"Exploring behavioral barriers and interventions in retirement savings: Findings from online focus groups among university students"

AUTHORS	Martin Horák (D) Soňa Kukučková (D) R Kamil Dobeš (D)
ARTICLE INFO	Martin Horák, Soňa Kukučková and Kamil Dobeš (2022). Exploring behavioral barriers and interventions in retirement savings: Findings from online focus groups among university students. <i>Investment Management and Financial Innovations</i> , 19(2), 154-166. doi:10.21511/imfi.19(2).2022.13
DOI	http://dx.doi.org/10.21511/imfi.19(2).2022.13
RELEASED ON	Monday, 23 May 2022
RECEIVED ON	Friday, 25 March 2022
ACCEPTED ON	Sunday, 15 May 2022
LICENSE	This work is licensed under a Creative Commons Attribution 4.0 International License
JOURNAL	"Investment Management and Financial Innovations"
ISSN PRINT	1810-4967
ISSN ONLINE	1812-9358
PUBLISHER	LLC "Consulting Publishing Company "Business Perspectives"
FOUNDER	LLC "Consulting Publishing Company "Business Perspectives"

8	G	===
NUMBER OF REFERENCES	NUMBER OF FIGURES	NUMBER OF TABLES
50	2	1

© The author(s) 2022. This publication is an open access article.





BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives" Hryhorii Skovoroda lane, 10, Sumy, 40022, Ukraine

www.businessperspectives.org

Received on: 25th of March, 2022 Accepted on: 15th of May, 2022 Published on: 23rd of May, 2022

© Martin Horák, Soňa Kukučková, Kamil Dobeš, 2022

Martin Horák, Ing., Ph.D., Department of Regional Development, Public Sector Administration and Law, Faculty of Management and Economics, Tomas Bata University in Zlín, Czech Republic. (Corresponding author)

Soňa Kukučková, Ing., Ph.D., Department of Finance, Faculty of Business and Economics, Mendel University, Czech Republic.

Kamil Dobeš, Ing., Ph.D., Department of Economics, Faculty of Management and Economics, Tomas Bata University in Zlín, Czech Republic.



This is an Open Access article, distributed under the terms of the Creative Commons Attribution 4.0 International license, which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

Conflict of interest statement: Author(s) reported no conflict of interest

Martin Horák (Czech Republic), Soňa Kukučková (Czech Republic), Kamil Dobeš (Czech Republic)

EXPLORING BEHAVIORAL BARRIERS AND INTERVENTIONS IN RETIREMENT SAVINGS: FINDINGS FROM ONLINE FOCUS GROUPS AMONG UNIVERSITY STUDENTS

Abstract

In a number of countries around the world, population ageing raises concerns about the sustainability of pension systems. A younger generation has conventionally been least likely to save for retirement even if there is a need to take individual responsibility and start saving for their retirement as soon as possible. In this context, the aim of the paper is to identify behavioral barriers and interventions towards retirement savings ceiling to this part of the productive population. For this purpose, three online focus groups were deployed among 16 university students aged 23-24 years. Using the coding process, common categories, related codes and frequencies of responses were determined from the transcribed material. The results pointed at two crucial barriers related to retirement savings: behavioral (present bias, status quo bias, loss aversion, limited attention) and institutional (education, pension policy and trustworthiness of the state institutions). Additionally, three main categories of behavioral interventions were detected to overcome these barriers: simplification of decision-making (easy calculation of pension, default options), use of salience effects (information campaigns, visualization tools, personalized content) and minimizing feelings of loss (framing of messages, financial incentives, products with different types of liquidity). Based on findings, recommendations were formulated for three groups of stakeholders: government, industry (financial providers and pension funds) and employers. The results bring valuable insights to relevant stakeholders regarding behaviors and attitudes of the young generation on retirement savings issues.

Keywords retirement planning, behavioral interventions, public

policy, pensions, young generation, Czech Republic

JEL Classification G23, J26, J32

INTRODUCTION

The issue of retirement savings is one of the most discussed economic challenges today (World Economic Forum, 2017). It could be expected that it is rational to save money for retirement to sustain the same quality of life. However, people often act irrationally, and retirement savings are no exception (Boisclair et al., 2017; Benartzi & Thaler, 2007). Therefore, some countries applied specific behavioral tools to increase saving for retirement, for example auto-enrolment in the UK pension plans (Team B.I., 2014), or in the US Save More Tomorrow plan (Thaler & Benartzi, 2004).

In the Czech Republic, there is a gap in the use of behavioral economics in the area of pensions among public authorities (including the Commission for Fair Pensions), and there are no behavioral units in its government organization structure such as The Behavioural Insights Team (UK). However, the Czech Commission for Fair Pensions (2019) points out that there is a need to look for innovative approaches and

emphasized that it is more than desirable to better understand young people's pension behavior and their opinions on how to foster the attractiveness of public pension funds. The authors react to the above-mentioned findings with the presented empirical study. Since there is no consensus on the precise age bands (e.g., Dimock, 2019), the young generation was defined as the ones that are just about to start their working career (approximately aged between 18-24).

The rationale to study the young generation and their attitudes and opinions towards retirement savings is fourfold. First, it is in the interest of the policymakers to enroll more young people into pension funds. Second, the younger generation is supposed to contribute to pensions the longest and is statistically and traditionally known for their low interest in retirement savings. Third, the area of younger generation's behaviors towards pensions is still under-researched and requires more empirical research (Foster, 2017). Last, to the authors' knowledge, only a few studies (Foster, 2017; Robertson-Rose, 2020) applied a qualitative approach to explore young generations' views in this context. Furthermore, Foster et al. (2016) interviewed women aged between 25 and 39 and, but a lower age band was not included in their research sample. Hence, the qualitative research was chosen to develop "a much richer understanding of processes, motivations, beliefs and attitudes than can be gained from quantitative research" (Rowlingson, 2002, p. 632) and focus on university students under the age of 25.

