



The Consumption of Lifetime and consumption habits in the face of pandemic

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Abstract

The aim of this article is to present the concept of Consumption of Lifetime developed by the author and to show the impact of the phenomenon of digitalisation of society during the pandemic on decisions related to the consumption. The author conducts an analysis in the context of the Consumption of Lifetime to show the consumption habits of society. The process of digitalisation was particularly visible during the pandemic and the restrictions related to it, when education, work and interpersonal contacts were made possible with the use of devices connected to the Internet. These devices were also often used to make remote purchases. The work on this article has made it possible to formulate research questions and conclusions that confirm the importance of considering decisions related to consumption in the face of pandemic. Another interesting issue touched upon in this article is the post-pandemic period, in which it is possible to observe whether consumption has returned to the pre-pandemic state and previous purchasing behaviour. Currently, there is a noticeable tendency to return to the permanent consumption habits observed prior to the pandemic.

Article received 2 August 2023, accepted 15 November 2023.

Keywords

- Consumption of Lifetime
- consumption
- digitalisation
- pandemic
- consumer spending
- consumer behaviour
- society

Suggested citation: Staniszevska, J. (2023). The Consumption of Lifetime and consumption habits in the face of pandemic. *Research Papers in Economics and Finance*, 7(2), 7–17. <https://doi.org/10.18559/ref.2023.2.984>



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Introduction

This article discusses the issue of Consumption of Lifetime (CL) and the accelerated process of digitalisation of society during the pandemic which has influenced the consumption habits. Consumption of lifetime is an economic category of key theoretical and practical importance for the development of economics. In the analytical sense, the category of Consumption of Lifetime allows us to calculate and determine the fulfilment of consumers' life aspirations, taking into account boundary conditions such as income. It comes from the theory of consumption and concerns consumption over the course of a person's lifetime; it is calculated on the basis of current data, enabling consumption to be related to the current socio-economic conditions.

The marginal propensity to consume varies in social groups with different levels of income, with the poor having a higher marginal propensity to consume than the rich (Deaton, 2005). Consumption expenditure depends on income (Keynes, 1936) as well as the social environment in which a person lives (Duesenberry, 1949). In the long run, a person wants to maintain expenditure at a certain (constant) level, consistent with their standards of living (Friedman, 1957; Modigliani & Ando, 1963). When considering consumption, the extension of human life is a visible correlation (Deaton, 2018). Additionally, digitalisation is another important aspect in the current socio-economic situation. The ongoing digitalisation process, which was particularly visible during the COVID-19 pandemic, is still noticeable in society. Restrictions introduced at that time, aimed at avoiding the spread of the pandemic, caused many people to switch to remote work, forcing them at the same time to avoid interpersonal contacts and change their shopping habits. Thus, consumption decisions were revised. The phenomenon of digitalisation deepened when the pandemic and its restrictions ended, and society became accustomed to remote work, spending longer time in front of a computer screen and using remote communication devices. An interesting issue is also the current period after the pandemic, in which we may observe whether consumption is returning to the pre-pandemic state and previous purchasing behaviour. Therefore, the following research questions arise:

- How is society's consumption shaped during the pandemic?
- Is consumption returning to the pre-pandemic state and the previous structure of consumer spending?

The aim of this article is to present the concept of Consumption of Lifetime developed by the author and to show the impact of the phenomenon of digitalisation of society during the pandemic on decisions related to consumption. The significant cognitive and utilitarian usefulness of this economic category and the

impact of the phenomenon of digitalisation on society during the pandemic were among the most important reasons for taking up this topic. The considerations and analyses carried out in this work make it possible to address the above questions.

