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HOUSEHOLD FINANCE MANAGEMENT EFFECTIVENESS OVER THE LIFE CYCLE¹

Marta Musiał

University of Szczecin, Faculty of Management and Economics of Services

Poland

marta.musial@wzieu.pl

Abstract

The article concerns the problem of household finance management effectiveness. Effectiveness is not clearly defined, thus the literature is full of different approaches to this phenomena. Most of them concern effectiveness of organizations. Because of that, author has tried to adapt the chosen approaches to household and construct the evaluation model of the effectiveness. The research², which was conducted in Poland, in Western Pomerania Province, shows that we can measure effectiveness of household in few different dimensions. Moreover what seems to be interesting are the changes of household finance management effectiveness over the life cycle.

Keywords: household finance, effectiveness, life cycle

Topic Groups: Gender, diversity and social issues, Marketing and Consumer Behavior, Microeconomics

JEL Classification: D14, D10, G32

INTRODUCTION

Problem of effectiveness, defined in different contexts is an issue quite widely described in literature in relation to functioning of enterprises. Problem is still current due to lack of clear definition of effectiveness as a term and different approaches to research. This problem in relation to functioning of household is not a new problem – it exists since the beginning of household finance science and effectiveness of markets. Effective management of household finance is the process of raising funds, while maintaining a level of costs, which leads to

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increased wealth and standard of living of the household (Świecka, 2009). The structure of income and household expenditures varies over the life cycle. Different phases are related to other financial needs that are expressed in the form of financial goals. Financial goals of young singles are set due to personal development needs. During the "working years" people set financial goals so they are focused on maintaining a family gathering assets and securing the future. However, in the time of retirement financial goals of people are related to the safe and joyful lifestyle. The evolution of financial goals over the life of the individual is called financial life cycle (English et al., 2003). Therefore, one can hypothesize that there is a correlation between the level of efficiency of financial management and financial household life cycle. The purpose of this article is to evaluate the effectiveness of the financial management of Polish households over the life cycle.

THEORY

The term "efficiency" is derived from the Latin word "efficio", which means: to do, to finish, to draw, to make, to fulfill (Rybicki, 2005). W. Rybicki (2005) defines efficiency as a component of the three characteristics: effectiveness, proficiency and relevance. In the literature, "efficiency" and "effectiveness" are often used interchangeably with other terms, such as "profitability", "proficiency", "productivity", "benefits", "economy".

The first models of effectiveness have been of a one-dimensional character. This means that for the assessment of the successes and failures of the organization a single measure has been used. Usually (Steers 1975):

- overall assessment made by the members of the organization or external judges;
- productivity, usually measured by the size of the product;
- employee satisfaction;
- profit or capital payback period concerned.

In the table 1, an attempt to adapt selected one-dimensional approaches to effectiveness of the operation of the household has been done.

Table 1: Household one-dimensional approaches to effectiveness

Approach interpretation of effectiveness	Definition of household's effectiveness
Teleological approach	The effectiveness is expressed by the targets at the lowest possible cost incurred.
System approach	Effectiveness is the ability of a household to overcome the uncertainty arising from the environment and to use environment in such a direction that they encourage the development of the household.
Traditional approach	Effectiveness means saving - lower costs (expenses) by reducing losses and waste of resources (materials, products, services, time, force), which household possesses.
Holistic approach	Effectiveness is achieved through good relationships, appropriate division of labor between household members, as well as planning and attention to all aspects of the household (finance, development of household members, property repairs, etc.)

