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Examining the Financial Literacy of Young Adults

The Correlations of Time Perspective, Financial Well-Being and Delay of Gratification

SUMMARY: The study examines the financial literacy of 18–35-year-olds, with particular emphasis on the correlations of time orientation, gratification and financial well-being. The examination of the topic requires an interdisciplinary approach, and as such, it builds on results from the fields of psychology, sociology and the study of consumer behaviour. The research was conducted using a sample of 300 respondents, representative in terms of gender, age and place of residence, relying on online questionnaires. Based on the results, in respect of time orientation we found that future orientation has the most radical effect, especially concerning the ability to delay gratification. Present-hedonism primarily affects the ability to delay gratification in the financial sense. Financial well-being is most affected by the present-fatalistic and past-negative attitudes, with this particular relationship having a negative direction. In addition, generated on the basis of financial attitudes, the distinct clusters of the research reveal that the 18–35 age group should not be treated as a homogenous group.¹

KEYWORDS: young adults, financial literacy, ability to delay gratification, time orientation, time perspective, financial well-being

JEL CODES: A13, D03, D14, I22

As a scholarship winner of the New National Excellence Programme, the aim of my research was to understand the financial literacy of young people, with particular focus on time orientation and delay of gratification. In Hungary, research on financial literacy and the resulting reports, working papers and articles started to appear in increasing number from 2012. The ability to delay gratification and time orientation are concepts that unavoidably arise when discussing financial literacy, and yet these topics have yet to receive the attention they merit in financial literacy research. This

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study takes a look at the 18–35 year old age group, and as this requires an interdisciplinary approach, it builds on results from the fields of psychology, sociology and the study of consumer behaviour.

LITERATURE REVIEW

Financial literacy

The examination of financial literacy truly shifted into focus following the 2008 economic crisis. Numerous research projects called attention to the fact that financial education

should be treated as a priority; in particular, attention should also be paid to financial attitude and other related factors in addition to cognitive elements (Kenesei, 2014; Lusardi – Mitchell, 2014).

Financial literacy has been defined by numerous authors, and therefore its definitions are highly diverse (Luksander et al., 2016; Németh et al., 2016; Kovács et al., 2013; Atkinson – Messy, 2012; Botos et al., 2012; Béres – Huzdik, 2012). The overlapping section can be defined by pointing out that each features financial knowledge, the ability to process financial information and the ability of making good financial decisions (Kovács et al., 2013). The definition the OECD arrived at is as follows: “*Financial literacy is a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial well-being*” (Atkinson – Messy 2012, p. 14). The OECD conducts comparative studies at an international level every five years to assess the level of financial literacy in individual countries. This also includes the measurement of financial attitudes, which the OECD gauges with its own scale. As part of its research carried out in 14 European countries, it examined variations in attitudes regarding different aspects of financial knowledge, behaviour and financial literacy from a socio-demographic perspective (Atkinson – Messy, 2012). The results show that Hungarians have above-average basic financial skills but in terms of financial behaviour, they perform well below average. The results received are often contradictory in respect of financial attitude and behaviour (Kenesei, 2014).

The relationship with money and finances has been an area of intense research since the 1970s. *Goldberg and Lewis* (1978) identified three types of individuals: security collectors, autonomy worshippers and power grabbers.

Yamauchi and Templer (1982) developed a Money Attitude Scale to measure financial attitudes, which covers four dimensions in total. The first dimension is power-prestige, where money is regarded by individuals as a symbol of success and power. The second is retention-time. For individuals in this particular group, the main focus is on preparation for the future and keeping their financial situation under continuous control. The third dimension is distrust. The common feature of individuals in this category is that they look at money with suspicion, almost with fear. The fourth dimension of the MAS contains anxious individuals, who as a result are prone to nervousness. For this particular personality type, money is a controversial phenomenon, reflected in a paradox attitude of sorts. *Furnham* (1984) developed a Money Beliefs and Behaviour Scale (MBBS), which is designed to measure money-related beliefs and behaviour patterns. The scale comprises 60 statements, which the author condenses into the following six factors: obsession, power, retention, security, inadequacy, effort/ability.

