

FINANCIAL PERSONALITY TYPES AND ATTITUDES THAT AFFECT FINANCIAL INDEBTEDNESS*

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ABSTRACT

The aim of the present study is to examine, thanks to a newly developed 36-item personality test, whether there exist typical money personality profiles within the Hungarian society and to characterize these profiles in terms of financial habits and attributes. Moreover, the personality traits and behavioral patterns of individuals' indebtedness are equally identified using a decision tree-based model. Results show seven distinct financial personality types: Economizer, Diligent, Binger, Orderly, Cannot control finances, Planner, Ups and downs. The characterization of the seven categories reveals that the combinations of the various dimensions of financial attributes have a complex effect on financial behavior, and, for instance, seemingly contradictory financial personality traits, such as overspending and making economies can go hand in hand with each other. Based on the results, making savings is primordial in the avoidance of indebtedness, while trusting one's luck and not being able to control one's own finances are risk factors.

Keywords: Financial Indebtedness, Economy, Financial Attitude

INTRODUCTION

The global financial crisis that began in 2008 has had many negative effects on the economy, and through that, on society as a whole. The crisis has made it clear that broader financial

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knowledge, skills and mindset-shift are a must (IRBD, OECD, DFID, CGAP, 2009). Today, when financial institutions keep on coming up with ever more complex financial products and services, financial literacy is becoming increasingly important. The population's lack of financial knowledge and the incorrect financial decisions this leads to are a source of issues not only on an individual but also on a macroeconomic level. In Hungary, this lack of knowledge is noticeable in the committing to levels of debt risk higher than the households' actual risk-bearing capacity and thereby, ultimately, in the over-indebtedness of the population.

Since the economic crisis, the issue of financial literacy has become increasingly important both in Hungary and throughout the world. A number of studies have been carried out in the topic for the purpose of evaluating people's financial skills. According to the OECD study: "Financial literacy is a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing" (Atkinson–Messy 2012: 14). Czakó et al. (2011) also argue that the evaluation of financial literacy should also include, beside financial knowledge, the investigation of underlying cultural factors behind financial decisions. Financial behavior is indeed not only influenced by one's financial literacy, and intellectual abilities but also by values, traditions, and norms. Therefore, understanding the underlying financial attitudes behind actual behavior is paramount in establishing responsible financial behavior.

Financial attitude refers to the general attitude toward money and finances. Individuals' financial behaviors and habits may be extremely varied in both space and time, as the formulation and modification of these are influenced by a number of factors (Németh et al., 2016). Individuals' relationship with money is fundamentally influenced by childhood experiences as people will, even involuntarily, either keep on following then acquired patterns, or contrarily, rebuffing them.

The global crisis is at the source of such economic and social changes that, in turn, have induced a novel competitive environment on the retail banking market in terms of consumer retention and acquisition. A deeper knowledge and understanding of clients' financial behavior is a tool in the hand of banks to foster adaptation to change.

The study of financial attitudes is a novel method for customer segmentation that allows institutions to characterize clients based on their financial attitudes (Hornyák, 2015). This segmentation practice enables financial institutions to offer financial products that are tailored to suit each segment and also makes it possible to forecast client behavior (e.g. willingness to repay loan).

The article first introduces the concept of financial attitude, which is followed by a review of the related literature. Then the research methodology is presented, followed by the analysis of the results of a questionnaire survey on the typical financial personality types within the Hungarian

society and a characterization of the financial habits and attitudes pertaining to each identified personality type. The study then examines the personality traits and behavior patterns that influence individuals' indebtedness. Finally, a conclusion is drawn from the major results of the study.

FINANCIAL ATTITUDE

The notion of financial attitude

In the following, a brief summary is presented of the concept and theory of financial attitude.

Financial attitude represents the evaluation and response of an individual toward money and financial matters. Individuals' attitude toward money is a function of their personality, that can be heavily influenced by social expectations, demographic factors, economic circumstances and the educational system as well.

Attitude is determined by three components: cognitive, affective, and behavioral (i.e. conative).

- The cognitive dimension is related to the set of knowledge and beliefs one possesses. This knowledge does not cover the full system of knowledge on the subject, still, the individual does experience it as objective knowledge.
- The affective component is related to the positive or negative feelings and emotions towards the object of attitude. This emotional stance is often accompanied by judgments, such as good/bad, or right/wrong. The affective components of attitude represent the motivational elements to act towards the object of attitude.
- The conative dimension is related to the act and behavior towards the object of attitude.

