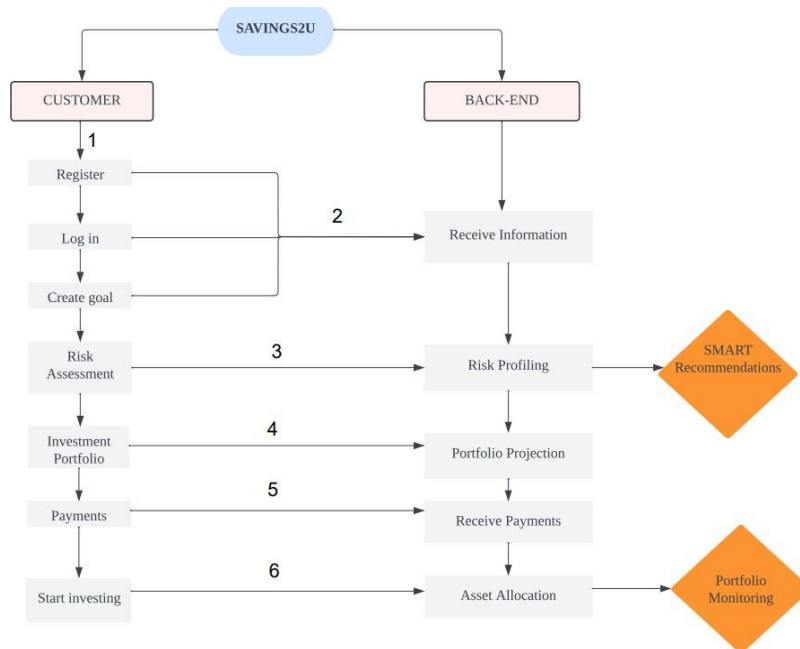
The first key advantage of this product is that it turns into a passive investment vehicle, which may be a useful option for the client if they don't feel comfortable making investment decisions or don't want to spend a lot of time conducting research, keeping track of their portfolio, or rebalancing it to meet their objectives and goals. Customers may create and expand their wealth for long-term and short-term goals depending on their preferences, which can assist them in calculating the amount of money they need to set aside to invest in order to make the money work for them in order to reach their financial objectives. They may also keep track of their progress and get an insight into their future savings and investments by receiving notifications on their phones.

The second one is that this product will serve as a tool to assist customers in determining how much money they should set aside and begin investing in the future. To reach both short- and long-term goals based on consumer preference and have a better plan for their financial performance, the financial plan will be based on suggestions and advice from the financial simulator. The customer can define financial goals, specify information for new users and existing customers, save and invest money based on financial robo-advisor recommendations, and monitor the money's growth digitally. Developing a saving habit at an early stage can help the customer avoid financial problems in the future. This application is particularly user-friendly because customers may monitor the performance of their investments and savings as well as modify the goals in accordance with their needs and preferences.

The third one is that, customers can spread their risk by diversifying their assets, such as by having many types of investments rather than just one. This implies that if a certain investment in their portfolio underperforms, they will not be significantly impacted because they have other sorts of assets. The growing usage of digital financial services among consumers will lead to improved economic development and reduce the level of poverty because countries with deeper and established financial systems experienced stronger economic growth.

Framework and Process Flow

Figure 2: Framework and Process Flow



When a customer signs in and makes an investment utilizing SAVINGS2U, the process flow between the customer and back-end process is illustrated in the image above. Customers will start to create their ID, username, and password to enter into their accounts, as seen in number 1. The objective they wish to accomplish in the future will then be created by them depending on their preferences. Additionally, they must choose and modify the goals category, which includes vacation, shopping, school, and emergency fund. The back-end of the Robo-Advisor will get information about our customers while the activity is currently happening.

The next step is for clients, as seen in number 3, to select their preferred level of risk from very conservative, moderately conservative, moderate, moderately aggressive, and aggressive. In the meantime, the Robo-Advisor's back end will begin risk profiling utilizing SMART recommendations, which will offer an investment portfolio depending on the risk tolerance of the customer. Number 4: While the back-end begins to create a portfolio projection, the consumer will continue to choose and select their investment portfolio.

