MULTIDIMENSIONAL AFFLUENCE IN URBAN AND RURAL AREAS IN POLAND

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Abstract: The affluence phenomenon is often analyzed through the prism of income or expenditures. The studies including the other dimensions of this phenomenon appear very rarely. The most common cause of this situation is the low availability of data on other dimensions of affluence. This paper aims to construct the multidimensional affluence indicator and to compare the shares of affluent people in urban and rural areas in Poland. There was created a multidimensional affluence indicator including a few dimensions: household income more than 200% of median income, making ends meet easily or very easily, possibility to finance unexpected expenses, possibility to afford one week holiday away from home, possibility to pay the loans or debts was not felt like a financial burden. The affluent were considered when at least three, four, and five criteria were met. The study was carried out on the population of adult inhabitants of Poland ($n = 1067$) in November 2020. The study was based on a stratified sample. The data analysis has shown that the shares of affluent people in urban and rural areas differ statistically. The differences regarding some specific dimensions are not so visible each time, but finally, the shares of affluent in the multidimensional approach in urban and rural areas were significantly different.

Key words: affluence, multidimensional affluence indicator, households, urban and rural areas
JEL codes: D31, D63, I31

1. Introduction

Poverty and social exclusion are phenomena that are combated in every country around the world. Therefore, the researchers, governments, social workers are interested in increasing their knowledge of these phenomena. On the one hand, the poor people are in every society, and on the other hand, in the same societies, there are affluent and rich people. These groups of people are opposites. There is a question of whether affluence and richness also should be studied since it is not a problem of social policy. Sense of affluence and richness research comes from another reason – from the role of the high-income and wealthy people, so-called the

economic elite, or the upper class in society. They shape practically the whole societies giving jobs to other people or being a model to follow. They affect the economic, social, and political life of whole societies. Besides, affluence has a positive effect on the assessment of one's own life. Analyzing data from five large surveys spanning 162 countries, Tong et al. (2021) predicted and found the most comprehensive evidence to date that income reliably predicted greater positive self-regard emotions (e.g., pride) and lower negative self-regard emotions (e.g., anxiety).

There is a basic question – who is affluent, who is rich, and which of these groups will be analyzed? There is no single answer to these questions. First of all, it should be decided whether affluence and richness are considered through the prism of income, wealth, or expenditures on luxury goods and services. The phenomenon should also be considered multidimensional (Törmälehto, 2017). Arndt (2020) emphasizes that affluence can be described in three dimensions: depending on income, wealth, and origin of wealth.

Another key issue is related to the fact that there is no clear distinction between the term "affluence" and "richness". In the literature, it can be found that richness is defined as the highest level of affluence (Radziukiewicz, 2006). In practice, the affluence and the richness lines proposed by different authors have different values and thus this same individual may be considered by one author as affluent, but by another author – as rich. A slightly different approach presents Arndt (2020). He built the pyramid of richness combining definitions of affluence. The author assumed a diversified stratification of income affluence and, in the next step, differentiated it further by including wealth. Being rich was defined based on three dimensions of economic resources: income, wealth, and the origin of wealth.

The next problem which should be solved in affluence and richness research is to determine the affluence (richness) line, i.e. cut-off above which an individual is considered affluent (rich). The lines can be defined in absolute or relative terms. Among the authors considering the affluence (richness) lines in absolute terms are Di Maggio et al. (2003), Hutton (2006), Bose et al. (2014). Some authors (Peichl et al., 2010; Franzini et al., 2016) focus on relative thresholds of affluence (richness). The problem of determining the line in the multidimensional approach showed Törmälehto (2017).

The other choices in affluence and richness research are related to, inter alia measurement unit (person, family, household), equivalent scale, the measure of central tendency. It must be noted that most of the issues related to the affluence (richness) measurement, including choice

of unit and equivalent scale, can be solved in the same way as measuring poverty. Therefore, the literature on poverty is very useful, e.g. Haughton and Khandker (2009).