Evolutionary model approach	The effectiveness is achieved in many ways through functioning of the household. It is a powerful, competitive, efficient, communicative and moral functioning of the household respectful of nature.
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Analyzing effectiveness approaches in scientific achievements in the field of organizational management, economics, corporate finance, public finance and banking, as well as sociology, psychology, mathematics and other scientific fields an attention should be paid to multidimensional approach to effectiveness, such as:

- six variables efficiency by D. J. Lawless (1979);
- evolutionary model by M. Holstein-Beck (1997);
- four-dimensional model of efficiency by H. C. Pfohl (1998);
- 7-efficiency multi-dimensional approach by M. Bielski (1992);
- four balanced scorecard perspectives by R. S. Kaplan and D. P. Norton (2001);
- two-dimensional matrix (9 variables) model efficiency by G. A. Rummler and A. P. Brache (2000);

Multi-dimensional approach by M. Bielski (1992) will be further discussed, which takes seven dimensions of efficiency for the needs of its multi-criteria evaluation:

- tangible (tangible effectiveness), which describes how the organization is effective in addressing specific social needs or the extent to which it achieves its exterior goals;
- economic (economic efficiency), which includes the criteria expressing the relationship between the effects and expenditures, in different ways. If those are the ratios of the effects to the investment, the criteria are performance (people, equipment), productivity (fixed assets) and profitability. This corresponds to the praxeological term of economy. If those are the differences between the effects and expenditures it is a measure of profit (corresponding to the praxeological benefits);
- system (system efficiency) is an expression of the health of the system and its ability to exist in a given environment. The criteria for this dimension are long-term goals of the organization: survival and development, and its ability to change, ie adaptation to the environment. Development and adaptation will be expressed in the growth of the organization, investments, entering into new lines of business, mastery of new markets, etc.;
- "political" (political efficacy) refers to the interaction of an organization with the environment. At the same efficiency of processing (transformation) the effectiveness of the organization may vary, depending on the skillful placement of orders, dexterity in trade negotiations, the right choice of investment location, etc. The "political" activities can also be addressed within the organization and targeted to obtain possible best (for organizations) conditions of participation of people, such as overtime hours, high-intensity efforts, limiting wage claims. The criteria of political dimensions may include its bargaining positions in relation to the environment, monopoly power, and finally bargaining position in negotiations with employees or, more widely put: participants in the organization.;
- political, which refers to the efficiency of the organization in consolidating country's existing socio-political order. It is the efficiency of the organization from the point of view of the interests not of itself but the ruling class or political group ;
- cultural (cultural efficiency), which refers to the ability of the organization to perpetuate the values and standards that help maintain the cultural identity of the

society, as well as their contribution to the development of culture and its adaptation to the changes in culture on the world's scale;

- behavioral (behavioral efficiency) includes criteria such as job satisfaction, intensity of internal conflicts, employee morale, etc. It expresses the interests of the participants and the organization is mainly assessed from their point of view, but not only. The effectiveness of the organization in this dimension may raise its effectiveness in other dimensions: tangible, economic, system. It can also be positively correlated with the political dimension - the conflicts in the workplace, exceeding a certain severity, can be easily transformed into political conflicts.

Based on the discussed concept of multidimensional efficiency it is proposed to approach the efficiency of the household according to the following dimensions: economic, praxeological, behavioral, social, system. The economic dimension includes criteria for expressing the relationship between the effects and expenditures and analyzes the financial situation of the household. Praxeological dimension boils down to the evaluation of the household in terms of the achievement of its objectives. Behavioral dimension expresses satisfaction level of finances as well as fulfillment of the individual needs of household members. The social dimension refers to the relationship of the household to its environment. System dimension expresses the ability of a household to overcome the uncertainty arising from the environment, or adapting and achieving objectives such as survival and development (Zdanowska 2011). The first initial conceptualization of this approach is presented in Table 2.