As the OECD definition also states (Atkinson – Messy, 2012), financial well-being is a concept that is closely linked to the general well-being of the individual, which is defined in relation to personal goals and values (Porter – Garman, 1993).

In this study, I measured financial well-being using the CFPB (Consumer Financial Protection Bureau) scale. On the basis of close to 60 expert interviews, the CFPB determined financial well-being as follows:

- having control over day-to-day, month-to-month finances;
- having the capacity to absorb a financial shock;
- being on track to meet your financial goals;
- having the financial freedom to make the choices that allow you to enjoy life.

In order to realise the above, the individual must plan their future, control sudden impulses, creatively deal with unexpected situations and trust that they can control their own fate and finances (CFPB, 2015). This part of the definition, therefore, is closely related to both controlling gratification and the individual's time orientation.

Time orientation

According to *Philip Zimbardo and John Boyd* (2015), the success of our decisions is determined by how we view time at an individual level. The authors call this a biased time perspective. According to Boyd and Zimbardo (2012), all individuals have a preferred time category, which are impacted by numerous factors such as culture, family, level of education, etc. This has also been confirmed by other authors with empirical data (Webster, 2011; Fortunato – Furey, 2009; Worrell – Mello, 2009). As such, this is not a default characteristic of individuals, but rather a learnt feature.

They start off with three basic time dimensions: distinguishing present-oriented, past-oriented and future-oriented time perspectives. However, they break the past and the present down into two additional categories each. A past-oriented individual may have a positive or negative attitude to past events. A past-positive individual is happy to recall past memories. Past-negative individuals are exactly the opposite; they tend to focus on negative events, recall past events with sadness and unpleasant memories define their past. The two sub-categories of the present-oriented category are present-hedonistic present-fatalistic. The present-hedonistic individual is looking for excitement in his life, and is glad to take on risk to provide this excitement, living in the moment. One of the key charac-

teristics of present-fatalistic individuals is the perception of a strong external control over their lives; they are conscientious, but at the same time they feel that they cannot control the things happening to them. The authors have not broken down the future-oriented category into further sub-categories. In this category, the individual sets goals and knows that these goals can be achieved through hard work and persistence.

The measurement scale developed by Zimbardo and Boyd (1999) comprises 56 items, which may be considered long, especially in cases where during the survey we are not just interested in the individual's time orientation, but other factors as well. *Orosz et al.* (2015) have compiled 19 different measurements related to testing the Zimbardo scale in different countries of the world, such as Italy (D'Alessio et al., 2003), France (Apostolidis – Fieulaine, 2004), Mexico (Corral-Verdugo et al., 2006), etc. The inadequacy of internal consistency arose during a number of measurements, and numerous authors came to the conclusion that it would make sense to use a shortened version of the scale (Worrell – Mello, 2007; Sircova et al., 2014).

Orosz et al. (2015) recommend a shortened scale comprising only 17 items. In their research, the authors applied the original scale developed by Zimbardo and Boyd (1999), and the data collection took place in Hungary. The sample comprised a total of 1,370 participants (941 women and 424 men). They ran three models based on the results. The first using the original factor structure, the second with 36 statements according to Sircova et al. (2014), while the third was based on the criteria proposed by *Hu and Bentler* (1999), i.e. ensuring that a minimum of three statements belong to each factor. This led to the construction of a 17-item scale, which covers all of the five time categories initially set up by Zimbardo and Boyd (1999).

Ability to delay gratification

According to *Mischel* (1996), delaying gratification actually refers to individuals' preference to forego smaller immediate satisfaction for the sake of salient long-term rewards.

