Saving Behaviour: Factors That Affect Saving Decisions (Systematic Literature Review Approach)

Bayu Bastian Jumena*[1], Steven Siaila[2], Joko Rizkie Widokarti [3]

[*1] Postgraduate Student, Universitas Terbuka, Banten, Indonesia
[2,3] Faculty of Economics, Universitas Terbuka, Banten, Indonesia
[1] Section of Regional Accounts and Statistical Analysis, BPS-Statistics Cianjur, West Java, Indonesia
[2] Faculty of Economics and Business, University of Pattimura, Maluku, Indonesia

ARTICLE INFO

Jurnal Economic Resources

ISSN: 2620-6196
Vol. 5 Issues 2 (2022)

Article history:
Received – *September 16, 2022*
Revised – *September 21, 2022*
Accepted – *September 22, 2022*

Correspondence Email:
bayujumena@gmail.com

Keywords:
Financial Behaviour
Saving Decision
Saving Money

ABSTRACT

Savings have an important role as alternative funding when the primary income is in trouble. Previous research on saving behaviour has been carried out fragmentary, which causes the conclusions to be partial. Therefore, it is necessary to research with a systematic literature review method to obtain a complete conclusion about the factors that can influence individual saving decisions. In this study, the articles used consisted of 124 published by Elsevier from 2012-2021. The results show that over the past ten years, research on saving behaviour has been carried out in 185 countries and ten regions, with the method used consisting of 18 analytical methods. The results of the meta-synthesis show that 15 factors can influence the saving decision, viz: personal wealth, individual needs and dependency, macroeconomic, demographic, financial literacy, anticipatory, psychological and social, profit, self-obligation, financial service, savings product marketing, job profile, self-preference, financial goals, and geographic. The fifteen factors are classified into two groups: internal factors (consisting of 10 factors) and external factors (consisting of 5 factors).

INTRODUCTION

Humans as economic creatures cannot be separated from doing the job (to earn income), consumption, and saving/investment activities. Therefore, each individual and household will be closely engaged in cash flow management, which consists of cash inflow and cash outflow arrangements (Akeny & Mwesigwa, 2021). In simple terms, those flows consist of income, expenses/spending, and savings. Krugman & Wells (2006) and Kolmakov et al. (2021) also expressed these three variables as a general concept in the consumption and saving equation.

In general, saving can be defined as income that is not consumed (Lee & Hanna, 2015). Therefore, the amount of savings is strongly influenced by the income received and the consumption spent. The existence of savings has an essential role in personal and household financial management. In many ways, savings have a significant role as an alternative funding source when the primary source of income is in trouble (Collins, 2015; Collins & Gjertson, 2013).

Concerning the public savings in Indonesia, the data from January 2019 to September 2021 shows a steady in proportion. The absence of a positive trend indicates there is no increase in public interest in savings. Moreover, the pattern during the Covid-19 pandemic shows that savings amount and public investment have been eroded (CNN Indonesia, 2020). However, savings amount of above five billion increased by three times during the pandemic (Kompas, 2020). Based on these contradictory facts, it indicates there are certain factors that affect the level of savings. Therefore, it can be concluded that various internal and external aspects can influence the decisions and behaviour of individuals in saving.

To solve this issue, new research is required to identify various factors that may influence saving behaviour. Quantitative research methods using regression analysis (multiple regression, panel regression, and logistic regression) as well as multivariate analysis (factor analysis, principal component analysis, and structural equation modelling) can be carried out to determine these factors (Gujarati & Porter, 2009; Vaughn, 2017). However, limitations related to data availability at the individual level are the main issues that complicate the implementation of the two analytical methods. As the solution, qualitative research using the systematic literature review (SLR) method can be carried out. This method is effective to create a conceptual framework about the factors that can influence saving behaviour by referring to the up-to-date research results (Edward & McCrae, 2020; Jesson et al., 2011; Saltikov, 2012).

LITERATURE REVIEW

Consumption and Savings

Consumption is a primary activity carried out by each individual. This consumption uses or utilizes goods and services to fulfill personal needs (Kusairi et al., 2019). On the household scale, the consumption amount will depend on the family size (Skinner, 2007). In simple words, saving may be defined as a choice between consuming now or in the future (Masson et al., 1995; Swasdpeera & Pandey, 2012). However, a saving decision is intended to achieve financial goals, especially to maintain the financial balance to fulfill emergency needs and to reduce risk when inadequate future resources (Haider et al., 2018).

Two theories discuss savings: *the life cycle hypothesis* (Ando & Modigliani, 1963; Modigliani & Ando, 1957; Modigliani & Brumberg, 1954) and *the permanent income hypothesis* (Friedman, 1957). In *the life cycle hypothesis*, a person's motive for saving is to consume it in the future. The person is assumed to tend to maintain a constant level of consumption so that the individual tends to consume less than the economic resources they have. Meanwhile, *the permanent income hypothesis* reveals that individual consumption will be proportional to the estimated permanent income. The person will adjust consumption according to their perception of permanent income earned over a lifetime. If the perceived level of permanent income changes, the individual will respond by adjusting their level of consumption.

Individual/Household Financial Management

Financial management can be defined as making regular financial plans, executing plans (paying for consumption purposes), evaluating expenses, and allocating savings (Engel et al., 2019; Kartikasari & Muflikhati, 2016; Sofa & Mukhlisin, 2020). In financial planning, the preparation process includes determining financial goals and describing the action to achieve them (Altfest, 2004; Dzutsev, 2016). Meanwhile, planning execution is an action to realize the targets. Then the evaluation consists of checking the receipts (cash flow), expenses (cash outflow), total assets, and debts.

In principle, financial management aims to increase financial well-being, raise net worth, increase liquid savings, and reduce debt. In addition, another purpose is the enrich the level of satisfaction based on the current level of welfare and financial condition (Godwin, 1990).

Decision Making

Decision-making refers to an individual's action to choose one or several alternatives from many available options. The selection has a broad scope, ranging from product preferences, investment, politics, and other decisions (Takemura, 2014). Although it looks simple, there are various forms of decision-making depending on the situation at hand. According to Takemura (2014), decision-making is categorized into three groups: decision under certainty, under risk, and under uncertainty.

Every decision-making has a motive for why people choose a certain alternative. After the targets are determined, there will be a set of options consisting of various considerations. After evaluating the magnitude of the benefits and costs arising from these alternatives, a decision/choice will be made. However, due to the limitations of a person's cognitive abilities, the decision-making process will be carried out using the heuristic method, simplifying the decision process by eliminating and ignoring some information and paying attention to certain aspects. Nevertheless, it is possible that someone will carefully consider all available options (referred to as rational decisions) or decide intuitively (Willman-Iivarinen, 2017).

Saving Motives and Behaviour

Identifying individual decisions on saving money is not an easy thing. It is caused by diverse situational factors faced by each person (Nyhus, 2018). Discussing those motives, one of the most important economic theories explaining saving is the behavioural life-cycle hypothesis (BLCT) proposed by Modigliani and Brumberg (1954). According to this theory, individuals will keep a portion of their income to finance consumption in the future, especially when they are no longer earning. In this context, the primary motivation that drives someone to save is the desire to collect money for retirement. Therefore, the theory assumes everyone has three income accounts: current income, current assets, and future assets (Tsukahara, 2013).

In BLCT, it is also explained that each person desires to fulfill his every desire to maximize enjoying his assets. However, the individual has difficulty in choosing between wanting to consume it now or saving. Ultimately, the individual will reconcile his desire to consume and save by combining tools such as framing, mental accounting, and self-control rules that aim to regulate the sources of expenditure/consumption following the predetermined allocation (Statman, 2017).

In addition, according to the BLCT theory, every person will be faced with two choices in financial planning if he lives: investment and saving. In investment decisions, individuals are faced with investing premium costs into various options of financial assets that are available appropriately so that future consumption can run smoothly. As for the decision to save, the individual must determine how smooth their consumption is over time by considering the size of the pension premium and the benefits to be received (Bovenberg et al., 2007).

RESEARCH METHOD

Source and Population

The data used in this study are full paper articles obtained from the ScienceDirect database by using "saving" as the keyword. These articles were published over the last ten years, from 2012-2021. All of the articles in ScienceDirect have high quality because it was published by Elsevier and indexed by Scopus. Accessing the database can be obtained through membership in the National Library of the Republic of Indonesia. Data access is done through the National Library's e-Resources service (https://e-resources.perpusnas.go.id/lib/37).

