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# **SOCIAL INDICATORS AND THE MEASURE OF THE QUALITY OF LIFE**

## **ABSTRACT**

The quality of life is one of the main categories of the researches conducted in sociological, psychological and social sciences. It is related to assessment of the degree of satisfaction of the needs of the society. The increase of the quality of life is the symptom of economic and social development that takes place in the country. The assessment of satisfy of the needs is done with using the special tools which are known as the social indicators.

In this article, the author:

- introduced the different definitions of the categories of quality of life, which are used in sociological, psychological and economics sciences
- presented the concept of human needs, and
- showed the concept of the social indicator as a tool used to measure the quality of life of individuals and society.

**Keywords:** social indicator, quality of life, socio-economic development, social development, economic development

## **1. INTRODUCTION**

The quality of life is one of the basic research categories of social statistics. Economic and social changes that occur in a given country are evaluated on the basis of the degree of satisfying the needs of the society. This assessment is done by the use of appropriate statistical measures known as social indicators.

The aim of the article was to present:

- different approaches to define the category of quality of life,
- tools used to measure the quality of life of individuals and society.

The article explained how to define the concept of quality of life and human needs in sociological, social, psychological and economic sciences. The author characterized:

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- the concept of a social indicator treated as a measure used to assess the quality of life,
- three social indicators most commonly used in international comparisons in the social statistics.

## 2. METHODOLOGY

The methodology used in the article is based mainly on studies of Polish literature concerning the quality of life and method of measurement of this phenomenon. The literature came from the range of social sciences (i.e. sociology, psychology and economics).

## 3. THE CONCEPT OF QUALITY OF LIFE

The scope of understanding of the category of the *quality of life* is very wide: from understanding it as the welfare (good state of mind), through the prosperity, to the states of personal satisfaction, satisfaction coming from the consumption, the use of the natural environment, the social position (Ostasiewicz, 2004). Therefore, in the literature there is no consensus as to what is meant by the *quality of life*.

In the social sciences the concept of *quality of life* is primarily used to answering the question: What lies at the root of the valuable, rewarding existence? The quality of life is the subject of empirical and theoretical researches of such sciences as sociology, psychology, and economics.

In the sociological sciences the quality of life may be defined in many ways. Quality of life relates to the method of satisfying the needs, which include:

- the need for security (due to risks relating to, among others, the economic situation);
- the need for self-realization (mainly the satisfaction which comes from the work);
- the need to maintain psychological balance;
- the need for social recognition (identifying to the group with which an individual can identify). (Gałęski, 1977)

“Quality of life covers the needs of the individual, which he considers as the most important for his life (existential values) and the opinions of the individual about the level satisfying them”. (Kaleta, 1988)

In psychology, the quality of life is often identified with:

- the sense of life;

It is connected with the response to the questions: why to live, how to proceed in life. Implementation of the life goals gives a person a sense of satisfaction.

- the welfare.

This applies the assessments related to the own life (current, past and future) or the happiness (understood as a balance of emotional experiences) (Rybczyńska, 1998)

The economic sciences use for example the following definitions of quality of life:

“Quality of life is the degree of the satisfaction of a man (society) from the whole of his existence. The quality of life is [...] in this sense [...] the sum of individual or collective feelings of the existing conditions of life and also theirs evaluation”. (Bywalec, 1991)

“Quality of life is the degree of satisfaction of human needs (material, spiritual and social), the state of social satisfaction which is the result of the perception by the population overall conditions of all the relevant dimensions of life”. (Bywalec, 1991)

“Quality of life is the degree of satisfaction obtained by the individual as a result of the consumption of goods and services, spending free time, as well as the use of other material and social conditions of the environment in which this individual is located”. (Helbich, 1996)

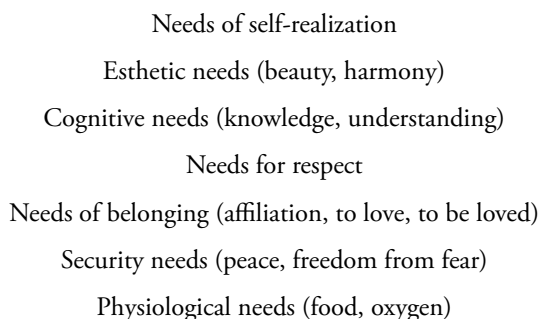
The need is the term that combines the different approaches to defining the quality of life.

