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Income and the sense of happiness in the light of empirical research

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Abstract: Background: This paper examines the role of subjective well-being as a factor motivating people in the Aristotelian and popular economic perspectives. Both imply that at a deeper level, all human endeavours are intended to increase happiness, although the role of utility in decision-making should not be understated.

Research objectives: The primary aim of the study was to determine whether and if so, what links exist between the income levels of the surveyed residents of Świętokrzyskie Voivodship (a province in south-central Poland) and their self-reported sense of happiness.

Research design and methods: The theoretical part of the study draws on a critical literature review, including selected methods for measuring subjective well-being, whereas the empirical one employs a diagnostic survey based on a questionnaire as a research tool. To analyse the data, descriptive statistics were obtained and a correlation study was performed.

Results: Empirical research reveals that respondents with higher incomes report a higher sense of happiness, but only up to PLN 3,000. Further income increases no longer result in proportional increases in perceived happiness.

Conclusions: Awareness of the relationship between income and happiness can affect financial decision-making, including the motivation to ensure material security, which has a positive impact on the overall quality of life.

Keywords: money, income, happiness, well-being. JEL Codes: D61, D03

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1. Introduction

What truly makes us happy has always been a central concern in the development of mankind. Initially and until the second half of the 20th century, answers were sought in philosophical reflection, but now the task has been taken over by empiricists who have set themselves the goal of identifying the determinants and correlates of happiness (Wąsowicz-Kiryło, 2008, p. 154). In the 1960s, psychological well-being and the quality of life became the focus of interest for psychologists and sociologists. Economists, on the other hand, did not recognise the indicators of subjective well-being as measures of the utility of money until several years later. Subsequently, the fusion of economics and psychology produced a plethora of multidisciplinary research that continues to supply intriguing evidence on the links between two major human pursuits: money and happiness (Czapiński, 2012, p. 51). The main aim of this paper is to try to answer the following research question: Is there a relationship between the income of the inhabitants of the Świętokrzyskie Voivodship and their self-reported sense of happiness?

2. Literature review

2.1. Subjective well-being: Aristotle vs. the economists

First, let us define happiness. According to Władysław Tatarkiewicz (2012), it is a lasting, complete, and reasonable satisfaction with life, whereas a happy existence – a life characterised by lasting, complete, and reasonable satisfaction (p. 45). Janusz Czapiński (1994) views happiness as a subjectively perceived well-being, a desirable quality of one's own life, hence the concept of mental well-being is often used as a synonym for happiness (p. 12).

The idea that all human behaviour is indirectly driven by the desire to promote subjective well-being is attributed to Aristotle's writings as the first documented source (Csikszentmihalyi, 1999, pp. 821–827). For instance, according to Sonja Lyubomirsky (2001), an increasing body of research supports Aristotle's claim that happiness is "the goal and end of human existence" (pp. 239). Aristotle is relevant here since his theories continue to influence modern psychological thinking. Numerous psychologists, notably those representing positive psychology, believe that all human actions strive to promote subjective well-being, and that their efforts can be rated as more or less effective based on how successfully they contribute to achieving this goal (Kahneman et al., 1999).

Like many modern psychologists, Aristotle viewed motivation as a series of chains of means and ends. He begins his *Nicomachean Ethics* with the observation that people perform a wide variety of activities: from saddle-making to politics, and each activity has its purpose. He notes that each of these activities has a different goal, e.g. a good saddle ensures comfortable and effective riding. Horsemanship, on the other hand, has its own goal, such as winning a battle. This chain of means and ends could go on indefinitely if there were no final end, which Aristotle called "the good" (Reynolds & Gutman, 1988, pp. 11–31). This final good (final in the unqualified sense) is that which is always chosen as an end in itself and never as a means to something else. This applies above all to happiness (*eudaimonia*), which is always chosen as an end in itself and never for the sake of something else (Reynolds & Gutman, 1988, pp. 11–31). A simplified hypothetical example of how several goals can lead to the terminal value of subjective well-being is shown in Figure 1A on the left.

According to Aristotle, there must be one terminal value above all other values, and that value is subjective well-being – the single terminal value model (Figure 1A). In principle, it can be argued that any value other than subjective well-being takes a privileged place at the top of the hierarchy of values, and to some extent economics does so when it advocates utility as a single terminal value. However, the relationship between utility and subjective well-being is complex and inconsistently applied (Ahuvia, 2008, p. 493). With the exception of subjective well-being, all other constructs in Figure 1 are arbitrary examples included for illustration only.

