

## PROSUMER BEHAVIOUR RELATED TO HOUSEHOLDING IN THE ASSESSMENT OF RESPONDENTS DURING THE COVID-19 PANDEMIC IN POLAND

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### ABSTRACT

**Aim:** The aim of the article is to assess consumer behaviour in terms of various forms of prosumer activity on the market of goods and services related to running a household during the COVID-19 pandemic in Poland. **Methods:** In order to explore the topic, a direct study was carried out with the use of a diagnostic survey method applying the CAWI survey technique. The research was carried out in July 2022. During the research, various types of prosumer activities of households were defined, these were activities related to food production, simple household chores, but also tasks that required certain skills or expertise. **Results:** For the data analysis, the prosumer behaviour within the household was grouped into five areas, and the individual prosumption index for the households was calculated. Then, the obtained results were analysed for correlation with variables describing the characteristics of the households, i.e. place of residence, income, number of children under 14 in the household, total number of household members, and whether they were in quarantine. Statistical, descriptive and comparative methods were used. **Conclusions:** The study shows that consumers were very active in the field of prosumption during the COVID-19 pandemic and plan to continue their prosumer activities in the future.

**Key words:** prosumption, consumer behaviour, household, COVID-19 pandemic

**JEL codes:** C83, D12, D13, R20

### INTRODUCTION

Consumption is a never-ending process of meeting human needs [Bywalec and Rudnicki, 2002]. The consumer is faced with a choice between purchasing goods and services on the market or prosuming [Zalęga, 2013]. Prosumption entails the interweaving of the processes of consumption and production until the differences between them are blurred [Toffler, 1980]. When consumers produce goods and services for their own use, they become prosumers. Prosumption allows minimisation of the effects of inflation and helps to protect the level of fulfilment of needs, especially dur-

ing a crisis [Szul, 2013]. The development of self-supply of goods and services in the household is stimulated by a scarcity of goods on the market, low quality or high prices [Murawska and Długosz, 2018]. Prosumer behaviour in a household, according to Nowak [2002], is primarily the production of food for one's own use and the performance of household chores related to running a house, including washing, ironing, cooking etc. Another manifestation of prosumer behaviour related to running a household is do-it-yourself (DIY). In line with the DIY concept, consumers relatively often show prosumer activity in the area of running a household; they design and modify products

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according to their preferences and needs [Wolf and Mcquitty, 2011]. In this way, a new type of consumer has emerged – a consumer-craftsperson who designs and manufactures products themselves, using their skills, knowledge and passion, guided by the desire for self-expression [Campbell, 2005].

There are no studies in the literature on prosumer behaviour of households, and in particular there is a research gap on the prosumption of goods and services related to running a household and food production for one's own needs. The article enriches the existing literature in a number of ways. First, it concerns various forms of prosumer activity related to running a household, and second, it concerns the period of the COVID-19 pandemic. The novelty of this study is the characterisation and assessment of the phenomenon of prosumption in the category of goods, including food production, but also providing services oneself, which have not been analysed together by researchers, especially during the COVID-19 pandemic in Poland.

The aim of the article is to identify the prosumer behaviour of consumers during the COVID-19 pandemic in Poland, in particular those pertaining to the activities related to running a household and producing food for one's own needs. In order to explore the topic, a direct study was carried out with the use of a diagnostic survey method applying the CAWI survey technique.

### CONSUMPTION DURING THE PANDEMIC

Due to the variety of determinants shaping consumption, the market behaviour of household members is not always predictable. Profound and intense changes are also observed in the behaviour of contemporary consumers, which relate to the hierarchy of needs, levels, methods, means of satisfying them, and the criteria for making choices. For the vast majority of people, new trends in consumption lead to the modification of systems and values [Zalega, 2015].

One of the key factors defining people's lifestyles is consumption, which there has been a great deal of recently. The pandemic accelerated or changed many consumer trends [Olcoń-Kubińska et al., 2021]. Recently, some households have even returned to nature, consuming food products they have produced them-

selves, due to the nutritional value of such food, concern for the health of family members and concern for the natural environment and food safety. In addition to producing food themselves, doing household chores related to running the house has gained in importance, especially during the pandemic, including minor renovation and decoration work, garden care, but also hairdressing services, sewing on a machine, caring for children and the elderly, and self-transport.

