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NEED SATISFACTION IN RURAL POPULATION WITH UNCERTAIN INCOMES

INTRODUCTION

Continuous pursuit of need satisfaction and attempts to ensure a proper level of need satisfaction have made relevant research an area of primary importance in recent years. Its significance derives from changes taking place in both the economic and the social spheres. Unquestionable socioeconomic achievements, conducive for the increase of basic domestic economic indicators, but contrasting with a considerable number of people deprived of the possibility of benefiting from the positive effects of the changes, generate a challenge for the contemporary elite to decrease the polarisation and pauperisation of the society by limiting the deprivation of its need satisfaction.

Need satisfaction has often been discussed in scientific literature. For the purposes of the present paper, needs are understood broadly as relating to both tangible and intangible aspects. Degree and structure of need satisfaction, together with degree of deprivation, provide valuable insights into individuals' living standards. Needs shape the structure and level of consumption and affect the course of economic, social, biological and cultural processes.

The article aims to present the degree of need satisfaction by inhabitants of rural population with uncertain incomes using a synthetic index of need satisfaction. Its informative value stems from the correspondence between the objective and subjective possibilities of need satisfaction. The indirect aim of the article consists in arousing social interest in the degree of consumption exclusion that affects particular socioeconomic groups.

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METHODOLOGY

The empirical material included in the article comes from the research conducted within the research project UMO-2011/01/B/HS5/01034, financed by the National Science Centre, entitled ‘The standard of living of rural population with uncertain incomes in Poland’ and constitutes a part of it. It was conducted in June and July 2012. The sample comprised 1067 adult inhabitants of rural Poland. Information was gathered by means of a questionnaire, which was also used as a scenario while applying the PAPI (paper and pencil interview) direct method of conducting interviews. Sampling was representative, conducted according to the formula for unknown relative frequency, at the 0.05 level of statistical significance and with no intervention in the population size.

As the study was conducted on an “unknown” population (no data is available that would allow the assessment of the demographic distribution of people with uncertain incomes), a quota sample was used, subdivided into provinces and demographic features (age and sex). The sex of the respondents was determined in accordance with the Local Data Bank of the Central Statistical Office of Poland (GUS), but the number of respondents of each sex was an indicative value since it was impossible to determine the ratios of men and women required for the research while preparing the study. Sample sizes in particular provinces depended on the population sizes of rural communes in the studied provinces. It was assumed that the statistical error for the whole country’s population amounted to 3%.

INCOME UNCERTAINTY

Income uncertainty is considered to result from one of the following reasons: income unpredictability, non-specificity or discontinuity. These features contribute to the non-existence of objective conditions to define the probabilities of receiving earned or unearned incomes. Unpredictability results in the failure to predict whether or not the consumer will receive any funds or failure to predict whether they individual will be employed (full-time or part-time). It may also result from difficulties in obtaining social security benefits. Non-specificity results from the nontypicalness of the professional activity and/or the source of incomes. Discontinuity can result from temporary employment or employment in short, selected periods of time, and also incomes are received relatively seldom. In this sense, income uncertainty can be identified with certain randomness and referred to as a synonym of doubt¹.

Apart from income uncertainty, the group has been determined by employment instability. Additionally, another characteristic of the population with uncertain incomes is dead-end employment which increases the feeling of social exclusion and lack of stability, both in the economic and in the social sphere. It should be noted that although the studied group is not homogenous and individ-

¹ C.f. S. Kalinowski (2014, 2015a, 2015b).

uals differ considerably from each other, they share two features, i.e. the instrumentality of work and its precariousness. These characteristics are shared by the mentioned groups with other populations constituting the secondary labour market segment, i.e. the working poor and freeters², however these categories cannot be equated. They need to be treated as complementary as regards the depreciation of individuals' economic safety.

THE SYNTHETIC INDEX OF NEED SATISFACTION: AGGREGATION ALGORITHM

In order to assess the degree of consumption implementation by particular households, a synthetic index of need satisfaction (SINS, Pl.: SWZP) has been designed. It attempts to answer the question: "Do the goods possessed by respondents, their way of allocating money, the way of need satisfaction and the evaluation of their own financial situation result in need satisfaction" The answer to this question allows an approximate description of respondents' situation resulting from selected factors and their material situation. The general assessment is formed of both their belief about their life situation and the experienced need of changes and the feelings of exclusion from the consumption of some goods and services.