Historically, economic concepts of utility emerged from Aristotelian ideas of happiness (Bruni, 2004, pp. 19–43). Modern economics began with Jeremy Bentham's concept of utility, which developed from Aristotle's eudaimonia (i.e. subjective well-being). But Bentham differed from Aristotle on two key points. First, Aristotle believed that while all actions tend to produce subjective well-being, only ethical ones are effective in achieving this goal. In contrast, Bentham argued that people can derive personal utility from both ethical and unethical

actions. Second, Bentham's utility was more mundane than Aristotle's eudaimonia because it focused more directly on physical and mental pleasures. Nevertheless, both Aristotle's eudaimonia and Bentham's utility constituted specific representations of a more general construct of subjective well-being, since both referred to specific psychological experiences that were seen as the essence of the good life (Ahuvia, 2008, pp. 493–495).



B. Multiple terminal value mode

Figure 1. Single and multiple terminal value models

Source: (Ahuvia 2008, p. 493).

Lionel Robbins and subsequently Paul Samuelson, who radically redefined utility, ushered in a massive revolution in economic theory. Utility, according to this new definition, is not a psychological experience that occurs during or after consumption but rather refers to what people prioritise when deciding between alternative courses of action. As a result, it became known as "decision utility", as opposed to the older concept of "experienced utility", which denoted a positive mental state (Frey & Stutzer, 2002, pp. 402–435). Inasmuch as choices reveal preferences, which in turn can reveal a person's utility function, the revealed preferences determine the utility of the decision. As a result, each freely made and fully informed choice maximises the utility of the decision (Ahuvia, 2008, pp. 493–495).

The utility of decisions presents economists with a dilemma when dealing with normative issues. Anyone who freely makes a choice based on accurate information has by definition maximised his or her utility, no matter how unhappy that person may be as a result of that choice. For example, a gambler who understands that his odds of winning are slim yet decides to keep playing anyway, loses his home, job, and family, ends up living on the sidewalk, has

maximised his utility. This is possible because decision utility is not a psychological state, it is simply a hypothetical construct that economists use to model the decision-making process (Ahuvia, 2008, pp. 493–495).

The challenge for normative economics is that if one takes this definition of choice utility seriously and maintains that there is no necessary connection between utility and subjective well-being, it is difficult to argue that all instances of maximising decision utility are beneficial. What if the decision utility that people maximise makes them physically unwell and emotionally unhappy? Would they still want to maximise it? Due to this profound limitation on the concept in question, economists and policy analysts tend to use the term "utility" to refer to a type of experience-based utility akin to subjective well-being, even though they typically refrain from qualifying these statements, noting that they have abandoned the economic assumptions that underpin such concepts as revealed preferences.

For example, trying to refute Richard Layard's claim that an increase in income above \$20,000 per year does not significantly increase happiness (Layard 2003, pp. 25–29), Andrew Kling (2003) equates utility with happiness: economists take it as given that if people strive for higher incomes, then higher incomes must make them happier. The claim that income above \$20,000 a year does not promote happiness is absurd from the standpoint of revealed preference. From this, an economist would deduce that for most people, the point at which income provides less and less happiness must considerably exceed \$20,000 given that even those with very high salaries continue to work. If the \$20,000 was the point of diminishing returns on happiness, people who earn more would spend less time at work and enjoy their leisure time (Kling, 2003).

Kling thus demonstrates how difficult it is for economists to adhere to the rigorous definition of decision utility. In practise, the term "utility" can be interpreted in two ways: depending on circumstances, it may simply refer to the usefulness of decisions or to a certain form of psychologically experienced usefulness that might be subsumed under the general heading of subjective well-being (Ahuvia, 2008, pp. 493–495).

Regardless of Kling's loose application of the term utility, his argument has intuitive appeal. Like Aristotle, many people feel that subjective well-being is the ultimate objective behind all human efforts. According to rational choice theory, revealed preferences imply motivation. So, by this logic, if people pursue money, it must be because they believe it will boost their happiness at some conscious or unconscious moment in their lives. People should eventually acquire a good idea of what makes them happy and what does not.

The implications of Aristotle's concept of subjective well-being are still relevant today. People cannot progress towards happiness until they have sufficiently experienced and reflected on their nature and life's values. Perhaps a better understanding of these principles will enable them to live a more worthwhile life, and the path to subjective well-being will be simpler and more fulfilling.

2.2. Methods of measuring subjective well-being

Understanding and measuring a person's subjective well-being is becoming more and more crucial in today's world. An essential component of research on the quality of life is figuring out how satisfied and happy people are. There are several ways to gauge subjective wellbeing, which enables scholars to investigate and evaluate life satisfaction. In this paper, several of them will be briefly discussed. In order to analyse socioeconomic development, efforts are being undertaken to construct indicators that more accurately reflect the standard of living (quality of life), apart from the more conventional metrics such as gross domestic product (GDP) and gross national income (GNI) per capita.

Subjective well-being refers to how people feel about and evaluate their lives, as well as the specific areas and activities in which they engage. Over the last decade, there has been a considerable surge in interest in data on subjective well-being from scientists, lawmakers, national statistics offices, the media, and the general public. The importance of this information stems from its potential contribution to monitoring the population's economic, social, and health status, as well as potentially informing governmental decisions in these areas. (Krueger et al., 2009, pp. 9–10).