#### 4. THE CONCEPT OF THE NEED

Briefly, the concept of need can be defined as “perceived by the individual the lack of something” (Lisowski, 2002). In the social sciences the need is defined as “a state of tension or feeling of lack resulting from biological and psychological structure of the body, individual human experience, a place in the social structure” (Szatur-Jaworska, 2009) or “perceived by the individual the state of lack of something in relation to the structure of the organism, individual experience and a place of the individual in society that is essential to keep him alive, enable him to develop, maintain by him a specific social role and the mental balance”. (Panek, 2009)

In economics, human needs are defined as a subjective feeling of lack, dissatisfaction or desire of certain conditions or things that man treats as necessary to keep him alive, to enable him to develop, implement specific social roles, etc. They are the initial and basic concepts of economics as a science. There are many ideas which try to systematize the life needs of people.

Fig. 1. Maslow's pyramid of needs



Source: Ostasiewicz, W. (Ed.) (2004). *Ocena i analiza jakości życia*, Wrocław: Wydawnictwo AE im. O. Langego, Wrocław.

At the core of the pyramid are the biological needs. When these needs are satisfied, a person begins to feel security needs. If a man feels safe he begins to strive to meet the needs of belonging, and so on. Meeting the needs of lower order is a precondition for transition to the needs of the next higher level. The needs of self-realization are at the top of the pyramid. According to the assumptions of A. Maslow's, the needs of lower order are more obvious, but also more limited than the needs of a higher order. Satisfying the needs of a higher level leads to achieve the desired subjective effects, e.g. happiness.

In the context of survey of quality of life, A. Maslow's model seems to be adequate, as it shows how satisfying of needs at the next levels of the hierarchy may affect at the overall welfare of individuals. It is important to understand that sense of satisfaction of life can be

achieved at each level of meeting the needs as long as no one will need to meet the needs of a higher order.

According to the concept of E. Allardt, the satisfying of people needs takes place in the following dimensions (Allardt, 1993):

- the having: the income situation, housing conditions, health, education;
- the loving: they relate to relationships and concern e.g. relations with the local community, family relations, social contacts;
- the being: needs related with the capabilities of self-determination, personal development, personal safety etc.

Table 1. The method of measuring the degree of satisfaction of basic groups of needs according to the concept of E. Allardt

Groups of needs	Objective assessments	Objective assessments
<i>Having</i>	Objective measures of standard of living	The subjective feeling of dissatisfaction – satisfaction with living conditions
Interpersonal relations ( <i>loving</i> )	Objective measures of interpersonal relations	The subjective sense of happiness – unhappiness with interpersonal relations
Personal development ( <i>being</i> )	Objective measures of relationship with the society and the environment	The subjective feeling of alienation – personal development

Source: Allardt, E. (1993). *Having, Loving, Being. An Alternative to the Swedish model of welfare research*, In: M. Nussbaum & A. Sen (Eds.), *The Quality of Life*. Oxford: Oxford Clarendon Press.

Three dimensions proposed by E. Allardt define the spheres in respect of which it comes to satisfy the needs of the population. The life level can be described as the degree of satisfaction of material and cultural needs, associated with the broadly understood possession (to have). The quality of life is defined as the emotional states deriving from human relations (to love) and a sense of existence. Being someone is connected with the needs of self-realization (to be).

