Rozprawy Ubezpieczeniowe. Konsument na rynku usług finansowych nr 28 (2/2018): 3-11
Journal of Insurance, Financial Markets and Consumer Protection No. 28 (2/2018): 3-11

Regulatory reforms to deal with information overload in financial services: insights from behavioural economics

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Received: 11 April 2018; Accepted: 24 May 2018; Published: 31 August 2018

Abstract. Consumer protection regulation is based on the assumption that the communication of sufficient information to consumers enables them to protect themselves against unfair business practices and the consequences of making uniformed decisions. As one may presume, imperfectly informed consumers are unable to contract in their own best interests. It is a common belief, however, that providing the consumers with too much information at one time, so that it goes beyond their processing capacities may lead to inefficient and inaccurate performance. Disclosure of information plays a key role in the regulation of financial markets, but to make the disclosing regime efficient, there is a need to take into consideration the cognitive capacities, personal biases, heuristics and their influence on the decision making process.

Keywords: behavioural economics, behavioural finance, financial services, information overload, consumers.
JEL Codes: K3, G1, G2, G4, D8, D81.

1. Introduction

A common justification for legal interventions in financial consumer markets to require financial institutions to disclose product-related information, in particular the risks, the price and all the fees involved therein, is that consumers are imperfectly informed with regard to the transaction they are intending to make. However, it is world-widely admitted that information is never perfect [Schwarz, Wilde 1979, p. 630] and overabundance of information that exceeds consumer's processing capacity results in poorer decision making and dysfunctional performance. Therefore, the main focus of this article is an attempt to set intermediate between perfect information and perfect ignorance, bearing in mind, however, the main heuristics (rules of thumb) and biases to the various psychological traps of financial decision making.

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The fundamental aspect on which consumer protection regulation is based assumes that imperfectly informed consumers cannot contract in their own best interests. Thus, communication of sufficient information to consumers is ensured to enable them to protect themsevles against unfair business practices and the consequences of making uninformed decisions. It supports the argument that once the consumer is empowered with information, they will react to abuses and mismanagement in a proper way, and there is no need for the legislator to intervene into the market with more substantive regulations [Paredes 2003]. It is generally recognized, however, that providing the consumers with too much information at one time, so that it goes beyond their processing limits may lead to inefficient and inaccurate performance.

The objective of this paper is to present the implications of behavioural economics for regulatory disclosure of financial products. The specific focus of the paper is the financial information overload. The main hypothesis of this paper is that the overabundance of information going beyond human processing capacity leads to application by consumers different heuristics (mental shortcuts) to help solve the problem when making decisions, and owing to psychological biases, interpret information in biased ways. Hence, I argue that to a much more wider extent than today, regulators should apply behavioural insights for policymaking to increase consumer protection in the area of financial services.

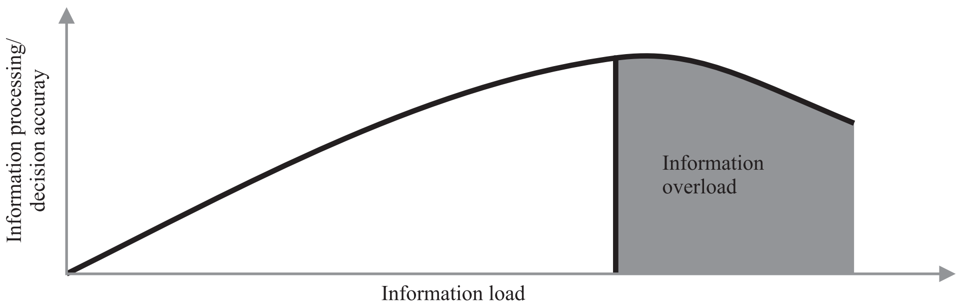
2. Insights from behavioural economics

Behavioural economics bases on the insights from psychology, sociology, neurology, as well as economics, and provides us with deeper understanding of human decision making process, aiming to identify the ways how people use information.

On the ground of traditional consumer choice theory applied for modelling decision process humans use available information to make ‘rational’ choices which are supposed to maximise their own utility. They make a logical and objective analysis of all available information, put all the alternatives in priority, and as a consequence thereof, make a decision giving them the greatest satisfaction. In the eyes of Thaler and Sunstein *the economic man can think like Albert Einstein, store as much memory as IBM’s Big Blue, and exercise the willpower of Mahatma Gandhi* [Thaler, Sunstein 2008]. According to the traditional approach, disclosure paradigms for most financial services were created on the ground that, if the clients had full information, they would optimise their decisions. Nevertheless, such a method did not take into consideration the limitations of human cognitive abilities, or the psychological, social as well as emotional interferences.