Three basic concepts of subjective well-being have been identified (Mackie & Stone 2013, pp. 15–19):

- life satisfaction in general;
- hedonistic well-being experiencing pleasant and unpleasant feelings, such as happiness, joy, stress or anxiety;
- eudaimonistic well-being evaluating one's life in terms of its significance and value.

Happiness or subjective well-being can be measured in terms of life satisfaction, the presence of positive and the absence of negative experiences and feelings. Such measures, while subjective, are a useful complement to objective data that enable comparisons of life across countries in terms of quality. The OECD Life Satisfaction Index measures how people rate their lives in general rather than their current feelings. Respondents are asked to rate their overall life satisfaction on a scale of 0 to 10 (OECD Better Life Index, n.d.).

The Polish Ministry of Regional Development and the United National Development Program have collaborated to develop the Human Development Index (HDI). This index, known as the Local Human Development Index (LHDI) at a sub-national level, evaluates aspects of health, education, and social welfare. Data from Statistics Poland and the Warsaw School of Economics revealed considerable disparities in social development in 2007–2010. Analyses have shown that cities fared better than rural areas. Subsequently, Poland declared that its Long-Term National Development Strategy: Poland 2030 will apply LHDI and GDP as key development indicators. Local and regional governments have also used the LHDI to plan, monitor, and evaluate activities, as well as improve public policy. This has proven beneficial in aligning regional/local with national strategic goals (OECD Better Life Index, n.d.).

Research on measuring well-being is based on 11 dimensions that cover current well-being (income and wealth, housing, work and job quality, health, knowledge and skills, environmental quality, subjective well-being, safety, work-life balance, social connections, and civic engagement) and four resources for future well-being (natural, human, economic, and social capitals). Each issue of the survey considers how people's well-being changes over time and how it is distributed across different population groups, while a number of thematic chapters provide an in-depth look at its specific aspects (OECD, 2020).

Another statistic is The Economist Intelligence Unit's where-to-be-born-index, formerly known as the quality of life index. It is a metric that assesses the overall quality of life of a region's residents and is divided into several categories, including health, education, housing, and social and economic position. It is used as a tool by organisations, scientists, and governments to monitor and compare living conditions worldwide (Statista, 2013).

The Economist Intelligence Unit has developed a quality of life index, which is based on a methodology that combines the results of surveys of subjective satisfaction with life with

objective factors of the quality of life in various countries. The parameters include (Economist Intelligence Unit, 2005):

- material status GDP per capita in USD based on purchasing power parity;
- health life expectancy;
- political stability and security;
- family life divorce rate (per 1,000) on a scale of 1 (lowest) to 5 (highest);
- community life a measure of church attendance and trade union membership; the variable takes the value of 1 or 0;
- climate and geography latitude, used to differentiate between hot and cold climates;
- job stability unemployment rate;
- political freedom an index of political freedom and civil rights, range from 1 to 7 (1 = complete freedom, 7 = no freedom at all);
- gender equality based on proportions of average earnings of men and women, latest available data.

Other indicators include the Happy Planet Index (HPI) and the Subjective Well-Being Index (SWB).

The official Happy Planet Index website states: "HPI measures what matters: Sustainable well-being for all. It tells us how well nations are doing at achieving long, happy, sustainable lives" (HPI, 2019). The index was developed by the New Economy Foundation to measure the well-being and impact of people on the environment. It consists of four components that show how effectively people use environmental resources to lead a long and happy life. It is calculated using the following formula (Rybka, 2019, p. 223):

$\label{eq:HPI} \mathsf{HPI} \approx \frac{\textit{Average life expectancy} \times \textit{Perceived well} \times \textit{inequality of outcomes}}{\textit{Ecological footprint}}$

HPI is criticised for being a measure of how well the environment promotes prosperity rather than a measure of personal happiness, among other things, and for not being regularly published. On the other hand, HPI's advantages include easy access to the needed data and straightforward calculations. Additionally, the ecological footprint component of the index combines the use of natural resources with the capacity of the planet to replenish them (Rybka, 2019, pp. 223–224).

The Cantril Ladder, developed by social researcher Hadley Cantril, is used to calculate the subjective well-being index (SWB). First, the respondent completes a questionnaire in which they evaluate their current and future lives in terms of happiness (Krok 2016, p. 50) by visualising a ladder with rungs numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life, while 0 represents the worst. Next, the participant is expected to answer two questions (Gallup, 2019):

- On which step of the ladder would you say you personally feel you stand at this time?
- On which step do you think you will stand about five years from now?

The first question concerns the respondent's current happiness, whereas the other concerns his or her projected happiness. Both scores are then combined in order to improve the scale's validity.