Concepts such as delaying gratification, self-discipline, self-control, self-regulation, ego-flexibility and impulsivity are often featured inconsistently in professional literature (Funder et al., 1983; Mischel et al., 1996; Lee et al., 2008). Deficits in gratification delay are often associated with a broad range of public health problems, such as obesity and risky sexual behaviour (Hoerger et al., 2011). The ability to delay gratification is definitely linked to both the ability for self-control (Block – Block, 1980) and awareness (Bem – Allen, 1974).

This area looks back on a tradition of more than 60 years of research, yet its measurement methods have yet to be fine-tuned. Five key domains of everyday behaviour can be linked to the ability to delay gratification. These five domains are food, physical pleasures, social interactions, money and achievement (Hoerger et al., 2011). The 35-item scale was devised in view of the inadequacy of existing scales (Bembenutty – Karabenick, 1998; Ward et al., 1989).

Metcalf and Mischel (1999) employed the hot-cool model in relation to the ability to delay gratification. In their system, cool represents cognitive abilities, and hot the emotional side. The cool system is emotionally neutral, flexible, integrated, coherent, slow and episodic. The hot system is the basis of emotionality, fears as well as passions – impulsive and reflexive – undermining efforts at self-control.

Mischel (1974) distinguishes between the goal choice phase and the goal control phase. The former is needed for the individual to achieve the delay of gratification, while the latter is needed if the individual is already committed to accomplish the given objective. This perspective also raises the issue of

future orientation. The more future-oriented an individual is, the more likely he is to attach greater value to delayed rewards and thus, the more willing he is to delay gratification (Husman – Lens, 1999).

An important experiment has been conducted on this topic. One of the most well-known research projects aimed at examining the self-control of children was the Marshmallow Test, conducted by Walter Mischel (2015). In the experiment, researchers observed how children are able to resist temptation and delay the satisfaction of their needs/desires. Children receive a marshmallow and can decide to eat it immediately or wait. Those who are able to wait until the research leader returns receive two marshmallows at the end of the test. The test essentially focuses on how great the self-control of the tested children is, whether they are able to sacrifice immediate consumption in the interest of greater consumption at some later point.

Mischel researched this phenomenon for decades in various social contexts, and shares several stories on the matter in his book. One of these stories helps us understand why the term “trust” was added to the sub-title of his book. Also having conducted research in Trinidad, he integrates another aspect into the research which he observed in the country. Among the Trinidadian children participating in the research, some children came from less stable backgrounds and did not trust the adults (they did not know whether the research leader would keep his promise of giving them more marshmallows later): they decided to eat the marshmallow immediately. *“There’s no good reason for anyone to forgo the ‘now’ unless there is trust that the ‘later’ will materialise”* (Mischel, 2015, p. 67). This demonstrates the diversity of the topic, and the story recounted above highlights the complexity of both the given decision-making situation and the influencing factors.

APPLIED METHODOLOGY

In my research, I conducted a representative online questionnaire survey in February 2017 among 18–35-year-olds. After the cleaning of the database, there were 300 respondents left. The sample included respondents between the ages of 18 and 35, with an average age of 27.24 years. 50.8 per cent of the respondents were men, 49.2 per cent were women. More than half of respondents live in cities, with 19.9 per cent living in Budapest. The ratio of respondents living in hamlets and villages is 28.3 per cent. As regards family status, 66.3 per cent of the respondents are unmarried and 31 per cent are married. 76.5 per cent have no children. 14.1 per cent have one child and 6.9 per cent have two children. As far as education is concerned, the majority have secondary level academic qualifications. 79.7 per cent of the respondents have work experience. 20.4 per cent have taken part or are currently taking part in financial training or education. The scales used in the survey are internationally validated (*Table 1*).

PRESENTATION OF RESEARCH RESULTS

General financial characteristics

32.6 per cent of the respondents have a loan (consumer credit, housing loan, student loan, etc.).

Of all loans, student loans were specifically asked about in view of the young adult respondent group. 86.3 per cent of the respondents have no student loans and have never had them. 39.1 per cent of the respondents agree or completely agree that they would not take out a loan under any circumstances.

