Gender differences in financial literacy. Does no difference really mean no difference?

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Abstract

OECD has emphasized the need to draw more attention to gender differences in financial literacy. It has been ignored in Estonia so far as the overall scores of men and women in relevant surveys have been equal. In this paper datasets from a quantitative financial literacy survey of the adult population, PISA 2012 financial literacy test results and quantitative gender equality survey are analyzed. Analysis reveals gender differences in questions about long term planning and investing for both 15-year old and adult population in Estonia. This proves that the need for gender specific financial education programmes cannot be assessed on the basis of the overall financial literacy score alone. Estonian National Strategy for Financial Education does not segment the population by gender. Attention is drawn to the need of designing gender specific solutions for efficient implementation of the strategy, specifically in long term planning and investing. The largest gender pay gap in the European Union makes women more financially vulnerable than men, this calls for immediate intervention. Suggestions are made for influencing behaviour of women in Estonia using findings from research on the efficiency of financial education programmes, behavioural finance and economics.

Introduction

Women tend to live longer and earn less than men; that makes long term planning in personal finance to be of critical importance for them. Financial literacy surveys carried out in Estonia have showed no relevant gender differences in overall financial literacy scores and therefore no gender specific financial education programmes have been launched. Estonian National Strategy for Financial Education divides the population into four segments based on their life stage (Rahandusministeerium 2014). Evidence from quantitative financial literacy surveys both of students and adults show gender differences in specific questions related to long term planning and investing.

In this paper datasets from a number of studies are used. A brief overview is given of behavioural finance and economics findings to provide suggestions for effectively influencing behaviour in managing long term personal finance.

The aim of the paper is to show that overall financial literacy levels should not be considered sufficient for deciding whether to address gender differences in financial literacy. More attention should be paid to differences in more specific topics such as long term planning, investing and planning for retirement. Women would need to outstand in these questions to be able to succeed in maximizing their well-being considering their lower level of income and higher life expectancy.

The paper will add a new perspective to gender issues in financial literacy, specifically in long term planning by incorporating the situational factors into research and demonstrating that equal overall levels of financial literacy may in fact not be sufficient for deciding which target groups and problems to address when implementing national strategies for financial education.

Background

The importance of designing effective financial education programmes targeted to women has been emphasized by the OECD (2013a) and analyzed by several researchers, e.g. Lusardi and Mitchell (2008); Hung, Yoong and Brown (2012). In addition to women´s longer life expectancy and lower income levels, roles in the household and lower confidence in financial knowledge have been analyzed in context of insufficient long term planning (Alessie et al 2012).

So far in Estonia there have been no gender specific financial education programmes as the financial literacy levels have been considered gender equal. In 2010 OECD financial literacy survey results there was no significant gender difference in the overall score in Estonia (Atkinson and Messy, 2012).

The gender pay gap in Estonia is the largest in the European Union; women earn 30% less for similar jobs than men according to Eurostat data from February 2014. That is nearly two times higher than the EU average and almost five times bigger difference than in Italy. Life expectancy data predicts the gap in opposite direction - in 2012 it was 82 years for women and 72 years for men. In OECD (2013b) the average gender gap in life expectancy is 5.5 years, nearly two times smaller than in Estonia. This puts extra pressure on women; they live longer but earn less and have to be able to prepare for their retirement very efficiently. Thus even if the overall financial literacy levels are the same both for men and women, the tasks requiring financial literacy skills are far more complicated for women as they have to manage their future finances based on a lower previous income combined with the need to secure reasonable income levels for a period that is on average 10 years longer than for men.

National Strategy for Financial Education for years 2013-2020 was put into force in Estonia in June 2013 (Rahandusministeerium 2014). The differentiated target groups of the strategy are children, students, adults and retired people.