According to statistical analysis, these two questions assess a shared dimension of wellbeing, because they correlate very highly with each other, resulting in an independent and reliable indicator. By examining two time perspectives, the likelihood that the respondent's answer about overall perceived well-being is conditioned by their current level of satisfaction is reduced (Rybka, 2019, p. 225).

These indicators represent alternatives to GDP. HPI and SWB take into account both ecological and subjective components of human well-being. As they purport to quantify an individual's sense of satisfaction with life, it is possible to compare the average levels of subjective well-being for a country with e.g. national wealth indices and to examine how they are related (Rybka, 2019, p. 225).

In conclusion, measuring subjective well-being is extremely important nowadays. It is worth noting that each of the above-mentioned methods has both advantages and disadvantages and is selected for specific research needs. Undoubtedly, however, a better awareness of an individual's life satisfaction and their sense of happiness is important not only in scientific research but also in public policy and decisions taken in various areas of life.

2.3. Income and happiness

Research consistently shows that once a person's basic needs have been met, an increase in income produces short-term pleasure, but has almost no lasting effect on happiness (Ahuvia, 2007; 1998, pp. 153–168; Diener & Biswas-Diener, 2002, pp. 119–169; Layard, 2002). Most studies of income and subjective well-being use measures to assess variables such as emotional states, life satisfaction, psychological adjustment and/or meaning in life, and then correlate them with income. In developed countries, income typically only explains approximately 25% of the variance in subjective well-being (Ahuvia, 2007). An advanced multilevel analysis by Philippe Schyns (2000) showed that individual income accounted for only 2.5% of the difference in subjective well-being between people. The rate is slightly higher in studies using improved measures of economic status that take into account wealth, cost of living, family size and other variables, but still remains relatively low at around 5% in developed economies, thus leaving 95% of the variance in subjective well-being to be explained by other factors (Heady et al., 2004). This basic finding is supported by research findings, which show that people with higher incomes do not spend more time enjoying themselves than those at the other end of the income spectrum, but they are exposed to more stress (Kahneman et al. 2006, pp. 1908–1910).

For all but the truly destitute, the likelihood that increased income will improve subjective well-being may be even lower than studies using linear correlations suggest. According to research, the relationship between income and happiness reaches a very rapid turning point at the income level at which basic necessities are satisfied (Lever, 2004, pp. 1–33). Part of this considerable difference in subjective well-being between the very poor and everyone else is due to the difficulties inherent in living in poverty and misery on a daily basis, and part may be due to money's capacity to act as a buffer against the impact of unexpected negative events – a buffer that the poor lack (Johnson & Krueger, 2006, pp. 680–691).

The correlations between income and happiness mentioned above are mostly based on linear statistical models that average strong income effects for the poor with much weaker income effects for the non-poor. Therefore, most of the variance explained by these correlations comes from alleviating the misery of the very poor rather than improving the standard of living of the non-poor (Burchardt, 2005, p. 57).

Even if the correlation between money and subjective well-being is weak, most of it could be misleading. After all, while unemployment reduces income, it also causes a drop in subjective well-being well beyond what can be explained by the latter alone. Large amounts of consumer debt are more common among people with lower incomes and have been shown to impair subjective well-being regardless of their material status (Ahuvia, 2008, pp. 493–495).

Surprisingly, rather than wealth generating subjective well-being, causation can go the other way. A positive personality trait, such as optimism, has been linked to higher earnings (Argyle, 1996, pp. 18–45). The impact of these personality variables can be as strong as noted in the review by Robert Cummins in 2000 that when income is included in models along with psychological variables – such as optimism, control, and self-esteem – income ceases to be exceptionally significant (pp. 133–158).

Research suggests that for the wealthy, trying to improve subjective well-being by increasing income appears to be misguided. How does this fact affect consumer behaviour? If all human actions are ultimately motivated by the desire for subjective well-being, and it can be demonstrated that increased income does not promote subjective well-being in the long run, will there be a time when low-consumption lifestyles migrate from the social periphery to become the social norm?

The answer is primarily determined by what is the true driving force behind the apparently universal human desire to increase consumption. Quite likely, most people have not yet heard of research that reveals a weak association between income and happiness and/or do not believe it, and they overestimate the long-term psychological impact that an increase in wealth will have on them (Kahneman et al., 2006, pp. 1908–1910). High levels of consumption may thus reflect a lack of reliable information. This is only a very sketchy justification for why higher incomes continue to appeal to the less fortunate, though. Let us consider a typical scenario when incorrect information is actually the main issue: for instance, when someone is driving somewhere and realises they are heading the wrong way, they simply turn the car around. Even so, people rarely change their behaviour once they have found that making more money is unlikely to result in long-term subjective well-being.