1. Consumption of Lifetime and society's consumption habits

During her scientific research, the author has introduced and used her own definition of Consumption of Lifetime: *Consumption of Lifetime is an economic category depicting the estimated value of consumption that a person does during their life and resulting from consumption in individual stages of life. On the one hand, it is conditioned by a person's needs, aspirations and choices, and on the other hand, it is limited by the consumer's income and savings.* This research approach allows for a practical analysis of Consumption of Lifetime, making it possible to omit unimportant consumption changes that took place several decades ago and which no longer affect current consumption. Consumption of Lifetime is estimated on the basis of current data from an analysis of household budgets based on the Central Statistical Office (Główny Urząd Statystyczny, GUS) data, enabling consumption to be related to the current socio-economic conditions (Staniszewska, 2022). Consumption accompanies a person at every stage of their life and is the basic fact on which their livelihood depends. It has a great impact on modern society, which is why it is treated as the highest value – it promotes the growth of the economy and achieves human life goals. Consumption in the economic sense refers to consumer spending on specific types of consumer goods.

The importance of cohort studies of consumption with sufficiently large samples was confirmed by Deaton (1985). By introducing cohort studies, he confirmed the validity of using aggregated data, which ensures reliable results. Furthermore, consumption is less variable throughout the year, more stable than revenues, which justifies analysing and predicting it in unknown conditions based on the knowledge of its mechanisms (Deaton & Zaidi, 2002). Transforming sectors and markets through digitalisation may lead to the production of higher quality goods at reduced costs. Digital technologies are also changing the way enterprises conduct business and relationships with customers and suppliers, creating new business models and opportunities to make and introduce innovations. Digitalisation can facilitate professional activity thanks to remote work and distance education (Grynia, 2022). An interesting issue within this topic is the development of society's Consumption of Lifetime in the period before and after the pandemic, in

which we may observe whether consumption has returned to the previous consumption habits, thus emphasising its stability over the years.

Based on data from the Central Statistical Office (GUS, 2020, 2021, 2022), consumer expenditure on food and non-alcoholic beverages had, as in previous years, the highest share in the structure of total expenditure of households, amounting to approximately 26%. The second most important item in household expenditure was expenditure for housing and energy commodities. The share of this type of expenditure in total expenditure was on average 19%, which is presented in Figure 1.

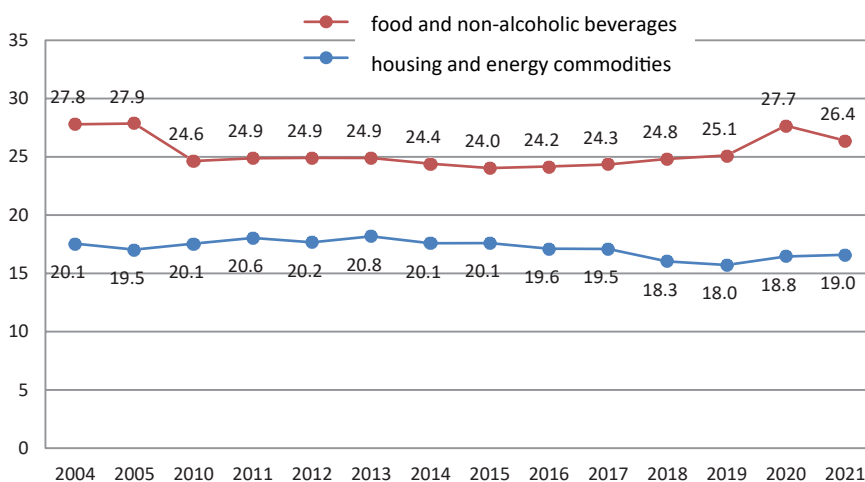


Figure 1. Share of average monthly expenditure per capita on food and non-alcoholic beverages as well as housing and energy commodities in the total expenditure of households, 2004–2021 (in %)

Source: own study based on (GUS 2020, 2021, 2022).