On March 14, 2020, an epidemic was announced in the territory of the Republic of Poland in connection with SARS-CoV-2 virus infections [Dz.U. 2022 poz. 491]. The authorities' appeal to stay at home resulted in the mobilisation of the population to prosumer activities in the household. For many people, it was a time to do all the things they had put off doing at home: general cleaning of the house, washing windows, refrigerators, washing machines, ovens, etc., as well as furniture, renovations, transplanting flowers on the balcony or garden maintenance. Often these activities were recorded and posted on social media [Trivedi et al., 2022]. Currently, the state of the epidemic has been abolished by the Regulation of the Council of Ministers of May 13, 2022 amending the regulation on the establishment of certain restrictions, orders and bans in connection with the occurrence of the state of epidemic. From May 16, 2022, in accordance with the new Regulation, the state of epidemic threat is in force [Dz.U. 2022 poz. 1025].

Prosumer behaviour related to running a household during the COVID-19 pandemic fits perfectly into the model of changes in consumer behaviour under the of an economic crisis, in which the consumer response to the crisis includes a change in the way in which needs are met by [Smyczek, 2010]:

- an increase in the role of one's own work in the household,
- switching from market consumption to natural consumption.

Research on changes in consumer behaviour during the crisis caused by the coronavirus is part of the content of the issues including the dilemmas of research on consumption and its determinants [Kohli, 2020; Sheth, 2020; Svajdova, 2021]. These include reports from leading research agencies as well as research conducted in local communities. One of the

first studies on consumer behaviour was conducted in China, the site of the outbreak of the pandemic [Li et al., 2020], and then, in fact, many scientists around the world attempted to study the impact of the pandemic situation, not only on consumer behaviour, but on the entire economy, the competitiveness of enterprises, and the environment. The research undertaken on the sphere of consumer behaviour most often concerned online shopping [Chen et al., 2021; Chmielarz et al., 2022] or stocking up on large quantities of products, often involving panic buying [Chua et al., 2021; Keane and Neal, 2021; Naeem, 2021]. Research conducted in Poland also largely focused on consumer interest in online shopping and was conducted in various research centres [Kręć, 2020; Kucharska and Malinowska, 2021; Samuk and Sidorowicz, 2021]. Interesting research on changes in the behaviour of Polish consumers during the pandemic was carried out by Chlipała and Żbikowska [2022]. The picture of changes and determinants of consumer behaviour during the pandemic is presented in a synthetic way.

#### RESEARCH METHODOLOGY

The aim of this study was to identify prosumer behaviour related to running a household during the COVID-19 pandemic in Poland. In order to identify selected elements of prosumer behaviour, a direct study was conducted. The research was carried out from 26 to 29 July 2022 with the use of the diagnostic survey method applying the CAWI (Computer Assisted Web Interview) technique as part of the scientific activity No. 2021/05/X/HS4/00643 “Prosumer behaviour related to running a household during the COVID-19 pandemic” as part of the MINIATURE 5 competition organised by the National Science Centre. The research was carried out among 1,112 adult respondents selected in a non-random manner – quota selection (according to the criterion of age, sex, place of residence and education). The analysis of the obtained data was carried out with the use of descriptive statistics measures in the Statistica 13.3 program. The level of  $\alpha = 0.05$  was assumed for the obtained results. In response to the research questions, the Spearman coefficient correlation analysis and the Friedman difference test were chosen. The analysis of differences

was extended by the assessment of the effect size with the Kendall  $W$  coefficient. The Mann-Whitney U test was used to assess the differences between the two groups, supported by the assessment of the effect size with the Glass rank correlation coefficient ( $r_g$ ). The choice of non-parametric methods was dictated by the lack of normal distribution of quantitative variables and the ordinal measurement of variables related to running a household.