## 5. SOCIAL INDICATORS – BASIC TERMS

The perception of quality can be described as a psychological phenomenon. Mental phenomena may take various degrees of intensity. High quality of feelings affects the high level of satisfaction. Therefore it should be assumed that the quality can be measured by the degree of satisfaction. The quality has the subjective nature and can be measured on an ordinal scale (e.g. high quality, low quality).

One of many approaches to measuring the quality of life is the economic approach. It uses to the analysis of quality of life measures, which are defined as the social indicators.

The social indicators are often described as “Statistical structures based on observations, usually quantitative, which tell us something about a certain aspect of social life that we are interested and changes occurring in it” (Kordos, 1990). However, not all data obtained from

the statistical and sociological surveys may be used as social indicators. Social indices should constitute theoretically justified and empirically proven relationship with the examined phenomena. They should also meet many other conditions, i.e.:

- “refer to these areas that have the greatest significance for the level and quality of life of the society;
- primarily reflect the effects of the activities of society and its institutions, and to a lesser extent, expenditures for their implementation;
- take into account not only the objective state, but also subjective assessments of members of the society, the level of satisfaction of the needs;
- it should be possible to conduct multiple, mutually comparable measurements of indicators in order to use them in the studies of the social processes (changes over time);
- changes of the value of the indicator should be assessed as socially positive or negative; and therefore social indicators should have normative nature;
- refer to the whole country, but simultaneously should enable disaggregation to be able to calculate the value of a given indicator for the different territorial units and for different social groups;
- describe important effects of social or economic policy; simultaneously they should be chosen so as to impede undertaking activities aimed only to improvement in the range of phenomenon, which is described by the indicator;
- be chosen in such way that enable international comparisons of living conditions, development processes (or regress) of society;
- be constructed on the basis of existing data, for which the collection is not too time-consuming or costly.” (Szatur-Jaworska, 2009)

Table 2. Types of social indicators

<b>Criterion of division</b>	<b>Types of indicators</b>
Due to the nature of the data used to determine the value of the indicator	Objective indicators (e.g. number of schools in the city)
	Subjective indicators (e.g. satisfaction from the level of education)
Due to applied units of measurement	Natural indicators (e.g. the number of rooms in a dwelling)
	Valuable indicators (e.g. the average amount of rent)
Due to the purpose of the study	Partial indicators (one measure for a selected aspect of satisfying of the need)
	Group indicators (several measures being the indicators of satisfying of a given need)
	Synthetic indicators (one measure showing the satisfying of various needs)
Due to the subject of the study	Indicators of inputs (infrastructure) (e.g. public expenditure on health care)
	Indicators of effects (efficiency) (e.g. average life expectancy)
Due to the level of value determined as the desired	Stimulants (desirable high value of the indicator, e.g. the average number of years of schooling)
	Destimulants (desired low value of the indicator, e.g. infant mortality)

Source: Szatur-Jaworska, B. (2009). *Diagnoza i diagnozowanie w polityce społecznej*. In: G. Firlit-Fesnak & M. Szyłko-Skoczny (Eds.), *Polityka społeczna*. Warsaw: PWN.

Information expressed by the social indicator may be either:

- objective,  
This type of indicator describes the position which is associated with the particular aspect of social life. It also indicates the changes of this position.
- subjective.  
It shows how an objective position (or its change) is seen by the whole community or its various groups.

Social indexes are mostly divided into:

- objective,  
Using them it is possible to determine the state of a given phenomenon, the description of measurable characteristics of people and phenomena (e.g. the level of satisfying of the needs).
- subjective.  
Their goal is to present independent assessments of people participating in the study. These assessments depend on the individual system of values.

Quality is a subjective attribute. Therefore, to measure of the quality of life should be used subjective social indicators. Subjective indicators illustrate the quality of life, i.e. reflect satisfaction of people with their life as a whole or its individual fields. They express value assessment, characterizing the degree of achieved satisfaction.