The creation of SINS was inspired by the comprehensive index of living standard, Economic Living Standard Index (ELSI), developed and used by the Ministry of New Zealand (Jensen, Krishnan, Spittal and Sathiyandra, 2003, p. 75; Spittal and Krishnan, 2005). The value of SINS consists in combining the questions about the degree of need satisfaction with the experienced changes in the economic situation of the respondents and its exceptionally simple technique of calculating. Being an independent collection of indices, it corresponds, to a limited degree, with the New Zealand and Polish research (Słaby, 2013, p. 186–211), however, it allows to define the experienced shortages of need satisfaction and assess their influence on the standard of living and adopted attitudes of rural population with uncertain incomes. Consumption shortages are presented by means of answers to seven questions designed by the author and describing selected research areas. Applying both the dichotomic and nominal scale resulted in the possibility of assigning the answers with discreet values. The number of points granted depended on the question. Overall, the maximum assessment amounted to 90 points (table 1). The aggregation algorithm can be calculated according to the following formula:

$$SINS = \sum \gamma\theta$$

where γ stands for the number of points declared in the coded answer, γ – the number of studied characteristics.

² A Japanese blend of *free* and *arbeiter* referring to youth deprived of the possibility of permanent employment.

It is worth mentioning that the assessment is mostly influenced by the quasi-objective assessment of the purchasing power and its limitations with reference to the selected goods and services and, to a limited degree, by the subjective feeling of exclusion, i.e. a comparison with other individuals. All in all, it needs to be stressed that assessments are likely to be influenced by comparisons that individuals make with others and therefore, it is difficult to call any of the questions purely objective.

Table 1. Aggregation algorithm of answers to SINS items

Question	Specification of possible answers and scoring code	Maximum number of points
Sense of exclusion	Yes – 0; No – 1.	1
Sense of satisfying current needs	Yes, we also put money aside for the future – 7 Yes, but we do not put any money aside for the future – 6 Yes, but only the most important nutrition needs, clothing and accommodation – 5 Yes, but we have to live really thriftily – 4 Yes, but only foodwise – 3 No, we do not satisfy our health, cultural or educational needs – 2 No, we do not satisfy all our accommodation clothing or nutrition needs – 1 No, sometimes we do not have enough money for food – 0	7
Material situation in comparison with other households	It is much better than in other households – 4 It is better than in other households – 3 It is similar to that of other households – 2 It is worse than in average households – 1 It is much worse than in average households – 0	4
Limitations in need satisfaction: food, alcohol and tobacco products, clothes & footwear, accommodation, rest, child support, personal hygiene, health, culture, transport, extra activities	Yes – 0 No – 1	12

Level of need satisfaction: food, clothes & footwear, alcohol and tobacco products, household appliances, tourism and recreation, health services, cultural needs, educational needs, social needs (meeting friends)	Very bad – 0 Bad – 0.5 Sufficient – 1 Good – 1.5 Very good – 2	18
Possessing goods: washing machine, refrigerator, freezer, dishwasher, microwave oven, food processor, radio set, TV set, cable / satellite TV, camera, computer, Internet, mobile phone, bicycle, car, accommodation	I do not have them because I cannot afford them – 0 I have them, but they are too old and I do not stand the chance of changing them – 0.5 I have them, but I would already like to change them – 1 Those goods that I have are new enough – 2	32
Change in need Satisfaction: food, accommodation, health, education, culture, recreation, transport, alcohol and tobacco products	It has deteriorated – 0 It has not changed – 1 It has improved – 2	16
	Total	90

Source: Author's own compilation.

The construction of the synthetic indicator required the answer to the question whether it should be a sum of elements describing need satisfaction, assuming that all variables are of equal meaning, or the weight of its constituents should vary. Being very simple, the first attitude is not entirely deprived of faults. Choosing between 0 (when needs are not satisfied) and 1 (in the opposite situation) results in the omission of the degree of need satisfaction. Even the very observation of the need satisfaction deprivation syndrome of any intensity results in the same treatment of people who slightly fail to satisfy their needs and people whose need satisfaction is seriously limited. Therefore, as far as dichotomic questions are concerned, the specific index amounts to 1 when needs are satisfied and

0 when they are not, while in questions with gradable answers, failure to satisfy needs is shown in a cumulative way and it was assumed that every improvement in respondents' situation would be reflected in an increase of the index. For obvious reasons, the weights are assigned subjectively, however, the assignment results from a careful analysis of the meaning of satisfying particular needs. It needs to be stressed, though, that in spite of being essentially and statistically justified, the weights are arbitrary.