Research Instrument

To simplify the process of management and analysis of the article, this research utilizes Microsoft Excel, Publish or Perish, Zotero, and NVivo. Microsoft Excel and Publish or Perish are helpful to manage the results of extracting data from the database consisting of title, abstract, year of publication, and other essential information. NVivo is used to assist in coding/re-coding the findings in the article.

In addition, inclusion-exclusion parameters were applied in the data collection process. It is intended to maintain the quality of the articles obtained. The parameters consist of research themes, journal indexation, period/year of publication, type of research, journal subject, and publication type. In detail, the criteria and explanation of each of these parameters are contained in Table 1.

Table 1. Inclusion and Exclusion Criteria

Parameter	Inclusion	Exclusion
Period	Research published in the range of 2012 – 2021 (last 10 years)	Research published before 2012
Publication type	Research article	Others
Subject	Subject in economics, econometrics, and finance	Others
Journal Indexation	- Indexed by ScienceDirect Published in not predatory journal	- Not indexed by ScienceDirect - Published in predatory journal
Research type	Quantitative, qualitative, and mixed methods	-
Research theme	Analyze the factors that influence saving decisions	Others

Source: Authors' own research, 2022

Stages and Techniques of Data Analysis

In general, the stages carried out in this research include four steps, namely:

1. Step 1: search for a particular theme using ScienceDirect's database. The first step is open the website www.sciencedirect.com or via https://e-resources.perpusnas.go.id/lib/37 and type the keyword "saving."
2. Step 2: select 42,164 documents and applying the inclusion-exclusion provisions until get 124 eligible articles.
3. Step 3: synthesizing 124 selected articles by copying in RIS format into Zotero, VOS Viewer, and NVivo.
4. Step 4: conduct an analysis of the selected articles, including quantitative analysis using meta-synthesis and content analysis.

RESULT AND DISCUSSION

Result

Based on the systematic literature review (SLR) process, 124 articles were obtained and were worthy of further analysis. Table 2 shows that the articles come from 42 journals. Every year, an average of 12.40 articles are published and discuss the factors influencing saving behaviour. As for the type of research and the analytical method used, 95 percent are quantitative research, while the others are qualitative research. In addition, the most common analytical method is regression, with 81 percent.

Table 2. Overview of SLR Results

No.	Information	Description
1.	Timespan	2012 – 2021
2.	Sources	42
3.	Documents	124
4.	Average number of publications per year	12,40
5.	Number of authors	293
6.	Number of document (single author)	28
7.	Number of document (collaborative author)	96

Source: Authors' own research, 2022

In addition, if examined based on article indexation, all articles are published by Elsevier and have been indexed by Scopus. In detail, 74 articles have been indexed by Scopus Q1, which means that 60 percent of the articles used have the highest rank. Furthermore, as many as 43 others were indexed in Q2 (35 percent), one article was indexed to Scopus Q3, and six are not categorized into certain quartiles.

Discussion

The results of a meta-synthesis of 124 articles show that 15 factors can influence a person's or household's decision to save. The fifteen factors can be grouped into two groups/classifications: internal and external. In further detail, these factors showed in Figure 1.

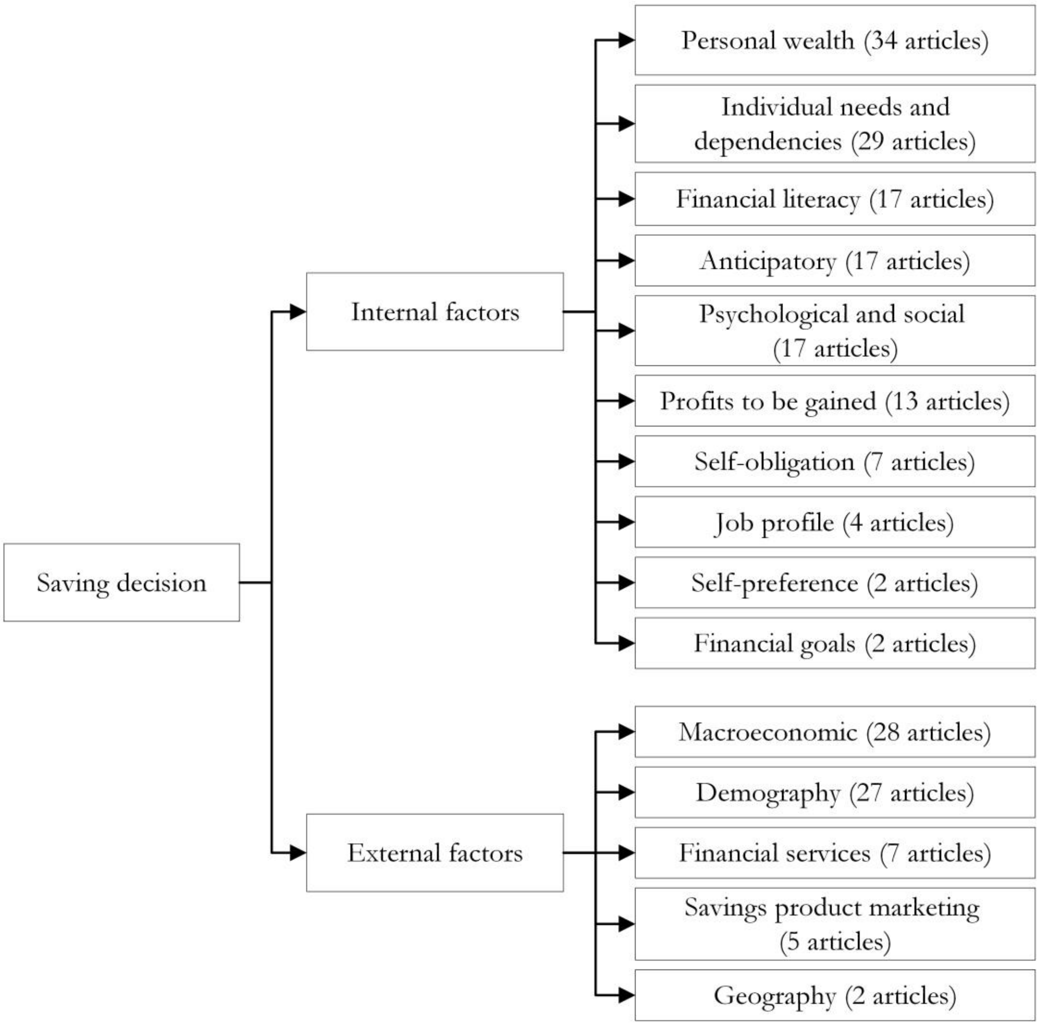

Figure 1. Conceptual Map of Factors Affecting Saving Decisions

Source: Authors' own research, 2022

Internal Factors

Personal Wealth

The accumulation of assets owned by a person will be used for consumption, both now and in the future. When the current consumption posture does not change significantly, the wealth level will affect the saving rate (Altug & Firat, 2018; Bucciol & Trucchi, 2021; Gelman et al., 2020). However, the savings amount is determined by income relatively, i.e., when individuals have a higher-than-average income in their domicile will tend to save more (Gruber, 2018).

Furthermore, accumulating assets and wealth also influences a person's savings. Richer individuals will save more caused of precautionary motives (Caporale et al., 2014; Ma & Toda, 2021; Yin, 2021). In addition, the desire to save will increase when the wealth has positive growth (Achury et al., 2012). Besides it, being born into a rich family will increase the tendency to save money in the future (Brounen et al., 2016).

Unfortunately, the pattern will differ if reviewed based on the ownership of long-term assets (e.g., land). Ownership of these assets has an inverse relationship with savings rates, where individuals with large land assets tend to have a much lower annual willingness to contribute/deposit (Mitchell & Mukherjee, 2017).

Individual Needs and Dependencies

In the economic equation, income will equal total consumption and saving. Assuming that there is no change in income, a difference in consumption will directly affect the amount of the individual's savings. The details of individual expenditure can be categorized into four categories: current necessity, debt ownership, future necessity, and other necessity.