3. Research method

The main aim of the study discussed in this paper was to determine whether and, if so, what the relationship is between the incomes of the residents of Świętokrzyskie Voivodship and their self-reported sense of happiness. The diagnostic survey method and survey technique were employed in the quantitative investigation. A specially designed anonymous questionnaire, delivered to participants via e-mail, was used as a research tool. The study lasted from early May until the end of June 2022, and included 281 purposively selected adult residents of the area in question.

The questionnaire comprised closed questions with fixed response options, which expedited the survey process while also providing the opportunity to standardise responses. It was accompanied by an introductory letter that explained the goal of the research and encouraged the recipients to participate.

The sense of happiness index was produced by adding the answers to two questions about general life satisfaction and individual perception of its value according to the following key: $1 = very \ satisfied$, $0.5 = somewhat \ satisfied$, 0 = undecided, somewhat dissatisfied, and very dissatisfied. The total possible score ranged from 0 to 11. The greater the value, the greater the individual's sense of happiness. The total scores were then divided into three bands representing the sense of happiness: 0-3 = low, 4-7 = moderate, 8-11 = high.

The empirical data thus obtained were statistically analysed using the SPSS (Statistic Package for the Social Sciences) version 25 and Microsoft Excel 2022.

The conventional significance level $\alpha = 0.05$ was adopted, but the findings of the probability of the test statistics at the level of 0.05 were interpreted as significant for the statistical tendency.

It should be noted that the study was not representative, therefore its findings do not permit valid generalisations about the entire community. All the relationships discussed below pertain to the sample under consideration.

Women accounted for the majority of the survey participants (54% of the total), with men constituting the remaining 46%. Respondents aged 18–25 represented 75% of the total population and were by far the most numerous. Only 16% of those polled were between the ages of 26 and 35. Even fewer (5%) respondents were in the 36–45 age band. Those aged 46 to 55 comprised the smallest group (4%). Nearly 40% of the women were between the ages of 18 and 25; those between the ages of 26 and 35 (16%) came in second, and those between the ages of 36 and 45 (5.3%) came in third. Only 3.6% of women belonged in the 46–55 age band. Male respondents aged 18–25 made up nearly 36% of the surveyed population, whereas those aged 26–35 (7.1%) came in second. The 36–45 and 46–55 age groups had the fewest men, with only 1.4% each (Figure 2).





Source: own study based on survey results.

Respondents with higher education (51.2%) slightly outnumbered those with secondary education (48.4%). Both groups made up 99.6% of all respondents. Table 1 shows the survey participants' education, marital status, current professional status, and monthly net income. The surveyed sample included both residents of rural areas (52.3%) and those living in cities, with the latter accounting for 47.7% of the total.

Education	n	%
primary	1	0.4
basic vocational	0	0
secondary	136	48.4
higher	144	51.2
Marital status	n	%
unmarried	231	82.2
married	48	17.1
divorced	2	0.7
widowed	0	0
Current employment status	n	%
employed in the public sector	43	15.3
employed in the private sector	60	21.4
employed in a non-governmental organization	3	1.1
entrepreneur – I run my own business	15	5.3
entrepreneur – I run my own business and at the same time	1	0.4
l am employed		
student/apprentice	156	55.5
unemployed	2	0.7
other	1	0.3
Monthly net income (PLN)	n	%
up to 1000	32	11.4
1001–2000	33	11.7
2001–3000	60	21.4
3001–4000	32	11.4
4001–5000	19	6.8
above 5000	15	5.3
not applicable	90	32.0

Table 1. Distribution of respondents by selected characteristics

Note: *N* = 281.

Source: own study based on survey results.

Owing to the high proportion of young respondents, more than 80% of individuals in the research sample were single and unmarried. Married people constituted 17.1% of the total. The study covered both professionally active and inactive people. Over 37% of respondents worked in private or public sectors; however, students made up the largest category (over 55% of the total). Income was another distinguishing characteristic. Almost 45% of those surveyed said that their net monthly income does not exceed PLN 3,000 (Table 1). Only 23.5% of the sample reported higher incomes.

4. Results and discussion

4.1. Life satisfaction of the surveyed residents of Świętokrzyskie Voivodship

The respondents are generally satisfied with their lives (69.4% are very satisfied or moderately satisfied). Only 11% of them stated that they are very dissatisfied or moderately dissatisfied (Figure 3). Taking gender into consideration, women (39.5%) are more likely than men (29.9%) to be satisfied with their lives.





Source: own study based on survey results.

Survey participants were also asked about the sources of satisfaction in their lives (Table 2). Social and family ties proved to be the source of satisfaction for a sizeable proportion of respondents. Their vast majority (85.7%) said they are very satisfied or moderately satisfied with their friends and closest acquaintances. Nearly 90% of respondents who are married or in a relationship are happy with their long-term relationship, whereas 84% of parents feel satisfied with their kids.