It is worth noting that the assumed weights do not favour or debase any of the factors and therefore, it can be argued that the differences in the importance of the constituents of SINS are small. At the same time, the construction of the index allows an optimal description of need satisfaction or failure to satisfy needs, taking into account various aspects of need satisfaction deprivation.

The index was subject to statistical verification by means of correlation analysis of its constituents. For that purpose, reliability analysis was conducted with the use of 48 items on scale. After statistics had been added up, the average amounted to 48.72 with standard variation equal to 10.86 and variance of 117.86. Cronbach's Alpha³ amounted to 0.8470⁴ and standardised alpha was equal to 0.8268. As most of the correlations were positive, given the reliability coefficients, it can be assumed that the index is coherent and its constituents reflect the particular elements of one complex phenomenon measured by SINS.

Table 2. SINS descriptive statistics for rural sample with uncertain incomes: Measures of location and dispersion

Specification	Totals
Mean	48.71837
Total	51982.5
Standard deviaton	10.85629
Variance	117.8589
Cronbach's Alpha coefficient	0.84703
Standarised Cronbach's Alpha	0.82678

Source: Author's own compilation, UMO-2011/01/B/HS5/01034, $n=1067$.

³ Cronbach's Alpha coefficient of internal consistency provides information to what degree a certain set of items describes a construct. It is used in the assessment of reliability of questionnaires composed of questions of any number of response categories. It constitutes a generalisation of the split-half method and the Kuder-Richardson formula. It is calculated by means of the formula, where n represents a number of questions (test items), represents the variance of all the results from the whole questionnaire, represents the variance of the i item. A high reliability is that exceeding 0.7 (Stanisz, 2007, pp. 441–442).

⁴ Cronbach's Alpha coefficient of 0.847 means that 84.7% of the changeability of the total score can be identified with the real result, i.e. the real changeability among respondents as regards the notion common for all items" (Stanisz, 2007, p. 446).

It should be noted that increasing Cronbach's Alpha value would be possible after removing all items connected with limitations in food, alcohol and tobacco, clothing, accommodation and rest needs, however, even removing these five items would not result in a significant improvement of Cronbach's Alpha⁵, therefore it was assumed that these items would be taken into account, but their significance would be analysed as regards need satisfaction analysis. A simulation of increasing the reliability coefficient shows that reaching the score of 0.9 would only be possible after adding thirty new test items, which is utterly difficult. In order to describe the strength of the relationship between the indices constituting SINS and the total value of SINS itself, the value of Yule's Φ coefficient was estimated. The calculated indices show a limited influence of the sense of social exclusion, limitations in satisfying particular needs (Φ specific indices do not exceed 0.3), moderate relationship between the level of need satisfaction and possessing goods and the sense of satisfying current needs and material situation in comparison with others on SINS (table 3). Therefore, it can be observed that basing only on a selected group of indices of need satisfaction could possibly lead to an incomplete explanation of the studied phenomenon.

It can be assumed that the use of the synthetic index of need satisfaction in a holistic manner, comprising a number of specific indices, both objective and subjective, allows a more thorough description of standards of life in individual households. The index can be widely applied because of its synthetising dimension, which enables a broad investigation of need satisfaction by various groups specified by different demographic, economic or social variables. Although this index does not take into account all the available information and factors influencing the standard of living, it enables a valid description of relationships between cohorts. Its advantage consists in evaluating the degrees of need satisfaction, which allows a differentiation of groups of different intensity of need satisfaction deprivation.

THE DISTRIBUTION OF SINS VALUES IN SELECTED SOCIOECONOMIC GROUPS

On the basis of obtained results, six categories of states of need satisfaction have been distinguished that refer to SINS values, from very low (0–15.0) to very good (75.5–90). The distribution of the numbers of people in different categories points at a relatively low level of need satisfaction. Only 14% of all respondents managed to satisfy the majority of their needs. At the same time, the extreme fractions are diminishing. None of the respondents reached a very good result and only a very low percentage reached an extremely low result. Only three households among the studied sample satisfied less than 1/6 of all their needs.

⁵ The increase in the value of the coefficient would then amount to 0.004 and the coefficient would be equal to 0.851.