Although savings are intended for long-term future necessities, sometimes these funds are used to cover urgent necessities like emergency incidents (Sherraden et al., 2013). These needs vary with the person's burden, for example, the number of dependents members in the family (Doker et al., 2016; Gu et al., 2020; Horioka & Terada-Hagiwara, 2012). Specifically for the burden on the family, increasing the dependency ratio will cause the household to decrease the saving rate, both in the short and long term (Akay et al., 2021; Ismail & Rashid, 2013). The dependents ratio consists of caring for parents and children who have unemployed. Concerning parental care, the share costs will be higher when the number of siblings is less. Likewise, the number of children that increases will cause a high cost of fulfilling their necessities. Therefore, the urgent necessity and dependency will lower the saving rate (Ge et al., 2018).

As for debt, its existence has a positive role in increasing liquidity. However, it has implications for the payment burden in the future. The amount of the repayment gives an additional portion to the expenditure posture. Consequently, the saving allocation will automatically decrease (Khanthavit, 2017; Tunc & Yavas, 2016). Nevertheless, there are differences in the effects caused by the type of debt. For a hypothetical loan, this debt is mostly used to accumulate home equity, and it can be considered savings. However, it implies the addition of the instalment portion in the future. Then the consumptive loan, which is used for consumption purposes, has a more significant negative impact on savings rates. The last is a productive loan which is used to inject capital purposes. It will positively affect the level of savings (Tunc & Yavas, 2016).

Financial Literacy

Literacy in finance management is quite essential for each person. With this knowledge, a person understands the financial problem better and can arrange the financial plan carefully and appropriately (Brounen et al., 2016; Kapounek et al., 2016; Ongena & (Ania) Zalewska, 2018). Even financial literacy may affect to total contribution to saving, the choice of the type of savings or investment, to the decision to participate in retirement savings and insurance that have long-term benefits (e.g., health insurance and life insurance) (Goda et al., 2020; Jappelli & Padula, 2013; Koh et al., 2021).

At the individual level, the person with good financial literacy tends to have additional assets like deposit accounts. However, they have a low interest to save in life insurance products. It is caused by the low return they obtain. These preferences and behaviours seem more straightforward in the middle economic class (Grohmann, 2018). In conclusion, the effect of financial literacy broadly is in increasing financial inclusion and savings (Morgan & Long, 2020). Therefore, for anticipating other individuals with low financial literacy, automating participation in savings programs become the option to increase their savings (Goda et al., 2020).

Anticipatory

The potential for financial shocks is very likely to occur at any time. Among the risks that cannot be insured is uncertainty in household income and expenditure (Wang & Wen, 2012). Therefore, one of the savings functions is covering that possible risks (Barceló & Villanueva, 2016; Carroll et al., 2021; De

Nardi & Fella, 2017; Gu et al., 2020; Levenko, 2020; Wang & Wen, 2012). In In addition, the motive of saving for anticipation is essential in influencing individual behaviour on allocating the consumption and saving (Kim, 2013).

Based on prudential motives, savings aim to build sufficient reserves to cover incidental expenses due to adverse events such as illness or accidents. Similarly, anticipatory protection refers to achieving a level of savings that is quite enough to pay for certain expenses such as housing, college education, or retirement (Bohr et al., 2019; Chamon et al., 2013). In addition, the precautionary motive has an important role in influencing the sensitivity of high-debt households to be warier of future income declines caused by unemployment. Also, it motivates the person to have adequate savings at the end of life (Nakajima, 2020).

Psychological and Social

Internally, the psychological condition and the learning results have a relationship with financial attitudes and behavior. From the external, the surrounding society has influenced the dogma adopted. Therefore, if related to several more derivative variables, psychological and social factors have four derived variables: self-control, learning outcomes, individual experiences, social comparisons, and prevailing social values and norms.

Some individuals find it difficult to save for long-term goals which are caused by several reasons, including the temptation to spend their current income (Piotrowska, 2019; Sherraden et al., 2013). The existence of high self-control and the right mindset toward financial behavior allows the individual to set long-term financial goals, and expenditure planning will increase (Hayo & Neumeier, 2017; Rey-Ares et al., 2021; Sherraden et al., 2013; Yao et al., 2019). The learning that individuals have experienced as adults, teenagers, and when children influence saving behavior today (Otto, 2013). Even individuals with their children are accustomed to saving and tend to have a positive relationship with saving monthly in adulthood (Brown & Taylor, 2016).

Regarding savings, the attitude of comparing to other people's saving motivate the individual to increase the amount of savings (Ashtiani et al., 2020). Meanwhile, related to social norms, individuals who live in a society that upholds collectivism, tend to have low savings rates. It is due to the understanding of the community that upholds public interests rather than individual interests (Srivisal et al., 2021).

Profits to be Gained

Everyone has different financial freedom targets, including differences in managing their liquid assets. Each individual's preference for saving is based on the desire to obtain utility from actions to accumulate wealth (Dreyer et al., 2013). Therefore, when a person's financial target has been achieved, the effect on the individual's saving behavior will change. It can even stop the saving habit that has been done so far (Sattinger, 2013).

Regarding possible profits, a case study on access to cellular savings (mobile money) shows that increasing interest rates affect the number of deposits in these banking (Batista & Vicente, 2020). In addition, when the savings are intended for long-term purposes (e.g., retirement preparation savings), obtaining adequate information regarding the benefits of saving becomes very important. Sending information about the phases of accumulation and deduction of retirement savings can make more significant contributions to retirement accounts. In contrast, individuals who do not obtain this information will not have higher growth motivations (Goda et al., 2014). In addition, the existence of programs that can accelerate the achievement of financial targets will be an attraction for someone to save. Some catchy cases are intervening savings by prizes (e.g., annual sweepstakes). Although prize savings are not the only formula to increase individual savings, the effect is significant, especially for the low-income group (Atalay et al., 2014; Cookson, 2018; Linardi & Tanaka, 2013).

Self-Obligation

Maintaining a commitment to keep saving for some individuals is tricky. That responsibility can be encouraged through the continuous and consistent application of self-discipline. Therefore, applying and determining the mandatory contribution amount are the right ways to overcome this problem (Ongena & (Ania) Zalewska, 2018). However, the contribution amount must be considered according to the profile of each customer. In some cases where customers are poor, increasing the contribution rate will reduce savings (Knapp et al., 2021). In addition, the amount of the obligation also affects other groups of society, especially those who use savings products to prepare for retirement. Unlike the case for individuals who do not allocate savings for retirement preparation, the increase and determination of the deposit amount do not affect all the savings (Goodman, 2020).

In addition, the existence of reminder services and savings advertisements (such as text messages sent to customers) positively impacts maintaining the saving commitment. Even these advertisements can encourage an increase in formal savings among the public (Kast et al., 2018; Rodríguez & Saavedra, 2019). These messages can be sent regularly 1-2 times every month containing the campaigns about savings benefits and promos(Loibl et al., 2018). Overall, that strategy can improve the financial literacy of individual recipients of the message, which in the end, the individual realizes and feels the need to save (Mitchell & Mukherjee, 2017).

Job Profile

In general, the source of income for most of the community comes from wages/salaries and profits from entrepreneurship. Therefore, job ownership is essential to a person's saving behavior (Doker et al., 2016). When someone does not have a job, that individual has no cash flow. As a result, budgeting allocation of income for consumption and saving/investment purposes will not occur at all. It is different if one has a job as a laborer or an entrepreneur, they have cash inflow into their balance sheet, which requires them to manage their financial posture, including allocations for consumption and savings.

Regarding employment status, individuals working in the public/formal sector tend to have higher savings than those in the non-public/non-formal sector (Lugauer et al., 2019). The same is true for those who work in the agricultural sector, where most workers in the agricultural sector tend to have lower savings rates than workers in other sectors (Mishra & Chang, 2012). Both are caused by the low bargaining power of wages in the agricultural sector and other non-formal sectors. Moreover, the absence of social security/safety net and similar insurance has exacerbated income disparities between sectors. In addition, employment status as a laborer or entrepreneur and retirement age affect savings rates differently (De Nardi & Fella, 2017; Knapp et al., 2021).