Studies on attitude reveal that the three components are formed together and thereby ensure a consistent evaluation and stance of the individual towards the object of attitude. One important research result is that if one attitude component is changed, the other two dimensions will also tend to vary (Rosenberg, 1960). Thus, in order to counter unwanted financial behavior it is important to explore the components of financial attitude.

Childhood experiences are fundamental in the formation of financial attitude. A person's money habits are formed during their childhood, which are then slow and difficult to be changed later in life (Hornyák, 2015). The identification with, or, contrarily, the disregard of the parental example has a lifelong effect on the individual's attitude to money. Research has shown that children render various attitudes and emotional attributes to money as a tool during this early intensive learning process, which will strongly impact their financial behavior later in adulthood (Nagy – Tóth, 2012).

The dimensions of financial attitude

The psychological significance of money (i.e. money attitude) is playing an increasingly important role in the study of financial literacy as there is evidence showing that this has a major impact on financial decisions. Since the 1970s a number of researchers have been examining financial attitudes and personality types. The present chapter gives an overview of some of the related literature.

Goldberg and Lewis (1978) distinguish between three types of financial personalities: collectors, individuals striving for independence, and power players. According to their results, the three personalities differ most in the motivation behind accumulating money. Individuals striving for independence accumulate money to reduce their feeling of discomfort and vulnerability from the world and from others. Collectors accumulate money to avoid or reduce damages originating from economic and environmental changes. As opposed to the first two groups, the main objective of power players is not to ensure security, but to use their money to attract the attention and earn the admiration of other people.

Later, Forman (1987) supplemented Goldberg and Lewis' system with another category, that of gamblers. Members of this new group connect the acquisition of money to an intensive status of excitement and emotions. Playing one's chance in games such as poker or roulette, but also trading with stocks can all be considered as gambling.

Mellan (1994) identifies nine personality types on the basis of their attitude to money. A hedonistic behavior is alien to the nature of hoarders, who rather make savings rather than spend money. Spenders are strangers to making savings or budgets. They find pleasure in spending their money, which is usually related to an external stimulus. Money monks feel bad when in possession of a lot of money as such situations bring about a certain sense of guilt in them. Money avoiders disdain the activity of managing their finances and try to avoid daily tasks about money. Amassers regard money as a source of power, and therefore their ultimate goal is to continually increase their wealth. Bingers are prone to save for a while, but they are also susceptible to spend compulsively when affected by an external stimulus. Money worriers consider that monitoring their finances is a source of control, therefore they tend to spend a lot of time keeping track of their financial situation. Risk-takers perceive money as a source of adventure, and freedom and enjoy taking risks with their money. Mellan's (1994) last category is the group of risk-avoiders. They choose security in their financial affairs above all else.

Yamauchi and Templer (1982) developed a standard measure of financial attitude called the Money Attitude Scale (MAS) and identified four dimensions of money attitude. The first dimension is power-prestige, in which money is the symbol of success and power for individuals. The next dimension is retention-time, characterized by a focus on preparation for the future and

keeping the financial situation under continuous control. The third dimension, distrust, represents the level of suspicion or even fear toward money. In last dimension, anxiety, money is a controversial phenomenon, as it can be seen as a source of anxiety but also at the same time as a source of protection. According to the authors, the various combinations of the above four dimension affect individuals' financial behaviors in a complex manner.

The Money Beliefs and Behavior Scale (MBBS) developed by Furnham (1984) measures the relationship between perceived efforts and financial well-being. The author identifies six clear factors of financial attitudes, i.e. (1) obsession, (2) power, (3) retention, (4) security, (5) inadequacy and (6) effort/ability. Furnham interprets obsession as individuals using money as a basis of comparison with others. Similarly to previous research, the power dimension here shows that the possession of money is the expression of power. The third dimension is retention, which, in Furnham's opinion, focuses on financial conservatism and on placing security at the forefront. Inadequacy represents individuals' permanent feeling of lack of money, a sentiment which acts as a perpetual driving force for action. Last, the effort dimension shows that the motive of work appears in connection with money and individuals' attitude to money, which reflects a certain ideology as well.