Table 3. Numerical values of Yule's Φ coefficient of relationship between indices constituting SINS and the overall value of SINS

Constituents of SINS		Yule's Φ coefficient statistically significant relationships ($\alpha_1=0,000 \leq \alpha=0,05$)
Social exclusion		0.2047
Satisfying current needs		0.6205
Material situation in comparison with other households		0.4764
Limitations in need satisfaction	Food	0.1920
	Alcohol and tobacco products	0.1214
	Clothes and footwear	0.1769
	Accommodation	0.1450
	Rest	0.0803
	Child support	0.1507
	Personal hygiene	0.1948
	Health	0.0808
	Education	0.0706
	Culture	0.1270
	Transport	0.1133
Extra activities	0.1308	
Level of need satisfaction	Food	0.6245
	Clothes and footwear	0.7842
	Alcohol and tobacco products	0.3949
	Household appliances	0.7816
	Tourism and recreation	0.5095
	Health services	0.6396
	Cultural needs	0.5189
	Educational needs	0.5706
Social needs (meeting friends)	0.3962	
Possessing goods	Washing machine	0.4505
	Refrigerator	0.4596
	Freezer	0.5629
	Dishwasher	0.4222
	Microwave oven	0.5389
	Food processor	0.4969
	Radio set	0.3772
	TV set	0.4721
	Satellite or cable TV	0.6192
	Camera	0.5272
	Computer	0.5903
	Internet	0.6000
	Mobile phone	0.4795
	Bicycle	0.4348
Car	0.4959	
Accommodation	0.3149	
Change in need satisfaction	Food	0.2436
	Accommodation expenses	0.2360
	Health expenses	0.3384
	Educational expenses	0.4163
	Cultural expenses	0.4158
	Recreation expenses	0.3536
	Transport expenses	0.3612
Alcohol and tobacco expenses	0.3312	

Source: Author's own compilation.

More than half the respondents reached average results. However, it needs to be noticed that the respondents evaluating their need satisfaction as average actually managed to satisfy from 1/2 to 2/3 of their needs (table 4).

Table 4. Standard of living in the rural sample according to SINS

SINS category	Index value	Sample size <i>n</i>	Sample size %
Extremely low (W1)	0–15	3	0.28
Low (W2)	15,5–30	65	6.09
Unsatisfactory (W3)	30,5–45	295	27.65
Average (W4)	45,5–60	554	51.92
Good (W5)	60,5–75	150	14.06
Very good (W6)	75,5–90	0	0.00

Source: Author's own study, UMO-2011/01/B/HS5/01034, $n=1067$.

The degree of need satisfaction does not show a linear correlation with belonging to any of sexes. Although the average level of need satisfaction is higher among women than among men, the difference amounts to merely 0.6 (table 5). Part of research points to women's worse economic situation in households (Lister 2007, pp. 68–93; Ward, Dale and Joshi 1996, pp. 95–120; Huber, Stephens, Bradley, Moller and Nielsen 2009, pp. 1–39; Stier and Mandel 2003, pp. 7–10; Lewis and Campbell 2009, pp. 4–30), but it is not confirmed by research outcomes in the area of need satisfaction. It does not mean that the discrimination does not exist. Firstly, women may fail to notice it, and secondly, the hierarchy of needs experienced by women is different and, consequently, so are the final results. Nevertheless, women's financial dependence is not limited to the unequal distribution of incomes and need satisfaction and is more frequently connected with the legitimisation of their lower status in the economic and social area (Lister 2007, s. 77).

Table 5. The degree of need satisfaction calculated with SINS for sexes

Specification	Total	Women	Men
Very low and low (W1 and W2)	6.4	5	7.8
Unsatisfactory (W3)	27.6	29.5	25.6
Average (W4)	51.9	51.6	52.3
Good (W5)	14.1	13.9	14.3
Average value of SINS	48.7	49	48.4

Source: Author's own study, UMO-2011/01/B/HS5/01034, $n=1067$.

The index of need satisfaction is mostly dependent on the megaregion (correlation coefficient equal to 0.25, $p < 0.05$). The research shows that as far as need satisfaction is concerned, the southern megaregion has the highest average value of the coefficient (53.1) whereas the values for the central megaregion and the north-western region only reached 44.7 and 44.9 respectively. The central region is characterised by strong polarisation – there is a group that is faced with very low or low need satisfaction, but there is also a group whose needs are fulfilled in a satisfactory proportion (table 6).