As far as financial decisions are concerned, most make their decisions together with their partner. There is an equal ratio of respondents who make financial decisions alone or with a family member. The sample includes 11.5 per cent for whom decisions are made by someone else (*Figure 1*). Regarding the question whether they discuss finances in the family, 61.1 per cent of the respondents said yes and only 6 per cent said that talking about finances in the family is, unmistakably, a taboo subject.

As far as online banking services are concerned, we found that the vast majority of the respondents try to handle as many things as possible online, although it is noteworthy that 21.6 per cent reported not to bank – and not wanting to bank – online.

67.5 per cent of the respondents have financial goals, but only 28.6 per cent have a budget drawn up. At this time, 42.3 per cent have savings. In the 12 months prior to the research, 52.9 per cent of the respondents were involved in financial difficulties when they felt that their revenues did not cover their expenditures.

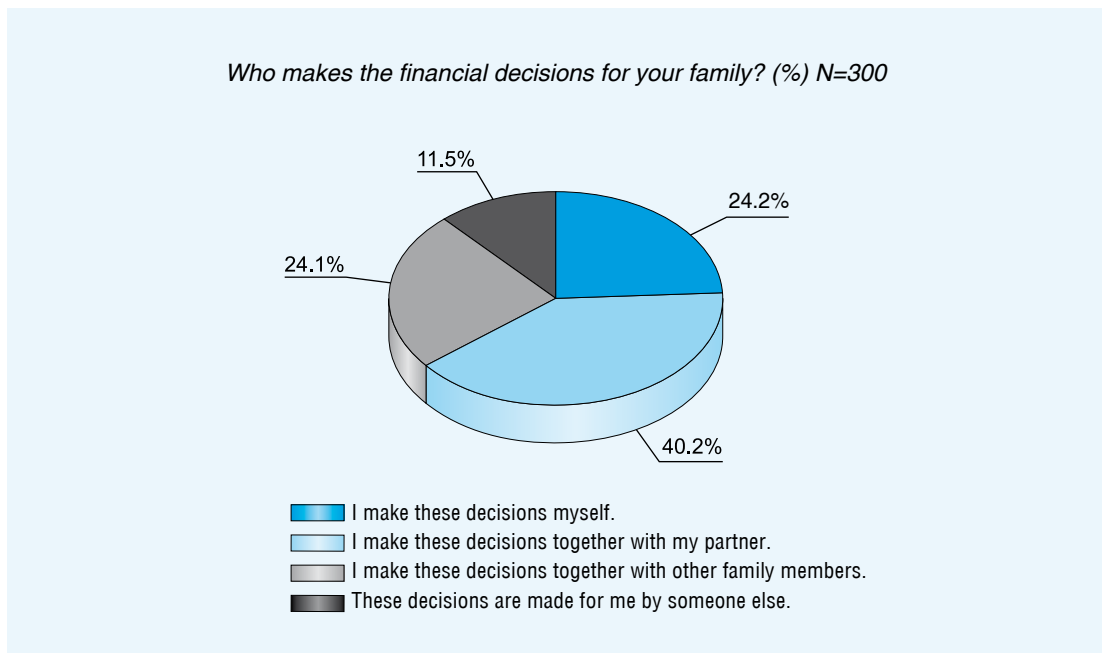
Table 1

THE SCALES USED IN THE QUESTIONNAIRE

Subject of measurement	Scale applied
Financial attitudes	OECD-developed scale
Financial well-being	CFPB-developed scale
Time orientation	Time Preference Scale (Zimbardo – Boyd, 1999; Orosz et al., 2015)
Ability to delay gratification	Delaying Gratification Inventory (Hoerger et al., 2011)

Source: own editing

MAKING FINANCIAL DECISION



Source: own editing

Analysis of financial attitudes

The 13-item scale featured in international OECD surveys was used to measure financial attitude. From the principal component analysis four factors emerged (Table 2). KMO value: 0.81.