Respondents are generally satisfied with their place of residence (66.5%). Their opinion in this regard is primarily affected by their standard of living. Approximately 80% of respondents are satisfied with the material conditions, such as housing and equipment, while approximately 13% are dissatisfied.

Respondents also appear to be mostly satisfied with their income. More than half are satisfied, nearly 20% are dissatisfied, whereas 25.6% remain undecided.

Just over two-thirds of respondents (68.3%) are happy with their education and qualifications, and nearly 40% are satisfied with their professional career (53% of those who have ever worked). Dissatisfaction in these areas was reported by 10.3% and 18.1%, respectively (and 26% of those with professional experience). Respondents who are satisfied with their education and qualifications are more likely to have a university degree and work in the private sector, whereas those with secondary education, students, and the unemployed are the least likely. In terms of their present status, public-sector employees with a university degree are more likely than others to report satisfaction with their career.

Nearly 80% of respondents are satisfied with their health, while 10% are dissatisfied. Respondents under the age of 35 have a more positive perception of their health, while those above 45 tend to express a more negative view. Almost 62% of respondents are pleased with their prospects for the future. In contrast, almost 16% feel pessimistic about the future. The respondents' perception of their prospects for the future is mostly affected by their age and current economic status.

Are you generally satisfied with:	Very satisfied	Moderately satisfied	Undecided	Moderately dissatisfied	Very dissatisfied	n/a				
		%								
your children*	11.4	2.1	2.5	0	0	84.0				
your marriage/long-term relationship*	30.6	18.9	4.3	1.1	0.44	44.8				
your friends, closest acquaintances	34.5	51.2	7.8	5.7	0.7	0				
your place of residence	25.6	40.9	13.2	17.4	2.8	0				
your professional career*	10.7	27.0	14.6	14.9	3.2	29.5				
your material living conditions (housing, equipment, etc.)	33.5	45.6	8.5	12.1	0.4	0				
your education and qualifications	16.0	52.3	19.9	8.5	1.8	1.4				
your health	29.5	49.8	10.7	8.9	1.1	0				
your prospects for the future	13.5	48.4	22.4	13.5	2.1	0				
your income and financial situation	12.5	37.7	25.6	12.8	6.4	5.0				

Table 2. Proportions of respondents satisfied with particular areas of life

Note: *N* = 281.

* Only those respondents who have had experience as parents, spouses, people in long-term relationships, and employees reported their satisfaction with these areas of life.

Source: own study based on survey results.

Spearman's rank correlation coefficient indicates the strength and direction of the relationship between specific aspects of life and the overall assessment of life satisfaction.

Table 3. Spearman's rank correlation coefficient the relationship between specific aspects	
of life and the overall assessment of life satisfaction	

Satisfaction with specific aspects of life:	ρ	Significance (p)
children***	0.229	0.000**
marriage/stable relationship***	0.123	0.040*
friends, closest friends	0.277	0.000**
place of residence	0.514	0.000**
professional career***	0.121	0.043*
material living conditions – housing, equipment, etc.	0.372	0.000**
education and qualifications	0.394	0.000**
health	0.301	0.000**
prospects for the future	0.412	0.000**
income and financial situation	0.477	0.000**

Note: *N* = 281.

* Correlation significant at 0.01 (two-tailed); ** Correlation significant at 0.05 (two-tailed); *** Only those respondents who had experience as parents, spouses, people in permanent relationships, and employees rated their satisfaction with these areas of life Source: own study based on survey results.

The analysis shows a statistically significant correlation between all aspects of life listed in Table 3 and the overall rating of life satisfaction. The highest correlation coefficient (0.514)

refers to the place of residence, which suggests that it is very important for the survey participants to live in a place that provides them with a sense of security and satisfaction with the environment.

Other factors that strongly correlate with the overall rating of life satisfaction are income and financial situation (0.477), prospects for the future (0.412), and material living conditions (0.372). All of these point to the importance of financial stability and future prospects for overall life satisfaction.

Health (0.301), education (0.394), as well as relationships with children (0.229) and friends (0.277) all show a weaker correlation with life satisfaction than the previously mentioned factors.

The fairly low coefficients for professional career (0.121) and marriage/stable relationship (0.123) indicate a weaker association with life satisfaction in general, which does not mean that these characteristics are unimportant to respondents.

Overall, the correlation results demonstrate that people appreciate not only basic necessities such as financial stability, but also psycho-social factors such as relationships with family and friends, education, and health. It should be noted, however, that the strength of the association between particular components and total life happiness is not consistent and varies depending on the factor under consideration.

4.2. Income and the sense of happiness

Most of the studied sample reported a moderate sense of happiness (i.e. 49.1% of respondents gave it a rating between 4 and 7). A high sense of happiness was indicated by 35.6% of respondents, while a low one by 15.3% (Figure 4).



Source: own study based on survey results.

