

**Krzysztof Safin, Anna Błaczowska, Marzena Franków,
Tomasz Rólczyński**

Wydział Finansów i Zarządzania

Wyższa Szkoła Bankowa we Wrocławiu

e-mails: krzysztof.safin@wsb.wroclaw.pl; anna.blaczkowska@wsb.wroclaw.pl;

marzena.frankow@wsb.wroclaw.pl; tomasz.rolczynski@wsb.wroclaw.pl

COMPARATIVE ANALYSIS OF THE CONDITIONS OF LIVING IN LOWER SILESIAN DISTRICTS OVER THE PERIOD OF 2010-2015

ANALIZA PORÓWNAWCZA WARUNKÓW ŻYCIA W POWIATACH DOLNOŚLĄSKICH W LATACH 2010-2015

DOI: 10.15611/pn.2017.483.11

JEL Classification: C38, C190, E29

Summary: The aim of the paper is to analyze variation in quality of life across Lower Silesia, taking into account the disparities within individual districts. At the beginning a theoretical analysis of the measurement quality of life based on available literature was made. In the next step based on the data covering the years 2010-2015, a statistical comparative analysis of the living situation in Lower Silesian districts was conducted which aim was to identify the key factors which would describe the similarities and differences in terms of quality of life among the Lower Silesian population. In the research were used data from the Local Databank, Central Statistical Office and from a survey. The analyzes used objective and subjective measures of quality of life. Research methods were also subjective and objective. Expert methods and selected methods of multidimensional comparative analysis–weighted standardized sums method were used.

Keywords: quality of life, statistical methods, comparative analysis.

Streszczenie: Celem artykułu jest analiza zróżnicowania jakości życia w regionie dolnośląskim, z uwzględnieniem dysproporcji występujących w poszczególnych powiatach. Na wstępie przeprowadzono teoretyczną analizę zagadnień pomiaru jakości życia na podstawie dostępnej literatury przedmiotu. W kolejnym kroku na podstawie danych z lat 2010-2015 przeprowadzono statystyczną analizę porównawczą sytuacji życia w dolnośląskich powiatach, zmierzającą do identyfikacji kluczowych czynników opisujących podobieństwa i różnice w zakresie jakości życia Dolnoślązaków. W badaniach wykorzystano dane Banku Danych Lokalnych GUS oraz dane pozyskane z badań ankietowych. W analizach wykorzystano obiektywne i subiektywne mierniki jakości życia. Również metody badawcze miały charakter

subiektywny i obiektywny. Wykorzystano metody eksperckie oraz wybrane metody wielowymiarowej analizy porównawczej – ważoną metodę sum standaryzowanych.

Słowa kluczowe: jakość życia, metody statystyczne, analiza porównawcza

1. Introduction

One of the features characteristic of the contemporary determinants of development is regional variation in quality of life, as it has been outlined in detail in the literature and reflected in empirical research. Conducting systematic studies around this issue is much relevant in two aspects: theoretical and practical. In the former one, it contributes to the development of tools and their proper selection, thus making it possible to measure quality of life while accounting for territorial differences. In terms of application, it enables one to place a particular self-government unit against others, which is a necessary requirement if actions are to be taken to eliminate gaps and barriers across the areas varying in their level of living.

The aim of the paper is to analyze variation in quality of life across Lower Silesia, taking into account the disparities within individual districts. On the basis of the assumptions arising from the analysis of the issue in a theoretical aspect, a statistical analysis was carried out whose focus was the comparison of the situations across the Lower Silesian districts based on the data covering the years 2010-2015, with a view to identify the key factors which would describe the similarities and differences in terms of quality of life among the Lower Silesian population. Within the framework of the study, we used data from the Local Databank, made available by the Central Statistical Office, as well as information derived from the surveys conducted by the Entrepreneurship and Management Research Team of the WSB University in Wrocław, headed by dr hab. Krzysztof Safin, professor at the same university.

2. Problems in measuring quality of life – literature review

There are numerous reasons why the representatives of various disciplines of science take interest in the issue of life quality. One reason is the belief that quantitative growth in itself is of no value whatsoever, and after having crossed certain lines, further development is impossible if there is no qualitative change. Another reason stems from seeking to bring back to balance “the distorted proportions between that which is subjective and that which is objective in people’s lives in order to direct scholars’ interest towards the equally important, and yet still frequently perceived as unscientific, moral and philosophical issues occupying the contemporary human being, his/her existential attitudes and the values he/she prefers”. The third reason– originating in the philosophical reflection – represents striving to construct a praxeological concept of the development of quality of life in the educational process of an individual [Zandecki 1999, after Wnuk, Marcinkowski 2012, p.22].

The scope of comprehension of the very category of quality of life is very broad: from seeing it as well-being (being in good spirits), welfare, to personal contentment, satisfaction derived from consumption, enjoyment of the natural environment, social standing [Jankowska 2011, p.34]. Social studies are most commonly associated with the evaluation of social effects of economic changes. They are concerned with the diagnosis of social states which is referred to as the level, quality and conditions of living or – increasingly less frequently – welfare [Słaby 2004, p.57].

