

The Design of a Board Game About Managing Personal Finance for Young Adults

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ABSTRACT

The financial literacy of the Indonesian people is still relatively low compared to that in other countries since finance-related topics are considered difficult. However, financial literacy is crucial for everyone, particularly for young adults aged 18 to 25 years old who make their living without having any expertise in money management. Financial literacy helps a person to understand the importance of managing finances properly. This board game was designed so that financial management can be easily understood by young adults aged 18-25 years. This research is using survey and interviews that focus on financial management methods applied to board game through simulations. Learning financial through board game is preferable for young adults because it is easier to understand and fun to play with friends.

Keywords: *Board game; educational media; financial management; young adults*

INTRODUCTION

At the beginning of the Covid-19 pandemic entering Indonesia, many Indonesian people were laid off and many people were also laid off which caused them to lose their jobs. As an illustration of the impact of the Covid-19 pandemic in Indonesia, The Indonesian Central Bank released data on the Business World Activity Survey on economic conditions in Indonesia amid the Covid-19 pandemic. In the second quarter of 2020, it fell to -35.75% compared to the first quarter of 2020 which had also fallen to -5.56% from the previous quarter IV in 2019 at 7.79%. As we knew, in the second quarter of 2020 was when the Covid-19 pandemic just started in Indonesia, some of the sectors that fell the most were the manufacturing industry, the trade industry, hotels, and restaurants (Survei Kegiatan Dunia Usaha - Triwulan IV 2020, 2021).

Data from the Ministry of Manpower of the Republic of Indonesia (Kemnaker) as of 31 July 2020 states that more than 3.5 million people, both formal and informal sector workers, have been sent home or even been laid off due to the impact of the Covid-19 pandemic which has caused a loss of income sources (Mari Persiapkan Dana Darurat!, 2020). This event leads to decreased income and loss of jobs, this leaves many Indonesians in shock and do not have sufficient savings or emergency funds to use to meet their needs. In addition, there are still many people who do not have knowledge about managing finances properly. The survey held by The Organization for Economic Co-operation and Development (OECD) on 25 June 2020 shows that Indonesia is a country that is not ready to face an economic crisis. The survey shows that the majority of respondents in Indonesia only have the resilience of an emergency fund to last one week (Pandamsari, 2020). Another data also explained that 88.66% of Indonesian people did not have the money to meet their needs, which came from a risk management fund or emergency fund. (Kusuma, 2021). In 2018 the World Bank released savings account ownership, where around 96.6 million Indonesians do not have a bank account to save (Saputra, 2018). Even though liquid cash savings or so-called emergency funds with the right amount are really needed by every individual to be able to survive in an economic crisis such as the Covid-19 pandemic, or other emergencies, for example losing a job when a company or business goes bankrupt.

The capacity to manage and plan funds in order to make decisions regarding the use of financial products and services is known as financial literacy. Meanwhile, financial inclusion is the level of public use of financial products and services. Following a survey from the Financial Services Authority (OJK) in 2019, the financial literacy level of the Indonesian people was 38.03% and financial inclusion was 76.19% (Survei Nasional Literasi dan Inklusi Keuangan 2019, 2020). The adequate level of financial literacy in an ideal country is at least 50% of the population (Sidik, 2020). It can be concluded that Indonesian people need to get an education about the importance of managing finances.

Young adults aged 18-25 years are in the productive age range, where the average is already working and has an income. In a Commonwealth Bank survey, 53 percent of young Indonesians think that saving is easy. However, the reality is that saving is still difficult (Salbiah, 2021). This is the age range for young adults who have just earned an income and are easily tempted to use their money to buy consumptive goods and become extravagant just to

get momentary pleasure instead of using their money to save or invest. Introducing proper financial management from a young age is very important for young people in Indonesia, and this age range is the right and legal age to start learning and be able to use existing financial products and services.

Based on the problem above, interesting media is needed to help to educate young adults aged 18-25 years old about financial literacy. The media chosen is a board game that is designed not only as entertainment but also as a medium for educating financial literacy.

The design of this board game aims to provide knowledge about financial literacy for Indonesian young adults to become more familiar with financial products and services that can be used to deal with unexpected things such as loss of jobs or economic crises in a way that is easy to learn and fun using visual communication media, mainly board game as main media. The board game design goal is to increase financial literacy in young adults aged 18-25 years old through real-life simulation via the board game itself. It is hoped that this financial-themed board game can become a medium for learning about finance, so that these young adults can manage finances properly from an early age.