The main research question of the study was stated as: *How to motivate citizens to start saving for retire-ment as early as possible?* Specifically, the paper aims to deeply explore behavioral barriers that might influence the propensity to save for retirement together with ways (designed interventions) of increasing savings amounts. The paper is structured as follows: The first section introduces Czech pension system and the terms relevant to the research focus concerning barriers in retirement savings and possible behavioral interventions. The second section describes used methods (details about focus group and its participants); the third and fourth sections focus on the results and discussion. Finally, the conclusions are drawn.

1. LITERATURE REVIEW

First, the situation about the pension system in the Czech Republic is explained concerning the aging of the population, the financial instability of the system and the need for involvement of more young people in retirement savings. Afterwards, possible barriers to retirement savings and related behavioral interventions are outlined. This step is necessary for the definition of categories and common codes that are used in the analysis of the results based on the discussion in the focus groups in the following section.

1.1. Pension system in the Czech Republic

At the end of the 20th century, the phenomenon of aging of the population became more common in Europe (Mullan, 2000), including the Czech Republic (Bijak et al., 2007) In the Czech Republic, the pension system consists of two pillars. Using the classification of the World Bank, it has the 1st

and 3rd pillar (Holzman et al., 2008). The 1st one is a pay-as-you-go (PAYG) system, which means that the present generation pays pensions to current pensioners based on intergenerational solidarity. In the Czech Republic, the old-age-dependency ratio, defined as the ratio between the number of persons aged 65 years and more over the number of working-age persons (15-64 years), should be almost 50% in 2050 (Commission for Fair Pensions, 2019).

Currently, most of Czech pensioners rely on financial resources from the 1st pillar. However, the net pension replacement rate, the share of pension from the 1st pillar over net income before pension, is around 60%, which is slightly below average of the EU28 (OECD, 2019). The 3rd pillar is voluntary and since 2013 is named the complementary pension savings. A lot of Czech citizens participate in the 3rd pillar – the participation rate of the 40-60 years-old is 60% and of the 30-40 years old is around 50% (Commission for Fair Pensions, 2019), in total 4.4 million participants

155

in 2020. However, their savings are rather low to be a complementary stable financial source to the sources from the 1st pillar – the monthly contribution made by a participant of complementary pension savings is 812 CZK (32 euro) on average in 2020. Additionally, most of the participants prefer to withdraw the whole saved amount at the beginning of retirement.

The Commission for Fair Pensions sees potential for improvement in motivating the group of 20-30 years old young people due to their under-representativeness (Commission for Fair Pensions, 2019). The survey of a pension company operating in the Czech Republic shows that around 30 percent of the people at this age are worried how they can meet their basic needs with an average pension after retirement, but savings for pensions do not belong to the priorities in their lives (ČSOB Penzijní společnost, 2020).

1.2. Barriers in retirement savings

The empirical studies widely indicated strong correlation between retirement savings and demographic factors such as age (Adams & Rau, 2011), gender (Fisher, 2010) or education (Lusardi & Mitchell, 2017). Even though demographic factors influence the level of retirement savings in society, the recent knowledge in financial literature draws attention to psychological mechanisms underlying planning and saving behavior (Tomar et al., 2021). Moreover, other scholars point to the importance of other barriers such as financial literacy (Boisclair et al., 2017; Hauff et al., 2020; Lusardi & Mitchell, 2011) or the level of trust in the state, including pension funds (Ricci & Caratelli, 2017).

This study focuses on psychological and behavioral determinants as one that could be targeted by relevant stakeholders (including policymakers and pension funds) to increase propensity for retirement savings among the young generation bearing in mind that the studies concerning young people and their behaviors in retirement savings are rather limited so far (Foster, 2017; Robertson-Rose, 2020; Zandi et al., 2021).

Neoclassical economic theories are based on the assumption that individuals make their decisions rationally as "homo economicus" – the robot

programmed to optimize needs through a utility function (Ariely et al., 2017). However, people very often make systematic errors in evaluating this probability, thus refuting the assumption of the theory of purely rational individuals (Ariely et al., 2017). According to Benartzi and Thaler (2007), the three cognitive biases are crucial in this regard - status quo bias, loss aversion, present bias. One of the basic laws of human decision-making is the preference of the so-called status quo in the sense of doing nothing or maintaining one's current or previous decision (Samuelson & Zeckhauser, 1988). Benartzi and Thaler (2007) add that starting to save for retirement demands active steps to make a change, so the people rather tend to procrastinate or not to make any decision at all in this regard.

As for loss aversion, it represents an increased sensitivity to loss than to equivalent gain (Kahneman & Tversky, 1979). Therefore, people tend to stick to the default choices and avoid potential losses from a new decision. Savings for retirement presents a form of money loss that could be spent otherwise (Kane, 2014). The importance of loss aversion in decision making by a concrete person is based on his risk perception. A risk averse person wants to avoid the loss even in the short term and prefers lower returns with less risks in retirement savings (bonds, savings accounts) rather than higher returns with unknown risks (shares). Therefore, it might be a better strategy for risk averse people to not monitor all fluctuations but to check the development on the market, for example, once a year to avoid a hasty decision (Ariely et al., 2017). Cappelletti et al. (2014) investigated the influence of age on the choice of portfolio in retirement savings and confirmed the decline in holding of risk assets with a higher age, but it was more intensive at the end of the working career. However, 30% of the examined sample was out of this pattern and preferred status quo.