Table 2: Concept of evaluation of the effectiveness of personal finance management

The dimension of personal finance management performance	Efficiency criteria of personal finance management	Examples of indicators of effectiveness criteria of personal finance management
The economic dimension	profitability	<ul style="list-style-type: none"> - amount of expenditure; - amount of expenditure per person; - the ratio of expenses to income; - ratio of recurrent expenditure to total expenditure; - level of debt; - the ratio of debt to the value of the property; - ratio of monthly debt to monthly income;
	productivity, efficiency	<ul style="list-style-type: none"> - level of income; - level of income per capita; - cost savings; - amount of savings per person;
	profitability	<ul style="list-style-type: none"> - increase in the value of assets;
Praxeological dimension	achievement of financial goals	<ul style="list-style-type: none"> - degree of financial objectives realization; - the amount of expenditure on financial objectives; - amount of the costs of financial objectives;

Behavioral dimension	morale	<ul style="list-style-type: none"> – sense of security; – financial satisfaction of individual members of the household;
	climate	<ul style="list-style-type: none"> – relationships; – number of conflicts over budget; – behavior of household members in accordance with the approved financial targets;
The social dimension	public perception	<ul style="list-style-type: none"> – widespread confidence in the members of the household; – regulation of financial liabilities; – providing financial assistance to those in need; – level of spending on ecology;
	support from outside	<ul style="list-style-type: none"> – financial dependence; – size of grants, scholarships, etc. welfare; – volume of loans from family, friends;
System dimension	development	<ul style="list-style-type: none"> – value of investments; – the number of household members improve their qualifications; – value of spending on education / development of household members;
	adaptation	<ul style="list-style-type: none"> – reducing variable costs; – reducing recurrent expenditure; – purchase of new technology to reduce the cost (eg. energy); – amounts of funds for rainy days;
	survival	<ul style="list-style-type: none"> – household financial balance; – the degree of vulnerability to poverty – the degree of insolvency, bankruptcy.

METHODS

The survey was conducted in the Western Pomerania province in Poland. The selection of the region has been based on the indicators of income, expenditure and material well-being of the inhabitants of the region (see Table 3). Western Pomerania province is characterized by the average results of these indicators.

Table 3: Characteristics of the Polish provinces in terms of income, expenditure and material well-being

Polish Province	Income*	Expenditure**	Material well-being
woj. dolnośląskie	106,90%	107,60%	0,04
woj. kujawsko-pomorskie	88,70%	89,60%	-0,19
woj. lubelskie	82,60%	87,40%	-0,22
woj. lubuskie	96,30%	95,80%	-0,01
woj. łódzkie	99,20%	103,10%	-0,11
woj. małopolskie	93,10%	94,30%	0,06
woj. mazowieckie	133,80%	128,80%	0,17

woj. opolskie	101,20%	101,70%	-0,03
woj. podkarpackie	75%	80,20%	-0,22
woj. podlaskie	97,20%	89,60%	0,02
woj. pomorskie	105,60%	101,70%	0,05
woj. śląskie	100%	104,80%	0,02
woj. świętokrzyskie	87,60%	83,30%	-0,32
woj. warmińsko-mazurskie	86,80%	83,50%	-0,11
woj. wielkopolskie	90,20%	88,40%	-0,04
woj. zachodniopomorskie (Western Pomerania Province)	98,80%	98,40%	0,06

Source: GUS, *Sytuacja gospodarstw domowych w 2012 r. w świetle wyników badań budżetów gospodarstw domowych*, http://www.stat.gov.pl/gus/5840_1160_PLK_HTML.htm (26.10.2013); *Diagnoza społeczna 2013*, Czapiński J., Panek T. (red.), www.diagnoza.com (26.10.2013).

* ratio of the average monthly disposable income for 1 person in the household compared to the national average in 2012

** index of average monthly expenditure for one person in the household compared to the national average in 2012

The size of the population of the West Pomeranian province was determined based on the National Census of Population and Housing 2011 and amounts to 1,722,739 inhabitants. Using equation in table 4, the research should be concluded on around 384 households with 5% accepted error.