A chi-square test was then performed to determine whether there is a relationship between the surveyed population's income and their perception of happiness (Table 4). This finding suggests that the higher the income, the greater the sense of happiness. It is worth noting that the relationship in question is not linear – the greatest increase in happiness occurs with the first gains in income; subsequent increases in the latter do not translate into a proportional boost in the sense of happiness. It is worth mentioning, however, that Cramer's V of 0.221 indicates a modest association between income and happiness.

Respondents with a higher income report a higher sense of happiness, but only up to a particular threshold, namely PLN 3,000 in the surveyed group. Incomes above this level are not associated with a higher declared sense of happiness.

Monthly income	Lo	W	Mod	erate	Hi	gh	To	tal		df	p	V _c		
(PLN) / Sense of happiness	n	%	п	%	n	%	n	%	χ²					
up to 1000	10	28.6	15	18.5	7	9.3	32	16.8	18.79					
1001–2000	4	11.4	17	21.0	12	16.0	33	17.3		10	0.044	0.221		
2001–3000	6	17.1	28	34.6	26	34.7	60	31.4						
3001-4000	5	14.3	9	11.1	18	24.0	32	16.8		10				
4001-5000	4	11.4	8	9.9	7	9.3	19	9.9						
above 5000	6	17.1	4	4.9	5	6.7	15	7.9						

Table 4. Relationship between income and happiness - chi-square test of independence

Note. *N* = 281.

N – number of observations; χ^2 – chi square test statistics; *df* – degrees of freedom; *p* – significance level; *V_c* – Cramer's *V*. Source: own study based on survey results.

In the next part of the study, respondents were asked to state what actually makes them feel happy (Table 5). The three criteria that respondents attributed the most happiness to were good interpersonal relationships, love, and money. Interestingly, more men than women (88 vs. 47%) reported that love makes them happier, whereas the vast majority of women (92%) declared that money contributes to their sense of happiness. There were no significant distinctions between sexes in terms of interpersonal relationships. Social status, expensive products, and branded clothing had the least impact on their satisfaction.

Table 5. Perceived significance of happiness-enhancing factors

Which of the following makes you feel happy:	%
good relationships with people	63.7
love	52.0
money	50.2
mental health	40.6
stress-free life	37.4
physical health	36.3
self-satisfaction	30.2
sporting activities	27.0
good job	25.6
sufficient length and quality of sleep	24.9
positive attitude	21.7

Which of the following makes you feel happy:	%
area in which I live	13.2
helping others	12.5
successful sex life	12.1
having a spouse	11.4
faith, religion	11.0
social status	6.0
luxury goods	1.4
branded clothing	0.4
other	0.4

Note: *N* = 281.

Percentages do not add up to 100 because respondents were allowed to choose more than one option.

Source: own study based on survey results.

Even though the popular adage says that money cannot buy happiness, more than half of the survey participants disagreed with it (Table 6). Almost 90% of them felt that spending money on current needs is preferable to saving. Women are more likely than men to purchase more than they need, whereas men typically only buy what they have planned beforehand. Over 70% of respondents do not feel inferior because their friends and acquaintances have more material possessions. For 68% of the survey participants, money is a tool for exerting influence and impressing people. Almost 60% say that a lack of money is neither a sign of failure nor a source of embarrassment and degradation in life. Almost a quarter of those polled disagree. Even when money is tight, the vast majority of respondents can still enjoy themselves.

Statement	Definitely agree	Moderately agree	Undecided	Moderately disagree	Definitely disagree
			%		
Money does not make one happy	7.8	16.0	24.9	30.2	21.0
Saving money does not make sense, it is better to spend it as needed	0.4	5.3	7.1	25.3	62.3
I'd rather save than spend on my whims	19.6	46.3	19.6	14.2	2.5
Many of my friends have money to waste	9.6	29.2	26.7	32.0	4.6
When shopping, I usually buy more than I need	7.8	31.7	15.3	33.1	15.3
Usually, I only buy what I have planned in advance	11.0	43.4	12.8	27.0	7.8
I feel inferior when I cannot have what my friends have	3.9	16.4	9.3	35.9	34.9
Money is a means of influence and impression	21.7	46.3	14.9	10.3	7.1
Lack of money is a symbol of failure in life, as well as a source of embarrassment and degradation	4.3	20.6	18.9	34.2	22.4
l can't enjoy myself if money is tight	0.4	4.3	7.1	40.6	48.0

Table 6. Responses to statements on consumer attitudes

Note: *N* = 281.

Source: own study based on survey results.

Despite the currently prevailing consumerist attitudes, over 70% of respondents (Figure 5) believe that material goods cannot provide greater satisfaction with life than intangible values, such as love, friendship, respect or help. Women are more likely than men to hold such views, as are those with a secondary education who live in rural areas.



Figure 5. Responses to the question about the importance of material goods vs. intangible values

Source: own study based on survey results.