In the academic literature we can find numerous attempts to come up with the definition of the concept of quality of life, highlighting a variety of characteristic features for this category. As the most important we can name the following:

- Quality of life is a concept that is multi-dimensional, emotionally burdened, whose nature is often that of an ideological tool; further, it is evaluative, impossible to be viewed unambiguously, being enmeshed in political and cultural contexts [Adamiec, Popiołek 2012, pp. 92-117, after Wnuk, Marcinkowski 2012, p.22].
- Level of living is a concept which, to put it most broadly, serves to describe the quality of existence seen as the extent to which people's more important needs are satisfied, and the extent of one's "settling down", comfort and life enjoyment. Perceived like this, it becomes a synonym of the conditions of living in the broadest terms. In this sense – level of living depends not only on the extent to which one's needs are satisfied, but also on the input incurred to this end, i.e. on the amount of time spent working, on the work's arduousness, as well as on the way we spend our free time, etc. [Piasny 1993, p.73]
- Quality of life is the extent to which the population's needs are met, arising from the consumption of material goods and services produced by people and the use of the environmental and social assets [Bywalec 1986, p.34]. This definition implies that the level of living is in fact a relationship between the needs and actual consumption. The authors of this definition not only take into consideration the satisfaction of human needs in terms of nutrition, housing, safety (public and social), communication, health, education and culture, but they also draw attention to the needs relating to the natural and social environment, which was also suggested by Z. Kędzior in 1997, who argued that the level of living was the extent to which the society's material and cultural needs were satisfied through consumption of goods and services, and exploitation of environmental and social amenities [Kędzior 2002, p.25].
- T. Słaby [Słaby 1990, p.8] emphasizes that "the extent to which material needs are satisfied refers to the basic – in the hierarchy – human needs (physiological ones). In this respect, the fact is noted that level of living should be determined based on a set of objective measures (in terms of quantity and value), while quality of life ought to be evaluated mainly employing subjective measures [Rutkowski 1991, p.33].
- According to A. Kaleta, quality of life encompasses the needs "which an individual considers to be the most important in his/her life, including his/her

opinions as to the extent those needs are satisfied”. The author points out that this term should be defined with reference to the methods of analysis adopted by the researcher. The indicator of level of living and “(...) the extent to which various needs are met” could be a bridge across the explorations on quality of life – whatever the interdisciplinary differences [Kaleta 1988].

After reviewing the definitions of quality of life what comes into view is a tendency to make the definition of level of living more unified. The definitions devised by individual authors are similar to one another, with the differences being in their nature semantic rather than substantial [Kwasek 2002, p.20, after Gotowska 2013,p. 20].

Based on the various definitions encountered in the quality of life category, it is possible to distinguish some stable elements, such as:

- objective factors,
- social factors,
- subjective factors.

The objective factors are most likely to reflect material welfare, with the social factors being measured using the available social services and infrastructure, while the subjective factors tend to be presented as certain elusive characteristics, such as, for example: mental feelings, satisfaction, contentment and happiness [Kędzior 2003]. This approach is the same as the one demonstrated by W. Ostasiewicz [Ostasiewicz 2004], who distinguished three approaches resulting from the position adopted in the research process: economic and statistical (based on the objective concept of quality of life), and psychological (based on the subjective concept). The statistical concept has been winning the greatest number of followers; as a rule it is based on aggregate measures, so called synthetic measures of development. What makes this approach distinctive is its great practical usefulness while making social and economic decisions [Majka 2005].

Taking into account the stable features, distinguished above, involved in defining quality of life, the key question that still remains is how to measure quality of life from the economic perspective. The answer to the question thus posed appears to be obvious in that there is no universal measure allowing one to indicate which values are better and which worse for people. For the conflicting values, every universal model designed to provide a solution to this conflict will fail to be adequate, for there will always be a situation where it may prove to be nonfunctional. There is no universal formula allowing people to achieve greater success and happiness, nor is it possible to satisfy all human needs. Moreover, the needs of an individual do not always correspond to the needs on a greater social scale, with the research on quality of life being guided by the principle of achieving a certain socio-economic optimum. In this respect – due to the economic considerations – the quality of life could be linked to the concept of public needs which are the reason why there exists the concept of public good as defined by the public economics. A public need will signify the needs voiced by the general public allowing for the individual needs to

be satisfied. The importance and scope of public needs are being expanded covering new areas such as all assets of the natural environment (including water, earth, air, landscape), public safety, a sense of belonging and social identity, as well as civil liberties. In settling these issues one cannot employ exclusively market criteria, hence the need to search for a more adequate tool of measurement [Hadyński 2013, p. 139].