METHOD

The design of this board game used a quantitative and qualitative research perspective where in the design methodology research methods will be carried out namely for data collection and data analysis. Data collection methods were carried out by using a random survey of 101 respondents, interviews with an expert, literature studies, and observation.

The survey was conducted with design targets (or target audiences) to get broad data about the financial situation experienced during the pandemic, information about what financial plans had been made, find out about their level of financial literacy, and their board game preferences. Direct interview was conducted with Certified Financial Planners (CFP) as informant to obtain good financial management methods, and what financial products and services should be used in financial management. This data was mainly used to construct the gameplay and gameplay elements. A Certified Financial Planner was chosen as the main informant because of his expertise, knowledge, and deep understanding of finance, especially personal financial planning.

Later on in the last stage of the design process, the board game designed then will be tested back to 8 target audiences to gather feedback. Feedback gathered was then used further to improve the board game.

FINDINGS AND DISCUSSION

Financial Literacy and Financial Management

Financial literacy is a person's ability to understand the basic features of personal finance, such as the ability to make informed decisions about saving, investment budgeting, and managing money (Baker, Filbeck, & Ricciardi, 2017). Financial literacy refers to specific knowledge, specific skills, perceived knowledge, financial behavior, financial experience, financial results, and/or financial education. Also according to (Garman & Fogue, 2018) financial literacy is knowledge of facts, concepts, principles, and what technologies are used in using money as a medium of exchange. Financial literacy helps us deal with everyday financial problems, helps prevent the consequences of wrong financial decisions, assists in making financial decisions, and becomes more responsible with personal finances. In other words, financial literacy is one's knowledge of financial concepts, namely the ability to manage finances personally (Chen & Volpe, 1998).

According to financial expert, Adi Kurniawan Yusup, S.E., M.M., CFP, (Certified Financial Planner) explained several steps in financial management starting with: (1) Having an emergency fund, (2) having health insurance for those who are not married, and life insurance for those who have dependents or are already married, (3) and having investments.

Adi Kurniawan Yusup said that it is important to determine financial goals before investing in managing finances. This is important because each investment instrument has its own risks whenever every time you determine different financial goals, of course you will use different investment instruments according to your goals. "For example, we want to invest with the aim of buying a cell phone in 1 year, the same as collecting retirement funds in 20 more years. You have different risk factors, one goal in the short term, the other long term. Later it will affect what investment instrument is used. That's why it is necessary to determine the investment objectives first to also determine the investment instruments and their respective risks." (Personal Communication, 2021).

In managing finances, there are several expenditure items. Adi Kurniawan Yusup said that these expenditure items are not an exact theory that everyone uses, because everyone's needs are different. "Some use 40-30-20-10, which is divided into 40% needs, 30% debt repayments, 20% investment, 10% donations, some use 50-30-20, 50% needs, 30% debt repayments, 20% investment, etc. So many theories are used, and it's not something that everyone uses for sure" (Personal Communication, 2021). But, as the most basic thing, expenditure items can be divided into 5 (Dika, 2020), namely: (1) Basic needs (40-50% of income), (2) Installment of debt (maximum 30% of income), (3) Donations, social activities (10%), (4) Investment/saving (20%), and (5) Lifestyle (eating to restaurants, buying new clothes, etc.) (10%) (Personal Communication, 2021).

Financial Problems for Young Adults 18-25 Years

The research "Indonesia Gen Z And Millennial Report 2020: The Battle of Our Generation", found several findings regarding consumption and financial behavior among young adults aged 18-25 years, who belong to Generation Z. They found that telecommunications and leisure are the new basic needs. This survey shows that the majority of spending in Indonesia is still used for daily needs of 58.9%, what is interesting is the high spending on telecommunications and leisure or entertainment (Ali, et al., 2020). We can see this in the image below:

Alokasi Pengeluaran	Generation				
	Gen Z	Younger Millennial	Older Millennial	Younger Gen X	Older Gen X
TABUNGAN	6.3	8.5	9.2	8.3	7.4
INVESTASI	0.5	0.5	1.0	0.56	0.6
ASURANSI	2.4	2.5	2.4	2.2	2.4
CICILAN HUTANG	5.4	7.3	7.6	7.8	6.6
KEBUTUHAN RUTIN	59.9	57.3	57.5	58.4	61.4
ZIS (Zakat, Infaq, Sedekah)	4.2	4.1	4.1	5.2	5.4
TELEPON	7.2	6.8	6.1	6.0	6.2
INTERNET	7.3	7.1	6.1	5.5	4.5
HIBURAN/ENTERTAINMENT/LEISURE	6.8	6.0	6.0	6.1	5.6
TOTAL	100.0	100.0	100.0	100.0	100.0

Figure 1. The proportion of household expenditures per month by generation

Source: Alvara Beyond Insight. (2020). Indonesia gen z and millennial report 2020: the battle of our generation, p.44. <https://batukarinfo.com/system/files/Alvara-Indonesia-Gen-Z-and-Millennial-Report-2020.pdf>.