Table 4: The formula for the calculation of the research sample

$n = \frac{Z^2 [P(1 - P)]}{e^2}$	<p><u>Descriptions for equation:</u> P – evaluated proportion in population; e – accepted error; n – trial size; N – population size; Z – Z value coming from assumed level of confidence (for 95% of confidence Z – 1,96)</p>
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Survey questionnaire has been well developer – it contained 23 complex questions. The results of study portrayed later concern only chosen parts of the survey. The tests were carried out using an electronic questionnaire (CAWI³) and a paper questionnaire (PAPI⁴). Non-random selection method of typical units has been used during direct questionnaire pilot research, with an aim of testing questionnaire. Group for direct research has been drawn using the method of random selection. Method of selection of respondents for the online survey will be recruiting selection method, in the form of voluntary panels. In the People over 18 years old (of age), who had managed household finances alone or jointly with another person participated in the study. Among the study group, women accounted for 52%, men 48%. Single households and two-people households dominated the study, which together accounted for over 60% of the study population.

³ Computer-Assisted Web Interview

⁴Paper & Pencil Interview

Table 5: Stages of the survey

Research stages	Research sample	Research method	Period of time
first – test research	50	PAPI	November 2013
Second – survey research	384	CAWI, PAPI	November/December 2013

FINDINGS

One of the questions given to respondents concerned determination of how did standard of living of their household change in the period of the last five years. Almost half of the respondents stated that the standard of living of their household did not change, while 32% felt that this level has improved. Only 18% claimed to have deteriorated in the standard of their lives.

Using several questions regarding factors selected from Table 2 multidimensional effectiveness of the household has been evaluated. Figure 1 shows the relation between the following dimension of effectiveness and the change of the standard of living of the household. It's fair to say that there is a relationship between the general quality of life and the various dimensions of efficiency of household's functioning. For most dimensions, with the exception of the behavioral dimension, along with the deterioration of the standard of living decreases the efficiency of the household. In addition, it is worth noting that the effectiveness of praxeological dimension, behavioral and social assessment is much higher than economic efficiency.

Figure 2 shows how the standard of living of households changed according to the phase of development. Among the groups in which many respondents had indicated that their standard of living of their household has had improved, are: elderly couples (50%), people without children (47%), married couples with children under 18 years of age (45%) , young and childless marriages (44%) and multiple generations households (42%). In contrast, the deterioration of the living standards of household concerned mostly single parents with children under 18 years of age (53%) and lone elderly people (28%).

Figure 1: Multi-dimensional approach to household finance management effectiveness