Finally, the present bias (or myopia) reflects the difficulty for an individual to act now in the interest of the future (McConnell, 2013) when there is a need to make intertemporal choice. Thus, people overvalue benefits received today, which results in preventing saving for the future (Thaler & Benartzi, 2004). Similarly, O'Donoghue and Rabin (1999) describe the tendency to procrasti-

nate when costs are immediate. This behavior is in line with the hyperbolic discounting function introduced by Loewenstein and Prelec (1992) explaining that the interval that starts now seems to be longer than an equivalently sized interval between two future dates.

1.3. Behavioral interventions towards retirement savings

According to the available empirical evidence, there are various behavioral interventions trying to address mentioned biases and barriers that could be applied in the retirement savings area. This includes besides other a default option or auto enrolling employees into the pension system (Madrian & Shea 2001). Given the strength of inertia and the human tendency to procrastinate, the status quo most often occurs, which makes the default intervention very effective to change the behavior (Madrian & Shea, 2001). The classic example of the default option comes from the United Kingdom where it was successfully tested in large companies (Team, 2014). In 2014, employees were automatically included in the pension savings scheme with the opportunity to exit the system at any time very easily. The results after the first 6 months indicated the strength of the default, since the number of savings employees increased from 61% to 83%. As Madrian (2012) concludes, auto enrolment has the greatest impact in groups with the lowest savings rates initially (e.g., younger generation or people with lower-income). Auto enrolment is used also in the US Save More Tomorrow program proposed (Benartzi & Thaler, 2007) or in Polish Employee Capital Plans.

Additionally, for the low willpower, the pre-commitment or commitment devices (it helps to fix behavior that people do not want to do, even though it is in their best interests) might increase the propensity to save. The field experiment by Ashraf et al. (2006) indicated increased demand for commitment products among bank clients even if it means that they could withdraw their savings only after reaching an individually chosen goal date or an individually chosen goal amount. In addition, sometimes it is not easy to get by the number of choices that are connected to the pension funds. This factor could also prevent us from saving and staying in the status quo. Similarly, the

commitment is used in the Save More Tomorrow Program in the United States. People commit now to saving more in the future when their pay raises. Furthermore, it reflects the hyperbolic discounting/present bias because it is easier to make a commitment in the future. The increase in saving after pay raise enables to minimize the impact of loss aversion because a participant does not have less money after deduction (Thaler & Sunstein, 2009). Thus, some researchers (Iyengar & Kamenica, 2010) recommended simplifying decision-making as a fundamental tool that also reduces mental transaction cost.

Furthermore, the intervention using framing of messages could change behaviors towards retirement savings, depending on the form and context in which a particular decision-making situation or information is presented (Tversky & Kahneman, 1985). The most common theoretical rationale for the framing discusses the effect of positive gain versus negative loss associated with the decision. The prospect theory by Kahneman and Tversky (1979) explains that people are suitable subjects to framing because they tend to avoid losses. In retirement savings, this is well experimentally documented by Brown et al. (2016) who indicated that the individuals prefer to delay claiming retirement benefits when the benefits are framed as a gain instead of a loss. Moreover, the feeling of loss could be tackled by some kind of small rewards given in the present (Thaler & Benartzi, 2004), financial incentives (including benefits related to the amount of taxes) and also the way how they are framed (Saez, 2009) or providing a combination of assets with different types of liquidity.

Lastly, the limited attention might be subject of intervention using salience effects. Current evidence suggests (Dolls et al., 2018; Foster, 2017; Marques et al., 2018), making retirement savings more salient to individuals increases their propensity to save. Specifically, the study by Dolls et al. (2018) indicated that changes in behavior in terms of retirement savings can be nudged by information letters that provided them with information about their own future pensions. Smyrnis et al. (2019) emphasize using personalized projections related to the future retirement pay-outs, which works as an emotion trigger. Additionally, Marques et al. (2018) studied whether increasing the salience of

ageing can promote young adults' interest in saving for retirement. In this regard, Foster (2017) also points out that the important factor in salience is placement of information. To conclude, Foster (2017) claims that salience of key information is more effective if individuals have the intermediate levels of financial literacy. Thus, carrying out initiatives to improve financial literacy together with interventions aimed at changing behaviors in retirement savings among the young generation are recommended (Foster, 2017). People with more information about possibilities to maintain financial security in old age save more and trust themselves in this area (Blanco et al., 2020).

In this regard, the purpose of the study was to identify barriers that might influence the propensity to save for retirement and design behavioral interventions to foster current saving amounts among young generation.

2. METHOD

In this study, the qualitative research approach was applied in order to gain in-depth understanding of behavioral barriers and interventions towards retirement savings among the young generation. To answer the defined research goal, a focus group method was deployed as a common research method if you seek to discuss perceptions, ideas, opinions, and thoughts on a given topic (Krueger & Casey, 2015). Using focus group methods to explore attitudes and behaviors towards retirement savings or planning was also detected in other studies (e.g., Foster & Heneghan, 2017).