Number 5: Depending on how much the consumer wants to save or invest, they must make a payment once their investment portfolio is complete. As a result, SAVINGS2U will receive the money and the customer will receive an email confirming the payment. The last phase, number 6, involves the consumer beginning an investment while the Robo-Advisor begins allocating assets, which means they will have control over each person's assets. The Robo-Advisor of SAVINGS2U will monitor the portfolio after making an investment using the Wakalah Bil Istithmar structure since it has tools for portfolio rebalancing through financial inspections. One of SAVINGS2U's benefits is that we constantly update investing information for our clients to keep them informed. The guidelines and process of how customer can log in and utilize SAVINGS2U are [attached here](#).

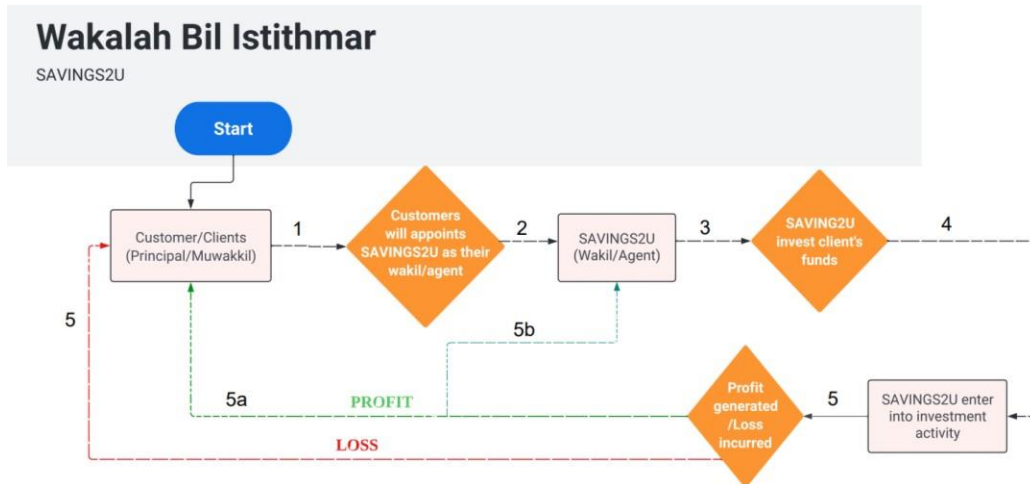


Figure 3: Wakalah Bil Istithmar

The workflow for Wakalah Bil Istithmar on SAVINGS2U is depicted in the diagram above. Customers will first appoint us as their agent while acting as their principal or muwakkil. Then, SAVINGS2U, who serves as the client's investment agent, will begin to invest the client's money and engage in investing activities such as buying Sukuk, gold, and money market securities. There are two outcomes that might result from this activity: either a gain or a loss. If the activity gains a profit, the profit will be distributed to the client, and we will receive the payment of the transaction cost from our customer. Is it because fees will be charged if only there is profit. However, when the consumer suffered losses in the investment, they are not required to pay the transaction costs to the company.

Conclusion

The financial Robo-Advisor becomes a tool of a future financial simulator and savings plan which is focused on asset and wealth management that include savings and investment features. Malaysia has relatively poor money management and literacy. Most of the population have low awareness and are not financially disciplined because they rely on only one source fund for retirement or emergency purposes. The earlier study that was covered in the literature review and problem statement serves as evidence for this low awareness and no financial discipline. Therefore, we anticipate that the creation and improvement of Robo-Advisor would help all generations understand the value of saving money and involvement in investment, as well as help customers to avoid future financial difficulties and stimulate wealth-building based on their own preferences. Customers will therefore be more inclined to form the habit of saving money for the things they want. In conclusion, this product is expected to be further expanded in the future through partnerships with governments who need to assist in expanding and facilitating the access of digital financial services and collaborate with more financial institutions in other countries, particularly in South Asia because it will give both short-term and long-term positive impact to economic development. We also will include more features and incorporate different investment portfolios into this product to be accepted by customers.