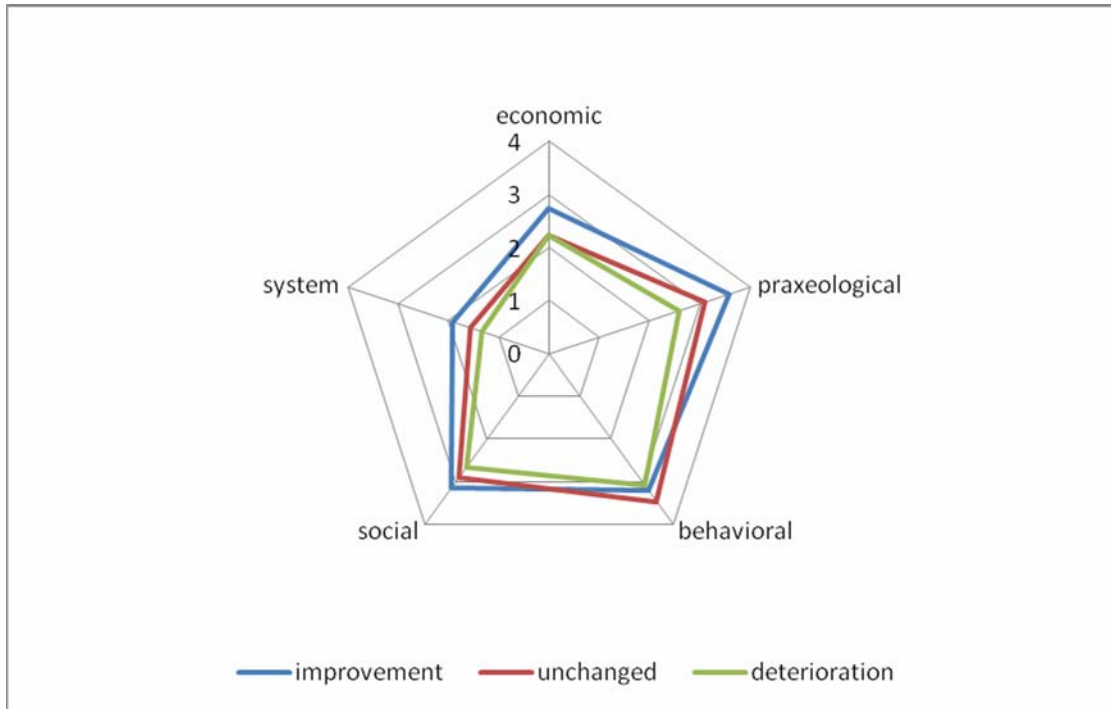
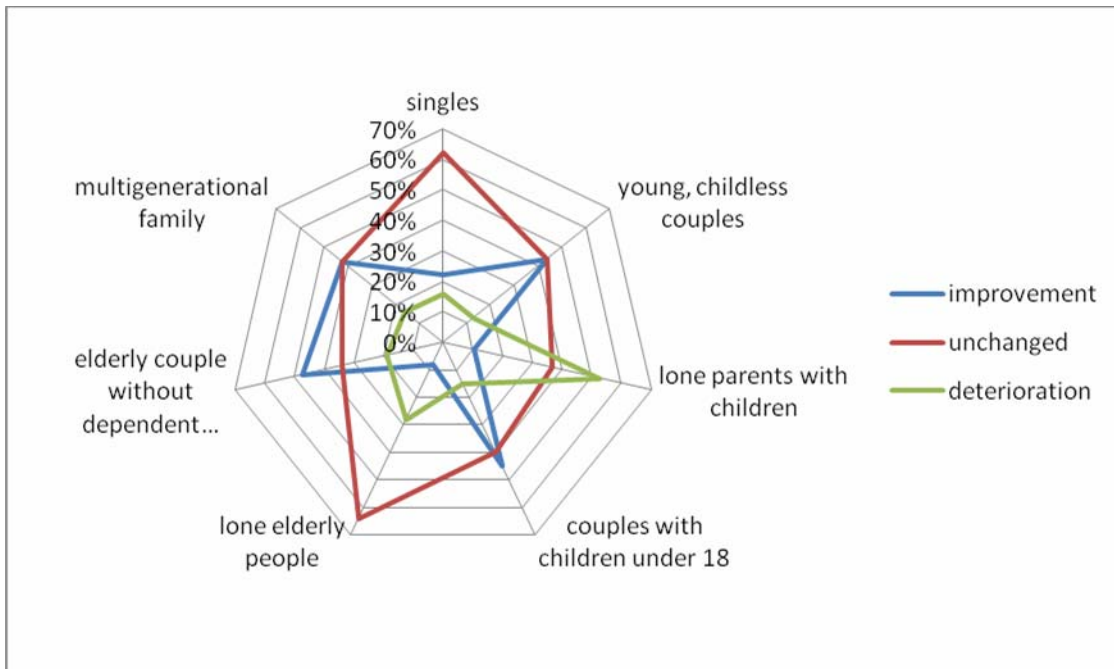