It is now well admitted that human memory has limited capacity and time for processing information. As a consequence, people use different heuristics (mental shortcuts) to help solve the problem when taking a decision, and owing to psychological biases, interpret information in biased ways. Hence, it is vital to define the number of alternatives and attributes consumer can absorb at one time without being overloaded with information. It has been attempted to measure the size of memory span and so different research done with respect to that seems to confirm that the short memory of a human being has the processing capacity of approximately 4-7 chunks of information during any given period of time [Broadbent 1975, pp. 1-18; Simon 1974, pp. 482-488; Miller 1956, pp. 81-97]. The experiments revealed dysfunctional effects of information overload if a human being received ten or more alternatives in one choice or with information on 15 or more attributes [Malhotra 1982, p. 427]. With every piece of information first the decision making ability goes up, obtains an optimum with ten chunks, and after that goes down.

Diagram 1. Information overload



Source: [Ruff 2002].

The mostly acknowledged behavioural economics concept has been developed by Daniel Kahneman and Amos Tversky, who created the prospect theory, according to which humans make choices based on the forecasted value of losses and gains rather than final results (contrary to traditional consumer choice theory) [Kahneman, Tversky 1979, pp. 263-292; 1981, pp. 453-458; 1992, pp. 297-323]. They stressed the role of emotions and intuition in the evaluation of potential losses and gains by investors. In the Kahneman-Tversky approach, humans repeatedly make mistakes, are persistently biased when taking a decision, and, what's more, it is relatively easy to fool them by framing the questions and options inadequately.

Another very well-known representative of behavioural economics is Herbert Simon, a Nobel-laureate economist, who developed the concept of bounded rationality, according to which the process of decision making is limited by imperfect information, cognitive capacities and time [Simon 1955, pp. 99-118]. Hence, to deal with the complexity of the situation, humans apply shortcuts or 'satisfying' rules to make their choices simpler and help them come to a suitable decision. The decision makers look through available options until they meet or exceed certain criteria. Then, the decision individuals take is perceived to be satisfactory for them and in their best interests, taking into consideration limited choice they have and lack of awareness of alternatives. However, as the researchers have shown, such a decision may be wrong due to the complexity of information, framing it in a misleading way, or the quality of the information itself [Altman 2011].

Behavioural economists have identified various biases and heuristics that provide a framework to understand the process of making a decision relating to the purchase of financial services. This is because financial services are commonly very complex, while at the same time they require substantial resources and often create a long-term commitment for consumers. To make things more complicated, financial products are called '*experience (credence) goods*', which means goods which quality can only be ascertained after purchase and it might take a long time to fully evaluate their suitability. What's more, financial products tend not to be subscribed too frequently, and the majority of them are one-off purchases by nature, which further limits the extent of learning-by-doing. These products can also be related to important life decisions (e.g. mortgage credit, pension savings), where consumers' choices can be easily driven by emotions, such as excitement, anxiety or fear rather than objective assessment of future effects. Some of the behavioural heuristics and biases have been set out beneath.

One of the most common heuristics tools is called '*framing effect*', which assumes that the context and presentation of influence (making the product more attractive for consumers) have impact on the interpretation of information by individuals. Framing allows financial institutions to stress the benefits and features of the product which are vital for clients, and at the same time give less importance to untempting aspects, e.g. penalties for late repayment of the credit instalments. As a result, framing the information as a gain or loss will heavily affect the consumer's decision whether to sign the contract. That is closely linked to another bias called '*loss aversion*' [Tversky, Kahneman 1991, pp. 1039-1061]. Individuals do not like suffering losses, which are perceived much more deeply than gains at the same value. Another behavioural bias is linked to the overconfidence and unrealistic optimism of the buyers of financial products. The research shows that when clients with a good financial literacy are faced with a complex and specialized financial product, they use their knowledge only to a very limited degree. Instead of a logical and realistic approach, they have a tendency to be over-confident and over-optimistic about the future income, their future costs, or for example when deciding on the level of risk they should take.