The choice of the numbers of participants in all focus groups are consistent with the norm being equal from four to eight persons (Smith, 2015). In this case, a rather lower number of participants was chosen while maintaining sufficient diversity in each of the groups to create a safe environment Furthermore, online platform settings were used to make partici-

pants feel safe to share information and to foster the interactions. Three focus groups were organized that are seen as an adequate number of sessions to reach data saturation (Morgan, 1999). The participants were university students from a regional Czech university focused on economics and business. A total of 16 students (6 males, 10 females) were recruited and took part across three focus groups. The basic characteristics of participants involved in each of the focus groups are mentioned in Table 1. The first group was with more women than men, the second one with slightly more women and the last one was with more men. This distribution enables mitigating the influence of gender or detecting its potential impact in a partial group.

All online focus groups had the same course. Firstly, each of the session started with the short presentation by a moderator covering the following thematic areas: the pension system in the Czech Republic and its future; the goal and the statistics of the 3rd pillar of the pension system in the Czech Republic. The length of introduction performed by the moderator was 20 minutes on average. Secondly, the discussion was initiated with the two following questions:

- How to explain future risks of potentially low pensions to citizens?
- How to motivate citizens to save enough for retirement?

The aim of the discussion was to identify behavioral barriers to saving for pensions and possible behavioral incentives based on the objective of the study. The discussion took 40 minutes on average. After the session, the participants were asked two additional questions 1) whether they already save for pensions, and 2) what their working status is (regular full or part-time job or working only exceptionally).

The focus group sessions were digitally recorded, then transcribed and subsequently analyzed. In

Table 1. Characteristics of participants in each focus group

Number of the session	Gender M – male, F –female	Age average	Saving for pensions (% of participants)	Part-time job (% of participants)
Focus group 1	1M, 6F	23.14	0	57
Focus group 2	2M, 3F	23.6	60	60
Focus group 3	3M, 1F	23.5	100	50

data analysis, key themes were identified using the coding process presented by Strauss and Corbin (1997). Initial coding was made using literature sources relevant to the field of study (e.g., Foster, 2017; Madrian, 2012; Benartzi & Thaler, 2007; Thaler & Benartzi, 2004). In terms of establishing reliability, a codebook in MS Excel was developed to summarize defined codes among categories and to find how codes relate to each other in the sense of patterns, which resulted in the creation of common categories and concepts. To analyze how categories are connected and to integrate and display information gathered from the focus groups, a concept map in the CmapTools Software was developed. Furthermore, the following procedures were adopted to increase validity of this study: the findings were coded by involved researchers individually and then discussed further to achieve consensus on proposed codes and categories (employing the strategy of triangulation where multiple individuals analyzing the same data); coding and categorization checks were made with a time interval of 14 days of reaching consensus.

3. RESULTS

As the result of the discussion in all focus groups, two broad categories named as barriers and behavioral interventions that might influence the propensity to save for retirement among the young generation were identified. The summary of findings gathered via focus groups is displayed on a conceptual map (Figure 1). Behavioral interventions as designed solutions are connected to concrete behavioral barriers, which are detailed in Figure 2.

3.1. Barriers in retirement savings

The findings indicated two main categories of barriers (individual behavioral barriers and institutional barriers), which are detailed below.

3.1.1. Individual behavioral barriers

As for behavioral barriers in retirement savings, this study states four categories such as present and status quo bias, limited attention and loss aversion (including risk aversion). According to the respondents, the young generation seems to be immersed in the here and now (present bias). This is demonstrated by the following quotes: "For us (younger ones) who are around 23 years old, the pension is so far away" (R8) or "A lot of people of our age still don't realize that it is an important topic" (R14). R16 concluded with the statement that "The problem is really approaching, and at the same time it seems to many of us that it is still a long way off. If I have to

Source: Own processing according to the study results. Limited attention Present bias Loss aversion Barriers in retirement savings behavioral barriers Retirement savings among young generation Education policy Institutional barriers Easy calculation of pension are influenced by Default options Pension policy Behavioral interventions owards retirement savings Simplify decision-making on social media Consistency of the pension system Trustworthiness of the state institutions in primary/high schools Information campaign Tax/social surance rel Financial incentives Minimizing eeling of loss at public places (bus stops/ waiting rooms) is of Using salience effects Visualization and State contribution/bonus Pictures/video spots Direct mailing Projections of the future

Figure 1. Conceptual map introducing results from online focus groups

save for something that will be in 40 years, then it is so strange" ... and continued: "Some of us just live from month to month and absolutely do not think about what will happen in many, many years."

Furthermore, setting aside money for retirement might make us feel like we are losing them. Thus, people usually tend to avoid these feelings of losses that have a considerable impact on the actual savings as R10 said: "I don't think a lot of people want to save for retirement because they save 50 years in advance and then they can't touch that money. They send them somewhere and they don't see them at all." The next behavioral barrier that appeared in the study is related to the power of procrastination and status quo bias. Lastly, there are no visible cues to consider savings for retirement according to the respondents. This makes young people with limited attention more prone to ignoring such issues. In this regard, R9 claimed: "I don't think a lot of young people know about retirement savings right now. I think that the mood of young people in this country is not entirely good. Same goes for the presentation form of pension. Because they don't know about these things."

3.1.2. Institutional barriers

Additionally, the study identified other barriers that influence the propensity for savings. The issues related to the educational and pension policy mainly occurred. Firstly, the appropriate level of financial education seems to be a prerequisite to even con-

sider savings for retirement. However, this is still not well reflected by some educational institutions in the Czech Republic as R9 suggested: "This may be the problem that perhaps in primary school, people who are no longer involved in economics or studying finance do not have an idea of how the financial world works in certain respects. I think that everyone should have some form of financial literacy, they should acquire it, and it is the Czech Republic that is far behind in this." Last but not least, the respondents raised concerns about the level of trust, for example, in terms of financial security from the state in retirement period. In this regard, explored quotes (by R8, R13, R16) pointed to the need to enhance individual responsibility and to decrease reliance on the state.