#### RESULTS OF THE STUDY

In the analysed research sample, women (52%) and men (48%) were almost equally represented. In the research sample, respondents aged 65 and over constituted the largest group. They numbered 250 people, making up 22% of the entire research sample. The smallest group in the study were people aged 18–24 – 9% of the studied population. Details concerning the characteristics of the respondents, and in particular the researched variables describing households, are shown in Table 1.

First, the respondents were asked whether they had changed their consumer behaviour in relation to running a household during the COVID-19 pandemic. This question was answered affirmatively by 41% of respondents, and 68% of respondents said that during the pandemic, more domestic tasks were done at home without the use of third-party services. The respondents were asked to indicate which activities they performed independently at home during the pandemic. The activities shown in the survey by the respondents are presented in Table 2. The variables are grouped into five main areas of prosumption: food production, self-supply food processing, basic services related to running a home, more advanced housework that requires appropriate equipment, the so-called “men’s work”. The creation of such groups was dictated by the author’s previous research [Trębska et al., 2021].

The respondents were also asked about the reasons for withdrawing from the services of external companies during the pandemic (Table 3). This was a multiple-choice question. Most people indicated economic reasons (38% of respondents). When the consumer takes responsibility for doing most of the housework, it reduces the cost of running the household. One third

**Table 1.** Characteristics of the respondents [%]

Description	Total sample
Respondents by gender	
Female	52.3
Male	47.7
Respondents by age	
18–24	8.7
25–34	17.0
35–44	20.0
45–54	15.7
55–64	16.2
Over 65	22.5
Respondents by place of residence	
Village	39.4
< 99,999 inhabitants	32.7
City from 100,000 to 499,999 inhabitants	16.4
> 500,000 inhabitants	11.7
Respondents by monthly net income per person in the household	
Up to PLN 1,000	11.3
From PLN 1,001 to 2,000	31.2
From 2001 to 5,000	50.1
From PLN 5,001 to 8,000	5.9
Above PLN 8,000	1.6
Respondents by the number of children under 14 in the household	
0	68.4
1	19.1
2	9.6
3	2.2
4	0.8
Respondents by the number of people in the household	
1	13.5
2	30.2
3	23.9
4	20.6
5 and more	11.9
Respondents by being in quarantine	
Yes	34.3
No	65.8

Source: Author's own research.

of the respondents (34%) indicated the fear of infection and the unavailability of services due to the pandemic (closure of service establishments). Environmental reasons were indicated by only 6% of the respondents.

Before the correlation analysis was performed, descriptive statistics were conducted, which showed that none of the areas of prosumer behaviour before the pandemic meet the assumption of normal distribution, which is confirmed by the significant results of the Kolmogorov-Smirnov test. All areas of prosumer behaviour are characterised by negative kurtosis, which means a low concentration of results and their higher variation. This is especially true in the areas of food processing and “men’s work”.

Food production is characterised by the highest skew score, which means that low scores predominate over high scores. Otherwise, for the areas of housekeeping, a negative skewness indicates the predominance of the number of high scores over low scores. The remaining areas appear to be more symmetrical.

The indicated difficulties with the normal distribution of variables as well as the ordinal measurement of variables related to running a household made it necessary to use non-parametric inference methods in the further part of the study.

The correlation analysis covers the variables describing the socio-economic characteristics of households, i.e. place of residence, income, number of children under 14 years of age in the household, total number of household members, and whether they were in quarantine, with the number of prosumer behaviours during the COVID-19 pandemic. The Spearman correlation coefficient was used (Table 5).