Financial education programmes can help people improve their knowledge and skills in managing personal finance, and nudge towards taking action. People with higher financial literacy levels do better in planning their money matters as proven by Lusardi and Mitchell (2008). Financial education alone will not solve all problems, it is an efficient tool if the financial services are provided responsively in sufficiently regulated environment. Estonian National Strategy has three aims:

1. People will acknowledge the importance of managing money matters and their attitudes will support making wise financial decisions.
2. People will understand financial services and can use them in all life-stages to maximize their financial well-being.
3. Financial services will be provided responsively.
   (Rahandusministeerium 2014)

Lusardi (2011) says “financial literacy is an essential tool for anyone who wants to be able to succeed in today’s society, make sound financial decisions, and – ultimately – be a good citizen”. One possible channel for providing financial education to adults is organizing workplace trainings. The problem in Estonia is that there are not many big companies and allocating a trainer to a large number of small companies is a costly measure. At the same time, it is difficult for the employer to organize its work so that a large proportion of the staff can attend the training simultaneously. For persuading employers one argument might be the image of a socially responsible and caring organization. Atkinson finds (2008) that workplace seminars increase the likelihood of saving for retirement and as an additional unexpected bonus also improve recruitment because the employees valued these extra trainings. These trainings are efficient as they provide the time and space for effective two-way communication with adult population. O´Donoghue and Rabin (1998) say:

> . . . if these seminars are made part of a normal workday – e.g., attendance at an hour-long seminar substitutes for an hour of work – and if people actually focus on investing wisely during these seminars, then such seminars will further reduce the opportunity cost of focusing attention on investing wisely.

De Meza *et al* argue (2008), that if those trainings are about providing information they have very little impact on behaviour; they suggest that if those courses are voluntary, it is very hard to get people to attend, if mandatory, then it´s hard to get them to pay attention. Therefore the programme has to be very carefully designed considering the findings of behavioural economics for actually affecting the behaviour. To change behaviour it is important to understand what stops the target group to behave in the desired way (ASIC 2011). This is easier to find out in direct contact with the audience, something mass media and marketing campaigns cannot provide.

The effectiveness of commitment was proven in an experiment carried out in the Philippines. It was called SEED - Save, Earn, Enjoy Deposits (Ashraf 2006). People had to choose a date or amount of money until which they save, they were not allowed to withdraw money from the SEED account before the target amount or date but they were not forced to deposit after opening the account. Interest rate paid on the SEED account was the same as on a normal savings account. The results were surprisingly good – the average amount of money on a saving account had risen by 82% (Ashraf 2006). The reason for success was commitment – it was not possible to withdraw money before reaching the goal amount or date people had chosen themselves. Although they were not forced to deposit more money, they did, because they wanted to reach the goal. The power of commitment could be taken advantage of when designing tools for promoting long term saving.

Social marketing campaigns and edutainment have been proven successful in affecting behaviour (Lee 2010; Mulaj and Jack 2012), but the design and implication of a measurably influential campaign is a complicated task. Mulaj and Jack (2012) say:

> . . . entertainment education programs are highly multi-dimensional, and there could be many variables that effect change, such as the extent to which the program is engaging, the extent to which the audience can relate to the storyline or favors the actors, the extent to which the story can appeal to emotions, or perhaps a result of quality of the message delivered, or the way the content was formulated, conveyed, and even repeated to the audience.

The message of the campaign needs to be a clear call to action, delivered in a persuasive and understandable way for the target group. Yoong suggests (2011) appealing to social preferences and peer effects. Besides social marketing this can be done by providing financial education through communities. In Estonia communities are becoming stronger and their development has been supported by various measures. Estonian National Strategy for Financial Education targets communities as one of the key channels for reaching adult population (Rahandusministeerium 2014). Hilgert *et al* (2003) suggest "a coach could be a peer volunteer or key community leader who serves as a mentor to a small group of individuals and families". That is a very good way of influencing behaviour and choices in money matters, but the coaches have to be carefully chosen and well trained to be able to give unbiased and profound advice considering individual needs. The advantage of peers or community leaders is they can establish commitment for long-term behaviour change as they are close to people.