3.2. Behavioral interventions towards retirement savings

Main part of focus groups consisted of discussion about possible ways related to the motivation tools in retirement savings. Based on the analysis, three main categories of behavioral interventions were identified: simplification of decision-making, use of salience effects, and minimizing feelings of loss. It should be noted that proposed interventions can either stand alone or be combined to achieve a higher impact. The rationale behind this categorization was to relate proposed interventions more closely to behavioral barriers that occur in retirement savings. For this purpose, a framework was developed that puts these findings together (see Figure 2).

Behavioral barriers in Category of behavioral Recommendations for retirement savings interventions relevant stakeholders Simplification of Easy calculation of pension Status quo bias Default options Loss aversion framing of messages Present bias feeling of loss Financial incentives Products with different types of liquidity Using salience Loss aversion Information campaign effects Visualization tools ▶ Personalised content Limited attention

Source: Own processing according to the study results.

Figure 2. Framework of behavioral barriers and designed solutions

3.2.1. Simplification of decision-making

The first category of proposed interventions that emerged from the analysis is connected to the streamlining of the pension system with a particular emphasis on easy calculation of the pension. Simplification of decision-making can limit the information overload in this area. For instance, R13 stated that "The 1st pillar should be transparent so that one can calculate the amount of the pension. Because today the problem is that no one actually tells you how much you will receive in that pension in the future." R9 and R12 got the same feelings and pointed out that the current pension system is difficult to understand even for experts and thus concerned public authorities should try to simplify it including clarification of the calculation. Providing this opportunity could be the leverage for starting to save since the people would see the possible earned income in the retirement period. Furthermore, other proposed recommendations could be categorized within using default options (automatic enrolment of individuals into pension schemes with the choice to opt out). Such intervention could be more often used by employers in enterprises as R11 stated: "As for the pension, it just suits me when the employer sends a contribution for a pension instead of myself. Because when I don't see the money, it doesn't motivate me so much to either spend it or put it in my account and not send it to my pension. So, I think that if the employer would not do it for me, I probably wouldn't save either."

3.2.2. Using salience effects

To overwhelm the possible bottlenecks, including inattention or even misperception using salience effects to make retirement savings visible, might be effective. There are various ways to make it happen. In the focus groups, the participants emphasized the use of information campaigns. Interestingly, participants in the focus group 1 with no savings for retirement stressed the need for information campaigns more often than in group 3, including only participants with some savings for a pension. The content in these campaigns can particularly highlight stable living standards during the whole life, unsustainability of PAYG system (1st pillar) or growing age of pensioners. Considering the environment where such campaigns should be

deployed, the three main places were mentioned such as social media, public places (e.g., waiting rooms at the doctors, bus stops) and schools.

Moreover, to make retirement savings more attractive and salient to the younger generation, applying a personalized approach (direct mailing, projections of the future) with different visualization tools (simple pictures/infographics, video spots) that affects emotions should be considered. As for personalized content, involvement of financial institutions is suitable there according to the R16: "Each of us has a bank account and also often use an application on the phone for payments. I think that these banks have a certain approach to being able to share such information with us (about the importance of retirement savings), and most importantly they know how to target a group currently 20-30 years old, for whom it has some meaning right now that if we start saving now then we will have some of it." This information can be further enhanced by applying loss aversion framing in messages that is more discussed in the third category.

3.2.3. Minimizing feeling of loss

One of the reasons why people do not save their money for retirement is because they feel like they are losing them. Thus, it is important to break down or at least decrease this feeling. This could happen in three main ways. First, the way how messages are framed can work as a trigger in behavior change. As mentioned earlier, people are subject to framing because they tend to avoid losses. In this sense, it could be shown how much money will individual lose in retirement compared to current salary as R1 stated: "For example, a future pension is calculated for each person, from what he has paid and shows that he will receive 10 000 CZK in retirement compared to the current 30 000 CZK. Then perhaps he would think that does not look good and consider starting saving. This could be communicated by letter from the Social Insurance Agency." The younger generation is often not aware about this situation and thus do not see savings as a priority. However, using this kind of framing in messages could make them start thinking about stepping into pension funds. It is important to show the main benefits and motivation of why one should start saving for retirement.

Second, giving present rewards or other financial incentives could also be an effective way to decrease feelings of loss. Currently, there are tax reliefs and state contributions for those involved in the voluntary pension fund (3rd pillar). The participants involved agreed that these incentives must continue in the future. Even so few other recommendations were suggested. For instance, this concerns social insurance relief for the employer that could be proportionally reduced according to the amount of contribution in the pension fund for employees. Furthermore, another financial bonus from the state might be considered as R10 mentioned: "People could be motivated if they have the opportunity to withdraw the money for anything after 15 years of savings, and at the same time there would be a condition that if they did not withdraw the money (continue in savings), then they would receive a bonus from the state."

Third aspect that should be taken into mind are differences in risk aversion among the population. This could be more reflected by policymakers that should try to offer a mix of assets with different types of liquidity as respondents claimed. Risk aversion relates to loss aversion because a risk averse person perceives a higher probability of future loss. The preference of liquidity to finance present activities relates to present bias.