In the case of the main groups of consumer goods, the stability of the share in the entire structure of consumer spending over the years is visible; only in 2020, during the pandemic and the related restrictions, an increase in the share of food and non-alcoholic beverages was noticed, which was related to remote work and the society staying and eating in their homes. However, expenditure on consumer goods and services in 2020 amounted to PLN 1,165 and was actually lower by 6.2% (nominally by 3.0%) compared to 2019. At the same time, compared to 2019, expenditure on food and non-alcoholic beverages, as well as housing and energy (which have the highest share in the expenditure structure) increased. These changes were conditioned by the changing dynamics of the COVID-19 pandemic and the related restrictions. It is also worth noting that expenditure on consumer goods and services in 2021 amounted to PLN 1,269 and was realistically higher by

3.6% (nominally by 8.9%) compared to 2020 (GUS, 2020, 2021, 2022). The largest increases concerned expenditure on education, restaurants and hotels, transport, clothing and footwear, as well as health. Expenditure on these consumer goods recorded an increase in line with the changing pandemic situation and easing of restrictions, as well as a gradual return to the consumption habits and spending prior to the pandemic. These expenditures dropped significantly in 2020. All of the above presented relationships can be observed in Figure 2.

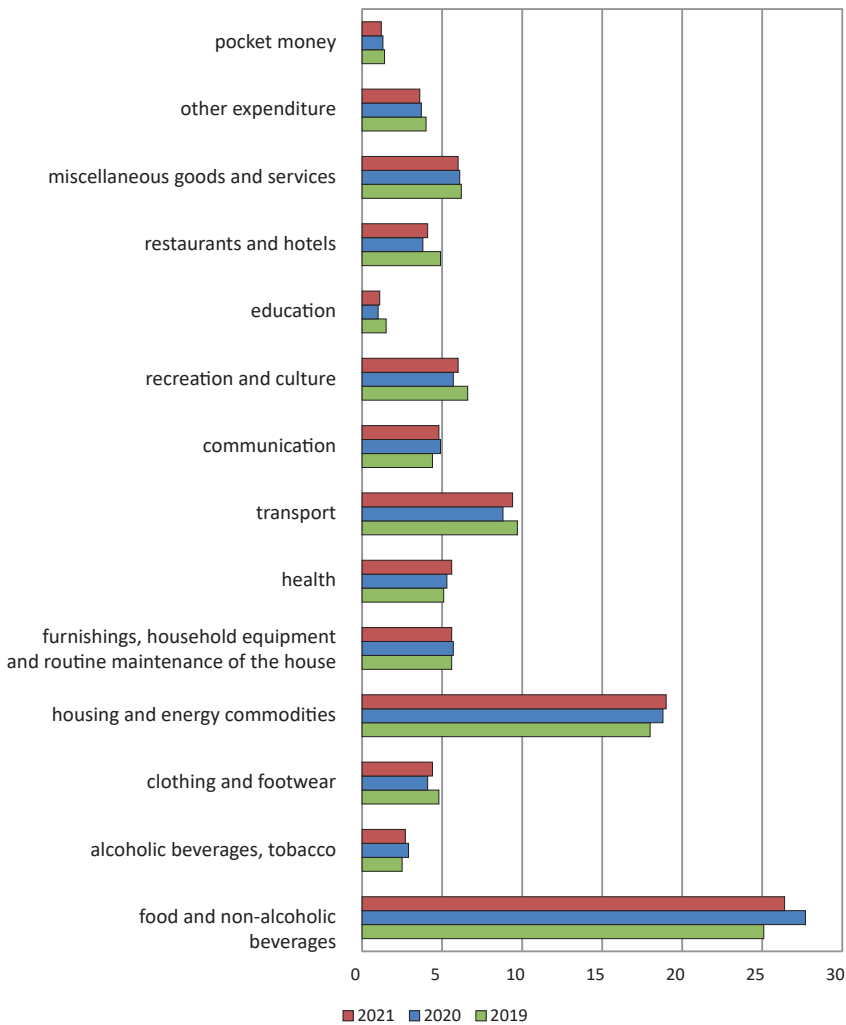


Figure 2. Structure of average monthly expenditure per capita in households (in % of total expenditure) in 2019-2021

Source: own study based on (GUS 2020, 2021, 2022).

