

## CONSUMER ATTITUDES AND BEHAVIOURS TOWARDS INNOVATIVE FAST-MOVING PRODUCTS FOR CHILDREN

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**Research background:** The fast-moving consumer goods (FMCG) sector is considered to be an environment where purchasing habits prevail, thus not conducive to the implementation of innovative products. In this context, implementing innovative food products into the market is particularly difficult. Nevertheless, companies are constantly developing new goods and introducing them to market. Increased price sensitivity and high competitive pressure force companies to develop continuously, which in the market segment under consideration is primarily incremental development.

**Purpose of the article:** The main purpose of the manuscript is to identify purchasing behaviour and factors influencing the purchase of fast-moving infant and toddler products.

**Methods:** In order to answer the research problem posed, statistical analyses were carried out using the IBM SPSS Statistics 26 package. It was used to perform an analysis of basic descriptive statistics with the Shapiro-Wilk test, a frequency analysis with the chi-square test of concordance, the Mann-Whitney test, the chi-square test of independence and Pearson's r correlation analysis. The significance level in this chapter was considered to be  $\alpha = 0.05$ . The data analysis was based on the responses of 440 respondents ( $n = 440$ ).

**Findings & Value added:** This article attempts to identify food product innovations and consumer behaviour towards the introduction of these innovations. The wide range of fast-moving goods on offer has influenced the narrowing down of the adopted product group of the FMCG sector. Analysis will focus on fast-moving food products for babies and young children. Thus, it will be the parents who will make the decision to purchase such products.

**Keywords:** management, benefits, innovation, products, economy, buying behaviour, FMCG sector.

**Category of the paper:** Research paper.

## 1. Introduction

The Fast-Moving Consumer Goods (FMCG) industry is one of the branches of the economy that supplies stores with products usually considered as necessities. Otherwise, they are referred to as fast-moving goods due to their systematic marketability. FMCG products are small-scale consumer purchases that are made at the grocery shop, supermarket, and point of sale. Examples include non-durable household items such as bread, dairy products, fruit and vegetables, fizzy drinks, detergents and cleaning products, over-the-counter medicines, as well as baby food, ready meals, and processed foods (Muranko et al., 2021, p. 2609; Kuzmina et al., 2019, pp. 74-88).

A significant aspect of addressing the topic consists in the role of the FMCG sector in the global economy. It is one of the fastest growing branches of the industry. This market is on an upward trend and with a large impact on the country's economy. It owes its resilient development mainly to its customers, whose needs and expectations are constantly changing. There is currently a strong trend in Poland, as well as internationally, towards superfoods, organic and eco food, as well as dietary supplements of all kinds. It is possible to notice clear changes in terms of the purchasing behaviours. Both the development of e-commerce as well as shopping services impact the way consumers shop for FMCG products and what products are available on the market. The FMCG sector in Poland is constantly growing. According to NielsenIQ, the value of the fast-moving consumer goods market in Poland in 2021 increased by 4.1% year-on-year, reaching PLN 201 billion. In 2020, the FMCG market was worth as much as PLN 198.2 billion. The largest increase in value in 2021 was reported for the grocery basket - up 4.8% to reach £143.7bn. The chemical basket increased by 3.5% to the value of PLN 15.7bn, while cosmetics recorded a decline of 1.9% reaching PLN 13.2bn. Similar trends are evident in the global economy. Together, the top 40 FMCG companies generated more than \$1 trillion in sales in the last financial year (Marud, 2022).

The above considerations constitute the main reason for choosing the topic for the article. Its main objective is to identify the purchasing behaviours and factors impacting the purchase of innovative food products for infants and young children. In order to obtain the results, the authors conducted a survey among 440 parents in all provincial cities in Poland. The paper compares people who buy innovative products with people who do not, in terms of their opinion about them and their shopping frequency and habits, as well as the intensity of individual predictors of purchase. From a scientific point of view, the results presented in the article constitute a valuable source of information concerning the relatively new research on customer preferences for fast-moving consumer goods.

The article takes advantage of a social research method using a questionnaire and quantitative methods. In terms of the empirical analysis, the following were used: the basic descriptive statistics analysis with Shapiro-Wilk test, frequency analysis with chi-square test of

concordance, Mann-Whitney test, chi-square test of independence and Pearson's  $r$  correlation analysis.

After an introduction describing the research objective of the study, Chapter 2 presents the theoretical background related to consumer behaviour and an overview of research concerning the FMCG sector. Next, the research methods and results of a survey including 440 respondents were presented. The study ends with a discussion and conclusions, including an indication of the limitations of the conducted research.