4. DISCUSSION

Based on the data gathered from focus groups, it is clear that the young generation perceive two main barriers that influence propensity to save for retirement - behavioral (present bias, status quo bias, loss aversion, limited attention) and institutional (education and pension policy). As for behavioral barriers in retirement savings, this study defined categories that are well described in relevant literature (see Thaler & Benartzi, 2004; Benartzi & Thaler, 2007; McConnell, 2013; Kane, 2014). Considering the education concerns included in institutional barriers, it should be noted that the low level of financial knowledge as a barrier is also emphasized by Lusardi and Mitchell (2011) or Boisclair et al. (2017). Note that the matter of trust related to the pension policy and system as one of barriers is also mentioned by other scholars (Deetlefs et al., 2019; Foster, 2012; Ricci & Caratelli, 2017).

Furthermore, the respondents think that the number of people enrolled into pension funds could be increased by simplifying decision-making, using salience effect and minimizing feelings of loss. The specific recommendations in the first category include easy calculation of pension and default options. This evidence should be considered especially by government entities. For instance, using default options yields great results in the United Kingdom (Team, 2014) or United States (Benartzi & Thaler, 2007). According to the other scholars (see Beshears et al., 2013; Iyengar & Kamenica, 2010), simplifying decision-making is seen as a fundamental tool that also reduces mental transaction cost.

The second category of proposed interventions concerns salience effects and lists recommendations related to the importance of information campaigns, visualization tools, and personalized content in order to make retirement savings vivid. These could be deployed by various relevant stakeholders (including government, financial providers and employers). Bearing in mind that the financial industry can target the clients more directly according to a client's history. In this regard, a personalized approach could also include projections related to the future retirement pay-outs of addressed individuals as proposed by scholars (see Dolls et al., 2018; Smyrnis et al., 2019). Generally, as documented by other studies (Foster, 2017; Marques et al., 2018), making retirement savings more salient proved to be an effective way to foster propensity to save among citizens.

The third and last category of interventions that emerged in the study is related to minimizing feelings of loss, including loss aversion framing of messages, financial incentives and products with different types of liquidity. According to the current evidence (Thaler & Benartzi, 2004; Saez, 2009), financial motivation reflected in the present rewards (form of financial incentives) is strong in persuasion to be enrolled into pension funds. As Saez (2009) concludes, framing of messages combined with financial incentives leads to impressive results when trying to persuade people towards retirement savings.

Given the nature of the study (qualitative approach), the above findings cannot be used for statistical generalization. However, personal experience of respondents on studied topics still bring valuable insights that lead to deeper understanding than achieved by classical quantitative tools. In this regard, qualitative studies enable theoretical generalization – developing theories, concepts and key themes in a given issue. Next, participants in focus groups were from the same Czech university. The involvement of participants from other countries could bring different results since the pension system including funds have different attributes together with motivational approaches across countries. Even so the results might be inspiring for relevant stakeholders involved in retirement savings products that operate in countries worldwide.

Regarding possible future directions of research, it could be seen in three main streams. First, scholars might deploy similar methods in order to identify

similarities and differences in the concerned region and its young generation. Second, the further studies could consider the diversity of respondents, for example, in terms of their status and educational background. This could bring different feelings and attitudes, since demographic factors besides behavioral ones play a significant role in propensity to save for retirement. Finally, the proposed behavioral interventions might be experimentally tested for their effectiveness in increasing propensity to save for retirement among the population. In this regard, empirical studies proved that the extent of their effect differs following region and deployed tool. However, the question that remains unanswered is which of the interventions applied will have the greatest impact on behavior change among Czech young generations.

CONCLUSION

The purpose of the study was to identify barriers that might influence the propensity to save for retirement and design behavioral interventions to foster current saving amounts among young generation. To explore concerned issues in a deeper way, a qualitative approach was applied involving three focus groups among university students in the Czech region. By the analysis, the results pointed at specific behavioral interventions that should be deployed to increase motivation related to retirement savings among citizens. Their focus should primarily be on simplifying decision-making (easy calculation of pension, default options), using salience effects (information campaigns, visualization tools, personalized content) and minimizing feelings of loss (framing of messages, financial incentives, products with different types of liquidity). Last but not least, two main categories of barriers that prevent from saving for retirement were identified in the study – behavioral (present bias, status quo bias, loss aversion, limited attention) and institutional (education and pension policy).

The conclusions drawn in the paper help to understand young people's attitudes and behaviors in the area of retirement savings. The study extends findings in the concerned field, in particular in developing a framework that connects behavioral barriers with the design of specific interventions that should be considered. In addition, the proposed conceptual map gives unique insights from young people's views regarding retirement savings topics. Considering implications for the practice, the results could be used by relevant groups of stakeholders, namely government, industry (financial providers and pension funds) and employers. Regarding the public area, policymakers can draw from the study in developing policy programs and activities in the area of retirement savings.

AUTHOR CONTRIBUTIONS

Conceptualization: Martin Horák, Soňa Kukučková. Data curation: Martin Horák, Soňa Kukučková.

Formal analysis: Martin Horák, Soňa Kukučková, Kamil Dobeš. Funding acquisition: Martin Horák, Soňa Kukučková, Kamil Dobeš.

Investigation: Martin Horák, Soňa Kukučková. Methodology: Martin Horák, Soňa Kukučková.

Project administration: Martin Horák, Soňa Kukučková, Kamil Dobeš.

Resources: Martin Horák, Soňa Kukučková.

Software: Martin Horák. Supervision: Kamil Dobeš.

Validation: Martin Horák, Soňa Kukučková, Kamil Dobeš.

Visualization: Martin Horák.

Writing – original draft: Martin Horák, Soňa Kukučková.

Writing – review & editing: Martin Horák, Soňa Kukučková, Kamil Dobeš.

ACKNOWLEDGMENTS

This contribution was written with the support of the Technology Agency of the Czech Republic, project number TL03000737 titled as "Behavioral economics as a population activation targeted tool within use of financial security banking products."