The analysis showed that the number of household members correlated significantly with each of the five areas of prosumer behaviour. These relationships were positive and weak. Along with an increase in the number of household members, the number of prosumer behaviours in each area during the COVID-19

**Table 2.** Characteristics of prosumption areas

	Area name	Variable name
Total prosumption index	food production	<ul style="list-style-type: none"> <li>• cultivation of a vegetable garden</li> <li>• cultivation of a fruit orchard</li> <li>• herbal crops</li> <li>• breeding chickens / small livestock</li> <li>• mushroom picking</li> </ul>
	self-supply food processing	<ul style="list-style-type: none"> <li>• preparation of fruit preserves (e.g. jams, juices)</li> <li>• preparation of vegetable preserves (e.g. pickled cucumbers)</li> <li>• drying of fruits, vegetables, mushrooms</li> <li>• baking bread</li> <li>• baking cakes, preparing desserts</li> <li>• preparing cold cuts, sausages, offal</li> <li>• making ready meals (e.g. dumplings, noodles)</li> </ul>
	basic services related to running a home	<ul style="list-style-type: none"> <li>• preparing meals (cooking) at home</li> <li>• childcare</li> <li>• care for the elderly</li> <li>• organisation of special events at home</li> <li>• cleaning</li> <li>• laundry</li> <li>• ironing</li> <li>• garden maintenance</li> </ul>
	more advanced housework that requires appropriate equipment	<ul style="list-style-type: none"> <li>• own transport (owning a passenger car)</li> <li>• own transport of larger loads (owning a bus or a truck)</li> <li>• renovation and decoration work (e.g. painting walls, wallpapering, tiling)</li> <li>• settlement of PIT</li> <li>• specialist cleaning of clothing, carpets and car upholstery</li> <li>• hairdressing services (haircutting, dyeing, brushing)</li> <li>• beauty services (pedicure, manicure, henna)</li> <li>• sewing</li> <li>• exercising at home</li> </ul>
	so-called „men’s work”	<ul style="list-style-type: none"> <li>• car repair</li> <li>• repair of household appliances (e.g. AGD, RTV)</li> <li>• plumbing work (e.g. gasket replacement etc.)</li> <li>• minor renovation and decoration work.</li> </ul>

Source: Author’s own research.

**Table 3.** Reasons to resign from the services of external companies

Description	[%]
Fear of contamination	33.8
Quarantine – no possibility of movement	17.0
Unavailability of services due to the pandemic (closure of service establishments)	33.7
More free time at home	30.3
Remote work (combining several activities simultaneously)	7.8
Economic reasons	37.6
Environmental reasons	5.6
Hobby\interest\passion	10.5

Source: Author’s own research.

**Table 4.** Summary of descriptive statistics of prosumer behaviour during the COVID-19 pandemic

Prosumer behaviour during the COVID-19 pandemic	Min	Max	M	Me	SD	SKE	K	K-S
Food production	0.00	5.00	1.29	1.00	1.38	0.84	-0.29	<b>0.226*</b>
Food processing	0.00	7.00	2.94	3.00	2.11	0.03	-1.19	<b>0.129*</b>
Simple housework	0.00	8.00	4.46	5.00	2.09	-0.84	-0.03	<b>0.212*</b>
Advanced homework	0.00	9.00	3.03	3.00	1.96	0.21	-0.45	<b>0.103*</b>
Men's works	0.00	4.00	1.67	2.00	1.37	0.24	-1.21	<b>0.175*</b>
Total presumption index	0.00	33.00	13.39	14.00	7.24	-0.22	-0.69	<b>0.074*</b>

Analysis was performed in group  $N = 1112$ , Min – minimum, Max – maximum,  $M$  – mean,  $Me$  – median,  $SD$  – standard deviation,  $SKE$  – skewness,  $K$  – kurtosis, K-S – Kolmogorov–Smirnov test result, \* –  $p < 0.01$ .

Source: Author's own research.

**Table 5.** Summary of Spearman coefficient correlation analysis of prosumer behaviour during the COVID-19 pandemic with farm-related variables