A 30-item questionnaire was developed by Tang (1992) to measure money attitude, ultimately shortened to 6 statements (Tang – Kim, 1999). The six statements determine three factors. The first factor is budget (“I budget my money very well”, “I use my money very carefully”), the second factor is evil, i.e. the negative feelings about money (“money is evil”, “money is the root of all evil”), while the third factor reflects the view according to which money is the key to success (“money is a symbol of success”, “money represents one's achievement”).

Medina et al. (1996) identify four dimensions of money attitude, namely: distrust/anxiety, retention/time, power/prestige, and quality (i.e. price as an indicator of quality).

Németh et al. (2016) distinguish between 9 dimensions of financial personality: (1) economies, (2) ups and downs, (3) order, (4) price sensitivity, (5) collecting, (6) planning, (7) binging, (8) diligence, (9) inability to control finances.

The economies dimension stands for the ability to avoid debt, and make savings. Among the characteristic features of ups and downs, it is primarily the short-term features that dominate – they love to have fun, they immediately buy what they like, they love shopping and often reward themselves – combined with risk-taking, represented by the willingness to try their luck. Order represents a tight control over one's finances and spendings. Price sensitivity stands for monitoring and comparing prices. Collecting refers to the accumulation of wealth. Planning is the planning of one's expenses (e.g. making shopping lists). Binging consists of attitudes that suggest that the individual is inclined to make expenses (e.g. for the matter of convenience) that

are otherwise avoidable. Such expenses are the purchase of ready meals or not asking for the change at the counter. Diligence shows individuals' willingness for sacrifice (e.g. making savings, getting a job) for acquiring money. The last identified dimension is dubbed "inability to control finances". It is similar in many ways to the "ups and downs" dimension, with the exception of motivation. While in the previous category the motivation (e.g. shopping) was to maximize the advantages over the short term (pleasure), here individuals are not able to appreciate the real value of the goods they wish to consume.

Relationship between financial attitude and financial decisions

According to Husz and Szántó (2011) initiatives in Hungary for increasing financial literacy so far have used an overly narrow conceptualization of financial literacy, and only concentrated on the surface layer, namely the development of financial skills and behavior. The authors emphasize that in the case of financial literacy, financial behavior and habits are the tip of the iceberg which can be seen, but one must also not forget the part of the iceberg beneath the water, namely values, attitudes and beliefs about money.

Based on the empirical evidence so far, the analysis of the concept of financial attitude is primordial in understanding how individuals spend money. It can be used to understand phenomena considered to be irrational such as compulsive shopping (Furnham – Okamura, 1999), depression (Kasser – Ryan, 1996), or game addiction (Tatzel, 2003). Money, therefore, can not only affect, or damage economic but also social and individual behaviors.

The OECD undertook a research in 2012 covering 14 countries to explore differences in levels of financial literacy and attitudes by socio-demographics. The results show that in every country higher levels of financial literacy are associated with better financial behaviors, and similarly, more positive financial attitudes are associated with better financial behaviors (Atkinson – Messy 2012).

In 2012, the central bank of Hungary conducted a research on the attitude of the Hungarian population towards various payment methods. According to the results, Hungarians prefer payment transfer orders (so-called "yellow cheques") to more modern electronic payment solutions mainly due to negative attitudes associated with these latter. Therefore, changing these negative attitudes is primordial in the further diffusion of cashless electronic payment solutions.

A number of studies (OECD – INFE study, Nagy – Tóth, 2012; Kovács et al., 2013) demonstrated that attitudes form an important part of financial decisions, thus conclusions can be drawn concerning individuals' financial behavior based on their attitudes. For instance, those who put their short-term goals before long-term opportunities are not likely to show any interest towards long term forms of savings. Due to the relationship between attitudes and decisions,

mapping financial attitudes can also be beneficial for financial institutions. Bhardwaj and Bhattacharjee (in Nagy – Tóth, 2012) show that the higher an individual's level of income and anxiety, the more likely they will be delinquent on loan installments.

The study of financial attitudes is a novel method for customer segmentation for banks. Financial institutions have begun classifying clients based on financial attitude. Fünfgeld and Wang (2009) identify five components of financial attitudes: anxiety, interests in financial issues, decision styles, need for precautionary savings, and spending tendency. Based on these, various consumer groups with different needs in terms of financial services can be established. An attitude-based segmentation approach allows for financial institutions to provide tailored financial products to the various segments and to identify less financially-conscious consumers in order to assist them with supplementary services.