## 2. Literature review

In an era of the growing trend of consumerism (Skinner, Bryant, 2006, pp. 22-25), globalisation of consumption (Steenkamp, 2019, pp. 1-19) and an active participation of consumers as market entities in the economic and social life, conducting research on their behaviour is a necessity. Consumers reporting a demand for goods and services constitute a significant driving force of contemporary economies. Consumer behaviours on one hand verify the production decisions made by companies, and on the other hand impact the allocation of resources in the economy. In the case of companies, analysing consumer behaviours is a valuable source of information concerning the factors impacting consumption or forming consumption trends. In reference to the state, information concerning consumer behaviour is used in conducting efficient policies in various fields of the economy or making economic forecasts (Akerlof, Kranton, 2010). Moreover, consumer behaviours have an impact on the behaviour of other market entities whose decisions and choices translate into the functioning of the economy (Bańka et al., 2023).

Consumer behaviour research mainly focuses on how a consumer purchases a product, what influences his or her decision, what factors are taken into consideration in a given choice, where does the consumer perform the purchase (Sharma et al., 2022, pp. 1-15), which payment methods are most convenient for that person (Piersiala, 2022, pp. 912-915). The typology of consumers is also widely undertaken (see: Mundel et al., 2017, pp. 68-75). Issues concerning the role of the brand in the consumer decision-making process are being addressed (Guliyev, 2015; Taanady, 2022, pp. 93-98). Customer preferences and behaviours concerning sustainable supply at the final stage are also indicated (Guo et al., 2022; Kiba-Janiak et al., 2022). In contrast, it is difficult to find literature concerning consumer choices in the fast-moving consumer goods industry regarding the purchase of children and infants' products, especially innovative products. There is a research gap in the comprehensive approach to analysing the fast-moving goods market for innovative food products.

In the same way, the FMCG industry is widely discussed. Bocken et al. (2022, pp. 799-814), Muranko et al., (2021, p. 2609) conducted research relating to the innovation concerning packaging of fast-moving goods to the circular economy programme. They point out that there is an increasing number of research on reusable packaging systems in the FMCG sector, but the industry practice focusing on packaging reuse rather than just recycling is limited (Wojtaszek, Miciuła, 2019). There are several studies relating to sustainable packaging in the FMCG industry (Priyanshi, Manoj, 2022; Rambabu, Porika, 2020, pp. 67-78). Realini and Marcos (2014, pp. 404-419) and Restuccia (et al., 2010, pp. 1425-1435) carried out a study on evaluating consumer adoption of active and intelligent packaging, which represents consumer purchasing behaviour regarding innovative food packaging techniques.

Today, the average consumer is more aware of the environmental impact of made choices than a consumer from just a few years ago (Kabus et al., 2019; Dziadkiewicz, 2014). The change is real and can no longer be ignored. As the awareness of sustainable development and its significance increases and the rise of environmentally friendly regulations, sustainable purchasing behaviour is a concern for customers now more than ever (Cavaliere et al., 2014, pp. 9494-9509; de Maya et al., 2011, pp. 1767-1775; Miciuła, 2018). Current market requirements are more and more often related to environmental effects and sustainability (Szturo et al., 2021). Creating environmental values by the consumer will result from the extent of consumer knowledge and sustainable practices (Jakubowska, Radzymińska, 2019, pp. 433-452; Pilelienė, Tamulienė, 2021, pp. 269-299). An example of environmental consumer behaviour consists in paying attention to healthy and unprocessed food, GMO-free, without artificial dyes, BIO-certified, and gluten-free. Consumer awareness in this regard is growing (Marcon et al., 2022, pp. 76-91). Seghal and Singh conducted a study concerning the impact of environmentally friendly products on consumer behaviour (Singhal, Malik, 2018, pp. 514-531). The aim was to find a link between the generous nature of consumers and purchasing organic products. The results showed that buying organic products gives more added value to consumers than purchasing conventional products. Meanwhile, Lorek (2015, pp. 115-129), analysed current trends in consumer behaviour towards organic products. In order to better understand consumer choices, Mancini, Marchini, and Simeone conducted a study on "What features of sustainable development influence actual consumption behaviours?" (Mancini et al., 2017, pp. 1839-1853). In their research, they divided their sample into two focus groups and conducted three rounds of discussions to gain more insight beyond the empirical research. One of the key points of their findings was the correlation between education and consumer attitudes and behaviours towards consumption.