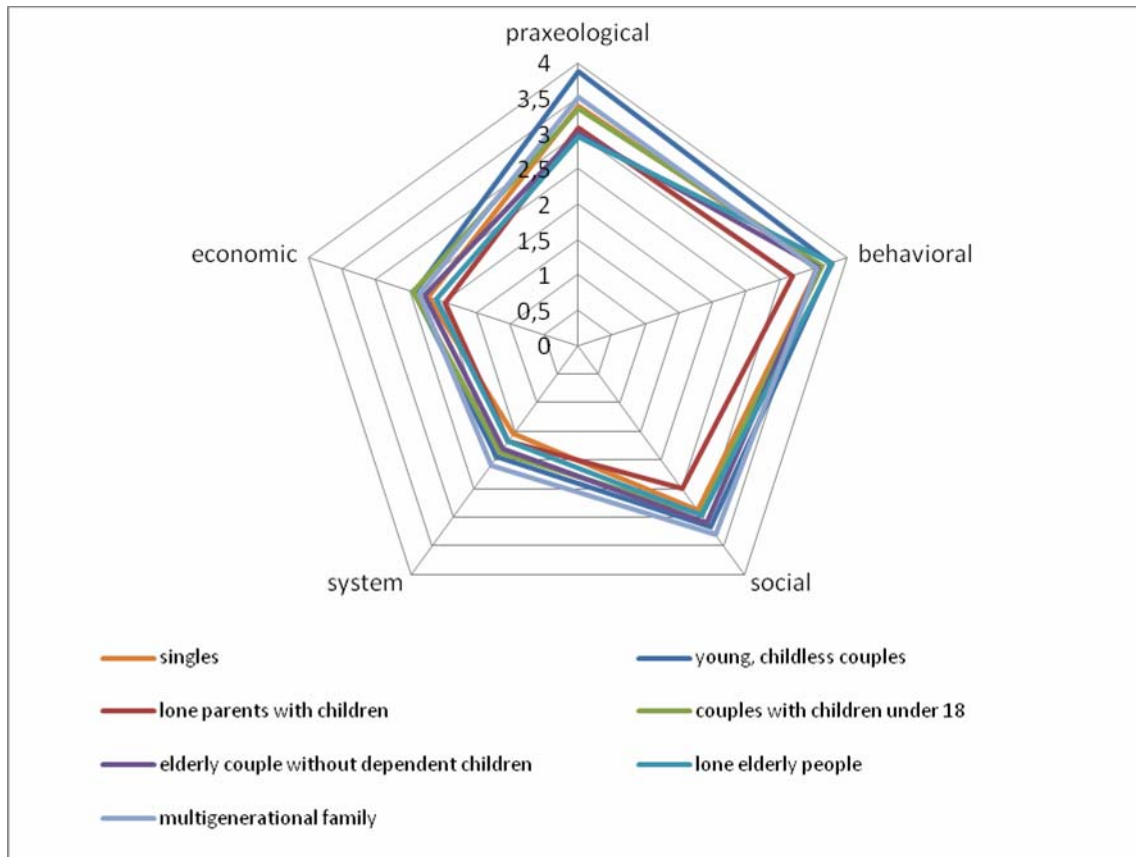
Figure 2: Changes in the standard of living of the family life cycle



The highest economic efficiency characterized the married couples with children under 18 years of age and young and childless marriages. In behavioral aspect leaders are lonely elderly and young people and childless marriages in aspect of society - young, childless marriages, and elderly couples without dependent children. in the system aspect - multiple generations families and young, childless marriages. The praxeological aspect is led by

young, childless marriages, and multigenerations families . To summarize the most effective group are young, childless marriages (see figure 3).

Figure 3: Changes in the standard of living according to family life cycle



DISCUSSION

Many current research are devoted to consumer behavior, household finances and economic situation of households. Consumer reviews about their quality of life and forecast of changes in this level are an important element of the analysis of many companies. According to research, 33% of respondents believe that their standard of living has improved in the past five years. TNS Consumer Index⁵ amounting to - 12.8 in May 2014, shows continuous pessimism among Poles. Important is that this index increases from month to month, which may suggest that the Polish households have adapted to new realities and most of them already know how to survive, and some (33%, who in the study pointed to improvement of their quality of life) are able to develop and prosper due to the use of the environment. According to Genworth Index⁶ for the year 2012, only 1% of households in Poland had a sense of financial security. It can be assumed on the basis of studies that this group had grown. However, it should be kept in mind that improving the standard of living of household need not to be synonymous with a sense of financial security.