Self-Preference

Even if a person has a good financial literacy and knows that the general purpose of saving is to prepare funds for future consumption, it does not necessarily mean that the individual decides to set aside current income and save. Each person has a preference in determining the use of their finances. In some areas and countries where people's welfare is quite good, the older generations are reluctant to save. It is based on their preference to obtain immediate satisfaction at the current time (Dobrescu et al., 2012).

It is different for the young generation, who have different preferences for preparing finances for the future. Time preference is another alternative chosen based on the logical framework since there is a trade-off between the utility of funds for now and in the future. When an individual thinks that preparing pension funds is mandatory, they have chosen a preference to fulfill their consumption in the future (Finke & Huston, 2013).

Financial Goals

In various aspects, the actions taken by a person have a specific purpose. This motive drives people to do anything, including the decision to set aside money and save it. In the financial aspect, many financial targets want to achieve. However, of the many goals, financial independence and financing for future needs are the two dominant motives that encourage someone to save (Bucciol & Trucchi, 2021). The findings in the field reinforce this fact. The case studies of banking customers show that low-income customers who open savings accounts without clear and explicit financial goals tend to have low savings commitments (Rodríguez & Saavedra, 2019).

External Factors

Macroeconomic

From the macroeconomic aspect, many derivative variables can influence a person's decision to save, ranging from the amount of income tax, interest rates, inflation, and bubble economy phenomena to economic stability.

- *Income Tax*

  Assuming that the aggregate cash flows of income and expenditure are constant and ignore potential adjustments to consumption patterns, an increase in income tax rates will directly affect the residual income that is not consumed. The increase in the tax rate will reduce the disposable income that the individual can consume. As a result, when the number of real incomes decreases while consumption patterns remain, the number of funds to be saved will decrease. Therefore, mathematically an increase in the average income tax rate will reduce the level of financial and total individual savings (Creedy et al., 2015).
- *Interest Rate*

  Based on the substitution hypothesis over time, the real interest rate earned by individuals positively affects savings. Although this effect may be cyclical, it makes sense that the interest rate is a determining factor because it affects the amount of income/yield that customers will get through savings (Achury et al., 2012; Adema & Pozzi, 2015; Altug & Firat, 2018; Gu et al., 2020; Ma & Toda, 2021).

  However, the effect caused by the interest rate will differ for everyone. It depends on the duration of the savings they chose. In short-term savings, the interest rate will not have a significant effect because the primary motive for saving someone is dominated by the security motive to deposit money before it is used for consumption soon. Unlike the case with long-term savings (such as retirement savings and time deposits), the effect of interest rates is very significant because it is correlated with the level of income and accumulated savings that will be obtained (Karlan & Zinman, 2018).
- *Inflation*

  Inflation reflects the rate of change in the prices of commodities consumed by the public. From the perspective of currency exchange rates against goods and services, inflation describes the weakening of the exchange rate of money against purchased commodities.

  Inflation that occurs continuously and is high will negatively affect individual saving decisions (Akay et al., 2021; Hayo & Neumeier, 2017; Ismail & Rashid, 2013). The amount of money kept under high inflation will only be harmful. It is caused by the amount of money saved in real terms will continue to decrease. It is contrary to the purpose of saving individuals who use saving activities to accumulate some funds to be spent in the future. If the interest rate cannot substitute the inflation rate, saving becomes an irrational option because the real value of money saved in the future will be smaller than the current real value.
- *The Bubble Economy Phenomenon*

  The current era often shows unique economic phenomena. One of them is the increasing popularity of certain commodities and assets unnaturally. This impropriety can be seen in quickly creating a reasonably high economic value. Some examples are the wave of love, agate, NFT, and cryptocurrency.

  The individual's response to buying these commodities and assets at high prices will burden the individual's balance sheet. This burden will be exacerbated when the purchase motive is for investment and speculative purposes, with the funding source coming from debt. As a result, within a certain period, the individual will experience a loss of assets which will ultimately affect the withdrawal of the number of savings on a large scale so that the cumulative amount of savings held will decrease significantly (Nofsinger, 2012). Therefore, the existence of a bubble economy is precarious for individuals with low financial literacy, and its effect on saving behavior is negative.

- *Economic Stability*

  A good economic performance which is illustrated by the growth of Gross Domestic Product/GDP will give an optimistic perception to the people. This optimism is related to the sustainability and availability of current and future resources, which can stimulate production and consumption. Therefore, this condition allows individuals to take advantage of existing resources to be utilized and create economic value. On the other hand, this condition also gives confidence to individuals to save to fulfill investments or consumption in the future. Therefore, the impact of GDP per capita growth is positive and significant in the long term (Bussolo et al., 2017; Gu et al., 2020; Ismail & Rashid, 2013; Lyons et al., 2018; Niculescu-Aron & Mihaescu, 2014).

Demography

A person's demographic profile also influences the decision to save. Several variables derived from these demographic factors consist of education, gender, age at marriage, number of child ownership, health level and life expectancy, age, and age at first having assets.

- *Education*

  Education level has a strong correlation with literacy level, including financial literacy. Therefore, individual achievement in education will positively affect a person's savings probability (Brown & Taylor, 2016). It is different for individuals with low education and low socioeconomic backgrounds. It is closely related to the preference not to save (Lyons et al., 2018).

- *Gender and age of marriage*

  For married individuals, women's participation in household financial management will impact the tendency to have low savings. It is due to women's preference to spend more on consumption related to welfare improvement (e.g., food and other household needs), so they are less likely to have any remaining savings at the end of the month (Rink & Barros, 2021). Especially if the woman lives with a low socioeconomic profile in the household, has low education, and has a low income, the probability of not having savings is higher (Lyons et al., 2018).

  Furthermore, if we look at it from a gender perspective where everyone is unmarried, the saving behavior between women and men will also be different. It is closely related to the will of men to marry women. Men will increase their savings rate to increase their relative position in the marriage market (Du & Wei, 2013). Therefore, this also explains the phenomenon that single men's savings are higher than other married men. The decision to postpone marriage also increases men's savings rates (Nie, 2020).

- *Number of children's ownership*

  Children require various financing, daily education, and health costs, so they rely on their parents entirely. Therefore, the number of children owned has a multiplier effect on the expenses. As a result, the correlation between the number of children and household savings is negative (Lugauer et al., 2019; Mitchell & Mukherjee, 2017).

- *Health level and life expectancy*

  Health condition correlates with the risk of death and life expectancy. Individuals who expect to live longer and have a source of income for life tend to save more. It is based on expectations and beliefs to enjoy the results of savings in the future. In addition, the decision to hold in the form of bonds and deposits is also possible because it is still possible to enjoy it in the future

(Cocco & Gomes, 2012; Sattinger, 2013). Therefore, improving the health condition and life expectancy tends to increase the savings (Sattinger, 2013).

- *Age*
  The saving motive for consumption and covering the necessity when retired is a common reason for everyone. It is easy to explain because future consumption has certainty regarding sources of financing (Białowolski, 2019). Therefore, one of the financial decisions that will be taken is to sacrifice current welfare for future results. This action is in the form of setting aside a certain amount of money for future needs (Brounen et al., 2016).
- *Age of first owning the asset*
  Besides the age variable in general, there is a different explanation for the first age at having assets. Owning assets can create an identity bond between the person and their goals. Individuals who own assets early, whether based on personal gain or gifts from others, will learn naturally to deal with financial difficulties, although in more straightforward stages. As a result, these individuals are more aware of the importance of preparing savings to achieve future goals (Elliott & Sherraden, 2013).

Financial Services

Access to financial services has an important role in encouraging people to save. Gaps in access to financial services can be measured by the presence and distance to the nearest financial institutions, ATMs, and banks. The closer infrastructure and financial services (ATMs and banks) will increase the total accumulated savings. On the other hand, the farther the distance from financial services will make it difficult for the person to gain access to finance. As a result, it will encourage the individual to change savings into informal assets such as animals, grain supplies, or jewelry, even though these informal savings have a lower rate of return than savings. formal (Horioka & Terada-Hagiwara, 2012; Steinert et al., 2018; Walker, 2020).

Moreover, convenience and speed are essential in attracting and motivating customers to save in the current digital era. It can be understood from the aspect of time efficiency, where these customers will save travel costs. Mobile banking services also offer transaction services around the time and eliminate visiting the banks physically. In fact, through the mobile banking service, bank account transactions can be tracked easily via mobile phones, making it easier for the person to adjust the balance of expenses and income. Even empirical studies also show that individuals who use mobile financial services are more likely to save than those who do not. Therefore, the use of mobile financial services should be encouraged to increase (Loaba, 2021; Lyons et al., 2018; Ouma et al., 2017; Steinert et al., 2018).