After a detailed study of many academic articles on sustainable consumer behaviours in the FMCG industry, we can conclude that there is a clear research gap concerning the analysis of consumer behaviour on purchasing innovative products for children and infants. This study aims to gain insights into consumer behaviour, especially about environmentally friendly and sustainable behaviours in the FMCG sector in Poland.

### 3. Research methodology

It should be emphasized that the authors adopted the definition of infants and young children according to Regulation (EU) No 609/2013 of the European Parliament and of the Council of June 12, 2013 on food intended for infants and young children and on food for special medical purposes and foodstuffs intended to replace the total daily diet, for weight control, which reads: "'young child' means a child between one and three years of age" (Official Journal of the European Union, 2013). Whereas the food products included in the research analysis are intended for infants and young children, which the aforementioned regulation considers to be 'follow-on formula' (Official Journal of the European Union, 2013). These are foods intended for children when appropriate complementary feeding and dietary diversification are introduced.

The considerations concerning the problematic nature of the adopted objective allowed to formulate the following research hypotheses:

- H01. Loyalty to brands makes it easier to make a decision to buy innovative products immediately after introducing them to the market.
- H02. There is a link between buying products as soon as they are launched and the opinion whether innovative products are more desirable than traditional ones.
- H03. There is a correlation between the assessment of whether the current range of innovative products is sufficient and the frequency and quantity of buying particular products in particular places

The course of the research was shaped in the following seven stages:

1. Analysing source literature available on the Polish and international markets.
2. Formulating the research problem.
3. Defining the purpose of the study.
4. Adopting an appropriate research method.
5. Designing the survey questionnaire.
6. Conducting the survey.
7. Processing and analysing data.

The survey was considered the primary research method. The survey was conducted using a research technique in the form of an individual questionnaire. The measurement tool took the form of a structured questionnaire, which was developed by the authors of the article. The survey consisted of 3 pages. The first contained a preamble mentioning the subject matter of the survey, the purpose of the survey and instructions for completing the survey. At the same time, the respondents' attention was drawn to the anonymous nature of the questionnaire and the intention to subject the results of the survey to analysis as part of summary statistics. It was emphasized that the results of the study will be used for the commercialisation of the undertaken problem and used in a scientific article. Based on the results of the literature

review, nine questions concerning innovative food products for infants and young children were identified. The study addressed the following main issues:

- Making decisions to purchase innovative foods for infants and young children,
- Traditional food versus innovative food.

The 6 questions of the questionnaire consisted in closed questions; the survey participants could only select one of several provided answers. In 3 questions a forced scale was used where the respondent indicated a strictly defined category on the scale, these questions did not provide the opportunity to express an opinion. The respondents' task was to address a given response possibilities, according to a specific degree to which they agreed with them. The intensity of the respondent's attitude was measured using a bipolar, five-point ordinal scale, described both verbally and numerically. Responses were assigned numerical values (e.g., from 1 to 5), maintaining the principle that the assigned values increase according to the nature and direction of the defined characteristic. The Likert scale was used, where 5 means very often; 1 means very rarely.

The questions were formulated unambiguously so that everyone could understand them. The questionnaire was laid out in such a way that each question concerned only one specific thing. Specialized terms, industry slang, and words from a foreign language were not used. Due to the nature of the respondent population, the conducted survey was considered a consumer opinion survey.

The final element of the questionnaire was a metric, including respondents' data such as gender, age, education, and place of residence. The research presented in the article was conducted in Q3 and Q4 of 2022.

The survey was aimed at 500 people residing in Poland who are parents of infants and/or young children. Ultimately, 440 (88%) correctly completed questionnaires were returned, i.e., questionnaires including answers to all individual questions. When calculating the minimum (required) number of people in the sample (in a population-based sample survey), a confidence level of 95%, a fraction size of 0.5 and a maximum error of 5% were assumed. With the assumed values, it was estimated that the required population size was 387 people. 440 persons were surveyed, which is considered to be a representative group of the studied population. Respondents were guaranteed confidentiality. Due to the above it is not possible to identify the person filling out the survey. The questionnaire provided complete information on the purpose of the activities and marked the anonymity of the survey. The obtained number of questionnaires allows to conclude that the requirements for representativeness of the sample have been met.