This paper aims to construct the multidimensional affluence indicator and to compare the shares of affluent people in urban and rural areas in Poland. In the light of the earlier considerations on the definition of affluence and richness, there was assumed to use the term "affluence". In order to be considered affluent in individual dimensions of the indicator, it is not necessary to meet very high requirements, characteristic of richness. The choice of urban and rural areas and comparison of the results on these areas is not accidental. The previous research in many countries (e.g. Shedenova and Beimisheva, 2013; UNICEF, 2015) showed that the material situation in the rural situation is worse than in urban areas. This study will allow to state whether the multidimensional approach gives the same results. The multidimensional analysis of affluence is preceded by an analysis of single dimensions included in the indicator.

2. Methodology and Data

There was created a multidimensional affluence indicator including a few dimensions: household income more than 200% of median income, making ends meet easily or very easily, possibility to finance unexpected expenses, possibility to afford one week holiday away from home, possibility to pay the loans or debts was not felt like a financial burden. The affluent were considered when at least three criteria were met. The study was based on a sample representative of the population living in Poland. In November 2020, 1067 adult inhabitants were interviewed (CAWI technique, Computer-Assisted Web Interviewing). Each inhabitant represented one household and each household was weighted by the number of individuals who belong to this household. For instance, a household of three people has a weight equal to three. This is equivalent to considering a distribution in which this household is represented by three individuals with the same level of income, with the same problem to finance unexpected expenses, etc. Therefore, the survey allowed to gather information about 3330 households' members (weighted sample): 2523 from the urban areas and 807 from the rural areas.

Details about the individual dimensions included in the analysis:

– The respondents answered the question about total household net income. This income was divided by the total number of household members (income per capita). The income was weighted by the household size. People living in households with income higher than 200% of median income were considered affluent.

– The question of making ends meet by household. Possible responses were: "with great difficulty", "with difficulty", "with some difficulty", "easily", "very easily". People making ends easily or very easily were considered affluent.

– The question about the possibility to finance unexpected expenses by household (up to 1000 PLN). The possible responses were "yes" and "no". In the analysis, the answer "yes" was taken into account.

– The respondents were asked about the possibility to afford one week holiday away from home. The detailed question was: "Do all members of the household have the opportunity to travel for at least one week's vacation once a year (including to another house/flat, a summer cottage, or to family and friends)?". The answer "yes" was included in the analysis.

– The question "Are payments of loans or credits taken out by members of your household" with responses "the significant financial burden", "some financial burden", "an imperceptible financial burden". The last of the above-mentioned answers gave information about the affluence of members of the household in this dimension, choosing the other responses meant that members were not considered affluent.

All statistical analyses were conducted using SPSS software (IBM Corporation, 2019).

3. Results and Discussion

3.1. Analysis of single dimensions

Fig. 1 shows the shares of people meeting the subsequent criteria (single dimensions) in urban and rural areas. People from urban areas are living more often in households with income more than 200% of median income and having more often a possibility to afford one week holiday away from home. People from rural areas are living more often in households making ends meet easily or very easily, having more often a possibility to finance unexpected expenses, and the possibility to pay the loans or debts was not felt like a financial burden. The statistically significant differences ($p < 0.05$) were in two cases: share of people living in households with income higher than 200% of median income and possibility to afford a one-week holiday away from home.

Association matrices between considered dimensions based on the Phi coefficient are presented separately for urban and rural areas in Tab. 1 and Tab 2. Not all associations considered were statistically significant ($p < 0.05$). Definitely, the weakest association was between the following dimensions: income more than 200% of median income and lack of financial burden to pay the loans or debts (φ almost equal to zero both in urban and rural areas),