The research shows that individuals tend to be emotionally distorted, which is closely related to other biases (the so-called '*status quo*' and '*present bias*'), which make consumers focus more on the current monetary implications of their choice, rather than on its further consequences. For example, clients with only temporary job contracts take expensive mortgage loan to buy a flat in spite of their unstable employment situation. What's more, they are still not open to make a change even though a new piece of information has been provided to them. People have a tendency to stick to their present situation as they are unwilling to get around to changing it. In financial services, individuals tend to value their present utilities higher than the future ones as well as postpone decisions involving relatively small monetary implications although, in total, such a tactic may lead to a substantial financial loss.

It takes place, for instance, when they refrain from switching a bank account even though there are cheaper accounts available in the market; or they defer terminating the mobile phone insurance contract despite the fact that the value of the device has gone down a lot.

Another common way to lead consumers to make a specific choice is to provide a default option. It is supposed to save consumer's time and effort in hesitating between various options and, as a result, clients are very likely to go for it not giving it too much thought. The default setting is closely linked to the '*choice overload bias*', also common in financial services. Clients being confused by too many alternatives to choose from may even completely refrain from the purchase. Hence, when businesses have to provide consumers with a few options to make the choice, they usually limit them to the necessary minimum. This makes client's decision much easier but very often omits some vital information. Last but not least, there is evidence that consumers are much keener to buy a product if the payment for it takes place later in the future. Delayed payment means that they do not bear the consequences of their decision now but they can already enjoy the purchase. This technique is commonly applied by financial services providers to a great majority of credit products.

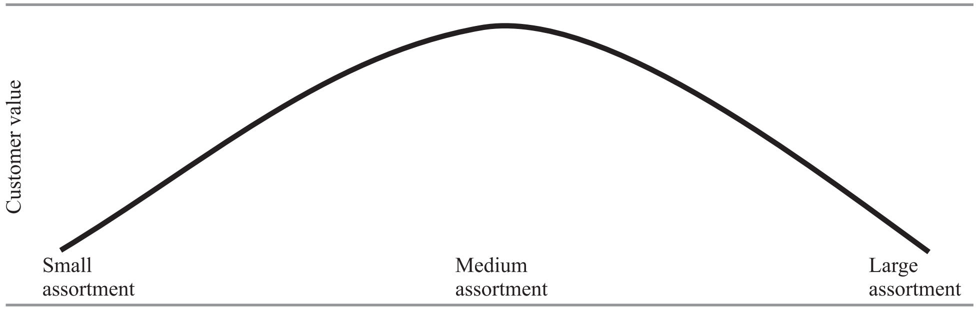
Another heuristic tool common for behavioural finance is '*anchoring*', which assumes that investors tend to rely heavily on one piece of information, commonly received in the first place, omitting the others. The information provided as first is treated as a reference point for the decision, for instance, clients tend to hold on to falling shares since they are anchored to their initial purchase price.

3. Barriers to effective information disclosures

A common impediment to using information in an effective way is choice overload. On the ground of rational choice theory, the greater the choice (assortment size), the better for the consumer. However, greater choice may lead to 'choice overload', which results in consumer putting off or failing to take a decision at all. As the research suggests, individuals who want to make the absolute best decision, may suffer anxiety, stress, or even dissatisfaction from cumulating various choices [Schwartz 2004].

What is connected with choice overload, is information overload that occurs as consumers do not have the capacity to process unlimited catalogues of information. It is true that information empowers the individuals to take a well-informed choice, but one should consider how much information the target recipient is able to absorb. Reducing the length of obligatory information catalogues positively influences the likelihood of individuals reading the document. However, reading the document is not the only factor that boosts consumer's ability to take a good decision. Different studies reveal that between 15% to 64% of clients read the disclosure documents in full, and most of them (over 50%) say they read most of it (read what they think seems most important) (New Zealand Investor Survey entitled "Investor Experience of IPOs February 2014").

Diagram 2. U-shaped nature of the relationship between assortment size and consumer benefits



Source: [Chernev 2011].

Individual's ability to comprehend lengthy disclosure documents, which additionally are complex, contain a lot of technical language and legal jargon, is strictly connected to the quality of the decision in terms of one's finance. Consumer's inability to understand certain financial or legal terms may undermine their general confidence and result in appearing doubts regarding the total comprehension of the document. The research suggests that people, overwhelmed by the complexity of information and a lack of its understanding, may compensate it by simplifying the decision, focusing on one salient and easily understood aspect of information, as well as using heuristics or other biases.