Behavioural economics and finance have pointed out heuristics and biases affecting decisions in personal finance (Dolan et al 2010; Kahneman and Riepe 1998; Kenrick et al 2009; Mitchell and Utkus 2003; O´Donoghue and Rabin 1998; Thaler and Sunstein 2009; Yoong 2011). People tend to be overconfident and optimistic which can lead to not making the necessary decisions in their life like insuring their home or saving for retirement. People need feedback on their decisions but it is hard to receive in the case of long term decisions like in the above mentioned examples. Because of the information overload and complexity of financial services people tend to postpone important decisions and may leave them undone at all. People may understand the need for saving for retirement but there is always something more tempting to spend on today and promise to start saving the next day.

Because of hyperbolic discounting people value the interest earned today more highly than the same rate of interest on a long term investment in the future. Reason for not investing is also loss aversion, people fear losing more than they value the possible gains. Keeping the status quo is much more tempting and less challenging. Peer pressure might force people to overcome procrastination and change behaviour, if the norm would be to save then it would be easier to convince oneself to start saving. Thaler and Sunstein (2009) describe social influences affecting investment decisions: "people´s investment decisions are often influenced by the investment decisions of their friends and neighbours." If the norm would be to save for retirement, neighbours and friends could be good role models. In current situation where majority of people plan only form one payday to the next and only a few percent invest money for long term goals (Saar Poll 2012), their influence may not be useful in that topic. O´Donoghue and Rabin (1998) prove that "for plausible degrees of self-control problems, people can severely hurt themselves by procrastinating on personal investment decisions".

Mullainathan and Thaler (2000) note that "saving for retirement is both a difficult cognitive problem and a difficult self-control problem". It is difficult to visualize your life in so distant future; therefore it is difficult to convince yourself of the need to save for that time instead of using the money today. There is always something more appealing to spend money on today than deciding to postpone consumption to distant future. Visualizing oneself in old age might help deciding to take action (Hershfield and Beard 2013). Online tools and mobile applications can be developed for providing a chance to visualize life after retirement. The growing number of smartphone and Facebook users could serve as a cost-effective way for nudging towards thinking about long term plans.

Provision of free and unbiased advice is needed, so far in Estonia only financial advisors are the people working at financial institutions. When considering the launch of impartial financial advice service, the gender differences should be kept in mind (Alessie et al 2012).

Method

The paper draws on data analysis of a quantitative financial literacy survey carried out in Estonia in 2012, on PISA 2012 financial literacy test results for Estonian students and gender equality survey results. Previous research on effectiveness of financial education programmes, behavioural finance and economics is analyzed for finding effective approaches to be recommended for the Implementation Committee of Estonian National Strategy of Financial Education.

The latest quantitative financial literacy survey was conducted in Estonia in 2012. Face to face interviews were carried out with 1513 people in age 18-80 (Saar Poll 2012). The survey results serve as a baseline for the implementation of National Strategy for Financial Education.

Estonia participated in the PISA 2012 financial literacy pilot survey. This was the first international financial literacy survey of 15year old people. The test was taken by 1088 students in Estonia (Riitsalu 2014).

Gender equality survey was carried out in 2013, 1500 people in age 15-74 were interviewed face to face. The aim of the survey was to map attitudes related to gender equality issues in Estonia (Sotsiaalministeerium 2013).

Results

Looking closer at long term planning topics the data from 2012 financial literacy survey suggests women would need more attention and guidance than men to be capable of planning for their retirement. 19% of women say they plan their personal finance for more than 6 months, but only 38% understand the concept of compound interest. The proportion of men having long term plans does not differ but 43% are able to calculate compound interest (Saar Poll 2012).

While choosing financial services, 46% of women rely on information on the internet. This could be one channel for drawing their attention on the need of taking action to secure their well being in retirement. 23% of women plan to rely on help from their spouse after retirement but considering the gap in life expectancy and the low involvement in long term planning, it may not be a reliable source of income. Merely 4% of women consider entrepreneurship as one possible source of income for preparing for retirement (Saar Poll 2012).

40% of women and 22% of men are financially dependent of a family member, more than half of them depend on financial support from their spouse (Sotsiaalministeerium 2013). This makes them rather vulnerable, both in short and long term. In case of divorce or separation they may be facing financial difficulties. In long term that may not provide substantial funds for investing into well-being after retirement.