In continuing the work with factors, I established 3 clusters using K-means cluster analysis (Table 3).

Analysis of financial well-being

The Financial Well-Being Scale developed by the Consumer Financial Protection Bureau was used to measure financial well-being. In this particular scale, scores can be calculated using the 10 statements in total, by re-coding negative statements, which in turn defines individuals' financial well-being. Given that

statements were marked on a scale from 1 to 5, final score falls between 10 and 50. The average typical of the sample was 28.39 points, with the highest score at 41 points.

The averages within the clusters generated on the basis of financial attitudes are shown in Table 4.

Financial well-being is significantly higher in the third cluster than in the other two. Therefore, the highest level of financial well-being is observed in the satisfied category.

In connection with the variance analysis conducted on the financial well-being score, we found that men (29.4) scored significantly higher on the financial well-being scale than women (27.4). As regards settlement types, respondents living in Budapest tend to have the highest score related to financial well-being (29.6), followed by those living in other cities and towns (28.4) and finally those living in hamlets/villages (27.4). Those living in Cen-

Table 2

FACTOR ANALYSIS OF THE OECD FINANCIAL ATTITUDE SCALE				
Rotated Component Matrix ^a	Component			
	1	2	3	4
Money must be put aside for more difficult times.	0.767	0.117	0.249	-0.121
Saving money regularly is important.	0.761	0.152	0.198	-0.172
I set long term financial goals and strive to achieve them.	0.739	-0.108	-0.037	0.117
It would be important to put aside money for more difficult times.	0.721	0.266	0.313	-0.109
I save money on a regular basis.	0.674	-0.438	0.031	0.178
I keep a close personal watch on my financial affairs.	0.622	0.070	0.319	-0.025
I tend to worry about paying my normal living expenses.	0.116	0.818	-0.132	0.016
My financial situation limits my ability to do the things that are important to me.	0.083	0.800	0.110	0.078
I am satisfied with my present financial situation.	0.340	-0.563	0.080	0.500
I settle my debts on time.	0.269	-0.036	0.799	0.031
I pay my bills on time.	0.325	-0.016	0.796	0.070
I have too much debt right now.	0.116	0.523	-0.531	0.233
Money is there to be spent, not to be kept.	-0.186	0.138	0.005	0.882

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Note: ^a Rotation converged in 10 iterations.

Source: own editing

Table 3

FINANCIAL ATTITUDE CLUSTERS		
Name of cluster	Cluster size	Cluster description
Carpe Diem	121 persons	They are the least likely to save money; they tend to spend funds immediately even though they are also most likely to feel indebted.
Anxious-aware	99 persons	They tend to worry about their livelihood; they consider their financial situation to be restrictive, but they are the most likely to consider long-term self-provision to be important and save money regularly. Defining goals and monitoring spending is important to them.
Satisfied	80 persons	They are satisfied with their financial situation and have no worries whatsoever in this regard.

Source: own editing

Table 4

FINANCIAL WELL-BEING AVERAGE IN THE VARIOUS CLUSTERS				
Clusters	N	Financial well-being average	Minimum	Maximum
Carpe Diem	121	26.9	13	39
Anxious-aware	99	26.2	15	39
Satisfied	80	33.3	22	41
Total	300	28.4	13	41

Source: own editing

tral Hungary and Western Hungary scored almost identical with respect to financial well-being (29.6 and 29.1, respectively), whereas those living in Eastern Hungary scored considerably lower (26.8). Financial well-being increased significantly with an increase in the level of education (Table 5).

The financial well-being of those who are repaying a loan is significantly lower (27.3) than those who have no loans (28.9), as they do not have the burden of having to pay monthly instalments. The financial well-being of those who have savings is significantly higher (31.4) than those who do not (26.2). As regards the existence of financial difficulties, we found that financial well-being is significantly lower for respondents experiencing financial problems (25.3) than for those who have had no troubles in the preceding 12 months (31.8). It is thought provoking that more than half of the respondents (N=159) stated that there have been instances in the preceding 12 months where they could not cover expenditures from their income.