The objective criterion is a criterion, where “[...] it is possible to determine the level of living of a particular individual by determining the ratio of her/his needs to the state of resources of the surrounding environment which allow those needs to be satisfied”, whereas for subjective criterion “[...] the level of quality of life is manifested by humans’ mental states accompanying them in the process of satisfying their needs which arise from the cognitive assessment of the relationships between the self and the environment, assessment of one’s own achievements, failures and the evaluation of chances to realize one’s pursuits, desires and life’s goals” [Chudzicka 1995, pp. 87-96].

The evaluation of quality of life should then be made taking into account the state of satisfaction regarding basic needs which, according to Z. Ratajczak, encompass health and the level at which the material needs such as nutrition and housing are met. Among the objective indicators of quality of life we may, among other things, distinguish the following: material condition, financial security, living conditions and housing, healthcare quality, environmental security, social relationships, social support system, social activity, personal growth (education, work, participation in culture) or recreation and rest [Trzebiatowski 2011, p. 28].

In terms of its meaning, the objective quality of life is similar to the concept of the conditions of living (or level of living, standard of living or life standard—though it being a more limitative approach), which signify “all objective conditions of infrastructural nature in which society lives (social groups, households and individuals). They are mainly linked to [Słaby 2007, pp. 99-130, Sompolska-Rzechuła 2013, p. 131]:

- material condition,
- existential security,
- environmental security for individual lives.

We may conclude that the objective quality of life is a set of objective qualitative facts (objective forms of satisfying humans needs) characterizing various aspects of human life, that is, without having them evaluated comparatively or psychologically.

This quality is measured using objective indicators, most frequently in the form of natural measures of intensity (in terms of quantity or value). The objective quality of life comprises such issues as [Czapiński, Panek 2009, after Sompolska-Rzechuła 2013, p. 131]:

- household’s income situation and the way of managing its income,
- nutrition,
- household’s wealth, including modern communication equipment (mobile phone, computer, Internet access),

- housing conditions,
- social help received by household,
- children's education,
- participation in culture and leisure,
- using healthcare services,
- situation of household and its members on the labor market,
- poverty, unemployment, disability and other aspects of social exclusion.

Generally, the underlying essence of the research on quality of life lies in its making a reference to “the sense” of the quality of life, including also the question already touched upon of the objectivity-subjectivity, perspective (whose life quality), etc. This original idea must be transformed into a list of variables on the basis of such criteria as: availability of data on the individual variables (including, e.g. their quality, completeness), the cost and time necessary to acquire the data, their expected accuracy (both in terms of their precision and representation of the concepts referred to in the evaluation of the quality of life), and also the significance that is assigned to this variable – and the relevant term – in the quality of life evaluation). It is thus easy to observe that as early as during the stages aimed at determining the list of factual operating variables, the significance of individual variables for the overall study is taken into consideration. This aspect is increasingly gaining in importance as we are nearing the final result of the investigation [Owsiński, Tarchalski 2008, p.70]. At this level of generalization, for the discussion to make sense in practical terms it must refer to the issue whether quality of life is (more) subjective or (more) objective in its nature, and if it is subjective, then does it make any sense, can it be made objective? The answers to these questions will cover the entire further course of investigation [Owsiński, Tarchalski 2008, p.60].

3. Research method

The concept of examining the quality of life was based on the following stages whose visualization is presented in Figure 1.

In order to determine the research areas (spheres) describing the level of living, the expert method was employed conducted on the basis of the analysis of the literature output. A set of variables characteristic of the phenomenon under discussion was proposed for each area. The selection of an optimal subset of diagnostic variables is part of research having a large impact on the final results of a study – sorting out or classification. The selection, made from the set of the potential variables (indicators), of the final variable set can be done deploying various approaches, such as [Ostasiewicz 1998]:

- substantive (non-statistical) where variables are selected based on the expert knowledge on the relationship between individual characteristics and the issue discussed,