Savings Product Marketing

Not each person is familiar with savings products comprehensively. In rural, savings products often appear in a simple form without any definite profit-sharing provision. The same pattern occurs for individuals living in urban. Not everyone follows the latest update in various savings services. Therefore, the existence of marketing agents is essential to educate people regarding financial products that are relevant to them (Mitchell & Mukherjee, 2017).

In many cases, savings products do not have to be in the form of money savings. Some other products that have developed recently include gold savings, bonds, and stocks. The most important is the provision of savings products by adjusting to the current market demand (Aggarwal et al., 2018; Walker, 2020). Apart from that, the complexity of registering as a customer becomes the other dimension considered by prospective customers. One of the reasons for the unwillingness for saving in the bank is caused by complicated requirements and procedures. Therefore, the financial services industry needs to simplify the bureaucracy (Goldin et al., 2020).

Geography

Individuals and households who work and live in urban areas tend to have higher savings than those in rural areas (Lugauer et al., 2019). It is due to the difference in job availability in those two regions. Generally, jobs in urban areas tend to be more formal and give more benefits. In addition, economic spin in urban occurs faster than in rural areas, so the potential income that can be achieved is more promising.

Apart from regional differences, the duration of stay may influence the savings rate. This relationship is visible as an inverted U-shape. When the stay has reached 7-13 years, the ability to save will increase compared to individuals who have only lived around 0-6 years (Akay et al., 2021). It can be understood when viewed from the aspect of the individual's adaptability to the new living environment. After individuals migrate to new areas and plan to settle down in the initial period, many adjustments happen, including increased consumption expenditures. Following the adaptation, the level of spending on various things (such as household equipment and necessities for the beginning of living) can be reduced. Assuming that other consumption levels are tetrasporous, it is inevitable that the reduction in consumption will be substituted into savings funds.

CONCLUSION

Based on the results and discussion, there is two points conclusions. First, there were 124 articles selected from a systematic literature review. The articles were by 289 authors and published in 42 journals from 2012-2021. The research locus covers 185 countries and ten regions, with the number of analytical methods used reaching 18 types. For the aspect quality, 74 articles were indexed by Scopus Q1, and 50 another were indexed by Scopus Q2, Q3, and NA.

Second, there are 5 clusters related to the research domain, viz: cluster 1 (investment and financial literacy), cluster 2 (pension), cluster 3 (external factors that can influence saving decisions), cluster 4 (individual savings), and cluster 5 (household savings). Then from the results of the meta-synthesis, it obtained 15 factors that can influence saving decisions, namely: anticipatory, demographic, geographical, individual needs and dependency, personal wealth, profit to be obtained, personal obligations, financial service, financial literacy, macroeconomic, savings product marketing, self-preference, job profile, psychological and social factors, and financial goals. The fifteen factors are classified into two groups: internal factors (consisting of 10 factors) and external factors (consisting of 5 factors).

As for the obstacles in this study, the results only show the total number of factors influencing a person's or household's decision to save. Meanwhile, the magnitude of each factor has not been explained. Determining the magnitude of the influence is very important, primarily if the findings are used as a basis for policy interventions. By obtaining the share of each factor, the effectiveness of the outcome can be achieved only by intervening with a few dominant factors.

REFERENCE

Achury, C., Hubar, S., & Koulovatianos, C. (2012). Saving rates and portfolio choice with subsistence consumption. *Review of Economic Dynamics* (Vol. 15, Issue 1, pp. 108–126). https://doi.org/10.1016/j.red.2011.01.002

Adema, Y., & Pozzi, L. (2015). Business cycle fluctuations and household saving in OECD countries: A panel data analysis. *European Economic Review* (Vol. 79, pp. 214–233). https://doi.org/10.1016/j.euroecorev.2015.07.014

Aggarwal, S., Francis, E., & Robinson, J. (2018). Grain today, gain tomorrow: Evidence from a storage experiment with savings clubs in Kenya. *Journal of Development Economics* (Vol. 134, pp. 1–15). https://doi.org/10.1016/j.jdeveco.2018.04.001

Akay, A., Brausmann, A., Djajia, S., & Kardar, M. G. (2021). Purchasing-power-parity and the saving behavior of temporary migrants. *European Economic Review* (Vol. 134, p. 103682).

https://doi.org/10.1016/j.euroecorev.2021.103682
Akeny, E., & Mwesigwa, D. D. (2021). *Personal Cash Flow and Household Investments: A Survey among Primary School Teachers in Lira City, Mid-North of Uganda*. *9*(1), 14.
Altfest, L. (2004). Personal Financial Planning: Origins, Developments and a Plan for Future Direction. *The American Economist*, *48*(2), 53–60. https://doi.org/10.1177/056943450404800204
Altug, S., & Firat, M. C. (2018). Borrowing constraints and saving in Turkey. *Central Bank Review* (Vol. 18, Issue 1, pp. 1–11). https://doi.org/10.1016/j.cbrev.2018.01.002
Ando, A., & Modigliani, F. (1963). The "Life Cycle" Hypothesis of Saving: Aggregate Implications and Tests. *The American Economic Review*, *53*(1), 55–84.
Ashtiani, A. Z., Dudek, T., & Rieger, M. O. (2020). Happy savers and happy spenders: An experimental study comparing US Americans and Germans. *Journal of Behavioral and Experimental Economics* (Vol. 85, p. 101506). https://doi.org/10.1016/j.socec.2019.101506
Atalay, K., Bakhtiar, F., Cheung, S., & Slonim, R. (2014). Savings and prize-linked savings accounts. *Journal of Economic Behavior & Organization* (Vol. 107, pp. 86–106). https://doi.org/10.1016/j.jebo.2014.07.015
Barceló, C., & Villanueva, E. (2016). The response of household wealth to the risk of job loss: Evidence from differences in severance payments. *Labour Economics*, *39*(1), 35–54. https://doi.org/10.1016/j.labeco.2016.02.001
Batista, C., & Vicente, P. C. (2020). Improving access to savings through mobile money: Experimental evidence from African smallholder farmers. *World Development* (Vol. 129, p. 104905). https://doi.org/10.1016/j.worlddev.2020.104905
Białowolski, P. (2019). Economic sentiment as a driver for household financial behavior. *Journal of Behavioral and Experimental Economics*, *80*, 59–66. https://doi.org/10.1016/j.socec.2019.03.006
Bohr, C. E., Holt, C. A., & Schubert, A. V. (2019). Assisted savings for retirement: An experimental analysis. *European Economic Review* (Vol. 119, pp. 42–54). https://doi.org/10.1016/j.euroecorev.2019.05.020
Bovenberg, L., Koijen, R., Nijman, T., & Teulings, C. (2007). Saving and Investing Over the Life Cycle and the Role of Collective Pension Funds. *De Economist*, *155*(4), 347–415. https://doi.org/10.1007/s10645-007-9070-1
Brounen, D., Koedijk, K. G., & Pownall, R. A. J. (2016). Household financial planning and savings behavior. *Journal of International Money and Finance SI - Tribute Jim Lothian* (Vol. 69, pp. 95–107). https://doi.org/10.1016/j.jimonfin.2016.06.011
Brown, S., & Taylor, K. (2016). Early influences on saving behaviour: Analysis of British panel data. *Journal of Banking & Finance* (Vol. 62, pp. 1–14). https://doi.org/10.1016/j.jbankfin.2015.09.011
Bucciol, A., & Trucchi, S. (2021). Locus of control and saving: The role of saving motives. *Journal of Economic Psychology* (Vol. 86, p. 102413). https://doi.org/10.1016/j.joep.2021.102413
Bussolo, M., Schotte, S., & Matytsin, M. (2017). Accounting For the Bias Against the Life-Cycle Hypothesis in Survey Data: An Example for Russia. *The Journal of the Economics of Ageing* (Vol. 9, pp. 185–207). https://doi.org/10.1016/j.jeoa.2017.03.001
Caporale, J. E., Pichan-Riviere, A., Beratarrechea, A. G., Schulz-Hausmann, C. V., & Augustovski, F. (2014). A Comparison of 1-Year Treatment Costs in Patients with Type 2 Diabetes Following Initiation of Insulin Glargine or Insulin Detemir in Argentina. *Value in Health Regional Issues* (Vol. 5, pp. 14–19). https://doi.org/10.1016/j.vhri.2014.02.007
Carroll, C. D., Holm, M. B., & Kimball, M. S. (2021). Liquidity constraints and precautionary saving. *Journal of Economic Theory*, *195*. https://doi.org/10.1016/j.jet.2021.105276
Chamon, M., Liu, K., & Prasad, E. (2013). Income uncertainty and household savings in China. *Journal of Development Economics* (Vol. 105, pp. 164–177). https://doi.org/10.1016/j.jdeveco.2013.07.014
CNN Indonesia. (2020, October 27). *Survei, Corona Buat Tabungan Masyarakat Terkuras*. https://www.cnnindonesia.com/ekonomi/20201027165539-78-563431/survei-corona-buat-