METHODOLOGY

The Financial Compass Foundation (Pénziránytű Alapítvány) published on their homepage (www.penziranytu.hu) a financial personality questionnaire unique in Hungary, where visitors have been able to learn about their own financial personality, recognize their strengths, weaknesses – all of which are a basic condition for a successful and conscious management of their finances. Following the completion of the personality test, respondents are immediately provided by the program with the evaluation of their financial profile. The Financial Personality Test was developed by social psychologist, and university professor dr. Erzsébet Németh.

The test has been completed by more than 3000 users. This was not only helpful in supporting individual users in their raising of self-awareness, and strategy development, but also provided a database suitable for subsequent research and analysis.

Respondents had to evaluate 36 statement using five-point Likert-scales (see Annex 1). Respondents had to decide the extent to which they were characterized by each statement of the questionnaire. 3139 responses were collected between June 3 and August 17, 2015. After data cleaning, the sample consisted of 3088 responses. Even though the sample is not representative of the population, the authors argue that it is suitable to provide substantial conclusions.

Based on data from the questionnaire, Németh et al. (2016) identified nine determining dimensions of financial personality. Based on their results and the questionnaire data, a subsequent cluster analysis was conducted to investigate how these dimensions are linked to each other to form various financial personality types, and to characterize each identified personality type in terms of financial habits and attitudes. The analysis then was focused on the identification of personality traits and behavioral patterns of individuals' indebtedness using a decision tree-based model.

RESULTS

Financial personality types

A cluster analysis was performed from the sample of responses of the 36-item financial attitude scale in order to lay out the typical financial personality types. Results show seven distinct groups of respondents in terms of their money beliefs and behaviors (Table 1).

Table 1. Average score of items by personality type

	Economizer	Diligent	Binger	Orderly	Cannot control finances	Planner	Ups and downs
Sometimes, when shopping, I spend more than I previously expected.	2,97	2,8	3,98	2,9	3,79	3,12	3,77
I know exactly the price of everything.	2,31	3,23	3,46	2,36	2,56	2,15	2,65
I have a hard time resisting when I am offered something at a great price.	3,43	3,8	2,8	3,68	2,65	2,73	2,46
I don't enjoy cooking, we rather eat ready meals.	1,67	1,91	3,32	3,22	2,21	1,65	2,46
I like it when it's warm at the apartment.	3,01	3,12	3,43	3,16	3,42	3,36	3,5
If I pay in cash I never ask for the change.	1,89	2,2	2,88	1,97	2,02	1,69	2,34
Before going shopping, I always carefully think through of what I need.	1,82	2,57	3,41	2,15	2,42	1,72	2,51
Only when I clean up I realize the amount of my unnecessary purchases.	1,81	1,92	3,12	1,69	2,55	2,02	2,53
I enjoy going shopping with friends.	1,47	1,47	2,61	1,65	1,85	1,86	2,69

	Economizer	Diligent	Binger	Orderly	Cannot control finances	Planner	Ups and downs
I often have to borrow at the end of the month.	1,8	1,13	2,78	1,08	3,6	1,09	1,5
I always make a shopping list.	1,9	2,83	3,76	2,85	2,45	1,64	2,65
I tend to browse a lot before purchasing a product.	2,32	3,63	3,18	2,11	2,34	1,85	2,26
I keep good track of my expenses.	2,14	2,78	4,08	1,98	2,98	1,72	3,06
I always compare prices before purchasing anything.	1,76	2,96	3,47	1,83	2,25	1,49	2,22
I am good at rationing my money.	2,77	2,18	4,11	1,81	3,66	1,83	2,98
Bills are killing me.	3,17	2,34	3,53	1,85	3,81	2,22	2,9
I keep my household in order.	2,32	2,18	3,35	2,54	2,59	1,88	2,79
I don't like throwing out things that still can be used.	1,89	2,27	2,59	1,9	1,91	1,51	2
I often reward myself.	2,32	2,39	3,69	2,79	3,17	2,96	3,55
I prefer preparing sandwiches rather than shopping at the cafeteria.	2,14	2,86	4,19	3,98	2,88	1,97	3,23
I have a few bad habits that cost me a lot of money.	2,53	2,45	3,88	2,61	3,71	2,65	3,63
I enjoy going out with my friends.	2,21	2,86	3,84	3,44	2,81	2,9	3,86
I want to provide everything for my children.	3,6	4,04	3,75	3,55	3,95	3,9	3,85
I love trendy things.	2,08	2,68	3,57	3,16	2,78	2,83	3,48
I sometimes end up paying a few bills late.	3,39	1,54	3,37	1,26	4,19	1,39	2,27
I only save on my expenses when I am short of money.	2,02	1,76	3,48	1,73	2,9	1,57	2,13