Indonesian Gen Z and Millennials compared to the older generation, spent the most on telecommunications and entertainment. Meanwhile, the portions for savings, investment, and insurance are still very small. Furthermore, in the age range of 18-25 years who are included in Gen Z, there is already 68.5% ownership of financial products, either in the form of savings, investment products, or financing products. Then the most widely owned financial products by the people of Indonesia are savings products from conventional banks. We can see from Figure 2. the type of financial products owned by Indonesian:



Figure 2. Type of financial products owned by Gen Z

Source: Alvara Beyond Insight. (2020). Indonesia gen z and millennial report 2020: the battle of our generation, p.46. <https://batukarinfo.com/system/files/Alvara-Indonesia-Gen-Z-and-Millennial-Report-2020.pdf>.

Based on the data above, we knew that the financial problems faced by 18-25 year olds are the small percentage of savings, investment, and insurance compared to those used for daily needs reaching more than 50% of income, and also the large expenditure on telecommunications and entertainment due to dependence on the internet, which is not only used for socializing and seeking information, is also used for transactions via e-commerce and also some non-cash payments such as m-banking and e-money. The conveniences offered in shopping certainly encourage the lifestyle of young people to become consumptive, which can be seen from the amount spent on daily necessities which is more than 50%.

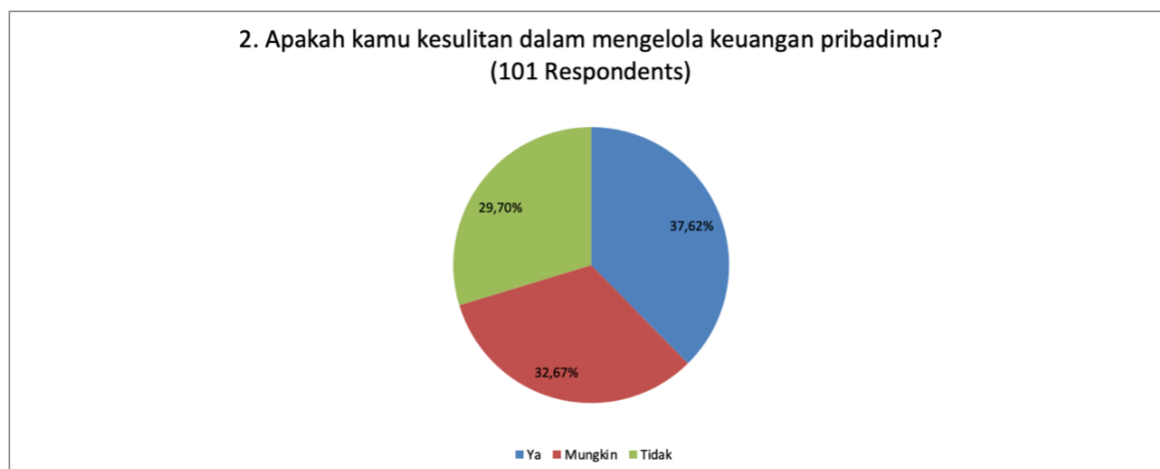


Figure 3. Graphic Difficulty Managing Personal Finances

We surveyed with 101 respondents. Based on the data on Figure 6, in managing personal finances, 37.62% of respondents stated that they had difficulty managing finances, 32.67% felt it might be difficult and as many as 29.7% stated that they had no difficulties. Furthermore, from the data obtained, there are still 15.4% who cannot save and 62.37% feel that it may be difficult and difficult to manage personal finances. The reasons for respondents finding it difficult were a lack of knowledge about financial management, material about finance being considered heavy material, and difficult for ordinary people to learn. The ages of 18-25 years who are young adults in Indonesia are currently of productive age and are currently in college or at the start of work. They have started to have a steady income, however, this is not accompanied by good knowledge or financial literacy.

Based on the various data presented, most of them still have difficulty saving, preparing emergency funds and do not record income and expenses. So, they also do not evaluate personal financial reports. Therefore, interesting media are needed to educate young adults about financial literacy.

Board Game Preferences by Young Adults

We did our survey to 101 respondents aged 18-25 years. The goal of this survey mainly is to get) to get broad data about the financial situation experienced during the pandemic, information about what financial plans had been made, find out about their level of financial literacy, and their board game preferences.