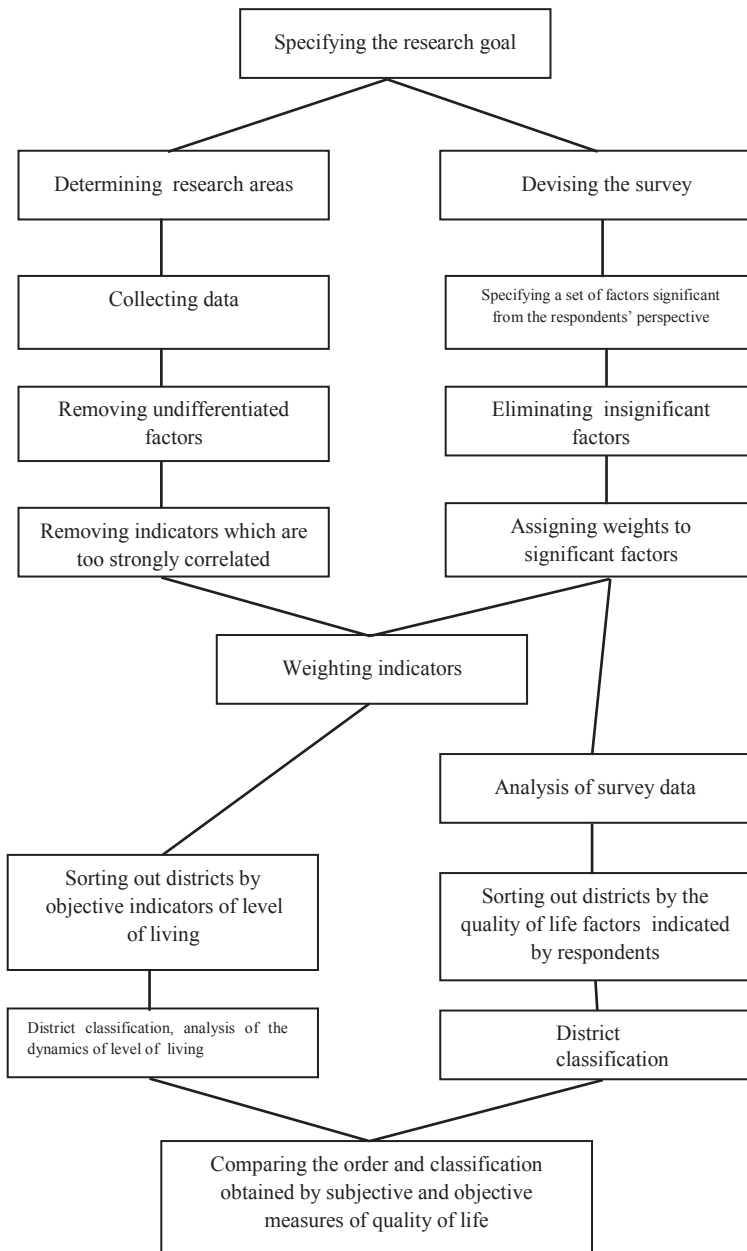


Fig 1. The research procedure concerning the level of living across Lower Silesia

Source: authors' own study.

- formal in which the analysis focuses on objective (quantitative, statistical) properties of the realization of individual variables (indicators) for the investigated objects.

Deploying both approaches combined is very likely to yield the best results. In the paper this very approach was employed, under which the variables (indicators), suggested by the literature, underwent reduction using formal and statistical methods.

While collecting the data from the records of the Local Databank we came across the following problems:

- a limited availability of data which could characterize the conditions of living of population at a district level;
- for some variables the data was lacking on some years or/and certain districts – such indicators were removed from all the years.

The substantive and formal analysis allowed devising a list which covered in total how the level of 155 variables changed over 2010-2015. Those indicators were part of the areas determined before:

- social activity – 12 indicators describing, among other things, people's access to cultural institutions;
- education – 11 indicators showing the infrastructural access to educational establishments and education quality;
- households – 31 indicators describing housing conditions, including utility access (gas, water, sewage);
- work – 36 indicators mainly referring to unemployment level and professional activity;
- enterprises and infrastructure – 22 indicators describing the number of various enterprises according to the economic activity category;
- state of the natural environment – 22 indicators describing population exposure to various pollution;
- rest and entertainment – 8 indicators showing the possibility of using tourist facilities;
- health and safety – 13 indicators describing healthcare infrastructure and state of health of the population.

For thus arranged set we used the statistical methods for removing those indicators which did not fulfill the basic accuracy criteria for the diagnostic variables, i.e.:

1. They were not sufficiently differentiated and therefore, as stable indicators from the statistical point of view, they would not differentiate the districts, failing to bring significant information on the phenomenon.

2. From the set of indicators those were removed which correlated too strongly with other indicators, in line with the need advocated by the literature to eliminate variables having too strong association, since that might imply information duplication.

With a view to unify the set of indicators for the investigated years and for comparability of the further analyses, in each year those indicators were removed

which did not meet the criterion analyzed, even if that would be in only one year. The final set of the diagnostic variables forming the basis for further analyses comprised 37 indicators, which were then employed over the subsequent stages aimed at determining a synthetic measure of the level of living for each district covered by the survey over 2010-2015.

Before applying the procedure chosen to construct the synthetic measure, the significance of diagnostic variables was determined using the subjective importance of the factors of quality/level of living which respondents were asked about – the sample consisted of 559 respondents acquired by the quota-sampling method. They represented all the districts of Lower Silesia, with women accounting for 52,4% of the sample population. The survey participants were made up of people with basic to higher education, aged between 15 and 78, of different social status (students, full-time workers, persons running their own business, the unemployed and pensioners), urban or rural dwellers. The survey assessed the significance of 20 groups of indicators:

1. Access to administration offices (registration, ID cards, certificates)
3. Remuneration
4. State of the natural environment
5. Access to green areas
6. A sense of security
7. Access to cultural institutions and their offer
8. Access to sport facilities and their offer
9. Neighbours (their culture, activity)
10. Availability of sale and service outlets
11. Availability of crèches and nursery schools
12. Access to water supply network
13. Availability of healthcare centres
14. Education level in schools
15. Number of enterprises
16. Access to sewage system
17. Availability of public transport and road network
18. Access to gas network
19. Unemployment
20. Disabled friendly surrounding
21. Availability of religious sites

Each of the areas was evaluated by respondents by its relevance for the quality of life on a scale from 1 to 4, by giving the following points:

- insignificant area – 1 point;
- area of little significance – 2 points;
- significant area – 3 points;
- key area – 4 points.