tabungan-masyarakat-terkuras
Cocco, J. F., & Gomes, F. J. (2012). Longevity risk, retirement savings, and financial innovation. *Journal of Financial Economics* (Vol. 103, Issue 3, pp. 507–529). https://doi.org/10.1016/j.jfineco.2011.10.002
Collins, J. M. (2015). Paying for the Unexpected: Making the Case for a New Generation of Strategies to Boost Emergency Savings, Affording Contingencies, and Liquid Resources for Low-Income Families. *A Fragile Balance: Emergency Savings and Liquid Resources for Low-Income Consumers*. Palgrave Macmillan.
Collins, J. M., & Gjertson, L. (2013). Emergency Savings for Low-Income Consumers. *Focus+*, *30*(1), 12–17.
Cookson, J. A. (2018). When saving is gambling. *Journal of Financial Economics* (Vol. 129, Issue 1, pp. 24–45). https://doi.org/10.1016/j.jfineco.2018.04.001
Creedy, J., Gemmell, N., & Scobie, G. (2015). Pensions, savings and housing: A life-cycle framework with policy simulations. *Economic Modelling* (Vol. 46, pp. 346–357). https://doi.org/10.1016/j.econmod.2014.12.036
De Nardi, M., & Fella, G. (2017). Saving and wealth inequality. *Review of Economic Dynamics*, *26*, 280–300. https://doi.org/10.1016/j.red.2017.06.002
Dobrescu, L. I., Kotlikoff, L. J., & Motta, A. (2012). Why aren't developed countries saving? In *European Economic Review* (Vol. 56, Issue 6, pp. 1261–1275). https://doi.org/10.1016/j.euroecorev.2012.04.003
Doker, A. C., Turkmen, A., & Emsen, O. S. (2016). What are the Demographic Determinants of Savings? An Analysis on Transition Economies (1993-2013). *Procedia Economics and Finance 3rd Global Conference on Business, Economics, Management and Tourism* (Vol. 39, pp. 275–283). https://doi.org/10.1016/S2212-5671(16)30324-0
Dreyer, J. K., Schneider, J., & Smith, W. T. (2013). Saving-based asset-pricing. *Journal of Banking & Finance* (Vol. 37, Issue 9, pp. 3704–3715). https://doi.org/10.1016/j.jbankfin.2013.04.034
Du, Q., & Wei, S.-J. (2013). A theory of the competitive saving motive. *Journal of International Economics*, *91*(2). https://doi.org/10.1016/j.jinteco.2013.09.003
Dzutsev, A. (2016). *Management of Personal Investments in Russia and Sweden: Influence of financial literacy of young adults on their behavior in financial planning* [Master Thesis]. Jonkoping University.
Edward, P., & McCrae, N. (2020). *How to Perform a Systematic Literature Review*. Springer Nature Switzerland.
Elliott, W., & Sherraden, M. (2013). Assets and educational achievement: Theory and evidence. *Economics of Education Review Assets and Educational Attainment: Theory and Evidence* (Vol. 33, pp. 1–7). https://doi.org/10.1016/j.econedurev.2013.01.004
Engel, L. L., Beaton, D. E., Green, R. E., & Dawson, D. R. (2019). Financial Management Activity Process: Qualitative inquiry of adults with acquired brain injury. *Canadian Journal of Occupational Therapy*, *86*(3), 196–208. https://doi.org/10.1177/0008417419833839
Finke, M. S., & Huston, S. J. (2013). Time preference and the importance of saving for retirement. *Journal of Economic Behavior & Organization* (Vol. 89, pp. 23–34). https://doi.org/10.1016/j.jebo.2013.03.004
Fisher, P. J., & Anong, S. T. (2012). Relationship of Saving Motives to Saving Habits. *Journal of Financial Counseling and Planning*, *23*(1), 63–79.
Friedman, M. (1957). The Permanent Income Hypothesis. *A Theory of the Consumption Function* (pp. 20–37). Princeton University Press. https://www.nber.org/books-and-chapters/theory-consumption-function/permanent-income-hypothesis
Ge, S., Yang, D. T., & Zhang, J. (2018). Population policies, demographic structural changes, and the Chinese household saving puzzle. *European Economic Review* (Vol. 101, pp. 181–209).

https://doi.org/10.1016/j.euroecorev.2017.09.008
Gelman, M., Kariv, S., Shapiro, M. D., Silverman, D., & Tadelis, S. (2020). How individuals respond to a liquidity shock: Evidence from the 2013 government shutdown. *Journal of Public Economics* (Vol. 189, p. 103917). https://doi.org/10.1016/j.jpubeco.2018.06.007
Goda, G. S., Levy, M. R., Manchester, C. F., Sojourner, A., & Tasoff, J. (2020). Who is a passive saver under opt-in and auto-enrollment? In *Journal of Economic Behavior & Organization* (Vol. 173, pp. 301–321). https://doi.org/10.1016/j.jebo.2019.08.026
Goda, G. S., Manchester, C. F., & Sojourner, A. J. (2014). What will my account really be worth? Experimental evidence on how retirement income projections affect saving. *Journal of Public Economics*, *119*(1), 80–92. https://doi.org/10.1016/j.jpubeco.2014.08.005
Godwin, D. D. (1990). Family Financial Management. *Family Relations*, *39*(2), 221. https://doi.org/10.2307/585728
Goldin, J., Homonoff, T., Patterson, R., & Skimmyhorn, W. (2020). How much to save? Decision costs and retirement plan participation. *Journal of Public Economics* (Vol. 191, p. 104247). https://doi.org/10.1016/j.jpubeco.2020.104247
Goodman, L. (2020). Catching up or crowding out? The crowd-out effects of catch-up retirement contributions on non-retirement saving. *Journal of Public Economics* (Vol. 188, p. 104221). https://doi.org/10.1016/j.jpubeco.2020.104221
Gopal, S., & Malliasamy, P. (2022). Transformational Impact of COVID-19 on Savings and Spending Patterns of Indian Rural Households. *SAGE Open*, *12*(1), 215824402210798. https://doi.org/10.1177/21582440221079885
Grohmann, A. (2018). Financial literacy and financial behavior: Evidence from the emerging Asian middle class. *Pacific-Basin Finance Journal* (Vol. 48, pp. 129–143). https://doi.org/10.1016/j.pacfin.2018.01.007
Gruber, N. (2018). Keeping up with the Zhangs: Relative income and wealth, and household saving behavior. *Journal of Macroeconomics* (Vol. 55, pp. 77–95). https://doi.org/10.1016/j.jmacro.2017.10.001
Gu, X., Tam, P. S., Li, G., & Zhao, Q. (2020). An alternative explanation for high saving in China: Rising inequality. *International Review of Economics & Finance* (Vol. 69, pp. 1082–1094). https://doi.org/10.1016/j.iref.2018.12.004
Gujarati, D. N., & Porter, D. C. (2009). *Basic Econometrics*. McGraw-Hill/Irwin.
Haider, S., Ahmed, M., de Pablos, C., & Latif, A. (2018). Household Characteristics and Saving Motives: Application of Multinomial Logistic Regression to Examine Maslow's Hierarchy of Needs Theory. *International Journal of Applied Behavioral Economics*, *7*(1), 35–52. https://doi.org/10.4018/IJABE.2018010103
Hayo, B., & Neumeier, F. (2017). The (In)validity of the Ricardian Equivalence Theorem Findings From A Representative German Population Survey. *Journal of Macroeconomics* (Vol. 51, pp. 162–174). https://doi.org/10.1016/j.jmacro.2017.01.003
Horioka, C. Y., & Terada-Hagiwara, A. (2012). The determinants and long-term projections of saving rates in Developing Asia. *Japan and the World Economy The Determinants and Long-Term Projections of Asian GDP and Trade* (Vol. 24, Issue 2, pp. 128–137). https://doi.org/10.1016/j.japwor.2012.01.006
Inter-American Development Bank. (2016). More and Better Saving for Productive Investment. E. Cavallo & T. Serebrisky (Eds.), *Saving for Development* (pp. 75–108). Palgrave Macmillan US. https://doi.org/10.1057/978-1-349-94929-8_4
Ismail, A., & Rashid, K. (2013). Determinants of household saving: Cointegrated evidence from Pakistan (2011). In *Economic Modelling* (Vol. 32, pp. 524–531). https://doi.org/10.1016/j.econmod.2013.02.004
Jappelli, T., & Padula, M. (2013). Investment in financial literacy and saving decisions. In *Journal of*