REFERENCES

- Adams, G. A., & Rau, B. L. (2011). Putting off tomorrow to do what you want today: Planning for retirement. *American Psychologist*, 66(3), 180-192. https://doi. org/10.1037/a0022131
- 2. Ariely, D., Kreisler, J., & Trower, M. R. (2017). *Dollars and sense: How we misthink money and how to spend smarter.* New York: Harper.
- 3. Ashraf, N., Karlan, D., & Yin, W. (2006). Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines. *The Quarterly Journal of Economics*, 121(2), 635-672. https://doi.org/10.1162/qjec.2006.121.2.635
- Bijak, J., Kupiszewska, D., Kupiszewski, M., Saczuk, K., & Kicinger, A. (2007). Population and labour force projections for 27 European countries, 2002-052: Impact of international migration on population ageing. European Journal of Population/Revue Européenne de Démographie, 23(1), 1-31. https://doi.org/10.1007/ s10680-006-9110-6
- 6. Blanco, L. R., Duru, O. K, & Mangione, C. M. (2020). A Community-Based Randomized Controlled Trial of an Educational

- Intervention to Promote Retirement Saving Among Hispanics. *Journal of Family and Economic Issues*, 41(2), 300-315. https://doi.org/10.1007/s10834-019-09657-9
- Boisclair, D., Lusardi, A., & Michaud, P. C. (2017). Financial literacy and retirement planning in Canada. *Journal of Pension Economics and Finance*, 16(3), 277-296. https://doi.org/10.1017/ S1474747215000311
- 8. Brown, J. R., Kapteyn, A., & Mitchell, O. S. (2016). Framing and claiming: How information-framing affects expected social security claiming behavior. *Journal of Risk and Insurance*, 83(1), 139-162. https://doi.org/10.1111/j.1539-6975.2013.12004.x
- 9. Cappelletti, G., Guazzarotti, G., & Tommasino, P. (2014).
 The effect of age on portfolio choices: Evidence from an Italian pension fund. *Journal of Pension Economics and Finance*, 13(4), 389-419. https://doi.org/10.1017/S1474747213000395
- 10. Commission for Fair Pensions. (2019). Změny III. Pilíře důchodového systému. Návrhy Ministerstva práce a sociálních věcí. (In Czech). Retrieved from http://duchodovakomise.cz/wp-content/uploads/2019/07/T%C5%99et%C3%AD-pil%C3%AD%C5%99-n%C3%A1vrhy-zm%C4%9Bn-podklady.pdf

- ČSOB Penzijní společnost. (2020). Press Relaease: Vzpomínky na stáří. Tisková konference ČSOB Penzijní společnosti. Prague. (In Czech).
- 12. Deetlefs, A. M. J., Bateman, H., Dobrescu, L. I., Newell, B. R., Ortmann, A., & Thorp, S. (2019). Engagement with Retirement Savings: It Is a Matter of Trust. *Journal of Consumer Affairs*, 53(3), 917-945. https://doi.org/10.1111/joca.12208
- 13. Dimock, M. (2019). Defining generations: Where Millennials end and Generation Z begins. *Pew Research Center*, *17*(1), 1-7.
- 14. Dolls, M., Doerrenberg, P., Peichl, A., & Stichnoth, H. (2018). Do retirement savings increase in response to information about retirement and expected pensions? *Journal of Public Economics*, *158*, 168-179. https://doi.org/10.1016/j.jpubeco.2017.12.014
- Fisher, P. J. (2010). Gender
 Differences in Personal Saving
 Behaviors. Journal of Financial
 Counseling and Planning, 21(1).
- 16. Foster, L. (2017). Young People and Attitudes towards Pension Planning. *Social Policy and Society, 16*(1), 65-80. https://doi.org/10.1017/S1474746415000627
- Foster, L., Henegham, M., Olchawski, J., & Trenow, P. (2016). Closing the Pension Gap: Understanding Women's Attitudes to Pension Saving. *The Fawcett* Society.

- Foster, L., & Heneghan, M. (2017). Women's attitudes and expectations towards pension saving for retirement in the UK. *Innovation in Aging, 1*, 185-185. https://doi.org/10.1093/geroni/ igx004.709
- Hauff, J. C., Carlander, A., Gärling, T., & Nicolini, G. (2020).
 Retirement Financial Behaviour:
 How Important Is Being Financially Literate? *Journal of Consumer Policy*, 43(3), 543-564. https://doi.org/10.1007/s10603-019-09444-x
- Holzman, R., Hinz, R. P., & Dorfman, M. (2008). Pension Systems and Reform Conceptual Framework. World Bank Discussion Paper, 824.
- Iyengar, S. S., & Kamenica, E. (2010). Choice proliferation, simplicity seeking, and asset allocation. *Journal of Public Economics*, 94(7-8), 530-539. https://doi.org/10.1016/j.jpubeco.2010.03.006
- 22. Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47(2), 263. https://doi.org/10.2307/1914185
- 23. Kane, M. M. (2014). Overcoming Obstacles to Retirement Plan Success: Inertia, Myopia, and Loss Aversion. *Journal of Pension Benefits: Issues in Administration*, 21(2), 23-57.
- 24. Krueger, R. A., & Casey, M. A. (2015). Focus groups: A practical guide for applied research. SAGE Publications, Inc.
- Loewenstein, G., & Prelec, D. (1992). Anomalies in Intertemporal Choice: Evidence and an Interpretation. *The Quarterly Journal of Economics*, 107(2), 573-597. https://doi. org/10.2307/2118482
- 26. Lusardi, A., & Mitchell, O. S. (2011). Financial literacy and retirement planning in the United States. *Journal of Pension Economics and Finance*, 10(4), 509-525. https://doi.org/10.1017/S147474721100045X
- 27. Lusardi, A., & Mitchell, O. S. (2017). How Ordinary Consumers Make Complex Economic