The analysis of the survey results allows for the observation of certain differences as to the areas examined depending on the respondents' gender, education, place of residence, social status, age, income or professional activity. The average scores given by all respondents are presented in Figure 2.

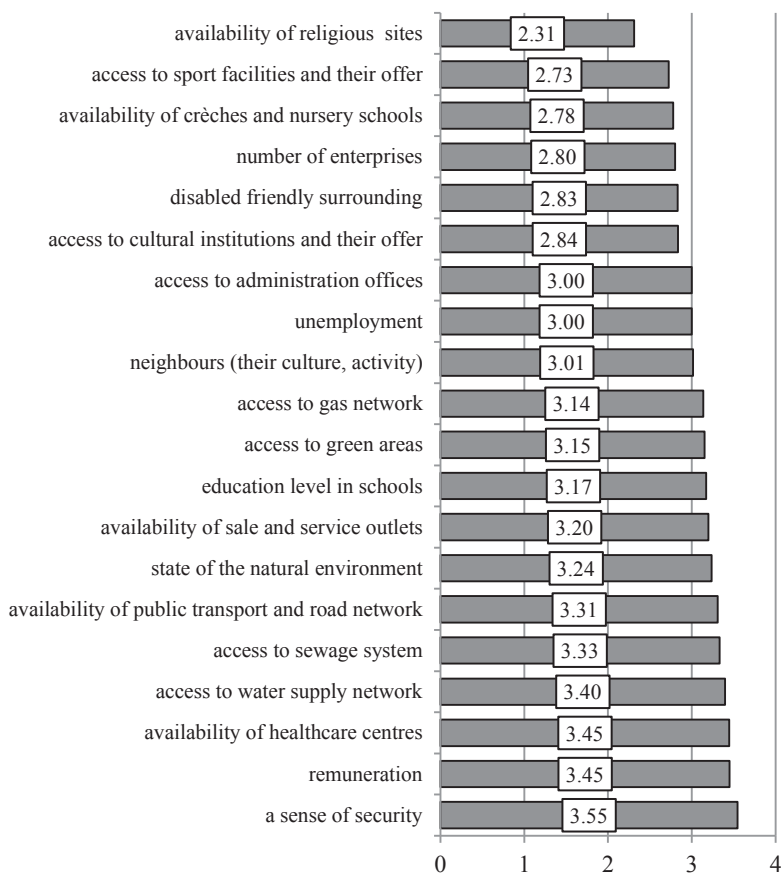


Fig. 2 Mean subjective scores given by all respondents to the characteristics in terms of quality of life/level of living

Source: authors' own study.

The majority of the examined areas respondents evaluated as significant and more than significant. Only six areas scored on average less than 3 points¹. The mean subjective scores assigned by respondents to the individual factors formed the basis for determining the weights which, in turn, were assigned to the final diagnostic

¹ These areas were not taken into consideration while weighting the variables-indicators of level of living selected from the data of the Local Databank.

variables. The method of standardized sums [Pociecha 1996, p.133; Ostasiewicz (ed.) 1998] was employed for the set thus obtained of the weighted indicators, with the method allowing the synthetic measure of level of living to be determined for each district, and to group the districts into four homogenous classes. These studies were conducted separately for each year.

4. Findings and conclusions gleaned from the survey

The study focusing on the level of living of the population of Lower Silesia spanned the years between 2010 and 2015. Over 2010-2012 there were 29 districts, including three cities as urban districts: Wrocław, Legnica and Jelenia Góra. In 2013, the city of Wałbrzych was excluded from Wałbrzyski district, hence, between 2013 and 2015, Lower Silesia consisted of 30 districts, with Wałbrzych being an urban district.

For each year the districts were characterized by 37 indicators. In each year the method of standardized sums was employed to identify those districts where the level of living was very good, good, average and poor. Table 1 illustrates the synthetic measures of development for each district over the individual years.