The breakdown of responses to the question "Would you be happier if your net income increased by PLN 2,000?" warrants the conclusion that having more money increases one's sense of happiness, which is supported by 83% of the respondents (Figure 6). Such a view is more likely to be expressed by women, people aged 18 to 25, and those with a university degree.



Figure 6. Responses to the question about the effect of income increase on happiness

Source: own study based on survey results.

Naturally, these figures do not mean that one should solely focus on acquiring money; after all, what is the point in amassing huge amounts of money and having no time for family, friends, and acquaintances due to long working hours? According to the findings of the study, money ranks third in terms of improving happiness, trailing only good relationships with others and love. Thus, happiness is dependent not only on having control over one's own life, convenience, or more opportunities, but also on love and intimate relationships with others.

	Would you be	happier if your net	χ ²	df		V		
Income (PLN)	Definitely yes	Probably yes	Probably not	Definitely not	X	u	р	v
	п	п	п	п		15	0.000	
up to 1000	10	13	9	0	95.49			
1001–2000	13	10	10	0				
2001–3000	25	32	2	1				0.707
3001-4000	5	21	5	1				
4001–5000	5	11	0	3				
above 5000	1	1	5	8	-			

Table 7. Relationship between a hypothetical increase in net income of PLN 2,000
and a self-reported rise in happiness – chi-square test of independence

Note. *N* = 281.

N – number of observations; χ^2 – chi square test statistics; *df* – degrees of freedom; *p* – significance level; *V_c* – Cramer's *V*. Source: own study based on survey results.

A hypothetical rise in net income of PLN 2,000 results in a statistically significant correlation between income and the reported increase in the sense of satisfaction, according to the results of the chi-square test of independence. Furthermore, the large statistic (95.49) indicates a substantial correlation between these variables.

The strength of the relationship between these variables can be inferred from Cramer's V coefficient, which at 0.707 in this case illustrates a strong association. In other words, a PLN 2,000 increase in net income causes increases the self-reported sense of happiness.

If you unexpectedly received a certain amount of money, e.g. PLN 10,000, how would you use it?	%
I would spend it all on current needs or treat myself to a small luxury	1.1
I would spend most of it and save a little	2.1
I would spend about one-half and save the other half	12.8
I would save or invest most, and only spend a little	45.6
l would save or invest everything	28.8
l would pay off a loan, part of it, or settle other debts	5.3
l would keep it at home in a piggy bank	1.8
I would not know what to do with it	0.7
Other	1.8

Source: own study based on survey results.

A significant finding from the study is that being aware of the relationship between income and happiness may affect financial decisions and thus motivate a person to achieve a stable financial status, which in turn is likely to improve a his/her perception of overall quality of life.

The breakdown of responses to the question about how to use a money windfall supports the inclination of the survey participants to save. Almost half of them (Table 8) said they would keep or invest most of any unexpectedly received money (PLN 10,000 in this case), and would only spend a small portion of it, whereas nearly 30% declared that they would save or invest everything. As a result, it is possible to conclude that respondents have prudent and rational attitudes towards money management.

5. Conclusions

In summary, the respondents from Świętokrzyskie Voivodship report a moderate level of happiness. Up to the level of PLN 3,000, more income is associated with a greater sense of happiness; however, further increases do not translate into a proportional rise in the latter. The findings of the study show that both socioeconomic factors (housing quality, financial security, and relationships with family and friends) and psycho-social ones (such as education and health) have an impact on their overall rating of life satisfaction. The three factors that contribute most to the respondents' sense of happiness are good relationships with others, love, and money, whereas their social standing, luxury products, and branded clothing have the least bearing on the quality in question. Men differ from women in several of their responses; for example, the former are more likely to identify love, whilst the latter are more likely to mention money as a source of happiness.

It should be noted that the self-reported levels of happiness are affected by factors other than income. As a result, in order to achieve long-term happiness, it is critical to emphasise the importance of balancing the material and non-material aspects of life.

Many people believe that having more money will make them happier, and as a result, they act as though the two were directly linked. This may be because people are misinformed or motivated by something other than the pursuit of happiness. There appear to be three reasons why people welcome extra income even if it does not make them happier. First, happiness is merely one of many values, and it is not the only goal that people consciously set for themselves. Good interpersonal interactions and love are also essential. Second, even when people attempt to maximise happiness, their proclivity to exaggerate short-term benefits leads to overestimating the short-term rewards provided by income. And third, value-based decision-making conflicts with other incentive systems and evolutionary desires. One may even argue that the use of money and consumption as a social tool has the greatest overall impact on the desire to increase income to the point where it no longer contributes to an individual's sense of happiness.

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MARCIN BANASZEK: INCOME AND THE SENSE OF HAPPINESS IN THE LIGHT OF EMPIRICAL RESEARCH

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