	Economizer	Diligent	Binger	Orderly	Cannot control finances	Planner	Ups and downs
I always have enough savings for unexpected expenses.	3,89	1,92	4,2	1,66	4,45	1,88	3,12
When I need more money, I take up extra work.	2,87	1,95	3,59	2,99	3,1	2,32	2,96
If I like something, I buy it.	1,8	2,91	3,45	2,87	2,6	2,8	3,26
I am puzzled about where my money goes.	1,97	1,58	3,87	1,4	3,35	1,47	2,61
I know exactly how much money I have in cash and on my bank account.	1,71	1,78	2,92	1,47	1,99	1,35	2,06
When grocery shopping, I am often surprised how much I have to pay at the end.	2,47	2,31	3,6	2,2	3,53	2,67	3,17
I am in a desperate fix with debts.	3,03	1,31	2,74	1,22	3,96	1,27	1,63
I enjoy trying my luck.	2,02	1,97	2,93	2,02	2,59	2,16	2,4
I often surprise my loved ones with self-made gifts.	3,58	3,92	4,14	4,2	3,66	3,81	3,81
I spend a lot on healthy food and mineral water.	2,61	2,97	2,77	3,03	2,77	3,06	2,97

In the following these seven personality types are characterized in detail.

Economizer

Economizers tend to manage their budgets prudently. For example, they don't always buy everything they like, and rather cook than buy ready meals. They are conscious about their finances. They know how much money they have, compare prices when shopping, think through of what they are in need of, and don't enjoy buying unnecessary things. In spite of that, they are often burdened with debt, and hardly have any savings. Based on the results, 17.9% of respondents belong in this financial personality type.

Diligent

The most representative attribute of diligents is their attitude toward acquiring money. They are unlikely to rely on luck in their finances and in order to achieve additional savings they rather take up extra work, and cook instead of buying ready food. As a result, they are seldom in debt, they pay their bills in time, and do not need to borrow at the end of the month. One interesting result of the study is that the agreement rate is highest among respondents classified into the diligent personality on the item stating that they want to provide everything for their children. 10.8% of respondents were classified into this category.

Binger

Bingers do not characteristically have savings, they admittedly have a hard time managing their finances, and do not keep good track of their expenses and, therefore, they do not really know where their money goes. If they like something, they buy it. They often reward themselves, or buy unnecessary things, and love trendy things. They are unlikely to make any effort for making money, to take up extra work, or to save on their expenses when they are short of money. Despite that, they do not tend to have a lot of debt, and do not require to borrow money at the end of the month. Bingers therefore are heavy spenders who, nonetheless, meet the necessary financial conditions for doing so. 8.2% of respondents were classified here, making it the smallest category.

Orderly

Respondents in the orderly category can be characterized by prudence in terms of their finances. Before going shopping, they tend to think through of what they need and to make shopping lists. They know the price of everything, tend to compare prices and browse a lot before purchasing a product. They do not buy unnecessary things and do not throw away things that still can be used. They know how much money they have, and also tend to have savings. They also keep their household in order, making order a key trait not only in their finances but their entire personality, which is reflected in various areas of their life. They do not need to borrow money at the end of the month, they pay their bills in time, and are unlikely to have debt. They are similar to economizers in many aspects. However, in addition to keeping their finances in order, respondents in the orderly category also tend to spend a lot. They enjoy trendy things, and going shopping with friends and are unlikely to prepare sandwiches instead of shopping at the cafeteria, or to cook just to save money. Among the seven groups, orderlies are least likely to borrow money at the end of the month, which indicates that the soundness of one's finances is an effective way to avoid overspending and debt. Based on the results, 16.7% of respondents belong in this financial personality type.