The share of expenditure on food and non-alcoholic beverages increased moderately in the total expenditure structure, and in 2020 it increased considerably due to the COVID-19 pandemic, amounting to 27.7%. Additionally, it should be noted that in 2020, compared to 2019, there was a decrease in the share of goods such as restaurants and hotels (by 1.1 percentage points), recreation and culture, transport (by 0.9 percentage points) as well as clothing and footwear (by 0.7 percentage points), which is also connected with the COVID-19 pandemic and the related restrictions. The second significant item in consumer spending was expenditure on housing and energy commodities, the share of which was on average 18.8% in total expenditure, and in 2020 it increased by 0.8 percentage points. This type of expenditure was the lowest in the households of farmers (16.1%), and the highest in the households of pensioners (23.1%). In real terms, in 2020 there was a decrease in average monthly expenditure per person in households by 6.5% compared to 2019. However, in 2021, compared to 2020, there was an increase in average monthly expenditure per person in households by 3.5% in real terms. Furthermore, in all socio-economic groups of households there was a real increase in average monthly expenditure per person in relation to 2020 (from 0.3% in the group of the self-employed to 6.1% in the group of farmers) (GUS, 2020, 2021, 2022). In 2021, consumption expenditure on food and non-alcoholic beverages had, in line with the trend in previous years, the highest share in the structure of consumption expenditure of all households, i.e. 26.4%, amounting to 23.6% in the households of the self-employed and 32.3% in the households of farmers. From 2016, the share of expenditure on food and non-alcoholic beverages increased moderately in the total expenditure structure, increasing significantly in 2020 due to the COVID-19 pandemic, and decreasing in 2021 by 1.3 percentage points. The second significant item in consumer spending was expenditure on housing and energy commodities. The share of this type of consumer spending in total expenditure amounted to 19% on average and increased by 0.2 percentage points in 2021 compared to 2020. It was lowest in the households of the self-employed (16.4%) and highest in the households of pensioners (23.5%). In 2021, the share of the following groups of goods increased the most in the structure of consumer spending compared to the previous year: energy commodities (by 0.7 percentage points), transport (by 0.6 percentage points), clothing and footwear, health, restaurants and hotels, as well as recreation and culture (0.3 percentage points each) (GUS, 2020, 2021, 2022). This increase is related to the return to the level of consumer spending prior to the pandemic and the specific structure of consumer spending in 2020, i.e. the period of the pandemic and the resulting restrictions. Currently, there is a noticeable tendency to return to permanent consumption habits.

2. Consumption habits during the pandemic

Society's consumption is undoubtedly influenced by digitalisation, especially visible during the pandemic when the society was forced to use primarily tools for remote communication and work. According to *Słownik języka polskiego PWN* (PWN Dictionary of the Polish Language), the concept of digitalisation means: "the dissemination and popularisation of digital technology and the introduction of electronic infrastructure on a large scale" ("Cyfryzacja", b.d.). During the pandemic, due to restrictions which prevented interpersonal contacts in the real world, the majority of society had to move to the virtual world. Work and interpersonal contacts were made possible through devices connected to the Internet. Computers and smartphones became essential devices for remote work, education and communication. These devices were also often used to make remote purchases. This has undoubtedly accelerated the process of digitalisation of society. In this part of the work, it is worth looking at the categories of expenditure related to the requirements for living and working conditions caused by the pandemic. In 2020, due to the COVID-19 pandemic and the transition to remote work and education, there was an increase in the level of household equipment, including the following goods: printers and devices with access to the Internet (including personal computers and smartphones). In 2020, there was an increase in the level of household equipment including printers (17.1%), smartphones (9.6%),