Analysis of the Zimbardo-Boyd Time Perspective Scale

The principal component analysis of the time orientation scale (Orosz et al, 2015) fully confirmed the factors that were presented

in the study by Orosz et al. The five time categories (also shown in that order in Table 6) are as follows: future-oriented, past-negative, past-positive, present-hedonistic, present-fatalistic.

The five factors allow us to calculate scores, which in turn show how typical the five categories separately are for individuals. Variance analysis reveals that there is no difference between genders in respect of the various time categories. Significant deviation between the two groups was observed in only one case – future orientation –, where women were shown to be more future-oriented.

Regarding age, we found that ages 18–25 are significantly more likely to be present-hedonistic, while those between the ages of 26 and 35 are significantly more likely to be present-fatalistic. With respect to the level of education, the variance analysis indicates that past-negative and present-fatalistic attitudes are far more frequent among respondents with basic level education.

The clusters created on the basis of financial attitudes are significantly different from one another in respect of preferred time categories. With the exception of the past-positive time category, all categories show significant differences. Of the three clusters, the anxious-aware group exhibits the strongest future-oriented attitude and, not surprisingly, this attitude is the least likely in the Carpe Diem group.

Table 5

FINANCIAL WELL-BEING BASED ON LEVEL OF EDUCATION				
Education	N	Financial well-being average	Minimum	Maximum
Basic-level	115	26.4	13	41
Secondary	124	28.7	14	40
Tertiary	60	31.6	18	41
Total	300	28.4	13	41

Source: own editing

Table 6

Rotated Component Matrix^a		Component				
		1	2	3	4	5
I am able to resist temptations when I know that there is work to be done.	0.767	0.051	0.118	0.105	0.041	
Meeting tomorrow's deadlines and doing other necessary work come before tonight's play.	0.725	0.166	0.104	-0.053	-0.224	
I complete projects on time by making steady progress.	0.715	-0.015	0.120	0.176	0.183	
I meet my obligations to friends and authorities on time.	0.659	0.012	0.346	0.020	-0.056	
I think about the bad things that have happened to me in the past.	0.026	0.770	0.310	0.019	-0.025	
It's hard for me to forget unpleasant images of my youth.	0.022	0.741	-0.067	0.034	0.063	
I've taken my share of abuse and rejection in the past.	0.140	0.722	0.074	0.045	0.258	
The past has too many unpleasant memories that I prefer not to think about.	0.045	0.656	-0.230	0.109	0.318	
I get nostalgic about my childhood.	0.140	-0.071	0.813	-0.014	0.026	
Happy memories of good times spring readily to mind.	0.330	0.056	0.776	0.092	0.056	
I enjoy stories about how things used to be in the "good old times".	0.131	0.092	0.722	0.106	0.138	
I take risks to put excitement in my life.	0.002	-0.019	0.067	0.891	-0.019	
Taking risks keeps my life from becoming boring.	0.013	0.133	-0.021	0.851	0.079	
I find myself getting swept up in the excitement of the moment.	0.245	0.054	0.127	0.673	0.158	
It doesn't make sense to worry about the future, since there is nothing that I can do about it anyway.	0.069	0.009	0.052	0.008	0.817	
You can't really plan for the future because things change so much.	0.057	0.267	0.161	0.137	0.696	
My life path is controlled by forces I cannot influence.	-0.229	0.305	0.023	0.088	0.627	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Note: ^a Rotation converged in 6 iterations.

Source: own editing

The past-negative attitude is the most common in the Carpe Diem group, even though there is no significant difference between this group and anxious-aware individuals. In this respect the outliers – respondents characterised by the lowest values – are among those in the satisfied group. The Carpe Diem group is outstanding in present-hedonism, while this is the least typical feature of the satisfied cluster. In addition, the satisfied group exhibits the lowest value for present-fatalism.