Banking & Finance (Vol. 37, Issue 8, pp. 2779–2792). https://doi.org/10.1016/j.jbankfin.2013.03.019

Jesson, J. K., Matheson, L., & Lacey, F. M. (2011). *Doing Your Literature Review: Traditional and Sys tematic Techniques*. SAGE Publications Ltd.

Kapounek, S., Korab, P., & Deltuvaite, V. (2016). (Ir)rational Households Saving Behavior? An Empirical Investigation. *Procedia Economics and Finance 3rd Global Conference on Business, Economics, Management and Tourism* (Vol. 39, pp. 625–633). https://doi.org/10.1016/S2212-5671(16)30309-4

Karlan, D., & Zinman, J. (2018). Price and Control Elasticities of Demand for Savings. *Journal of Development Economics* (Vol. 130, pp. 145–159). https://doi.org/10.1016/j.jdeveco.2017.10.004

Kartikasari, S., & Muflikhati, I. (2016). The Influence of Family Characteristics, Family Financial Management, and Saving Intensity on The Size of Farmer Families' Saving at Ciaruteun Ilir Villages. *Journal of Consumer Sciences*, *1*(2), 13–27.

Kast, F., Meier, S., & Pomeranz, D. (2018). Saving more in groups: Field experimental evidence from Chile. *Journal of Development Economics* (Vol. 133, pp. 275–294). https://doi.org/10.1016/j.jdeveco.2018.01.006

Khanthavit, A. (2017). Setting Self-Discipline Saving Rates for Thai Income Earners in A Risk-Management Framework. *Kasetsart Journal of Social Sciences* (Vol. 38, Issue 1, pp. 18–23). https://doi.org/10.1016/j.kjss.2016.03.003

Kim, S. (2013). Prudent consumers: New Evidence from the Consumer Expenditure Survey. *Economic Modelling*, *33*(1), 77–85. https://doi.org/10.1016/j.econmod.2013.03.020

Knapp, D., Garcia, I. L., Kumar, K., Lee, J., & Won, J. (2021). A dynamic behavioral model of Korean saving, work, and benefit claiming decisions. *The Journal of the Economics of Ageing* (Vol. 20, p. 100321). https://doi.org/10.1016/j.jeoa.2021.100321

Koh, B. S. K., Mitchell, O. S., & Fong, J. H. (2021). Trust and retirement preparedness: Evidence from Singapore. *The Journal of the Economics of Ageing* (Vol. 18, p. 100283). https://doi.org/10.1016/j.jeoa.2020.100283

Kolmakov, A. E., Lokhtina, T. N., & Kulesh, M. I. (2021). Changes in Household Saving and Borrowing Behavior during the Economic Crisis. *IOP Conference Series. Earth and Environmental Science*, *751*(1). http://dx.doi.org/10.1088/1755-1315/751/1/012150

Kompas. (2020, October 13). *Masyarakat Enggan Belanja, Jumlah Tabungan di Atas Rp 5 Miliar Melesat*. https://money.kompas.com/read/2020/10/13/153626526/masyarakat-enggan-belanja-jumlah-tabungan-di-atas-rp-5-miliar-melesat

Krugman, P., & Wells, R. (2006). *Macroeconomics* (2nd ed.). Worth Publishers.

Kusairi, S., Sanusi, N. A., Muhamad, S., Shukri, M., & Zamri, N. (2019). Financial Households' Efficacy, Risk Preference, and Saving Behaviour: Lessons from Lower-Income Households in Malaysia. *Economics & Sociology*, *12*(2), 301–318. http://dx.doi.org/10.14254/2071-789X.2019/12-2/18

Lee, J. M., & Hanna, S. D. (2015). Savings Goals and Saving Behavior From a Perspective of Maslow's Hierarchy of Needs. *Journal of Financial Counseling and Planning*, *26*(2), 129–147. https://doi.org/10.1891/1052-3073.26.2.129

Levenko, N. (2020). Perceived uncertainty as a key driver of household saving. *International Review of Economics & Finance* (Vol. 65, pp. 126–145). https://doi.org/10.1016/j.iref.2019.10.005

Linardi, S., & Tanaka, T. (2013). Competition as a savings incentive: A field experiment at a homeless shelter. *Journal of Economic Behavior & Organization* (Vol. 95, pp. 240–251). https://doi.org/10.1016/j.jebo.2012.10.012

Loaba, S. (2021). The impact of mobile banking services on saving behavior in West Africa. *Global Finance Journal* (p. 100620). https://doi.org/10.1016/j.gfj.2021.100620

Loibl, C., Jones, L., & Haisley, E. (2018). Testing strategies to increase saving in individual development account programs. *Journal of Economic Psychology* (Vol. 66, pp. 45–63).

https://doi.org/10.1016/j.joep.2018.04.002
Lugauer, S., Ni, J., & Yin, Z. (2019). Chinese household saving and dependent children: Theory and evidence. *China Economic Review* (Vol. 57, p. 101091). https://doi.org/10.1016/j.chieco.2017.08.005
Lyons, A. C., Grable, J. E., & Joo, S.-H. (2018). A cross-country analysis of population aging and financial security. *The Journal of the Economics of Ageing* (Vol. 12, pp. 96–117). https://doi.org/10.1016/j.jeoa.2018.03.001
Ma, Q., & Toda, A. A. (2021). A theory of the saving rate of the rich. *Journal of Economic Theory* (Vol. 192, p. 105193). https://doi.org/10.1016/j.jet.2021.105193
Masson, P., Bayoum, T., & Samiei, H. (1995). Saving Behavior in Industrial and Developing Countries. *Staff Studies for the World Economic Outlook* (pp. 1–27). International Monetary Fund. https://elibrary.imf.org/view/books/083/06491-9781557754998-en/06491-9781557754998-en-book.xml
Mishra, A. K., & Chang, H.-H. (2012). Can off farm employment affect the privatization of social safety net? The case of self-employed farm households. *Food Policy* (Vol. 37, Issue 1, pp. 94–101). https://doi.org/10.1016/j.foodpol.2011.11.003
Mitchell, O. S., & Mukherjee, A. (2017). Assessing the demand for micropensions among Indiaâ€™s poor. *The Journal of the Economics of Ageing* (Vol. 9, pp. 30–40). https://doi.org/10.1016/j.jeoa.2016.05.004
Modigliani, F., & Ando, A. K. (1957). Tests of the Life Cycle Hypothesis of Savings: Comments and Suggestions. *Bulletin of the Oxford University Institute of Economics & Statistics*, *19*(2), 99–124. https://doi.org/10.1111/j.1468-0084.1957.mp19002002.x
Modigliani, F., & Brumberg, R. H. (1954). Utility Analysis and the Consumption Function: An Interpretation of Cross-Section Data. K. K. Kurihara (Ed.), *Post-Keynesian Economics* (pp. 388–436). Rutgers University Press.
Morgan, P. J., & Long, T. Q. (2020). Financial literacy, financial inclusion, and savings behavior in Laos. *Journal of Asian Economics* (Vol. 68, p. 101197). https://doi.org/10.1016/j.asieco.2020.101197
Mulla, J. D. (2022). *The Moderating Effects of Consumer Fintech Use, Financial Knowledge Confidence, and Financial Self-Efficacy on the Relationship between Financial Literacy and Millennial Saving Behavior* [Doctoral Thesis, The University of North Carolina at Charlotte]. https://www.proquest.com/dissertations-theses/moderating-effects-consumer-fintech-use-financial/docview/2641376171/se-2?accountid=25704
Nakajima, J. (2020). The role of household debt heterogeneity on consumption: Evidence from Japanese household data. *Economic Analysis and Policy*, *65*(1), 186–197. https://doi.org/10.1016/j.eap.2020.01.003
Nicolas, O., & Ladwein, R. (2022, January 20). *Interpreting Savings as Consumer Behaviors: Do Identity and Emotional Factors Help Explain Savings Intentions?* International Marketing Trends Conference, Roma.
Niculescu-Aron, I., & Mihaescu, C. (2014). Modelling the Impact of Economic, Demographic and Social Determinants on Household Saving Rate in the Former Socialist Countries (Central and Eastern Europe). *Procedia Economics and Finance International Conference on Applied Statistics (ICAS) 2013* (Vol. 10, pp. 104–113). https://doi.org/10.1016/S2212-5671(14)00283-4
Nie, G. (2020). Marriage squeeze, marriage age and the household savings rate in China. *Journal of Development Economics* (Vol. 147, p. 102558). https://doi.org/10.1016/j.jdeveco.2020.102558
Nofsinger, J. R. (2012). Household behavior and boom/bust cycles. *Journal of Financial Stability The Financial Crisis of 2008, Credit Markets and Effects on Developed and Emerging Economies* (Vol. 8, Issue 3, pp. 161–173). https://doi.org/10.1016/j.jfs.2011.05.004
Nyhus, E. K. (2018). Saving Behaviour: Economic and Psychological Approaches. *Economic Psychology*. John Wiley & Sons Ltd.