In addition, according to studies, the most efficient at financial management are young, childless marriages/couples. This might be the result of extended working time, ie young

⁵ <http://www.tnsconsumerindex.pl/index.php?month=2014-05>

⁶ http://www.genworth.pl/dam/Europe/PL/PDFs/Policyholder/Product/consumer-security-vulnerability-genworth_index_en.pdf

people without children want to as quickly as possible establish financial independence and purchase their own apartment/house. According to a study of ING Bank Slaski⁷ Poles do not like to rent apartments, therefore the aim of almost every young Pole is to get the capital to purchase their own property. Hence, they often work in several places or execute several projects, work over hours, which on the one hand, translates into higher revenues, and on the other to lower costs (while at work they do not have the time to spend the money).

It is worth noting that the study group have shown a higher score for praxeological rather than economic efficiency, which may indicate a low financial awareness of Poles. Respondents believe that they are managing finances by setting financial goals and, more importantly believe that those goals are being achieved by them. Why therefore are they reaching a low economic efficiency, i.e. their financial situation deteriorates? On the one hand, it may be the result of poorly defined financial goals, on the other hand, unfortunately it might be associated with survey research, that might incline respondents to show higher self-esteem when fulfilling the survey .

This article presents only a small portion of the study of the effectiveness of financial management of households in Poland. Knowledge of household finance management, with special mention of factors its influencing as well as measures of effectiveness of this management, is a point of interest for many specialists and institutions. In times of crisis institutions of financial sector are searching for new solutions that could be better adjusted to current economy. Model of effectiveness evaluation of financial management, will become a new tool, which will allow to better evaluating particular household with a debt or looking for a credit. From the other side, based on research, good practice will be worked out, which training companies or financial advisors could use in their practice to help society better manage their finances. Public sector institutions, including: centers for family care, foundations, courts, basing on results of research will be able to more effectively plan social actions.

From consumer's point of view - if people do not understand financial services, then there are not able to choose products fitting them best. It becomes increasingly problematic, because human life (existence) more often and stronger, depends on financial services. Responsibility taken for financial decision lies on people – physical persons, households, which in turn are basic units of an economy. Nowadays financial products become increasingly complex, inducing difficulties in choice between different kinds of them. In some cases, this lack of understanding leads to financial problems and in worst case scenarios to insolvency and bankruptcy.

From economical perspective - if consumer does not know how to make a better choice, market of financial products and services will not function properly. Markets depend on consumer's ability to undertake conscious choices between products. Moreover, enterprises also count on clients to be conscious when it comes to decision making, so they can effectively manage their budget as well as that the chosen products are fitting their needs, which leads to increasing satisfaction for consumer.

⁷ https://www.ingbank.pl/aktualnosci?news_id=1002310%2Cmiedzynarodowe-badanie-ing-polak-gotowy-do-przeprowadzki-ale-niechetny-do-wynajmu

CONCLUSIONS AND IMPLICATIONS

Efficiency of household finance is an important issue from the point of view of the market and the economy of the country. However up until now, more attention was put into effectiveness of companies and markets, omitting the role of households. The problem is still current, and it attempts provide solution, that is necessary in times of financial crisis. Households undertaking financial decisions affect the efficiency of markets and companies. It is important to deepen the knowledge on how to manage finances and what actions are needed to increase the efficiency. According to research, the Poles are characterized by low efficiency, probably due to the low financial awareness and lack of control over their finances. It is also related to psychological factors, ie an approach to life, financial mentality, own principles and beliefs. Most effective at management are young, childless couples, which in comparison with the singles have more revenues from different sources. Compared to couples with children they have fewer dependents and are more dedicated to the job. The later phase of the development is, the less efficiently finances are managed, due to lower financial awareness of the older generation in Poland, as well as the psychological determinants: "Since we have reached our fundamental objectives, why appoint another, we have to live sometime" - people do not analyze, because they pity their time, so they take a lot of inefficient financial decisions. Presented in the article, proposed households' effectiveness evaluation model can be the basis for further scientific consideration, as well as international comparisons.

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