Linear regression analysis can be used to examine whether there is any correlation between time orientation and financial well-being. As both variables are metric, they are suitable to run a regression analysis. The dependent variable in the regression model is financial well-being, and the independent variables are the various time categories. *Table 7* shows the results of the regression analyses.

Based on the results of the regression analysis, we can state that two of the five time categories have a significant impact on financial well-being. These two are the present-fatalistic and past-negative categories. Both time categories have a negative impact, meaning that the more present-fatalistic an individual is, the lower his financial well-being and the more past-negative an individual is the lower his fi-

ancial well-being. The explanatory power of the models is 0.08 and 0.09, which indicates a weak but significant relationship.

Analysis of delaying gratification

The Delayed Gratification Inventory developed by Hoeger et al. (2011) is a 35-item scale, and I used a 33-item version of this scale in my questionnaire (as two statements were completely identical with two other statements in terms of content, I removed the relevant statements to reduce the length of the questionnaire).

The scale measures the individual's ability to delay gratification in five domains: food, physical pleasures, social interactions, money and achievement. Accordingly, I have separately analysed the sub-dimensions from the aspect of internal reliability, and where necessary I removed items in the interest of stronger internal consistency. I then created scores for the various areas and the scores, as metric variables, are suitable for regression analysis. In the case of money, positive and negative characteristics were condensed into two separate variables, which means that this must be taken into account when interpreting the latter variable.

Table 7

RESULTS OF THE REGRESSION ANALYSIS

Independent variable	Dependent variable	B	β	t	R ²	F	Is it significant?
Future-oriented	Financial well-being	-0.291	-0.039	-0.672	0.002	0.452	no
Present-hedonistic	Financial well-being	0.030	0.005	0.081	0.000	0.006	no
Present-fatalistic	Financial well-being	-1.925	-0.278	-4.999	0.077	24.987	yes
Past-negative	Financial well-being	-1.893	-0.301	-5.451	0.091	29.711	yes
Past-positive	Financial well-being	-0.232	-0.039	-0.670	0.002	0.449	no

Note: p<0,001

Source: own editing

I examined the correlation between time perspective and the ability to delay gratification using regression analysis. Model parameters are shown in *Table 8*.

In relation to achievement the regression analyses indicated that future-orientation shows a positive, while present-fatalism shows a negative significant effect on the ability to delay gratification, and the explanatory power

of the model is higher than the 20 per cent accepted in social sciences, as $R^2=0.333$ ($F=74.118$). Of the two factors, future-orientation has a stronger effect.

For social interactions, future-orientation and past-negative attitude have an impact on the ability to delay gratification. Both factors showed a positive effect, with the impact of future-orientation being stronger. The posi-

Table 8

EXAMINATION OF THE CORRELATIONS BETWEEN THE VARIOUS ASPECTS OF GRATIFICATION AND TIME ORIENTATION USING REGRESSION ANALYSIS

	Beta	t-value
Model 1 (dependent variable: achievement)		
Constant	1.731	7.672**
Future-oriented	0.578	11.846**
Present-fatalistic	-0.128	-2.828*
Model 2 (dependent variable: social interactions)		
Constant	2.153	13.139**
Future-oriented	0.228	6.008**
Past-negative	0.081	2.523*
Model 3 (dependent variable: physical pleasures)		
Constant	3.406	13.264**
Future-oriented	0.180	3.024*
Past-negative	0.250	-4.984**
Model 4 (dependent variable: money positive)		
Constant	1.936	9.230**
Future-oriented	0.517	9.399**
Model 5 (dependent variable: money negative)		
Constant	2.089	8.562**
Future-oriented	-0.342	-5.948**
Past-negative	0.355	7.080**

Note:

* $p<0,05$

** $p<0,001$

Source: own editing

tive effect of past-negative attitude can be explained by the fact that negative past events presumably compel people not to make the same mistakes against their environment that have been committed against them, and as such, they try to pay greater attention. The value of the regression model's coefficient of determination (R^2) is 0.139 ($F=23.887$).