Table 6. The degree of need satisfaction in megaregions according to SINS (in %)

SINS Category	Central Region	Southern Region	South-western Region	Northern Region	North-Western Region	Eastern Region
Extremely low and low	18.2	3.1	2.1	2	5.8	4.3
Unsatisfactory	28.8	17.1	24.7	38.6	38.4	22
Average	40.4	56.5	56.7	44.4	54.7	58.3
Good	12.6	23.3	16.5	15	1.2	15.4
Average SINS value	44.7	53.1	49.8	49	44.9	50.5

Source: Author's own study, UMO-2011/01/B/HS5/01034, $n = 1067$.

Education constitutes a very important factor influencing the sense of need satisfaction. However, contrary to common expectations, it is not the level, but the type of education that really matters. The common perception assumes that the higher the level of education the greater the opportunity to earn higher incomes. However, this situation only characterises people with higher education whose incomes exceed others' incomes by 30%. At the same time, this group is characterised by the highest value of standard deviation (exceeding 700 PLN). The correlation coefficient of SINS and the level of education amounts to 0.19 ($p < 0.05$). People with the highest level of education are typically characterised by the highest values of SINS and there are very few of them whose need satisfaction is low or very low (table 7). A low percentage of need satisfaction in this group is not surprising due to the specifics of the rural labour market. It is not surprising, either, the group of people whose need satisfaction is low or very low is primarily composed of people with basic (junior high school or vocational) education. An increase in the number of people satisfying their needs at least at the average level would require an improvement in people's education and as well as in the quality of human capital.

Education plays a vital part in a person's life, both as human capital that they launch on the labour market and in personal development, which is not connected with economic perspectives (Łuczka-Bakuła, Kalinowski, Orczyk, 2006, pp. 171–183). Knowledge is a basic economic resource determining the social structure, creating new economic, social, and political forces (Drucker, 1999). Increasing the quality of human capital will increase the opportunities of individuals and, consequently, result in an improvement in the level of their need satisfaction.

Table 7. Degree of respondents' need satisfaction depending on their education according to SINS (in %)

SINS Category	Higher education	Post-secondary education	Secondary vocational education	Secondary general education	Basic vocational education	Lower secondary education
Extremely low and low	1.6	4.9	6.6	2.9	11.3	9.4
Unsatisfactory	15.1	35.4	30	29.9	29.3	27.4
Average	56.2	51.2	48.9	55.9	49.4	46.1
Good	27.1	8.5	14.5	11.3	10	17.1
Average SINS value	54	47	48.4	49.5	46	46.2

Source: Author's own study, UMO-2011/01/B/HS5/01034, $n=1067$.

Statistical significance is also indicated by the deficiencies in need satisfaction with the number of household members (correlation coefficient 0.14 with $p<0.05$). Consumption deficiencies are lower in more numerous households than in one- or two-person households. This also confirms a worse income situation of these households. In spite of higher SINS values, households consisting of at least five members more frequently fail to satisfy their needs than three-person or four-person households (table 8). Respondents from multi-children families pointed particularly frequently to difficulties in satisfying additional educational needs (private classes, paid extra-curricular activities). However, as M. Halamska (2013, pp. 25–43) points out, parents' educational aspirations do not match the actual expenses on education. This is also confirmed by answers to the question about spending an extra supply of money. Only a few respondents would allocate the money for education.

Age is another important variable in the statistical analysis of need satisfaction. Although the correlation coefficient amounts to 0.17 ($p<0.05$), it is possible to observe substantial relationships. The average degree of need satisfaction

Table 8. The degree of need satisfaction according to household size (in %)

SINS Category	1-person	2-person	3-person	4-person	5-person and more
Extremely low and low	13.4	9.1	2.4	6.5	6.9
Unsatisfactory	35.8	35.3	34.3	22.3	14.7
Average	40.3	43.4	49.5	55.3	63.3
Good	10.5	12.2	13.8	15.9	15.1
SINS average value	44.7	46.6	48.9	49.5	50.9

Source: Author's own study, UMO-2011/01/B/HS5/01034, $n=1067$.