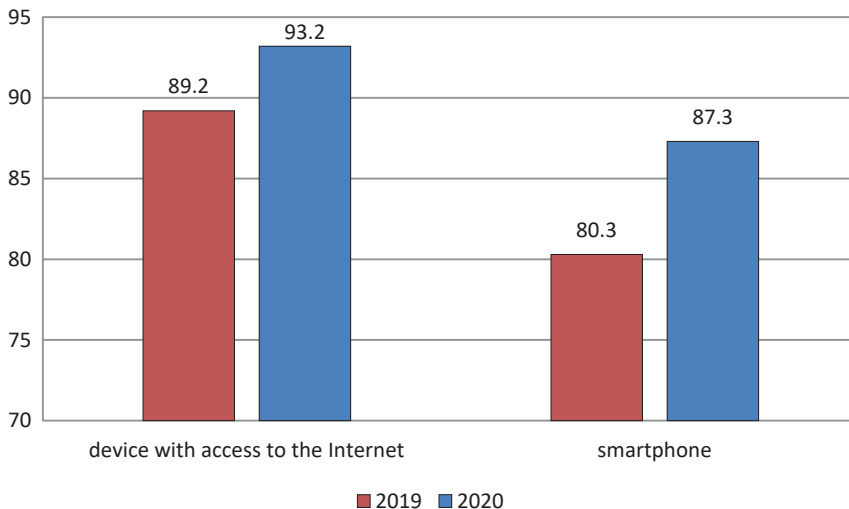


Figure 3. Households equipped with devices with access to the Internet and smartphones according to V quintile group in 2019 and 2020 (in %)

Source: own study based on (GUS 2020, 2021, 2022).

devices with access to the Internet (6.1%) and personal computers (5.2%) compared to 2019. For some goods, the direction of changes was reversed, resulting in a decrease in the level of such household equipment as motorcycles, scooters, mopeds (a decrease of 25.0% in the number of households owning such equipment). It is worth noting that in the case of devices with access to the Internet, the largest increase compared to 2019 was recorded in the group of retirees and pensioners – 18.8%, and of particular importance was the increase of 27.9% in smartphone equipment (GUS, 2021, 2022). Equipping households with durable goods depends to a large extent on the household's income situation. The level of household equipment regarding devices with access to the Internet and smartphones is presented in Figures 3 and 4.

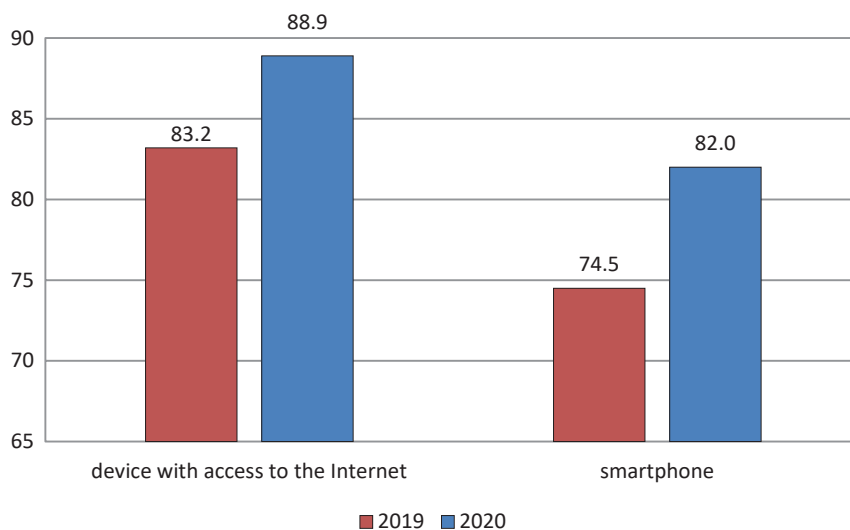


Figure 4. Households equipped with devices with access to the Internet and smartphones according to I quintile group in 2019 and 2020 (in %)

Source: own study based on (GUS 2020, 2021, 2022).