Table 1. Synthetic measures of development in districts over the period of 2010-2015

District	Years					
	2010	2011	2012	2013	2014	2015
1	2	3	4	5	6	7
Bolesławiecki	0.52	0.56	0.58	0.58	0.56	0.60
Dzierżoniowski	0.48	0.52	0.52	0.54	0.52	0.53
Głogowski	0.49	0.51	0.50	0.50	0.50	0.45
Górowski	0.40	0.36	0.35	0.41	0.39	0.36
Jaworski	0.42	0.44	0.43	0.47	0.48	0.47
Jeleniogórski	0.43	0.46	0.48	0.51	0.52	0.48
Kamiennogórski	0.48	0.50	0.47	0.49	0.51	0.52
Kłodzki	0.41	0.42	0.45	0.45	0.46	0.45
Legnicki	0.43	0.45	0.43	0.49	0.46	0.46
Lubański	0.45	0.50	0.51	0.55	0.53	0.53
Lubiński	0.54	0.54	0.52	0.56	0.53	0.59
Lwówecki	0.43	0.47	0.43	0.44	0.42	0.47
city of Jelenia Góra	0.46	0.47	0.48	0.50	0.50	0.50
city of Legnica	0.40	0.40	0.42	0.45	0.44	0.43
city of Wałbrzych since 2013				0.45	0.45	0.44
city of Wrocław	0.47	0.48	0.50	0.51	0.50	0.49
Milicki	0.42	0.46	0.44	0.47	0.47	0.49

1	2	3	4	5	6	7
Oleśnicki	0.48	0.50	0.49	0.51	0.53	0.54
Oławski	0.51	0.53	0.53	0.56	0.55	0.56
Polkowicki	0.52	0.58	0.57	0.59	0.56	0.56
Strzeliński	0.40	0.43	0.39	0.45	0.43	0.44
Średzki	0.42	0.42	0.44	0.46	0.45	0.44
Świdnicki	0.55	0.57	0.53	0.57	0.56	0.56
Trzebnicki	0.51	0.50	0.48	0.50	0.51	0.50
Wałbrzyski	0.42	0.44	0.43	0.40	0.41	0.41
Wołowski	0.44	0.43	0.40	0.43	0.46	0.45
Wrocławski	0.54	0.55	0.57	0.55	0.54	0.55
Ząbkowicki	0.41	0.42	0.44	0.48	0.48	0.47
Zgorzelecki	0.43	0.44	0.44	0.45	0.44	0.46
Złotoryjski	0.38	0.38	0.41	0.41	0.40	0.40
\bar{m}	0.457	0.473	0.470	0.491	0.485	0.486
s_m	0.049	0.055	0.057	0.052	0.050	0.056
$\bar{m} - s_m$	0.408	0.418	0.413	0.439	0.436	0.430
$\bar{m} + s_m$	0.505	0.528	0.526	0.543	0.535	0.543

Apart from the measures of development of districts, the table contains the mean measures \bar{m} and standard deviation s_m , which made it possible to divide the districts into homogenous classes with a specific level of living:

	very good
	good
	average
	poor

Source: authors' own study.

It is worth noting that in each year there are districts which belong to the same class over the entire period covered by the study. The districts with a very good level of living over the six years include the following districts: Bolesławiecki, Oławski, Polkowicki, Świdnicki and Wrocławski. However, it is also worth noting that including these districts in the best class does not mean that their level of living is satisfactory. In none of the districts the synthetic measure of development exceeded 0.6, which implies that they were nowhere near the ideal, model district.

Four districts: Dzierżonowski, Lubański, Lubiński and Trzebnicki were in the very good class in some years, while in others in the good class. In this category, Lubiński district is the best, as it "dropped" to the good class only in two years.

Over the entire period, the following districts were in the good class: the city of Wrocław and Oleśnicki district. Moreover, during the entire period the following districts were in the average class: Jaworski, Legnicki, Średzki, Ząbkowicki and Zgorzelecki. Over the period of 2010-2015 the poor class comprised Górowski district and Złotoryjski district. Other districts changed their ranking over the different years.

The in-depth analysis was concerned with the change in the value of the measures of level of living over the subsequent years. For each district the trend models of the level of living measures were determined; however, in none of the districts significant changes were observed and the values of directional parameters of the trend straight lines were around zero. We can therefore conclude that the measures of the level of living in individual districts show no changes over the period of 2010-2015.

In light of the primary objective of the paper, a significant element of the study was the comparative analysis of the order agreement obtained for the objective variables-indicators regarding the level of living and for the subjective scores awarded by respondents².

The findings presented in the paper suggest that the objective as well as subjective perspective show a significant diversification in terms of the evaluation of the conditions of living across the districts of Lower Silesia. At the same time comparing the evaluation consistency with regard to the conditions of living of the solely objective measures and the results obtained while accounting for the subjective factors offer interesting findings. As a measure of compliance, we adopted Pearson's linear correlation coefficient whose values are given in the last line of Table 2. Its values depicted in the columns show the strength and direction of the correlation between the objective measures of level of living and the measures of quality of life accounting for the weights given by the groups identified among all respondents. All the determined coefficients show no correlation or a very weak correlation between the pairs of objective and subjective factors. The strongest negative correlation ($r = 0.375$) occurs between the objective measure of the level of living and the measure constructed based on the information provided by urban population. This result implies that the districts where, according to the objective synthetic measures constructed based on the factors considered to be equivalent, the conditions of the level of living are good rank poorly when the individual factors are assigned weights resulting from the opinions stated by the urban population. This finding may provide the basis for further in-depth studies attempting to investigate to what extent the evaluation of quality of life comes from a static interpretation of current determinants, and to what extent it is a reflection of a subjective perception of the dynamics of changes recorded in a given self-government unit.