Among the subjective social indicators one can distinguish:

1. Global indicators (they refer to the total satisfaction obtained in all spheres of life) and partial indicators (they inform about the level of satisfaction of particular aspects of life or a specific group needs),
2. Cognitive indicators and emotional indicators,
3. Positive indicators (they occur in the case when the change in the value of the indicator is evaluated as positive status) and negative indicators (when the change in the value of index is assessed as negative state).

In order to measure the quality of life one should use wide range of social indicators. This will allow for an assessment of many aspects of life, attitudes towards life, life activity, ability to adapt to social and economic changes.

## 6. SOCIAL INDICATORS USED TO MEASURE OF THE QUALITY OF LIFE – EXAMPLES

Many of social indicators are used in studies of social statistics. The most commonly used are:

- Gross domestic product and national income,
- Human Development Index,
- Measure of Economic Welfare.

The value of *gross domestic product and national income per capita* are the traditionally used indicators which characterize not only the socio-economic development, but also indirectly the changes of the quality and level of life of the population. In the current phase of economic development, these indicators are not sufficient to describe the changes in the social sphere. They are one-dimensional and average values. They “blur” the disparities between social groups or regions of the country as to the amount of income, the supply of products

and services, participation in social and cultural life. These indicators do not provide information needed in the locative policy of the state. Therefore they are not fully correct measures of well-being.

GDP (national income) per capita does not take into account unregistered production, which affects the level of welfare of the society. This applies on the one hand the illegal production (not taxable). On the other hand, GDP and national income do not include unregistered, but legal, production carried out for one's own needs at home.

These indicators also do not include relaxation, which is very important for the wellbeing of individuals. If GDP growth is associated with an increase of average hours worked and a decline of leisure time dedicated to rest, GDP indicators will overestimate the growth of welfare. If the growth of GDP per capita is accompanied by an increase of free time, then indicators of GDP growth will underestimate the increase of income.

GDP and national income also does not take into account "external effects" of production. External effects relate mainly to the side effects of an increase in production for the natural environment: water, air and land or noise. Thereby, these indicators overestimate the level of welfare.

However, in practice, GDP is useful in international comparisons. It can be used in ranking of countries according to achieved level of socio-economic development and the level and quality of life.

*Measure of Economic Welfare (MEW)* is determined on the basis of the adjusted account of the national income. This indicator introduces new items to the category of national income that increase or decrease its value. The elements that enhance the value of this measure are: estimated values expressing the equivalent of one's own work in the household (natural consumption), leisure time treated as an alternative to the time spent at work, public infrastructure (roads, parks) and private durable goods (furniture, jewelry). The elements that reduce the value of the index include: estimated value associated with environmental pollution (i.e. ecology), expenditure on national defense, and expenditure on commuting to work.

Measure of Economic Welfare is calculated as the sum of positive components (contributing to increase of welfare) and negative components (contributing to decrease of welfare) of the whole aggregate. This measure determines the direction and intensity of changes in levels of welfare. However, this indicator does not describe the degree of satisfaction of the needs, as well as the differences between the degree of satisfaction of various needs. The method of construction of this indicator is complicated. Regular measurements of phenomena included in it and their valuation are difficult and expensive.

From several years, one of the agencies of the United Nations: United Nations Development Program – UNDP has been conducting comparative studies of social progress in the world based on data obtained from almost all countries of the world (In 2013 HDI was calculated for 186 countries). Evaluation of social and economic progress is made on the basis of the Human Development Index HDI.

HDI is the synthetic measure based on the average of indicators covering three main areas of the life:

- sphere of health,  
It is assessed by the indicator of the average life expectancy.
- sphere of education,  
It is assessed on the basis of educational attainment index, which is measured using two educational indicators appointed for the adult population, i.e. literacy (percentage

of persons who are able to read and write with understanding) and enrollment (average time education understood as the average number of years of schooling).

- sphere of income.