Prosumer behaviour during the COVID-19 pandemic	Place of residence		Income		Number of 14 year old children		Number of house members	
	$r_s$	$p$	$r_s$	$p$	$r_s$	$p$	$r_s$	$p$
Food production	<b>-0.27</b>	<b>&lt;0.001</b>	0.03	0.269	<b>0.11</b>	<b>&lt;0.001</b>	<b>0.24</b>	<b>&lt;0.001</b>
Food processing	<b>-0.11</b>	<b>&lt;0.001</b>	0.05	0.090	0.03	0.392	<b>0.15</b>	<b>&lt;0.001</b>
Simple housework	<b>-0.14</b>	<b>&lt;0.001</b>	0.01	0.863	<b>0.23</b>	<b>&lt;0.001</b>	<b>0.29</b>	<b>&lt;0.001</b>
Advanced homework	-0.03	0.378	<b>0.14</b>	<b>&lt;0.001</b>	<b>0.12</b>	<b>&lt;0.001</b>	<b>0.15</b>	<b>&lt;0.001</b>
Men's works	<b>-0.09</b>	<b>0.004</b>	<b>0.11</b>	<b>&lt;0.001</b>	<b>0.13</b>	<b>&lt;0.001</b>	<b>0.18</b>	<b>&lt;0.001</b>
Total presumption index	-0.15	<b>&lt;0.001</b>	0.08	<b>0.006</b>	<b>0.14</b>	<b>&lt;0.001</b>	<b>0.24</b>	<b>&lt;0.001</b>

Analysis was performed in group  $N = 1112$ ,  $r_s$  – Spearman's coefficient,  $p$  – significance.

Source: Author's own research.

pandemic increased. The number of children under 14 also significantly correlated with areas of prosumer behaviour (except food processing). These relationships were positive and weak, which means that as the number of children in the household increased, so did the number of prosumer behaviours during the COVID-19 pandemic. It can also be noticed that during the COVID-19 pandemic the relationship between the number of members in a household with the number of prosumer behaviours was slightly stronger compared to the number of children under 14 in the household.

Income in a household turned out to correlate only with the number of prosumer behaviours in the area of advanced and "men's work" (and with the overall index of presumption). These relationships were positive and weak. The higher the household income, the higher was the number of prosumer behaviours in general and in the areas of "men's work" and advanced housework. The remaining areas of behaviour did not correlate with household income. The size of the place of residence correlated significantly and negatively with the number of prosumer behaviours (except for the area of advanced housework). These relationships

were weak. Along with an increase in the size of the place of residence, the number of prosumer behaviours in the areas of food production and processing as well as domestic and “men’s work” and the overall level of prosumption decreased.

The areas of prosumer behaviour during the COVID-19 pandemic were analysed for intercorrelation. The Spearman correlation coefficient (Table 6) was used in this assessment.

The results show that the relationships between the numbers of prosumer behaviours during the COVID-19 pandemic are statistically significant. The overall index of household prosumption was positively and very strongly related to the specific areas. The food production area correlates strongly with food processing and simple housework, and with advanced and “men’s work” moderately. The remaining inter-correlation between areas is strong. These results indicate that an increase in the number of prosumer behaviours during the COVID-19 pandemic in one area goes with an increase in the number of behaviours in other areas.

An additional area of analysis was the assessment of the number of prosumer behaviours during the COVID-19 pandemic, in which the Friedman test was used. The analysis showed that there are statistically significant differences between the main areas of prosumer behaviour during the pandemic,  $\chi^2_{F(4)} = 2278.036$ ;  $p < 0.001$ ,  $W = 0.51$ . The size of this effect is high. Post hoc analysis (Table 7) was used to look for the exact differences between the areas.

The results showed that the amount of advanced housework performed did not differ significantly from food processing during the COVID-19 pandemic. The remaining areas differed from each other. Significantly the highest number of behaviours was noted for the area of simple housework compared to all other major areas. The amount of food processing and advanced housework was significantly lower than simple housework and significantly higher than food production and “men’s work”. The area of “men’s work” as an area of prosumer behaviour during the COVID-19 pandemic was significantly higher than food production, which turned out to be significantly the lowest frequency score in relation to all other areas. A summary of the indicated results is shown in Figure 1.

The differences in the number of prosumer activities between people who were and were not in quarantine during the COVID-19 pandemic were analysed. The Mann-Whitney U test was used to assess these differences, as summarised in Table 8.