decreases as age increases (apart from the over 65s), while the percentage of people whose need satisfaction is low or very low increases (table 9). Interestingly, people aged between 18 and 24 are the group most satisfied with their consumption, although they are most endangered with both objective and subjective poverty (Kalinowski, 2014). Need satisfaction scales inversely with age, which may be a proof of increasing consumption aspirations and more and more critical evaluation of need satisfaction. The decrease of SINS value may result from transferring the emphasis of need satisfaction to younger generations and attempts to meet the needs connected with attending school, which results in the decrease in satisfaction levels of respondents' direct needs. Increasing healthcare needs may in a way justify the decrease in need satisfaction that proceeds as respondents' age increases since they may result in lowering the expenses on satisfying other groups of needs and, therefore, lower satisfaction. The final view is reflected in the study since healthcare expenses increased among 29.8% in the first analysed age group and among 42.3% in the 55–64 age group. A question arouses, however, when it comes to over 65s. Over 58% claim to have higher healthcare expenses, which is not supported by a decrease in SINS value. Analyses show that this is the only group in which need satisfaction measured by SINS is not correlated with expenses on food, accommodation, healthcare, education or transport. All the other groups show statistically significant correlations between expenses on satisfying particular needs and SINS.

As it could be expected, the index of need satisfaction depends on the income in a household (correlation coefficient of 0.28, $p<0.05$). Groups of lowest incomes in households (below 1 000 PLN), the average value of SINS does not differ considerably and amounts to slightly more than 43%. At the same time, lowest consumption limitations and relatively best coefficient value for need sat-

Table 9. Degree of need satisfaction in age groups measured by SINS (in %)

SINS Category	18–24	25–34	35–44	45–54	55–64	65 and more
Extremely low and low	1.7	4.9	4.9	9.9	15.4	3.2
Unsatisfactory	19.7	26.4	32.2	26.2	35.8	25.8
Average	62.9	54.4	45.3	49.7	42.3	67.8
Good	15.7	14.3	17.6	14.2	6.5	3.2
Average SINS value	51.8	49.4	48.9	47.4	44.5	47.9

Source: Author's own study, UMO-2011/01/B/HS5/01034, $n=1067$.

isfaction can be observed in households with highest incomes (table 10). It can be assumed that higher incomes can cushion the effects of consumption limitations. According to K. Kuśmierczyk (2009, p. 82), differentiations and changes in incomes can primarily be interpreted as objective regularities that set in motion changes in consumption. Obtaining incomes, irrespectively of their source, does not constitute a factor that would explain satisfaction from consumption. Contrary to R. Dahrendorf's words, according to which the created jobs can guarantee access to resources (Dahrendorf, 1993, p. 227), it is not the fact of having a job (or source of income) that determines possessing goods or not. The potential need satisfaction is primarily dependent on the individual's place in the labour market. It opens promotion opportunities, influences income stability and therefore determines the individual's position in society, which is equivalent to the possibility of satisfying needs at an expected level. As P. Teisseyre notices (2012, pp. 192–204), the secondary labour market is characterised by low earnings and fails to provide any opportunities of improving an individual's material situation. Therefore, it could be assumed that the rural population with uncertain incomes is bound to possess less. However, research shows that the number of goods possessed by the analysed group does not differ considerably from the average number for the whole society. A state of a relatively high product saturation is the landmark of today's reality, dominated by consumptionist lifestyle, while the possessed assets are believed to be the determinant of wealth.

The analysis of need satisfaction depending on the main source of income finds that the self-employed are able to satisfy their needs most frequently. For more than 40% of respondents from this group, the value of SINS exceeds 60 and the average value of need satisfaction amounts to 56 points. The average distance from other self-employed respondents amounts to 8.5 points. The other

Table 10. The degree of need satisfaction by total household income according to SINS (in %)

SINS category	0–500 PLN	501– 1000 PLN	1001– 2000 PLN	2001– 3000 PLN	3001– 4000 PLN	Above 4000 PLN
Extremely low and low	11.1	14.3	8.8	3.6	6.6	7.4
Unsatisfactory	66.7	42.9	38.4	37.6	26.4	9.5
Average	11.1	35.7	47.2	50	56	54.7
Good	11.1	7.1	5.6	8.8	11	28.4
Average SINS value	43.3	43.2	44.7	47.2	48.5	53.3

Source: Author's own study, UMO-2011/01/B/HS5/01034, $n=1067$.