Fig. 1 Shares of people being affluent in individual dimensions

Error bars: 95% CI
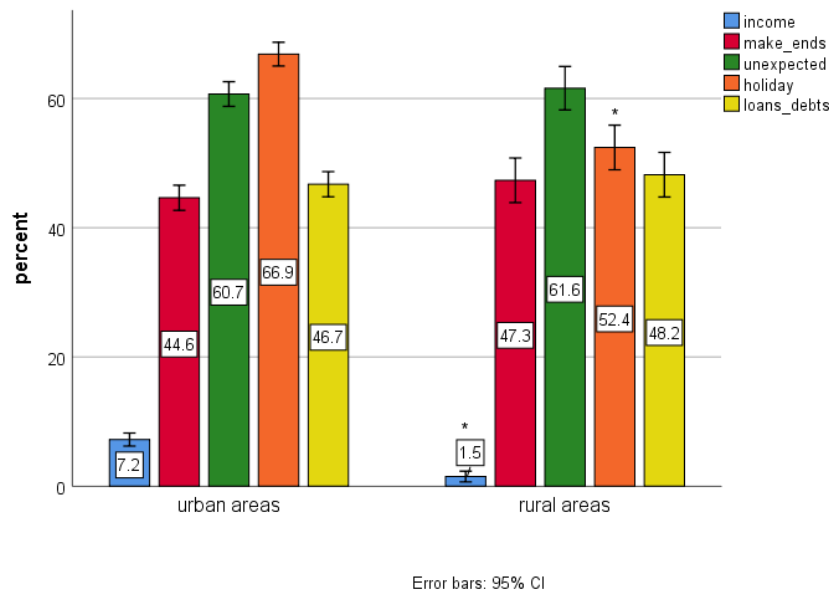
Significant differences between the shares of affluent people in individual dimensions in urban and rural areas are indicated by asterisks

Source: own work.

possibility to finance unexpected expenses and lack of financial burden to pay the loans or debts (in rural areas the value of the Phi coefficient less than 0.1). The values of the coefficient were so low that showed no association between the above-mentioned dimensions. The strongest association both in urban and rural areas was between the possibility to finance unexpected expenses and making ends meet easily or very easily (0.485 and 0.470, respectively), between the possibility to afford one week holiday away from home and the possibility to finance unexpected expenses (0.500 and 0.421, respectively), and between the possibility to afford one week holiday away from home and making ends meet easily or very easily (0.400 and 0.381, respectively). In the above-mentioned cases, the strength of association can be described as moderate. Additionally, the same strength of association was in rural areas between making ends meet easily or very easily and lack of financial burden to pay the loans or debts. In other cases the association between individual dimensions was low.

Tab. 1 Association matrix using Phi coefficient – urban areas

	income	make_ends	unexpected	holiday	loans_debts
income					
make_ends	0.260*				
unexpected	0.196*	0.485*			
holiday	0.175*	0.400*	0.500*		
loans_debts	0.040	0.285*	0.240*	0.204*	

* $p < 0.05$

Source: own work.

Tab. 2 Association matrix using Phi coefficient – rural areas

|	income	make_ends	unexpected	holiday	loans_debts
income					
make_ends	0.185*				
unexpected	0.145*	0.470*			
holiday	0.162*	0.381*	0.421*		
loans_debts	0.053	0.306*	0.094	0.113	

* $p < 0.05$

Source: own work.

3.2. Multidimensional affluence indicator

Fig 2. presents the share of people affluent by the number of dimensions. In urban and rural areas almost one-sixth people live in households do not meet any of affluence criterium. Almost one-fifth of people live in households meeting only one affluence criterium. The shares of people in urban and rural areas are not statistically different in the case of zero, one, and four dimensions. The share of people affluent in two dimensions was statistically higher in rural areas than in urban areas. The share of people affluent in three and five dimensions was statistically higher in urban areas than in rural areas.

In the next step, the share of affluent people was calculated. The affluent were considered when at least three, four, and five criteria were met (Tab. 3).