The analysis of the results showed that people in quarantine during the COVID-19 pandemic achieved significantly higher results of prosumer behaviour in each area as well as for the overall index of prosumption than those not in quarantine. The effect sizes are small. It can be noticed, however, that being in quarantine is most strongly associated with food processing, less with simple and advanced housework, and least with food production and “men’s work” (Figure 2).

**Table 6.** Summary of Spearman coefficient correlation analysis of prosumer behaviour during the COVID-19 pandemic

Prosumer behaviour during the COVID-19 pandemic		1	2	3	4	5	6
		$r_s$	$r_s$	$r_s$	$r_s$	$r_s$	$r_s$
Food production	1	—					
Food processing	2	<b>0.64*</b>	—				
Simple housework	3	<b>0.60*</b>	<b>0.63*</b>	—			
Advanced homework	4	<b>0.47*</b>	<b>0.57*</b>	<b>0.60*</b>	—		
Men’s works	5	<b>0.45*</b>	<b>0.51*</b>	<b>0.54*</b>	<b>0.63*</b>	—	
Total prosumption index	6	<b>0.77*</b>	<b>0.85*</b>	<b>0.82*</b>	<b>0.81*</b>	<b>0.76*</b>	—

Note. Analysis was performed in group  $N = 1112$ ,  $r_s$  – Spearman’s coefficient, \* –  $p < 0.001$ .

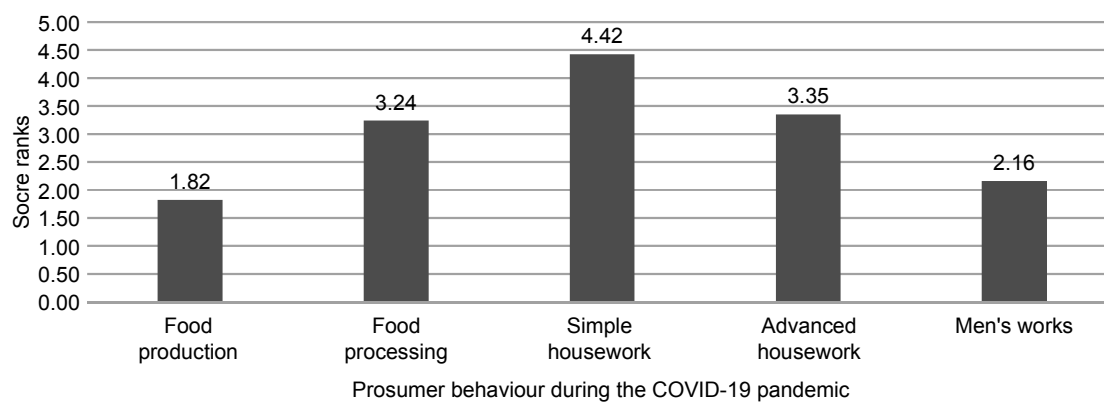
Source: Author’s own research.

**Table 7.** Summary of post hoc comparison analysis of prosumer behaviour during the COVID-19 pandemic

Prosumer behaviour during the COVID-19 pandemic	$M_{rank}$	$Me$	Size of difference analysis					
			1	2	3	4	5	
Food production	1	1.82	1.00	—				
Food processing	2	3.24	3.00	<b>1.42*</b>	—			
Simple housework	3	4.42	5.00	<b>2.60*</b>	<b>1.18*</b>	—		
Advanced homework	4	3.35	3.00	<b>1.53*</b>	0.11	<b>1.07*</b>	—	
Men's works	5	2.16	2.00	<b>0.34*</b>	<b>1.08*</b>	<b>2.26*</b>	<b>1.19*</b>	—

Analysis was performed in group  $N = 1112$ ,  $M_{rank}$  – mean of rank,  $Me$  – median, \* –  $p < 0.01$ .

Source: Author's own research.



**Fig. 1.** Mean of score rank of prosumer behaviour during the COVID-19 pandemic

Source: Author's own research.