In order to deepen the analysis and verify the research hypotheses, statistical analyses were carried out using the IBM SPSS Statistics 26 suite. It was used to perform an analysis of basic descriptive statistics with the Shapiro-Wilk test, a frequency analysis with the chi-square test of concordance, the Mann-Whitney test, the chi-square test of independence and Pearson's  $r$  correlation analysis. The significance level in this chapter was considered to be  $\alpha = 0.05$ .

## 4. Results

In the first stage of the analysis, the distributions of the quantitative variables were checked. For this purpose, basic descriptive statistics were calculated, together with the Shapiro-Wilk test examining the normality of the distribution. The results of the analysis are presented in Table 1.

**Table 1.**

*Basic descriptive statistics of the studied variables with the Shapiro-Wilk test*

<b>General questions</b>	<b>M</b>	<b>Me</b>	<b>SD</b>	<b>Sk.</b>	<b>Kurt.</b>	<b>Min.</b>	<b>Maks.</b>	<b>W</b>	<b>p</b>
Number of types of innovative products purchased	3,29	3,00	1,40	0,35	-0,04	1,00	7,00	0,94	<0,001
Buying innovative nutrition products immediately after introducing them to the market	3,91	4,00	0,72	-0,65	0,74	2,00	5,00	0,80	<0,001
Opinion on whether brand loyalty makes it easier to make purchase decisions	4,23	4,00	0,73	-0,79	0,60	2,00	5,00	0,79	<0,001
Opinion on whether innovative products are more desirable than traditional ones	3,83	4,00	0,92	-0,23	-0,92	2,00	5,00	0,84	<0,001
Opinion on whether the current offer of innovative products is sufficient	3,71	4,00	0,88	-0,71	0,62	1,00	5,00	0,85	<0,001
<b>Most frequently purchased food products for infants and young children</b>	<b>M</b>	<b>Me</b>	<b>SD</b>	<b>Sk.</b>	<b>Kurt.</b>	<b>Min.</b>	<b>Maks.</b>	<b>W</b>	<b>p</b>
Fruit mousses in tubes	3,67	4,00	1,30	-0,58	-0,73	1,00	5,00	0,83	<0,001
Porridges	3,55	4,00	1,05	-0,31	-0,75	1,00	5,00	0,89	<0,001
Freeze-dried fruit	3,09	3,00	1,21	0,08	-0,80	1,00	5,00	0,90	<0,001
Dinners in jars	3,38	3,00	1,20	-0,42	-0,57	1,00	5,00	0,89	<0,001
Desserts in jars	3,47	4,00	1,27	-0,47	-0,67	1,00	5,00	0,88	<0,001
<b>Predictors of purchasing food products for infants and young children</b>	<b>M</b>	<b>Me</b>	<b>SD</b>	<b>Sk.</b>	<b>Kurt.</b>	<b>Min.</b>	<b>Maks.</b>	<b>W</b>	<b>p</b>
Price	3,49	3,00	1,05	-0,44	0,14	1,00	5,00	0,85	<0,001
Packaging	3,82	4,00	1,01	-0,66	0,11	1,00	5,00	0,85	<0,001
Brand	3,75	4,00	1,06	-0,44	-0,35	1,00	5,00	0,85	<0,001
Opinion of others	3,75	4,00	1,03	-0,90	0,50	1,00	5,00	0,84	<0,001
Child's preferences	4,34	5,00	0,90	-1,06	-0,14	2,00	5,00	0,72	<0,001
Time of preparing the product for consumption	4,04	4,00	1,00	-0,80	-0,03	1,00	5,00	0,81	<0,001
Advertisement	3,03	3,00	1,19	-0,23	-0,64	1,00	5,00	0,89	<0,001
Ingredients	4,19	5,00	1,02	-1,17	0,73	1,00	5,00	0,76	<0,001

Source: own compilation.

The result of the Shapiro-Wilk test for all the variables entered proved to be statistically significant, meaning that their distributions are significantly different from the normal distribution. However, it should be noted that the skewness of the distribution of all variables does not exceed an absolute value of 2, which means that their distributions are slightly asymmetric. Therefore, it is reasonable to carry out the analysis based on parametric tests, provided that their other assumptions are met.

Then, the percentage distributions of the qualitative variables were verified. For this purpose, a frequency analysis was carried out together with a chi-square test to verify whether the resulting distributions are equal. Firstly, it was verified what proportion of the research group buys innovative food products for infants and young children. The results of the analysis are presented in Table 2.