References

- Abdullah, N., Fazli, S. M., and Arif, A. M. M., 2019, The relationship between attitude towards money, financial literacy and debt management with young worker's financial wellbeing. *Pertanika Journal of Social Sciences and Humanities*, 27(1), 361-387.
- Hazudin, S. F., Tarmuji, N. H., Kader, M. A. R. A., Majid, A. A., Aziz, N. N. A., and Ishak, M., 2018, The relationship between previous mathematics performance, and level of financial literacy and financial well-being of university students. Paper presented at the AIP Conference Proceedings
- Jahn, M. (2022, February 8). 10 countries with the highest savings rates. *Investopedia*. <https://www.investopedia.com/articles/personal-finance/022415/top-10-countries-save-most.asp>
- Kassim, A. A. M., Mohamed, J., Jahari, N. A., & Zain, N. N. M. (2019). Personal Saving Behavior among Muslim Employees. *International Journal of Academic Research in Business and Social Sciences*, 9(11). <https://doi.org/10.6007/ijarbss/v9-i11/6545>
- Md, A. S., and Ahmad, W. M. W., 2020, Financial literacy among Malaysian Muslim undergraduates. *Journal of Islamic Accounting and Business Research*.
- Mohamad, N., Bakar, N. A., Amirah, N., Khalid, A. M., Abdullah, N. H., & Chua, C. (2021). The Study of Financial Problems Among the Universiti Tun Hussein Onn Malaysia (UTHM) Pagoh's Campus Students. 2(1), 118–123.
- Muhamad, N. A. N., and Norwani, N. M., 2019, The influence of financial literacy, debt and demographic factors on financial well-being. *International Journal of Contemporary Applied Researches*.
- National Strategy for Financial Literacy 2019-2023. (2019). Malaysia National Strategy for Financial Literacy 2019-2023. Financial Education Network, 1–36. <https://fenetwork.my/v2/wp-content/uploads/2020/07/National-Strategy-ENG-F.pdf>
- Nawi, H. M., Dason, D., Cha, N. A., Nur, W., & Aswal, S. (2018). The Determinants of Financial Literacy among Students of Private Universities in Malaysia. March.
- Pazarbasioglu. (n.d.). *Expanding digital financial services can help developing economies cope with crisis now and boost growth later*. World Bank Blogs. Retrieved July 9, 2022, from <https://blogs.worldbank.org/voices/expanding-digital-financial-services-can-help-developing-economies-cope-crisis-now-and-boost-growth-later>
- Radu, S. (2019, October 23). Where to live to save more money? *U.S. News & World Report*. <https://www.usnews.com/news/best-countries/slideshows/top-10-countries-with-the-highest-rates-of-household-savings>
- Ribaj, A., & Mexhuani, F. (2021). The impact of savings on economic growth in a developing country (the case of Kosovo). *Journal of Innovation and Entrepreneurship*, 10(1). <https://doi.org/10.1186/s13731-020-00140-6>
- RinggitPlus. (2020). Malaysian Financial Literacy Survey 2020. 1–17.
- Sabri, M. F., & Aw, E. C. X. (2019). Financial literacy and related outcomes: The role of financial information sources. *International Journal of Business and Society*, 20(1), 286–298.
- Sabri, M. F., and Zakaria, N. F., 2015, The influence of financial literacy, money attitude, financial strain and financial capability on young employees' financial well-being. *Pertanika Journal of Social Sciences & Humanities*, 23(4).
- Staff, K. at W. (2018, June 14). The rise of the robo-advisor: How fintech is disrupting retirement. *Knowledge@Wharton*. <https://knowledge.wharton.upenn.edu/article/rise-robo-advisor-fintech-disrupting-retirement/>

- Tan, S., and Singaravelloo, K., 2020, Financial literacy and retirement planning among government officers in Malaysia. *International Journal of Public Administration*, 43(6), 486- 498.
- World Bank Group. (2022, June 22). Stagflation risk rises amid a sharp slowdown in growth. *World Bank Group*. <https://www.worldbank.org/en/news/press-release/2022/06/07/stagflation-risk-rises-amid-sharp-slowdown-in-growth-energy-markets>
- Yahaya, R., Zainol, Z., Abidin, J. H. O. @ Z., & Ismail, R. (2019). The Effect of Financial Knowledge and Financial Attitudes in Financial Behavior among University Students. *International Journal of Academic Research in Business and Social Sciences*, 9(8), 22-32. <https://doi.org/10.6007/ijarbss/v9-i8.6205>
- Zulfaris, M. D., Mustafa, H., Mahussin, N., Alam, M. K., & Daud, Z. M. (2020). Students and money management behavior of a Malaysian public university. *Journal of Asian Finance, Economics, and Business*, 7(3), 245-251. <https://doi.org/10.13106/jafeb.2020.vol7.no3.245>