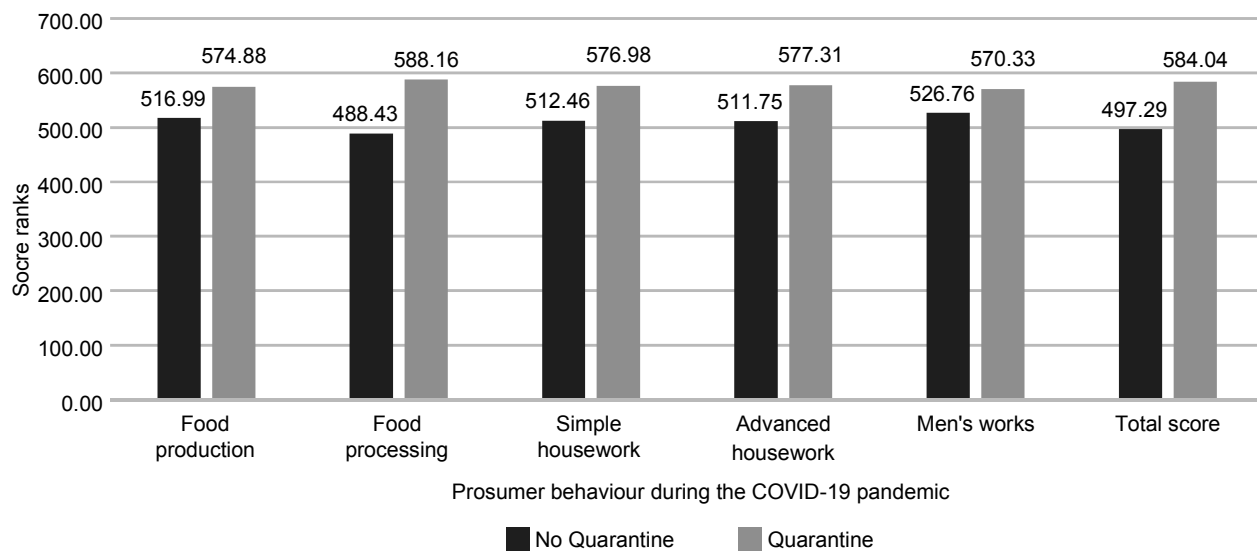
**Table 8.** Summary of Mann-Whitney test of difference in prosumer behaviour during the COVID-19 pandemic between those in quarantine and not in quarantine

Prosumer behaviour during the COVID-19 pandemic	No Quarantine $N = 353$		Quarantine $N = 759$		$U$	$p$	$r_g$
	$M_{rank}$	$Me$	$M_{rank}$	$Me$			
Food production	516.99	1,00	574,88	1,00	<b>120,016,500</b>	<b>0,005</b>	<b>0,10</b>
Food processing	488.43	2,00	588,16	3,00	<b>109,936,000</b>	<b>&lt;0,001</b>	<b>0,18</b>
Simple housework	512.46	5,00	576,98	5,00	<b>118,416,000</b>	<b>0,002</b>	<b>0,12</b>
Advanced homework	511.75	3,00	577,31	3,00	<b>118,168,500</b>	<b>0,002</b>	<b>0,12</b>
Men's works	526.76	1,00	570,33	2,00	<b>123,465,500</b>	<b>0,035</b>	<b>0,08</b>
Total presumption index	497.29	12,00	584,04	15,00	<b>113,064,000</b>	<b>&lt;0,001</b>	<b>0,16</b>

$N$  – number of observations,  $M_{rank}$  – rank mean,  $Me$  – median,  $U$  – Mann-Whitney's test,  $p$  – significance,  $r_g$  – size of the effect.

Source: Authors' own research.





**Fig. 2.** Mean of score rank of prosumer behaviour during the COVID-19 pandemic between those in quarantine and not in quarantine

Source: Author's own research.

Most of the respondents did their housework themselves, and also intend to display such forms of prosumer activity in the future. As many as 92% of the respondents will still try to do most of the work related to running the household independently after the pandemic is over. The prosumer voluntarily and willingly participates in the processes of co-creating and improving products and services, creating new ideas and solutions related to running the home. This is due to prosumption being a new consumer trend (along with sustainable consumption, conscious consumption, greening of consumption), but also the economic aspect, which is particularly important in a period of high inflation [Zalega 2016].