Households belonging to the richest income group (V quintile group) were much better equipped compared to households from the poorest income group (I quintile group). It should be noted, however, that the differences in the degree of equipment between the V and I quintile groups in 2020 decreased compared to 2019 by 5.7 percentage points in the case of a passenger car and 5.1 percentage points in the case of a dishwasher. For other goods, the changes were insignificant (GUS, 2021, 2022). There is a significant increase in household equipment regarding devices with access to the Internet and smartphones in 2020 compared to 2019, i.e. during the pandemic versus the period prior to the pandemic, both

in the richest income group (V quintile group) and in the poorest income group (I quintile group). In the case of devices with access to the Internet, the increase amounted to 4 percentage points in the richest income group (V quintile group) and almost 6 percentage points in the poorest income group (I quintile group). However, in the case of smartphones, there was an increase of 7 percentage points in the richest income group (V quintile group) and over 8 percentage points in the poorest income group (I quintile group). These changes were conditioned by the changing situation related to the COVID-19 pandemic and the related restrictions. The result was the introduction of remote education and work, which accelerated the process of digitalisation of society.

Conclusions

A broader look at the issue of consumption of lifestyle including the aspect of digitalisation during the pandemic allows us to explain society's consumption decisions more accurately. Economists are interested in total (aggregate) consumption because aggregate consumption determines aggregate saving, and saving, in turn, is defined as the portion of income that is not consumed. Aggregate consumption and saving behaviour have a strong impact on the long-term productive capacity of the economy (Carroll, 2016). The role played by a person's work in combination with personal motives and social integration has now been assigned to consumer activity, and the most important thing is the ability to truly consume (Bauman, 2006; 2009). Combining important assumptions about consumption is a good trend, enabling integrated and comprehensive research as well as better explanation of various phenomena of consumption economics. The level of per capita consumption is seen as the main measure of the productive success of an economy.

The obtained research results confirm that society's consumption is characterised by relative stability over the years. Only the period of the pandemic and the related restrictions had an impact on consumption, which was visible in 2020. People were forced to revise their purchasing habits at that time. The introduction of remote education and work as well as the limitation of stationary sales in stores during that period led, on the one hand, to a reduction in total consumer spending including consumer spending on restaurants and hotels, clothing and footwear, recreation and culture as well as transport, and on the other hand, to an increase in consumption expenditure on food and non-alcoholic beverages as well as housing and energy commodities. In 2021, when the pandemic was easing off, there were changes in the structure of consumer spending, which restored

consumption to the level from before the period of restrictions related to the pandemic. The share of consumer spending increased the most in terms of energy and transport and decreased the most in terms of food and non-alcoholic beverages. This is also confirmed by the fact that society's Consumption of Lifetime is characterised by relative stability, and after a sudden shock related to, for example, the introduction of restrictions, it returns to its base state. Currently, there is a noticeable tendency to return to permanent consumption habits observed prior to the pandemic.

Society's consumption has also been influenced by the accelerated process of digitalisation that took place during the pandemic. Restrictions introduced during the pandemic, aimed at avoiding the spread of the pandemic, resulted in many people switching to remote education and work, forcing them at the same time to avoid interpersonal contacts. As a result, it accelerated the spread of digital competences and the process of digitalisation. In 2020, due to the pandemic and the transition to remote work and education, there was an increase (compared to 2019) in the level of household equipment enabling interpersonal contact and remote work through the following goods: printers (an increase of 17.1%), smartphones (9.6%), devices with access to the Internet (6.1%) and personal computers (5.2%). This significant increase in 2020, i.e. the period of the pandemic, compared to 2019, i.e. the period prior to the pandemic, was noticeable both in the richest income group (V quintile group) and in the poorest income group (I quintile group). The phenomenon of digitalisation deepened when the pandemic and its restrictions ended, and the society became accustomed to remote work, spending longer time in front of a computer screen and using remote communication devices. Computers and smartphones have become essential devices for remote work, education and communication in society.

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