- Decisions: Financial Literacy and Retirement Readiness. *Quarterly Journal of Finance, 7*(03), 1750008. https://doi.org/10.1142/ S2010139217500082
- 28. Madrian, B. (2012). Matching Contributions and Savings Outcomes: A Behavioral Economics Perspective (No. w18220). National Bureau of Economic Research. https://doi.org/10.3386/w18220
- Madrian, B. C., & Shea, D. F. (2001). The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior. The Quarterly Journal of Economics, 116(4), 1149-1187. https://doi. org/10.2139/ssrn.223635
- 30. Marques, S., Mariano, J., Lima, M. L., & Abrams, D. (2018). Are you talking to the future me? The moderator role of future self-relevance on the effects of aging salience in retirement savings. *Journal of Applied Social Psychology*, 48(7), 360-368. https://doi.org/10.1111/jasp.12516
- 31. McConnell, M. (2013). Behavioral economics and aging. *The Journal of the Economics of Ageing, 1-2,* 83-89. https://doi.org/10.1016/j.jeoa.2013.09.001
- 32. Morgan, D. L. (1999). *The focus group guidebook*. Sage.
- 33. Mullan, P. (2000). The imaginary time bomb: Why an ageing population is not a social problem. London: I.B. Tauris.
- O'Donoghue, T., & Rabin, M. (1999). Doing It Now or Later. *American Economic Review*, 89(1), 103-124. https://doi.org/10.1257/ aer.89.1.103
- 35. OECD. (2019). Pensions at a Glance 2019: OECD and G20 Indicators. Retrieved from https://www.oecd-ilibrary.org/socialissues-migration-health/pensions-at-a-glance-2019_b6d3dcfc-en
- Ricci, O., & Caratelli, M. (2017).
 Financial literacy, trust and retirement planning. *Journal of Pension Economics and Finance*, 16(1), 43-64. https://doi.org/10.1017/S1474747215000177

- 37. Robertson-Rose, L. (2020). "Because My Father Told Me To": Exploratory Insights into Parental Influence on the Retirement Savings Behavior of Adult Children. Journal of Family and Economic Issues, 41(2), 364-376. https://doi.org/10.1007/s10834-019-09643-1
- 38. Rowlingson, K. (2002). Private Pension Planning: The Rhetoric of Responsibility, The Reality of Insecurity. *Journal of Social Policy*, 31(4), 623-642. https://doi.org/10.1017/S0047279402006773
- 39. Saez, E. (2009). Details Matter: The Impact of Presentation and Information on the Take-up of Financial Incentives for Retirement Saving. *American Economic Journal: Economic Policy, 1*(1), 204-228. https://doi.org/10.1257/pol.1.1.204
- Samuelson, W., & Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of Risk and Uncertainty*, 1(1), 7-59. https://doi. org/10.1007/BF00055564
- 41. Smith, J. A. (Ed.). (2015). Qualitative psychology: A practical guide to research methods. Sage.
- 42. Smyrnis, G., Bateman, H.,
 Dobrescu, L. I., Newell, B. R.,
 & Thorp, S. (2019). Motivated
 Saving: The Impact of Projections
 on Retirement Saving Intentions.
 SSRN Electronic Journal, 3464813.
 https://doi.org/10.2139/
 ssrn.3464813
- 43. Strauss, A. L., & Corbin, J. M. (1997). Basics of qualitative research: Grounded theory procedures and techniques. Sage.
- 44. Team, B. I. (2014). EAST. Four Simple Ways to Apply Behavioural Insights. Retrieved from https:// www.bi.team/wp-content/uploads/2015/07/BIT-Publication-EAST_FA_WEB.pdf
- Thaler, R. H., & Benartzi, S. (2004). Save More Tomorrow TM: Using Behavioral Economics to Increase Employee Saving. *Journal of Political Economy*, 112(S1), S164-S187. https://doi. org/10.1086/380085
- 46. Thaler, R. H., & Sunstein, C. R. (2009). *Nudge: Improving decisions*

- about health, wealth, and happiness. London: Penguin Books.
- 47. Tomar, S., Kent Baker, H., Kumar, S., & Hoffmann, A. O. I. (2021). Psychological determinants of retirement financial planning behavior. *Journal of Business Research*, 133, 432-449. https://doi.org/10.1016/j.jbusres.2021.05.007
- 48. Tversky, A., & Kahneman, D. (1985). The Framing of Decisions
- and the Psychology of Choice. In G. Wright (Ed.), *Behavioral Decision Making* (pp. 25-41). Boston: Springer US. https://doi. org/10.1007/978-1-4613-2391-4_2
- 49. World Economic Forum (WEF). (2017). We'll Live to 100 How Can We Afford It? (White Paper. REF 020417 case 00029250). Retrieved from http://www3.weforum.org/docs/
- WEF_White_Paper_We_Will_ Live_to_100.pdf
- Zandi, G., Torabi, R., Yu, O. T., Sivalingam, A. D., & Khong, T. T. (2021). Factors affecting the intention of generation Y in Malaysia to invest for retirement. Advances in Mathematics: Scientific Journal, 10(3), 1485-1507. https://doi.org/10.37418/ amsj.10.3.36