**Table 2.**

*Percentile distribution of responses to the question on whether respondents purchase innovative food products for infants and young children*

		<i>N</i>	<i>%</i>	$\chi^2$	<i>p</i>
Purchasing innovative food products for infants and young children	No	96	21,8%	139,78	<0,001
	Yes	344	78,2%		

Source: own compilation.

The analysis showed that there were significantly more people in the study group who purchased innovative infant food products.

The following step of the analysis was to verify which products are most often chosen by people buying innovative food products for infants and young children. The results of the analysis are presented in Table 3.

**Table 3.**

*Percentile distributions of the frequency of choosing individual innovative foods for infants and young children*

<b>Which innovative food products for infants and young children do you buy?</b>		<i>N</i>	<i>%</i>	$\chi^2$	<i>p</i>
Gluten-free products	No	203	59,0%	11,17	0,001
	Yes	141	41,0%		
Vegan products	No	241	70,1%	55,36	<0,001
	Yes	103	29,9%		
Sugar-free products	No	212	61,6%	18,61	<0,001
	Yes	132	38,4%		
GMO-free products	No	142	41,3%	10,47	0,001
	Yes	202	58,7%		
Colour-free products	No	96	27,9%	67,16	<0,001
	Yes	248	72,1%		
Products without artificial flavourings	No	119	34,6%	32,66	<0,001
	Yes	225	65,4%		
Products without palm oil	No	155	45,1%	3,36	0,067
	Yes	189	54,9%		
BIO-certified products	No	205	59,6%	12,66	<0,001
	Yes	139	40,4%		
Others	No	344	100,0%	-	-
	Yes	0	0,0%		

Source: own compilation.



The obtained results indicated that a significantly higher proportion of the respondents purchasing innovative food products for infants and young children chose GMO-free, colouring-free, and artificial flavouring-free products. No statistically significant variation was recorded in terms of the frequency of choices concerning products without palm oil. For the other articles, it was found that a significantly higher proportion of respondents did not choose them.

The final stage of the frequency analysis was to find out what were the most frequently indicated predictors for not buying innovative food products for infants and young children. The results of the analysis are presented in Table 4.

**Table 4.**

*Percentile distributions of the frequency of indicating individual predictors of not buying innovative food products for infants and young children*

Why do you not buy innovative food products for infants and young children?		<i>N</i>	%	$\chi^2$	<i>p</i>
I do not trust these products	No	72	75,0%	24,00	<0,001
	Yes	24	25,0%		
I am not convinced	No	50	52,1%	0,17	0,683
	Yes	46	47,9%		
I am concerned about the child's reaction to the food	No	46	47,9%	0,17	0,683
	Yes	50	52,1%		
They are too expensive	No	67	69,8%	15,04	<0,001
	Yes	29	30,2%		
They are difficult to get	No	72	75,0%	24,00	<0,001
	Yes	24	25,0%		
Other reason	No	89	92,7%	70,04	<0,001
	Yes	7	7,3%		

Source: own compilation.

The analysis showed that the most identified predictor for not buying innovative food products for infants and young children was the fear of the child's reaction to the food and a lack of belief in this type of product. It also turned out that a significantly smaller proportion of respondents indicated the packaging and price, as well as other issues as the reasons for a lack of confidence in this type of product.

It was then examined whether those who buy innovative food products for infants and young children differ from non-buyers in terms of their opinion on whether innovative products are more desirable than traditional products and whether the current offer of innovative products is sufficient. The relationship regarding the frequency of purchasing individual products and the intensification of the indicated purchase predictors was also verified. For this purpose, a series of Mann-Whitney tests were performed, the results of which are presented in Table 5.

**Table 5.**

*Comparison of people buying innovative products and non-buyers of innovative products in terms of opinion on innovative products and buying habits*