² In this analysis, only data for 2015 were considered because the survey was conducted in 2016, and so respondents could not evaluate the quality of life in a too distant past.

Table 2. Comparison of the order and of the “subjective” and “objective” classification

No.	Districts	Measures of the level of living/quality of life					
		Objective	Taking into account the weights assigned by				
			all respondents	women	men	urban dwellers	rural dwellers
1	Bolesławiecki	0.60	0.73	0.66	0.75	0.43	0.71
2	Dzierżoniowski	0.53	0.46	0.62	0.33	0.28	0.61
3	Głogowski	0.45	0.69	0.66	0.66	0.59	0.53
4	Górowski	0.36	0.41	0.39	0.60	0.62	0.43
5	Jaworski	0.47	0.41	0.24	0.65	0.47	0.37
6	city of Jelenia Góra	0.48	0.68	0.63	0.67	0.53	0.39
7	Jeleniogórski	0.52	0.42	0.48	0.49	0.34	0.47
8	Kamiennogórski	0.45	0.73	0.76	0.66	0.50	0.68
9	Kłodzki	0.46	0.63	0.61	0.62	0.45	0.61
10	city of Legnica	0.53	0.54	0.64	0.49	0.39	0.63
11	Legnicki	0.59	0.47	0.40	0.64	0.39	0.50
12	Lubański	0.47	0.10	0.19	0.31	0.14	0.29
13	Lubiński	0.50	0.56	0.63	0.50	0.45	0.53
14	Lwówecki	0.43	0.54	0.49	0.62	0.52	0.49
15	Milicki	0.44	0.69	0.60	0.73	0.92	0.37
16	Oleśnicki	0.49	0.64	0.72	0.51	0.44	0.65
17	Oławski	0.49	0.54	0.63	0.47	0.39	0.55
18	Polkowicki	0.54	0.79	0.72	0.73	0.64	0.48
19	Strzeliński	0.56	0.35	0.34	0.52	0.00	0.44
20	Średzki	0.56	0.44	0.56	0.41	0.38	0.48
21	Świdnicki	0.44	0.57	0.55	0.60	0.43	0.57
22	Trzebnicki	0.44	0.58	0.54	0.71	0.42	0.60
23	Wałbrzyski	0.56	0.48	0.56	0.42	0.40	0.39
24	city of Wałbrzych	0.50	0.62	0.61	0.60	0.45	0.89
25	Wołowski	0.41	0.41	0.60	0.42	0.35	0.45
26	city of Wrocław	0.45	0.54	0.57	0.55	0.42	0.53
27	Wrocławski	0.55	0.47	0.49	0.54	0.40	0.47
28	Ząbkowicki	0.47	0.46	0.58	0.41	0.35	0.50
29	Zgorzelecki	0.46	0.60	0.69	0.53	0.39	0.70
30	Złotoryjski	0.40	0.40	0.68	0.19	0.50	0.35
correlation coefficient			0.050	-0.023	0.043	-0.375	0.165

Source: authors' own study.

5. Conclusions

Summing up the considerations of the theoretical nature presented in the paper and the survey findings an emphasis needs to be put on the need to take into account not only the objective measures but also the subjective factors in conducting a study on quality of life. As objective measures record the actual situation, accounting also for subjective factors allows for interpreting how this situation is perceived and evaluated by individuals or social groups.

The results demonstrated in the paper show a significant variation in the evaluation of quality of life across the districts of Lower Silesian voivodeship. Despite measures being taken by the central and local authorities seeking to enhance the cohesion on the socio-economic level, the disparities can still be observed both on the horizontal level and within individual self-government units, being part of a particular region. Importantly, the assessment of the quality of life reveals significant differences depending on whether the evaluation is made exclusively by objective measures or when also subjective factors are taken into consideration, reflecting how the population perceives the importance of the individual components of quality of life in the overall evaluation.