As regards physical pleasures, future-orientation and past-negative attitude proved to be significant once again, but at the same time, in this case the past-negative attitude has a negative effect. The model's coefficient of determination (R^2) is 0.093 and $F=15.149$.

In terms of food, none of the time categories proved to have a significant effect.

In relation to money, however, a significant model could be constructed both for the positive and the negative variable regarding the influential role of time categories. Future-orientation proved to be a strong driver in respect of whether the individual is able to delay gratification in the area of finances. In the model, $R^2=0.229$ and $F=88.338$.

Future-orientation and present-hedonism both have an effect on an individual's inability to manage his finances well and hence, delay gratification. Of course, future-orientation has a negative sign here. The less future-oriented and more present-hedonistic an individual is, the least likely he is to manage his finances in accordance with his future needs. Of the two factors, the effect of present-hedonism is stronger. The model's coefficient of determination is 0.196 and $F=36.181$.

SUMMARY OF THE RESULTS AND CONCLUSION

The aim of my research was to examine the financial literacy of 18–35-year-olds, with particular emphasis on time orientation and the ability to delay gratification. Accordingly,

I conducted a representative survey with 300 respondents. We found that it is desirable to think in clusters and that the behaviour of young people often varies across demographic characteristics. In respect of time orientation, we found that future orientation has the most radical effect, especially concerning the ability to delay gratification. Evidently, individuals with a future-orientated attitude can more easily forgo certain things in the present and wait for long-term future rewards. This is consistent with the findings of the relevant literature. Present-hedonism primarily affects the ability to delay gratification in the financial sense. The more present-hedonistic an individual is, the less able he is to subordinate his finances to long-term goals. Financial well-being is most affected by the present-fatalistic and past-negative attitudes, with this particular relationship having a negative direction. We found differences in the ability to delay gratification according to the level of education: the more educated a person is, the greater his ability to delay his needs. Of the three clusters constructed, the anxious-aware group exhibits the strongest future-oriented attitude and, not surprisingly, this attitude is the least likely in the Carpe Diem group. The past-negative attitude is the most common in the Carpe Diem group, even though there is no significant difference between this group and anxious-aware individuals. In this respect the outliers – respondents characterised by the lowest values – are among those in the satisfied group. The Carpe Diem group is outstanding in present-hedonism, while this is the least typical feature of the satisfied cluster. In addition, the satisfied group exhibits the lowest value for present-fatalism. Financial well-being is significantly higher in this third cluster than in the other two. Therefore, the highest level of financial well-being is observed in the satisfied category. With respect to financial

well-being we found that men (29.4) scored significantly higher on the financial well-being scale than women (27.4). As regards settlement types, respondents living in Budapest tend to have the highest score related to financial well-being (29.6), followed by those living in other cities and towns (28.4) and finally those living in hamlets/villages (27.4). Those living in Central Hungary and Western Hungary scored almost identical with respect to financial well-being (29.6 and 29.1, respectively), whereas those living in Eastern Hungary scored considerably lower (26.8).

The study uncovered the correlations between the time orientation, ability to delay gratification, financial attitude and financial well-being of young people. Whether we ex-

amine young people in Hungary from the aspect of banking services or from a financial-educational perspective, it is instrumental to make a distinction according to education, region and gender. While income factors may obviously affect these factors from time to time, the findings of our research draw attention to the differences in attitude as well. Interestingly, Carpe Diem-type individuals are also anxious and dissatisfied with their finances, while those who are aware are often anxious about their finances and their own financial constraints. In the future, financial well-being should also be examined in a wider context, as part of general well-being, and if possible the research should be also extended to respondents above the age of 35.

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