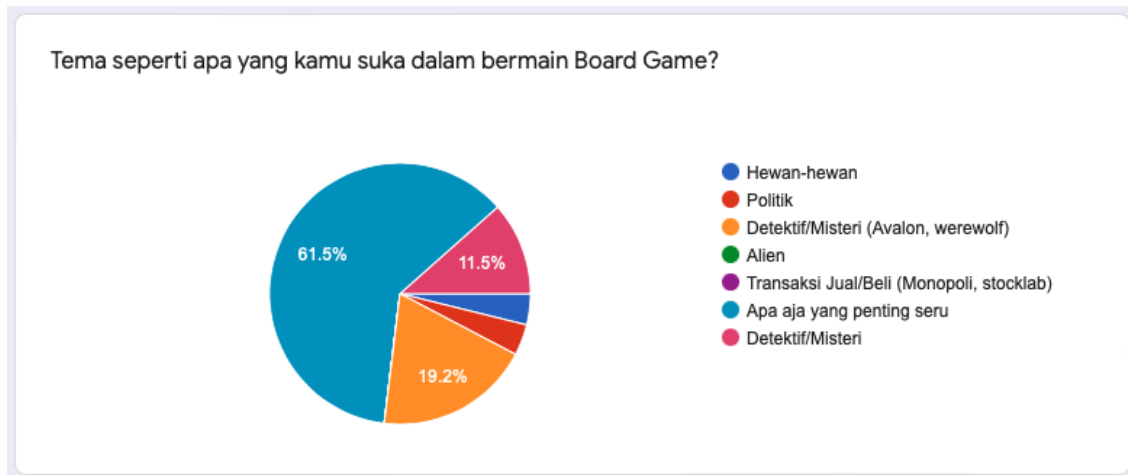


Figure 4. Graphic Insight Board Game with Financial Theme

Board game themes or stories that most respondents like, 61.5% choose anything that is fun and 30.7% detective/mystery. This is because respondents more often play at the board game café, where usually the selection of board games is based on recommendations from friends or recommendations from the owner of the board game café.



Figure 5. Graphic Insight Board Game with Financial Theme

Based on our survey of 101 respondents, shows that 81,19% are interested in board games about financial management, 16,83% might be interested, and only 1,98% are not interested. The reasons given by respondents for this question varied, such as being interested

in being able to learn finance in a fun way because while playing, being able to learn good financial management, is relevant to the current situation where there is an increasing trend to save and invest.

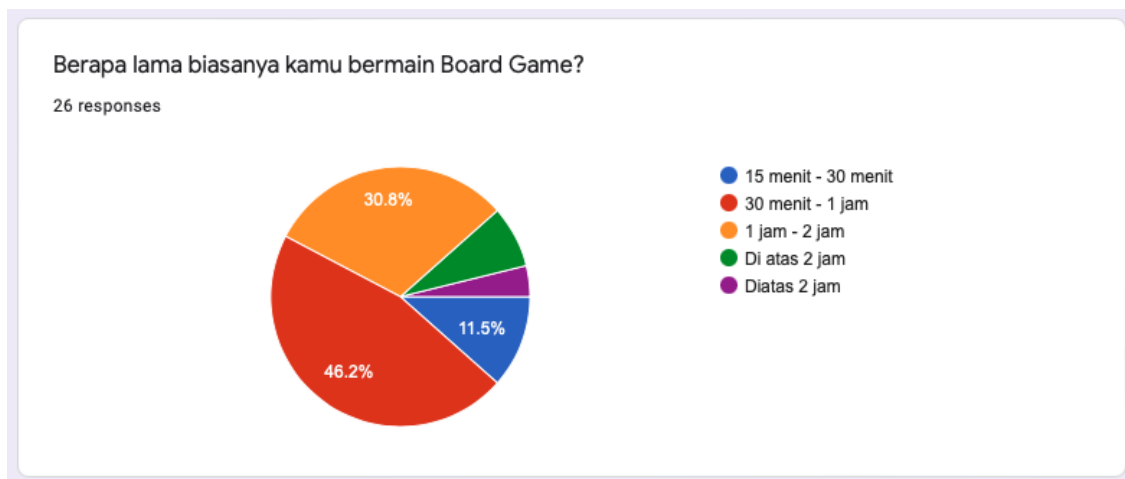


Figure 6. Graphic Board Game Duration Preferences

When playing board games, 46.2% of respondents spent 30 minutes-1 hour, 30.6% for 1-2 hours, and the rest under 30 minutes or over 2 hours. Then, 69.2% of respondents played board games with 4-8 people, 23.1% with 2-4 people. Respondents gave various reasons for choosing their favorite board game and the main reasons were because of the fun gameplay, being able to play and become more intimate with friends, learning to make game strategies to win, and playing varied board games so they don't get bored easily. In conclusion, the survey was very helpful in determining the duration of the gameplay and visual aesthetics of the board game designed.