Table 11. The degree of need satisfaction by respondents' main source of income according to SINS (in %)

SINS Category	Commission contracts	Fixed-term contract	Part-time job	Off-the-books	Self employment	Stand-ins and leasing	Social benefits	Other
Extremely low and low	4.2	8.8	2.1	11.8	2.6	28.6	6.8	6.9
Unsatisfactory	28.6	33.6	30.3	17.6	18.4	14.3	31.2	24.9
Average	58.3	47.8	53.1	50	38.2	42.8	48.4	57.2
Good	8.9	9.7	14.5	20.6	40.8	14.3	13.6	11
Average SINS value	48.3	46.6	48	49	56	43.5	48.4	48.6

Source: Author's own study, UMO-2011/01/B/HS5/01034, $n=1067$.

extreme group consists of stand-ins (28.6%) where average need satisfaction amounts to 43.5 and is lower from the respective value for the self-employed by 12.5 points (table 11). What is interesting, the average for the studied sample is only exceeded by the values of the coefficient for the self-employed and for off-the-books workers.

Need satisfaction, and therefore also consumer demand, depend on their social aspirations while the patterns of behaviour and consumers' actions result from groups mixing with each other and individuals' mixing with other individuals in their group. Therefore, it can be concluded that an individual's consumption depends on the level and structure of other individuals' consumption

(Burgiel 2010, pp. 60–86). It can be assumed that acquiring goods and consumption has an important social dimension as well as a psychological one. On the one hand, it has an expression dimension while on the other hand, it conveys a message to be interpreted by others. Individuals' personalities, culture, values, etc., are manifested in their consumption patterns and consumption behaviours (Antonides i Vaan Raaij 2003, pp. 1–7). The role of the higher order needs has been increasing in recent years. According to T. Zalega (2008, p. 158), it marks changes in consumption and a general improvement in people's material status in Poland.

SUMMARY AND CONCLUSIONS

It can be assumed that needs can be satisfied according to two patterns – the first one assumes a low level of satisfaction and the second level assumes a relatively high one. Based on these patterns, it is possible to attempt a description of an average individual who is either most likely or least likely to face the problem of low need satisfaction. A typical individual belonging to group one is a man living in the central region, with basic vocational education, aged 55–64, whose household income per capita does not exceed 1 000 PLN, covering for someone else's absence at work. The other individual would be a woman from the southern region, possessing higher education, whose household would consist of 5 or more people, aged 18–24, earning more than 4 000 PLN and self-employed. However, it is worth mentioning that the differences are so minor that minimal changes could radically affect the categorisation of the "statistical" individual. Therefore, the individual should be considered in categories of highest or lowest need satisfaction, but not as a real representative of the population.

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ABSTRACT

The article discusses the synthetic index of need satisfaction in rural population with uncertain incomes. It focuses on individuals and groups that are prone to fail to satisfy their needs and, consequently, face the threat of a low living standards. It finds that men who graduated from vocational schools are much more likely to have their needs unfulfilled. It is also found that one-person households and pre-pensioners more frequently encounter difficulties trying to fully satisfy their needs than young people or participants of more complex types of households. Difficulties in satisfying needs are experienced primarily by people whose household's per capita income does not exceed PLN 1000 and who have temporary jobs.

Keywords: synthetic index of need satisfaction, rural population, income uncertainty.

JEL Classification: R20, R21, I31, I32

ZASPOKOJENIE POTRZEB PRZEZ LUDNOŚĆ WIEJSKĄ O NIEPEWNYCH DOCHODACH

STRESZCZENIE

W artykule został omówiony syntetyczny wskaźnik zaspokojenia potrzeb ludności wiejskiej o niepewnych dochodach. Zwrócono uwagę na jednostki oraz grupy szczególnie zagrożone niewystarczającym zaspokojeniem potrzeb, a w konsekwencji niskim poziomem życia. Zauważono, że znacznie częściej deprivacją potrzeb są zagrożeni mężczyźni zamieszkujący region centralny z wykształceniem zawodowym. Ponadto osoby zamieszkujące samotnie gospodarstwo domowe i w wieku przedemerytalnym częściej mają problemy z satysfakcjonującym stopniem zaspokojenia potrzeb niż osoby młode, czy też z gospodarstw liczniejszych. Jak można było się spodziewać trudności w zaspokojeniu potrzeb dotyczą przede wszystkim osób, których dochody przypadające na gospodarstwo domowe były nie wyższe niż 1000 zł, a ich praca miała charakter tymczasowy (na zastępstwo).

Słowa kluczowe: syntetyczny wskaźnik zaspokojenia potrzeb, ludność wiejska, niepewność dochodów.