Cannot control finances

The last category includes those who are unable to control their finances. Respondents in this group are not likely to have savings, but on the other hand, are likely to have debts. They sometimes end up paying a few bills late or spend more than previously expected. Unlike bingers, they do not necessarily buy everything they like, they do not buy unnecessary things, they are more aware of prices and before going shopping they are likely to think through of what they need and they also tend to browse a lot before purchasing a product. They are also more aware of the amount of money they have at their disposal. Overall, compared to bingers, those who cannot control their finances still keep on trying to manage their finances, but unlike those in the economizer or diligent categories, they are less likely to save up money, and they are also unlikely to take up extra work. This category comprises 10.2% of respondents.

Planner

Planners are well aware of their wealth, they keep track of their expenses, compare prices before buying, and make shopping lists. They are usually free of debts and have savings. They are much like the orderly group, but planners are more active savers: they rather cook than buy ready meals, prefer making sandwiches to shopping at the cafeteria, and are more disposed to take up extra work. 20.2% of respondents were classified into this category, making it the biggest in the sample. This can be considered a favorable result, as planners can be characterized by a positive financial behavior. However, due to the lack of representativity of the sample, this result cannot be generalized to the Hungarian society as a whole.

Ups and downs

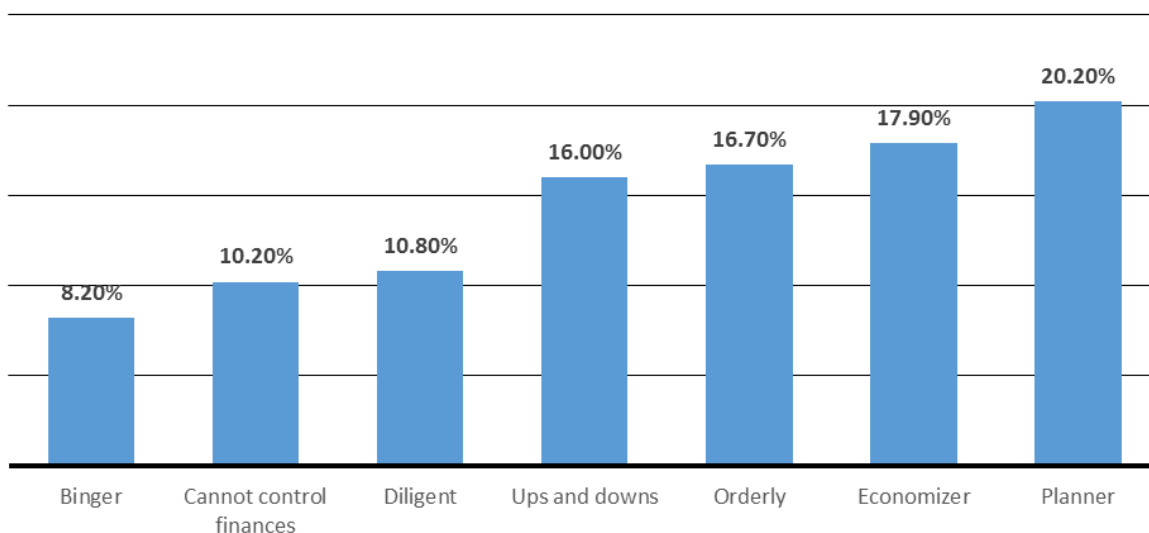
Ups and downs – as the name suggests – bear both positive and negative personality traits in relation to their financial behavior. If individuals in this group like something, they buy it, and they have a hard time resisting when offered something at a great price. They enjoy going out with friends, and do not keep track of their expenses. In spite of that, respondents in this group swear being able to ration their money effectively. This statement might be grounded as respondents in this category affirm saving on their expenses when being short of money, keeping things that still can be used, and not having much debt. Compared to the "cannot control finances" category, they don't carry so much debt, and don't need to borrow money at the end of the month. Compared to bingers, they can be characterized by rather positive financial traits (e.g. saving up money). 16% of respondents belong in this financial personality type.

Summary

The distribution of personality types in the sample is presented in Figure 1. The fact that the sample includes a larger proportion of respondents with personality types characterized by rather

positive financial attitudes (planners, economizers, orderly) than by rather negative attributes (bingers, ups and downs, cannot control finances) can be considered a favorable result. At the same time, the rather limited size of the diligent group suggests that there is room for progress in promoting financial self-reliance and encouraging people's willingness to exert effort for it. It would be important that people actively and consciously take steps in order to improve their financial situation.