In PISA 2012 financial literacy test results there were no major gender differences in Estonia in the overall score, but similarly to the adult population survey there were differences in calculating compound interest, 38% of girls and 46% of boys gave the correct answer. The benefit of investment risk diversification is understood by 33% of girls and 36% of boys. Money changing value in time was correctly calculated by 31% of girls and 40% of boys (OECD 2014; Riitsalu 2014).

Although the gender differences in those more complicated financial literacy questions are not drastic, considering the lower income and longer life expectancy of women it is still a substantial problem to be addressed. The pressure to plan their finance in long term is especially strong on women, but their knowledge in these topics is not sufficient.

In gender equality survey the respondents said the most important skill boys and girls should be taught is managing personal finance, it was said to be most important for boys by 45% and girls 44% of people (Sotsiaalministeerium 2013). Thus the need for provision of financial education programmes is strongly felt in Estonia.

One alternative to investing into financial services is becoming an entrepreneur. According to Global Entrepreneurship Monitor, 9% of women in Estonia are early-stage entrepreneurs (Amorós et al 2014). 4% of women name entrepreneurship to be one of the sources of income after retirement (Saar Poll 2012). For men both of these indicators are two times higher. This might be linked to women being more risk averse than men, 86% of women and 77% of men are not willing to take investment risks (Saar Poll 2012).

Discussion

Gender differences have been overlooked in Estonia as the overall financial literacy scores have not shown significant differences. Yet the more specific questions on long term planning and investing show a gender gap. Women are less aware of the basic investment concepts such as compound interest and risk diversification. This can result in lower confidence and usage of investment services. An alternative to financial services might be investing into own business, but among beginning entrepreneurs majority are men, not women.

Considering the largest gender pay gap in the EU and the gap in life expectancy, efficient tools for nudging women towards taking action and planning their money matters in long term should be considered a priority by the Implementation Committee of Estonian National Strategy for Financial Education.

One channel for reaching women could be the internet as nearly half of them say to use it when making a decision in personal finance. Besides financial education websites social media channels could be used. There are online communities that are particularly used by young mothers, there can be created discussions about possible solutions for long term planning in personal finance. Promoting tools for visualizing the need for investing into well-being in old age might prove most sufficient there.

For reaching young mothers, places related to children such as nurseries, kindergartens and schools could be used for giving advice and building awareness of long term planning solutions. Women are more active in participating in cultural societies such as choirs, dance and handicraft clubs. That could also be a place of discussing about long term planning and opportunities for saving for retirement. It can be done by providing training and consultation, in form of edutainment or by using the leader of the club as a spokesperson or role model in managing personal finance. All of these solutions have been proven efficient as discussed earlier. In these communities publicly made commitment to take action for maximizing well-being after retirement could help to overcome procrastination. Peers could guide and support in saving and investing for long term goals, making the influence of the training last longer.

Workplace trainings can increase the awareness of the need for planning for long term, the trainer can address the needs of the audience better than any marketing campaign is capable of. Also there the advantages of a small community can be used; peer effects and commitment can help to keep on working towards the goals after the training.

Social media and regular social campaigns can be used for giving simple and easy to follow guidance in personal finance, repeating the messages over time, creating norms and showing tangible outcomes of changed behaviour are necessary. Messages need to be consistent with the needs, opportunities and goals of the target group. Before designing the campaign, it is vital to understand what has stopped the target group from managing their long term finance in optimal way. Further research is needed for understanding the attitudes and reasons for behaviour, including reasons for not taking action in long term planning.

Conclusion

Overall financial literacy scores should be treated with care when deciding about designing financial education programmes and national strategies. Closer attention should be paid to questions on investment and planning for retirement as these are key skills in the context of growing life expectancy and responsibility for saving for retirement. PISA financial literacy test and adult population survey carried out in Estonia in 2012 proved a gender gap in these complicated topics, girls and women have less knowledge than boys in them. It wouldn´t be a problem if there was not for the other two big gaps; largest gender pay gap in the European Union and 10 years of difference in life expectancy. Implementation of National Strategy for Financial Education should include gender specific programmes, especially on long term planning and investing. Peer effects, commitment and social norms can be used for influencing behaviour, either on training, online or in social marketing campaigns.

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