Fig. 2 Share of people by the number of dimensions
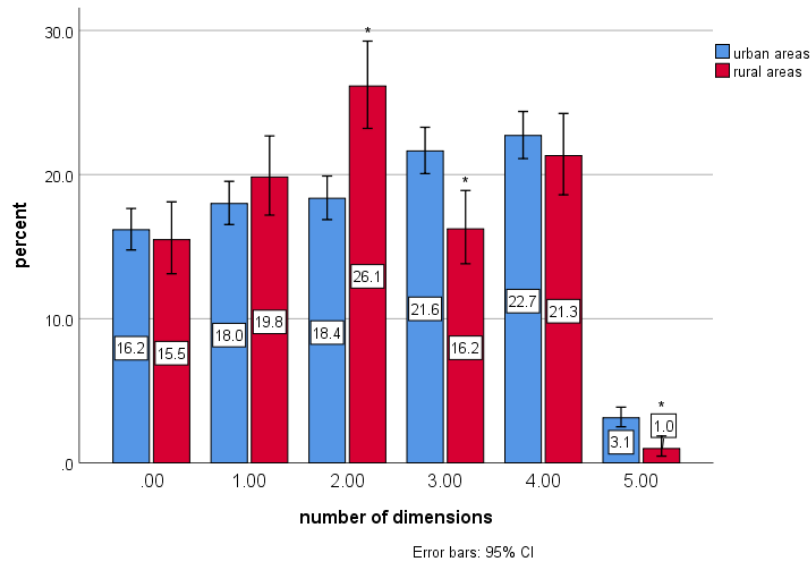
Significant differences between the shares of affluent people by the number of dimensions in urban and rural areas are indicated by asterisks

Source: own work.

Tab. 3 Share of people by the number of required dimensions to be affluent

Area	At least 3 dimensions	At least 4 dimensions	At least 5 dimensions
urban	47.5	25.8	3.1
rural	38.5*	22.3*	1.0*

Significant differences ($p < 0.05$) between the shares of affluent people by the number of required dimensions in urban and rural areas are indicated by asterisks

Source: own work.

Multidimensional affluence indicators based on the different required dimensions show that the people in rural areas live in a lower share of affluence. It should be emphasized that according to the multidimensional indicator based on at least three dimensions almost half of people in urban areas were considered affluent. This share in rural areas was almost 10 percentage points lower and was statistically significant ($p < 0.05$). According to the indicators based on four and five dimensions, the differences in shares of affluent people in urban and rural areas were not so visible but were statistically different each time.

In the literature, there are presented the results of the range of affluence based on multiples of the median income. The affluence lines are often set as 200% of the median, 300% of the median, or 400% of the median. Some authors defined (based on the median) three categories: affluent (300% of the median), rich (500%), and super-rich (1000%). Relative thresholds of

affluence and richness were used also by Brzeziński (2010), Peichl et al. (2010), Franzini et al. (2016), Törmälehto (2017), Sączewska-Piotrowska (2019).

According to our best knowledge, the multidimensional affluence indicator was constructed only by Törmälehto (2017). He constructed a multidimensional indicator based on eight income and non-income dimensions. The values of the indicator were calculated for all European countries. Based on the results presented by Törmälehto it can be stated that there is no strong association between income affluence (affluence line was set as 2.5 times the median income) and multidimensional affluence. The highest shares of affluent people according to the income dimension were in Latvia and Portugal, according to the multidimensional approach – in Sweden and Norway. The shares of affluent people in the multidimensional approach were between 0.1% (required at least six dimensions) to 65.7% (required at least four dimensions). It should be emphasized that, according to the income approach, Sweden and Norway have almost the lowest shares of affluent people. It means that the results of ordering should be considered in conjunction with the social policy of the individual countries.

4. Conclusions

The paper presents an attempt to the creation of a multidimensional affluence indicator. Based on the components of this indicator, i.e. individual dimensions, interesting conclusions can be drawn. Firstly, there is no association or there is a weak association between the income dimension of affluence and other dimensions. Secondly, one-dimensional affluence based on income and multidimensional affluence based on created indicator gives the same results: share of affluent people in urban areas is higher than in rural areas. Therefore, these measures give similar results despite the lack of association with individual dimensions. It can be stated that the one-dimensional approach allows to approximate multidimensional affluence which is often harder to calculate because of lack of data. The results of the presented research, in the light of previous studies, should not be generalized to all countries around the world and further research on multidimensional affluence should be continued.

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