References:

- Adamiec M., Popiołek K., 1993, *Jakość życia – między wolnością a mistyfikacją*, Ruch Prawniczy, Ekonomiczny i Socjologiczny, no. 55, issue 2, pp. 93-102.
- Bywalec Cz., 1986, *Wzrost gospodarczy a przemiany poziomu życia społeczeństwa polskiego w latach 1945-1980*, AE w Krakowie, Monografie no 70, p. 34.
- Chudzińska A., 1995, *Subiektywny obraz świata i obraz siebie jako kategorie pomiaru jakości życia osób bezrobotnych oraz ich oczekiwania wobec klubu pracy*, [in:] A. Bańka, R. Derbis (eds.), *Pomiar i poczucie jakości życia u aktywnych zawodowo oraz bezrobotnych*, UAMiWSP, Poznań-Częstochowa, pp. 87-96.
- Czapiński J., Panek T., 2009, *Diagnoza społeczna. Warunki i jakość życia Polaków*, Wyższa Szkoła Finansów i Zarządzania, Warszawa.
- Gotowska M., 2013, *Problemy definiowania poziomu i jakości życia*, [in:] M. Gotowska, Z. Wyszowska Z. (eds.), *Poziom i jakość życia w dobie kryzysu*, Wydawnictwo Uczelniane Uniwersytetu Technologiczno-Przyrodniczego w Bydgoszczy, Bydgoszcz, p. 20.
- Hadyński J., 2013, *Jakość życia a konkurencyjność regionalna*, [in:] M. Gotowska, Z. Wyszowska (eds.), *Poziom i jakość życia w dobie kryzysu*, Wydawnictwo Uczelniane Uniwersytetu Technologiczno-Przyrodniczego w Bydgoszczy, Bydgoszcz, p. 139.
- Jankowska E., 2011, *Pojęcie i narzędzia pomiaru jakości życia*, Toruńskie Studia Międzynarodowe, no. 1 (4), p. 34.
- Kaleta A., 1988, *Jakość życia młodzieży wiejskiej*, UMK, Toruń.
- Kędzior Z., 2003, *Metodologiczne aspekty badania jakości życia*, [in:] Karwowski J. (ed.), *Jakość życia w regionie*, Uniwersytet Szczeciński, Szczecin.
- Kędzior Z., 1997, *Zachowania gospodarstw domowych i przedsiębiorstw (prawidłowości, determinanty)*, AE w Katowicach, Katowice.

- Kwasek M., 2002, *Poziom życia rolników w ostatniej dekadzie XX wieku*, IERiGŻ, Warszawa, p. 15.
- Majka A., 2005, *Taksonomiczna analiza zróżnicowania poziomu życia w Polsce*, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu nr 407, p. 355.
- Ostasiewicz W. (ed), 1998, *Statystyczne metody analizy danych*, Wydawnictwo Akademii Ekonomicznej, Wrocław.
- Ostasiewicz W., 2004, *Badanie jakości życia z perspektywy historycznej*, [in:] W. Ostasiewicz (ed.), *Ocena i analiza jakości życia*, Wydawnictwo AE we Wrocławiu, Wrocław.
- Owsiński J., Tarchalski T., 2008, *Pomiar jakości życia. Uwagi na marginesie pewnego rankingu*, Zeszyty Naukowe Wydziału Informatycznych Technik Zarządzania Wyższej Szkoły Informatyki Stosowanej i Zarządzania „Współczesne Problemy Zarządzania”, no. 1. p. 60.
- Piasny J., 1993, *Poziom i jakość życia ludności oraz źródła i mierniki ich określania*, Ruch Prawniczy, Ekonomiczny i Socjologiczny, year LV, issue 2, p. 73.
- Pociecha J., 1996, *Metody statystyczne w badaniach marketingowych*, PWN, Warszawa, p.133;
- Rutkowski J., 1991, *Badania jakości życia*, [in:] *Jakość życia i warunki bytu*, Biblioteka Wiadomości Statystycznych, vol. 40, GUS, Warszawa. p. 33.
- Słaby T., 2007, *Poziom i jakość życia*, [in:] T. Panek, A. Szulc (eds.), *Statystyka społeczna*, PWE, Warszawa, pp. 99-130.
- Słaby T., 2004, *Nowe ujęcie badań społecznych*, Nierówności Społeczne a Wzrost Gospodarczy, no. 4, p. 57.
- Słaby T., 1990, *Poziom życia. jakość życia*, Wiadomości Statystyczne, no. 6, p. 8.
- Sompolska-Rzechuła A., 2013, *Jakość życia jako kategoria ekonomiczna*, Folia Pomeranae Universitatis Technologiae Stietinensis, Oeconomica, no. 301 (71), p.131.
- Trzebiatowski J., 2011, *Jakość życia w perspektywie nauk społecznych i medycznych – systematyzacja ujęć definicyjnych*, Hygeia Public Health, no. 46(1). p. 28
- Wnuk M., Marcinkowski T., 2012, *Jakość życia jako pojęcie pluralistyczne o charakterze interdyscyplinarnym*, Problemy Higieny i Epidemiologii, no. 93(1), pp. 21-26.
- Zandecki A., 1999. *Wykształcenie a jakość życia: dynamika orientacji młodzieży szkół średnich*, Edytor, Toruń-Poznań.
- Żelazna K., Kowalczyk I., Mikuta B., 2002, *Ekonomika konsumpcji – elementy teorii*, SGGW, Warszawa, p. 25.