Figure 1. Distribution of respondents by financial personality type



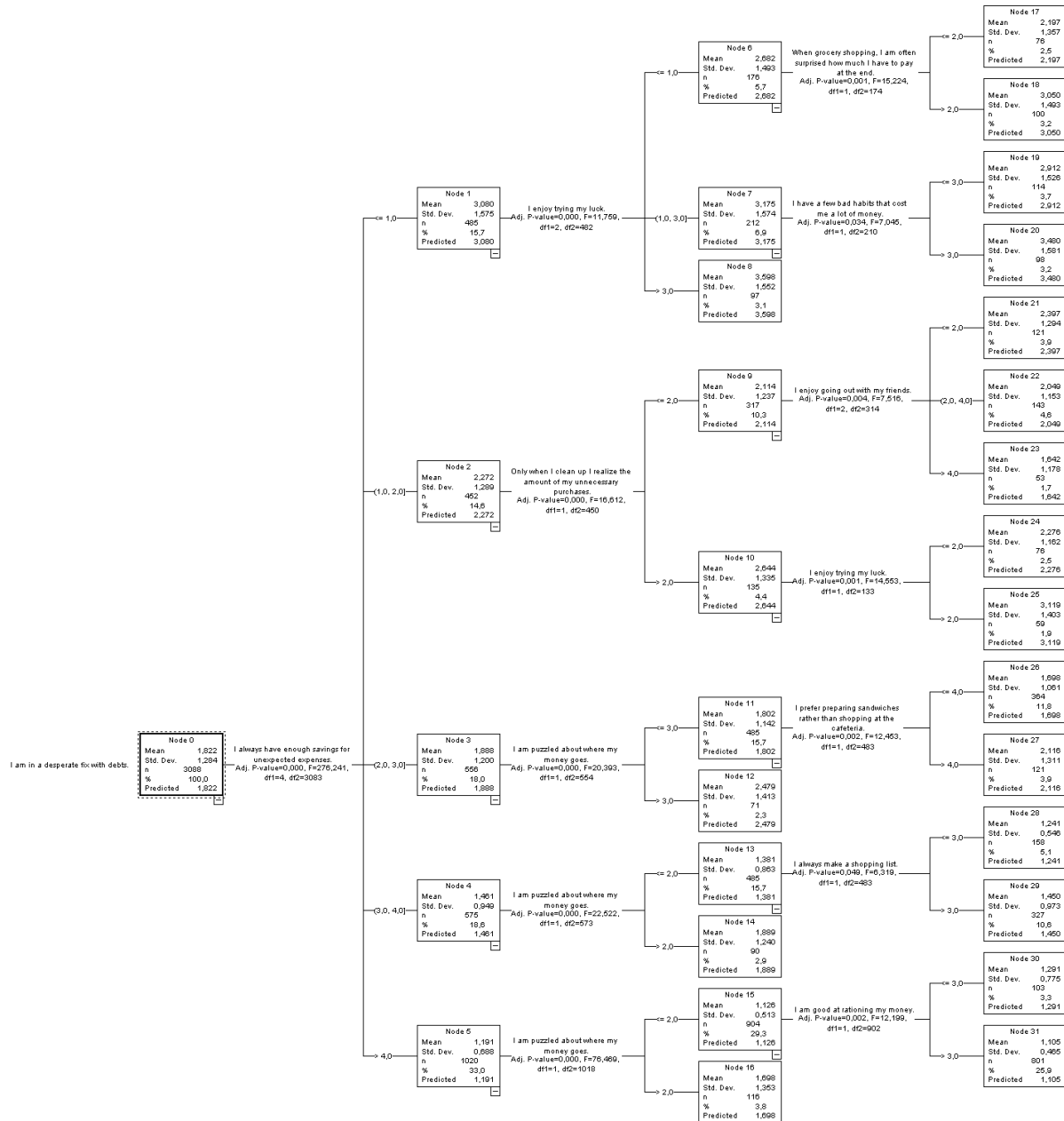
Financial attitudes affecting indebtedness

The analysis then was focused on the identification of personality traits and behavioral patterns of individuals' indebtedness using a decision tree-based model. The main purpose of the process is to classify the observations in such a way that the variance of the dependent variable is minimized within groups and maximized between groups. Its advantage is to draw out a hierarchy among the explanatory variables according to the amount of variance explained.