## SUMMARY

Prosumption is defined as the activity of consumers in the selection and creation of products and services tailored to their needs. Prosumption requires consumers to engage, spend time, put in their own effort, and specific commitment, and create not only for themselves but also for others.

Based on the conducted analyses, it was found that the phenomenon of prosumption in the area of

housework is popular among the surveyed consumers. Nearly 70% of the respondents declare that they independently carry out most of the work related to running the household and also intend to display such forms of prosumer activity in the future. Prosumers voluntarily and willingly participate in the processes of co-creating and improving products and services, creating new ideas and solutions related to running a home. This is due to the fact that prosumption is one of the new consumer trends, as well as the economic aspect. Another factor contributing to the development of prosumption in recent years was the economic crisis, which forced consumers to become more active, produce products on their own, or limit the use of services, instead performing them for themselves.

The analysis showed that the variable defining the number of household members correlated significantly with each of the areas of prosumer behaviour. Along with an increase in the number of household members, the number of prosumer behaviours in each of the analysed areas of prosumption during the COVID-19 pandemic increased. The number of children under 14 also significantly correlated with areas of prosumer behaviour (except food processing). The income variable turned out to correlate only with the number of

prosumer behaviours in the area of advanced housework and “men’s work” (and with the overall index of prosumption). The size of the place of residence correlated significantly and negatively with the number of prosumer behaviours (except for the area of advanced housework). The analysis of the results showed that people in quarantine during the COVID-19 pandemic achieved significantly higher results of prosumer behaviour in each area as well as for the overall index of prosumption than those not in quarantine.

The issue of the production and consumption (prosumption) of goods and services in households is extremely important not only from the microeconomic point of view, i.e. a single household (prosumer), but also from the macroeconomic perspective – the entire national economy. The obtained conclusions can be a valuable source of knowledge about the phenomenon of prosumption, both for producers of goods and companies providing services. There are areas of activity in which prosumers are the most active, and an awareness of this gives the opportunity to better adjust a company’s offer to the needs of households, which in turn may translate into the development of an innovative economy in coexistence with rational and responsible consumption.

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## ZACHOWANIA PROSUMENCKIE ZWIĄZANE Z PROWADZENIEM GOSPODARSTWA DOMOWEGO W OCENIE RESPONDENTÓW W OKRESIE PANDEMII COVID-19 W POLSCE

### STRESZCZENIE

Celem artykułu była ocena zachowań konsumenckich w zakresie różnych form aktywności prosumenckiej na rynku dóbr i usług związanych z prowadzeniem gospodarstwa domowego w okresie pandemii COVID-19 w Polsce. W celu zgłębienia tematu przeprowadzono badanie bezpośrednie przy wykorzystaniu metody sondażu diagnostycznego z zastosowaniem techniki ankietowej CAWI. Badania zostały zrealizowane w lipcu 2022 roku. W trakcie badań zdefiniowano różnego rodzaju aktywności prosumenckie gospodarstw domowych, były to czynności związane z produkcją żywności, proste prace domowe, ale także i zadania wymagające pewnych umiejętności, czy wiedzy fachowej. Podczas analizy danych pogrupowano zachowania prosumenckie w ramach prowadzonego gospodarstwa domowego na pięć obszarów oraz wyliczono indywidualny wskaźnik prosumpcji dla badanych gospodarstw domowych. Następnie otrzymane wyniki poddano analizie korelacji ze zmiennymi opisującymi cechy gospodarstw domowych, tj. miejsce zamieszkania, dochód, liczbę dzieci do lat 14 w gospodarstwie domowym, ogólną liczbę domowników, fakt przebywania na kwarantannie. Wykorzystano metody statystyczne, opisowe i porównawcze. Z badań wynika, że konsumenci są bardzo aktywni na polu prosumpcji w czasie pandemii COVID-19 i planują kontynuować działania prosumenckie w przyszłości.

**Słowa kluczowe:** prosumpcja, zachowania konsumentów, gospodarstwo domowe, pandemia COVID-19