Ongena, S., & (Ania) Zalewska, A. (2018). Institutional and individual investors: Saving for old age. *Journal of Banking & Finance*, *92*, 257–268. https://doi.org/10.1016/j.jbankfin.2017.10.012

Otto, A. (2013). Saving in childhood and adolescence: Insights from developmental psychology. *Economics of Education Review Assets and Educational Attainment: Theory and Evidence* (Vol. 33, pp. 8–18). https://doi.org/10.1016/j.econedurev.2012.09.005

Ouma, S. A., Odongo, T. M., & Were, M. (2017). Mobile financial services and financial inclusion: Is it a boon for savings mobilization? In *Review of Development Finance Financial Sector Development in Africa: An Overview* (Vol. 7, Issue 1, pp. 29–35). https://doi.org/10.1016/j.rdf.2017.01.001

Piotrowska, M. (2019). The importance of personality characteristics and behavioral constraints for retirement saving. *Economic Analysis and Policy* (Vol. 64, pp. 194–220). https://doi.org/10.1016/j.eap.2019.09.001

Rey-Ares, L., Fernandez-Lapez, S., Castro-Gonzalez, S., & Rodeiro-Pazos, D. (2021). Does Self-Control Constitute a Driver of Millennials Financial Behaviors and Attitudes? *Journal of Behavioral and Experimental Economics* (Vol. 93, p. 101702). https://doi.org/10.1016/j.socec.2021.101702

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), 1. https://doi.org/10.1186/s13731-020-00140-6

Rink, U., & Barros, L. (2021). Spending or Saving? Female Empowerment and Financial Decisions in A Matrilineal Society. *World Development* (Vol. 141, p. 105342). https://doi.org/10.1016/j.worlddev.2020.105342

Rodríguez, C., & Saavedra, J. E. (2019). The Persistent Effects of Youth Savings Reminders: Experimental Evidence from Text-Message Campaigns in Colombia. *Journal of Development Economics*, *139*(1), 135–156. https://doi.org/10.1016/j.jdeveco.2019.03.001

Saltikov, J. B. (2012). *How to do a Systematic Literature Review in Nursing: A step-by-step guide*. Open University Press.

Sattinger, M. (2013). Safety First Consumption. *Journal of Economic Theory* (Vol. 148, Issue 1, pp. 306–321). https://doi.org/10.1016/j.jet.2012.12.011

Sherraden, M., Peters, C., Wagner, K., Guo, B., & Clancy, M. (2013). Contributions of qualitative research to understanding savings for children and youth. *Economics of Education Review* (Vol. 32, pp. 66–77). https://doi.org/10.1016/j.econedurev.2012.09.006

Skinner, J. (2007). *Are You Sure You're Saving Enough for Retirement?* (No. w12981; p. w12981). National Bureau of Economic Research. https://doi.org/10.3386/w12981

Sofa, R. N. S., & Mukhlisin, M. (2020). Analysis of Family Financial Management: Maqâshid Sharîa Approach. *Al-Iktisab: Journal of Islamic Economic Law*, *4*(2), 79–109.

Srivisal, N., Sanoran, K. L., & Bukkavesa, K. (2021). National culture and saving: How collectivism, uncertainty avoidance, and future orientation play roles. *Global Finance Journal* (Vol. 50, p. 100670). https://doi.org/10.1016/j.gfj.2021.100670

Statman, M. (2017). Standard and Behavioral Life-Cycle Theories and Public Policy. *The Journal of Retirement*, *5*(2), 12–25. https://doi.org/10.3905/jor.2017.5.2.012

Steinert, J. I., Zenker, J., Filipiak, U., Movsisyan, A., Cluver, L. D., & Shenderovich, Y. (2018). Do saving promotion interventions increase household savings, consumption, and investments in Sub-Saharan Africa? A systematic review and meta-analysis. *World Development* (Vol. 104, pp. 238–256). https://doi.org/10.1016/j.worlddev.2017.11.018

Swasdpeera, P., & Pandey, I. M. (2012). Determinants of Personal Saving: A Study of Salaried Individuals in Thailand. *Afro-Asian J. of Finance and Accounting*, *3*(1), 34. https://doi.org/10.1504/AAJFA.2012.046347

Takemura, K. (2014). *Behavioral Decision Theory: Psychological and Mathematical Descriptions of Human Choice Behavior*. Springer.

Trzcińska, A., Sekścińska, K., & Maison, D. (2022). To Spend or to Save? The Role of Time Perspective in the Saving Behavior of Children. *Young Consumers*. https://doi.org/10.1108/YC-11-2021-1421

Tsukahara Y. (2013). Testing the Behavioral Life Cycle Hypothesis. *Journal of Household Economics*, *38*(1), 27–38. https://doi.org/10.18961/seikatsukeizaigaku.38.0_27

Tunc, C., & Yavas, A. (2016). Not all credit is created equal: Mortgage vs non-mortgage debt and private saving rate in Turkey. *Central Bank Review* (Vol. 16, Issue 1, pp. 25–32). https://doi.org/10.1016/j.cbrev.2016.03.003

Vaughn, D. L. H. (2017). *Applied Multivariate Statistical Concepts*. d 2017 by R.

Walker, S. (2020). Historical legacies in savings: Evidence from Romania. *Journal of Comparative Economics* (Vol. 48, Issue 1, pp. 76–99). https://doi.org/10.1016/j.jce.2019.11.003

Wang, X., & Wen, Y. (2012). Housing prices and the high Chinese saving rate puzzle. *China Economic Review* (Vol. 23, Issue 2, pp. 265–283). https://doi.org/10.1016/j.chieco.2011.11.003

Willman-Iivarinen, H. (2017). The Future of Consumer Decision Making. *European Journal of Futures Research*, *5*(1), 1–12. https://doi.org/10.1007/s40309-017-0125-5

Yao, D., Xu, Y., & Zhang, P. (2019). How a disaster affects household saving: Evidence from China's 2008 Wenchuan earthquake. *Journal of Asian Economics* (Vol. 64, p. 101133). https://doi.org/10.1016/j.asieco.2019.101133

Yin, P. (2021). Optimal attention and heterogeneous precautionary saving behavior. *Journal of Economic Dynamics and Control* (Vol. 131, p. 104230). https://doi.org/10.1016/j.jedc.2021.104230