4. Behavioural economics implications for the disclosure duties of financial products

The behavioural economics research has shown that owing to heuristics and personal biases applied in the decision making process, individuals make choices that are not rational. Designing requirements for financial product disclosure regulators and law makers influence the way consumers make decision, becoming sort of choice architects. Hence, they should be aware of these findings and develop the regulations in such a way that the financial product disclosure is meaningful and understandable.

The complexity of financial products is on the increase and the choice is getting more and more extensive. As a consequence, the information documents are longer and very specialised, requiring from consumers in fact expert's knowledge in financial investment. The results of the research, however, do not show that disclosure should be redundant. On the contrary, information from financial institutions is vital in assisting the clients to take a well-informed choice, and the disclosure regime needs to be efficient so that it works in the best interests of the buyer.

Key implications identified by the behavioural economists are set out below. Firstly, the documents should be kept short and straightforward, use everyday language and avoid choice and information overload, since specialised and technical language together with low level of financial literacy make it hard for investors to take an efficient decision. Secondly, the information disclosed by financial institutions need to be standardized and presented in a neutral way. Standardization of the content of disclosure documents influences the order and type of information the buyer analyses, makes the comparison of various financial products easier, and may reduce the emotionality of the investor. How information is presented affects its perception and processing, for example, the use of graphs and other visual aids may help understand complex financial products. When designing the disclosure regime by using the mentioned tools, one has to be careful not to keep the information too simple and therefore, misleading. Thirdly, the catalogue of obligatory information is always very disputable as it seems hard to provide *one size fits all* list. Nevertheless, efficient disclosures should first and foremost indicate the risks and benefits linked to a particular product.

Another very efficient way to deal with information overload in financial services could be the development of personal financial planning and personal financial counselling [Waliszewski 2014, s. 7]. In Poland, however, owing to poor financial literacy, the lack of long-term savings habit, lack of professional regulation, financial supervision by a central body, and the obligatory standard of consumer and ethical code, personal financial advisory is not well developed yet. According to statistical data only 2% of Polish financial product's buyers use the services of professional advisors, mainly as a result of not being aware of the need to manage their personal finance in a professional way [Maison 2009]. In the future the role of personal finance counselling in the management of personal finance is expected to grow in Poland due to savings ratio growth, the increase in financial literacy of Polish citizens, retirement planning, and the insufficiency of state pension system [Waliszewski 2014, p. 26].

5. Conclusions

Behavioural economics investigates actual customers' behaviour, which is not entirely rational and is not the result of a thorough consideration and comparison of information concerning the characteristics of a particular financial product. In financial services, however, either due to asymmetry of information between professionals and non-professionals or poor financial literacy, consumers only try to make rational and calculated choices, but instead they take decisions more intuitively, e.g. applying mental shortcuts or copying passively other people's choices.

The behavioural determinants of customers' purchases and financial choices are widely applied by financial institutions, which often use behavioural insights to boost sales and to devise more efficient marketing techniques, which in fact encourage the purchase of a definite product, not always the most suitable one.

More recently, regulators have started using such behavioural insights for policymaking to increase consumer protection in the area of financial markets. It is a common belief that adequate regulation can be more efficient than education in shaping and changing consumers' behaviours. In the financial sector, there are already a few examples of EU legislative measures where psychological aspects of the decision making process of customers have been taken into consideration to a greater or lesser degree. The evidence shows that simple information (limited to the most important characteristics of products) can significantly improve consumers' financial decisions. For example, the following recent EU legislations have been inspired by such insights: the Consumer and Mortgage Credit Directives (CCD and MCD), the Payment Accounts Directive (PAD) and the Regulation on a new Key Information Document (KID) for packaged retail and insurance-based investment products (PRIIPs). In fact, the PRIIPs Regulation took into consideration the findings of the research of consumers' understanding of investment products, which showed that: *simplification and standardisation of product information enables consumers to make better quality investment decisions* and *providing pre-calculated and directly comparable relevant information about investments enables better choices between dissimilar options, e.g. across product classes* [*Consumer Decision Making…* 2010].

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Abbreviations

CCD – Consumer Credit Directive; KID – Key Information Document; MCD – Mortgage Credit Directive; PAD – Payment Accounts Directive; PRIIP – Packaged Retail and Insurance-based Investment Products.