The following statement of the questionnaire was used as the dependent variable: "I am in a desperate fix with debts". The statement's wording helps focusing on problematic cases, as temporary debts and loans can sometimes produce positive outcomes, if used for appropriate purposes (e.g. investment) and under appropriate conditions. The present study's aim, however, was to investigate over-indebtedness through committing to levels of debt risk higher than one's actual risk-bearing capacity. 33 out of the remaining 35 statements of the questionnaire were included as explanatory variables. Two statements that were indirectly related to indebtedness ("I

often have to borrow at the end the month"; "Bills are killing me") were omitted. The induced decision tree model is shown in Figure 2.

Figure 2. Decisionree of factors affecting indebtedness



Among the variables studied, having savings had the largest effect on over-indebtedness: those who have enough savings for unexpected expenses are also less likely to feel crushed by their debts. This result suggests that the accumulation of savings is one of the most effective means of protection against indebtedness.

Among those who had no savings, the second most important grouping criterion in relation to indebtedness is the extent to which they are willing to try their luck. According to the results, respondents with a higher willingness to try their luck also have higher levels of debt. The direction of the relationship, however, is unclear, the effect probably goes both ways. Gambling can refer to a certain external control, that is, the individual attributing their success to external forces, such as luck, chance etc. The reliance on luck can be regarded as a form of defense mechanism among indebted individuals, as they can thereby deflect the liability for their success (or, in this case, failure) to external sources. The relationship of gambling and indebtedness can also be considered in a reverse manner: gambling is always a loss on the long term, it causes addiction, thereby contributing to indebtedness. The relationship between gambling and indebtedness equally appears on another branch of the decision tree, with a similar direction.

Among the groups identified through the decision tree, the same respondents who reported feeling most crushed by their debts also had no savings and enjoyed trying their luck. The average for this group was 3.6 in contrast with 1.8 for the sample as a whole. At the other end, the least crushed by their debts were those who have savings, keep track of their expenses, and are, in their own view, good at rationing their money

Further down on the decision tree, it can be seen that for those who lack savings but also are unwilling to rely on luck, an informed purchasing behavior is the determining factor in terms of indebtedness: those who are often surprised how much they have to pay at the end when grocery shopping can also be characterized with higher levels of indebtedness.

For respondents who had a moderate level of savings (responded with a score of 2), unnecessary spending appears as a following grouping criterion: those who are likely to buy unnecessary things are also likely to have debts.

A next criterion in relation to indebtedness for those who are likely to have savings (responded with a score of at least 3) is the monitoring of expenses: the more somebody agreed with the statement "I am puzzled about where my money goes", the more they felt crushed by their debts. The results highlight the fact that indebtedness is primarily linked to inappropriate forms of spending. Therefore in order to avoid indebtedness, the informed planning and monitoring of expenses is of primary importance.

CONCLUSION

Data gathered through the money personality test published on the Financial Compass Foundation's website made it possible to examine respondents' typical financial personalities and to characterize each personality type in terms of financial habits and attitudes. The results yielded seven different personality types: Economizer, Diligent, Binger, Orderly, Cannot control finances, Planner, Ups and downs.

The characterization of the seven categories showed that financial behaviors are affected in a complex way by a combination of the various dimensions of financial attitude. For instance, financial awareness goes hand in hand with generous spending habits in the case of the orderly group, while it is associated with moderate spending habits among planners.

The results show that individuals can be characterized by very varying financial attitudes. Individuals with various financial attitudes also require different financial products. This is the main reason why financial institutions ought to emphasize more on exploring the various financial personalities, as defining each segment is at the very basis of a subsequent development of suitable corresponding financial service packages.

Exploring whether the identified financial personalities are idiosyncratic to the Hungarian context, or whether they can be generalized to other markets is an avenue for further research. Another possible research direction is related to the exploration of financial personalities along various socio-demographic variables.

The study then examines the personality traits and behavior patterns that influence individuals' indebtedness. The results show that making savings is primordial in the avoidance of indebtedness. This result calls for the importance of encouraging household savings. However, savings alone are not enough, even less if a person is prone to impulse buying. Learning to spend with caution and awareness therefore is equally an important factor in avoiding indebtedness.

The most important lesson to be learned from the research is that individuals can do a lot to be better off. According to the study's results, the best coping strategies are financial awareness (cost planning and monitoring) and providence (making savings).

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