The media is a board game that is designed not only as entertainment but also as a medium for educating financial literacy. It is hoped that this financial-themed board game can become a medium for learning about finance so that these young adults can manage finances properly from an early age.

The Concept of Board Game Design

Content and Thematic

The board of this board game sized 46cm x 31cm. Other than the board itself, there will be game components such as job cards, dream cards, asset cards, skill cards, chance cards, dice,

tokens, fake/play money, and pawns. All of those things will be used for playing the game. The cards itself sized 6,3cm x 8,8cm and printed on both sides. The content of the board game is information about knowledge on how to manage finances well, starting from recording expenses, saving emergency funds, choosing the right investments, and educating the importance of having financial goals.

The theme of this financial board game is about one's life journey in living life and managing finances in weekly and monthly periods. In every week that is lived, everyone will experience many changes and dynamics which of course affect one's financial condition. So that knowledge is needed about how to manage finances well so that they can solve problems and also achieve their respective financial goals.

The type of board game used is in the form of a racing game, where each player competes to win the game by reaching the final destination/completing financial goals. This board game will be able to be played by 3-6 people.

The board game is called "Price of Life." This title is inspired by an anime genre called slice of life which tells about the daily life of a character, a light genre for everyone to watch. Just like the board game that will be made, it will bring players to live their daily lives which cannot be separated from the importance of managing finances. Overall this title wants to convey that life requires money so it is important to have knowledge of managing finances.

The Gameplay

The game lasts about 1-2 hours and can be played by 3-6 players individually and 1 person as a game master and players will take turns. The game board has 4 sides which indicate each week of the month. The game will finish after reaching a period of 1 year or 12 months. Then the winner will be determined from the number of life points that have been reached at the end of the game. There are 2 game goals or checkpoints that must be completed by each player, each player must complete the checkpoint from the top first. The goals or checkpoints are:

1. Preparing an emergency fund
2. Achieving financial goals or dreams through the chosen Dream Card (buy a house, buy a car, etc.)



Figure 7. Final layout board game and card designs



Figure 8. The final design of the board game

Testings and Feedback

The game tests were carried out to finalize the game concept and to find out how the game should work when played in real. This trial was conducted 3 times to the target audience aged 18-25 years. The first and second tests were carried out when new gameplay was being

developed and the game board design was not yet final. These trials aim to find weaknesses in the gameplay, game components balancing, and gathering feedback. The results of the first and second testing received positive responses and also received a lot of feedback and suggestions. Some of the positive responses from the target audience such as: (1) “Good, creative, can be used to play in finance class,” (2) “Exciting! Especially if you play with many people,” (3) “Much needs to be changed in terms of the comparison of money and life points, so that it is more balanced,” (4) “I felt the excitement when I entered the 6th month, maybe if you want to hurry up, some rules were advanced in the 4th month, but overall it's good!”

Then, there are also feedback and suggestions for several gameplay and its components so that they can be improved such as: (1) “The game tiles are made more varied, so you don't get bored,” (2) “The income and expenditure system in money is made using tables, so it's easy to determine the salary every month,” (3) “The (fake) money you get at the start of playing is too little,” (4) “The game tiles are made 7 plots per week instead of the 5th week, so it's even more confusing.”



Figure 8. Gathering feedback through testing

For the final testing of the game board, there have been several responses from the players. Of the 8 players, all said this board game was fun and exciting. Some of the reasons they put forward were being able to learn about the right finances by playing, being able to open up about financial topics that had so far been rarely discussed, and being able to play together when spending time together. These players also revealed that at first they did not

understand finances, so by playing they could learn new things about financial management. A total of 7 players stated that they learned how to manage finances, learned about the capital market and stocks and all players learned about the importance of having financial goals.

CONCLUSION

The age of 18-25 years can be categorized as young adults, also a period when a person experiences the world of work. During this age range, young adults who already have jobs also have a monthly income. This ability to produce money is not accompanied by knowledge of managing finances properly. As a result, young adults in this age range spend more of their money on consumptive goods, do not have an emergency fund, and do not understand financial instruments. With the design of this board game, it is hoped that young adults aged 18-25 years can know about the importance of managing finances properly so that the level of financial literacy of the Indonesian people can also increase by having knowledge about managing finances properly.

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