It is assessed on the basis of GDP (U.S. \$) per capita calculated according to purchasing power parity (PPP) (Since 2010, HDI is calculating on the basis of value of GNP (\$ US) per capita, calculated according to purchasing power parity (PPP \$)).

The construction of the HDI defines extreme, the target values of each of the mentioned spheres. Information contained in the index of social development includes only a small part of the elements included in the concept of the human development. This is due to the fact that not all the qualitative characteristics of the development can be measured. In the case of many possible to evaluate, there is the lack of the data.

The inclusion to the HDI three partial indicators that concern not only the economic development, but also social and demographic, allows for a more complete assessment of the level of development than the measures which take into account only the economic dimension (E.g. GDP per capita).

HDI allows conducting international comparisons in the range of social and economic development. It is a measure used as a criterion to rank countries according to their general development at a particular time. Countries are classified according to the HDI, to the four groups of social development:

- low human development countries, when  $HDI < 0,535$ ,
- medium human development countries, when  $0,535 \leq HDI \leq 0,710$ ,
- high human development countries, when  $0,710 < HDI < 0,800$ ,
- very high human development countries, when  $0,800 \leq HDI \leq 1$ .

HDI allows for more complete international comparisons. By using a uniform methodology recommended by the UNDP, this indicator describes the effects in social development of individual countries.

## 7. CONCLUTIONS

Values which are the criteria of evaluating of the quality of life must be “translated” into observable indicators. Only in this way they can become the basis of observation, measurement and evaluation of this concept. The assessment of quality of life is done on the basis of so-called social indicators, which are based on statistical measures of quantitative data originating i.e. from sociological studies. They are used to describe and assess of social, demographic and economic phenomena associated with living conditions, the level and quality of life of a society. They are also used to assess the level of social development.

## REFERENCES

- Allardt, E. (1993). *Having, Loving, Being. An Alternative to the Swedish model of welfare research*. In M. Nussbaum & A. Sen (eds.), *The Quality of Life* (pp. 88–94). Oxford: Oxford Clarendon Press.
- Bywalec, C. (1991). *Wzrost gospodarczy a poziom życia społeczeństwa polskiego*. Warszawa: Instytut Rynku Wewnętrznego i Konsumpcji.



- Gałęski, B. (1977). Styl życia i jakość życia – próba systematyzacji pojęć. *Studia socjologiczne*, 1.
- Helbich, A. (1996). *Zmiany w poziomie życia w okresie transformacji systemowej*. In Z. Pisz (Ed.), *Zadania społeczne* (pp. 47–77). Wrocław: Wydawnictwo AE im. O. Langego.
- Kaleta, A. (1988). *Jakość życia młodzieży wiejskiej. Studium podobieństw i zróżnicowania międzyrodowiskowych*. Toruń: UMK.
- Kordos, J. (1990). Metodologia i wykorzystanie wskaźników społecznych. *Wiadomości Statystyczne*, 12.
- Lisowski, A. (2002). *Potrzeby społeczne i ich diagnozowanie*. In A. Kurzynowski (Ed.), *Polityka społeczna* (pp. 52–73). Warszawa: SGH.
- Ostasiewicz, W. (Ed.). (2004). *Ocena i analiza jakości życia*. Wrocław: Wydawnictwo AE im. O. Langego.
- Panek, T. (2007). *Statystyka Społeczna*. Warszawa: Wydawnictwo PWE.
- Rybczyńska, D. (1998). *Jakość życia młodzieży z rodzin ubogich*. Zielona Góra: WSP.
- Słaby, T. (1990). Poziom życia, jakość życia. *Wiadomości Statystyczne*, 6, 25.
- Szatur-Jaworska, B. (2009). *Diagnoza i diagnozowanie w polityce społecznej*. In G. Firlit-Fesnak & M. Szyłko-Skoczny (Eds.), *Polityka społeczna* (pp. 109–126). Warszawa: PWN.