<b>Purchasing innovative food products for infants and young children</b>									
<b>General questions</b>	<b>No (n = 96)</b>			<b>Yes (n = 344)</b>			<b>Z</b>	<b>p</b>	<b>η<sup>2</sup></b>
	<b>middle rank</b>	<b>M</b>	<b>SD</b>	<b>middle rank</b>	<b>M</b>	<b>SD</b>			
Opinion on whether innovative products are more desirable than traditional ones	179,69	3,48	1,08	231,89	3,93	0,85	-3,73	<0,001	0,03
Opinion on whether the current offer of innovative products is sufficient	188,84	3,50	0,85	229,33	3,77	0,89	-2,99	0,003	0,02
Most frequently purchased food products for infants and young children									
Fruit mousses in tubes	193,18	3,39	1,34	228,13	3,75	1,28	-2,49	0,013	0,01
Porridges	215,17	3,48	1,16	221,99	3,56	1,02	-0,48	0,629	<0,01
Freeze-dried fruit	176,98	2,72	0,95	232,64	3,20	1,25	-3,93	<0,001	0,04
Dinners in jars	207,11	3,22	1,35	224,24	3,42	1,15	-1,21	0,228	<0,01
Desserts in jars	227,66	3,51	1,41	218,50	3,46	1,23	-0,64	0,519	<0,01
Predictors of purchasing food products for infants and young children									
Price	201,08	3,38	0,97	225,92	3,52	1,07	-1,79	0,073	0,01
Packaging	194,17	3,53	1,20	227,85	3,90	0,93	-2,41	0,016	0,01
Brand	209,26	3,68	1,01	223,64	3,78	1,07	-1,03	0,303	<0,01
Opinion of others	199,40	3,58	1,00	226,39	3,80	1,03	-1,96	0,050	0,01
Child's preferences	214,73	4,28	0,96	222,11	4,35	0,89	-0,57	0,569	<0,01
Time of preparing the product for consumption	202,11	3,85	1,10	225,63	4,09	0,96	-1,70	0,090	0,01
Advertisement	215,50	2,94	1,30	221,90	3,06	1,16	-0,45	0,649	<0,01
Ingredients	209,21	4,10	1,06	223,65	4,22	1,00	-1,07	0,284	<0,01

Source: own compilation.

The analysis showed that people purchasing innovative food products for infants and young children were statistically significantly different than non-buyers in terms of both the analysed general questions, as well as in terms of the frequency of buying fruit mousses in tubes and freeze-dried fruit, as well as the significance of product availability and peer opinion. It turned out that respondents declaring that they buy innovative products were characterised by a significantly better opinion on whether innovative products are more desirable than traditional products and whether the current offer of innovative products is sufficient, compared to respondents who do not buy this type of products. Moreover, it turned out that respondents buying innovative products were significantly more likely to choose fruit mousses in tubes and freeze-dried fruit compared to non-buyers, and in terms of purchases took into consideration the availability and peer opinion. However, it should be noted that the observed effects were found to be weak ( $\eta^2 < 0.06$ ). In the case of the other analysed variables, there were no statistically significant differences. The results of the analysis are illustrated in figures 1-3.

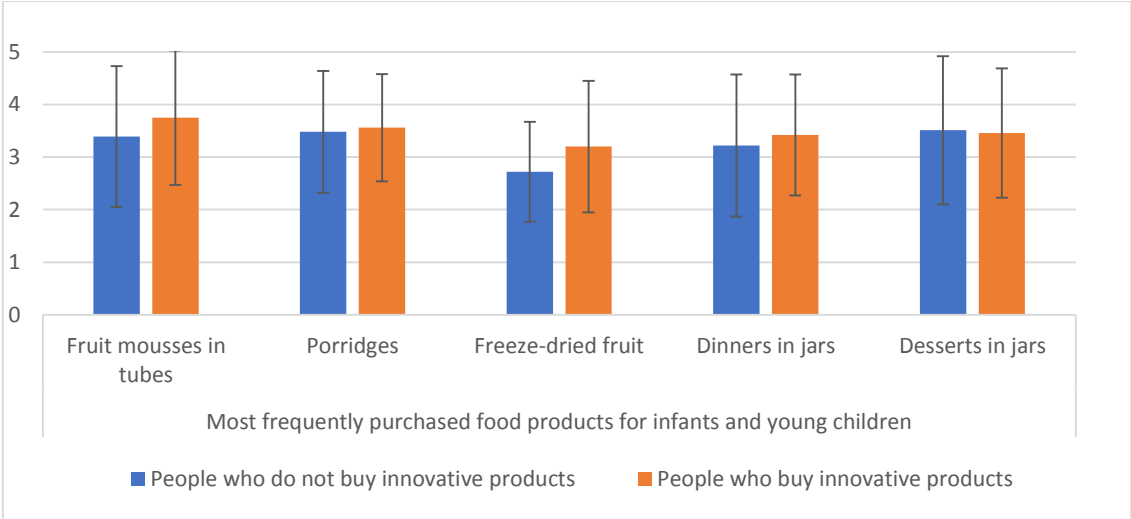


Figure 1. Most frequently purchased food products for infants and young children.

Source: own data.

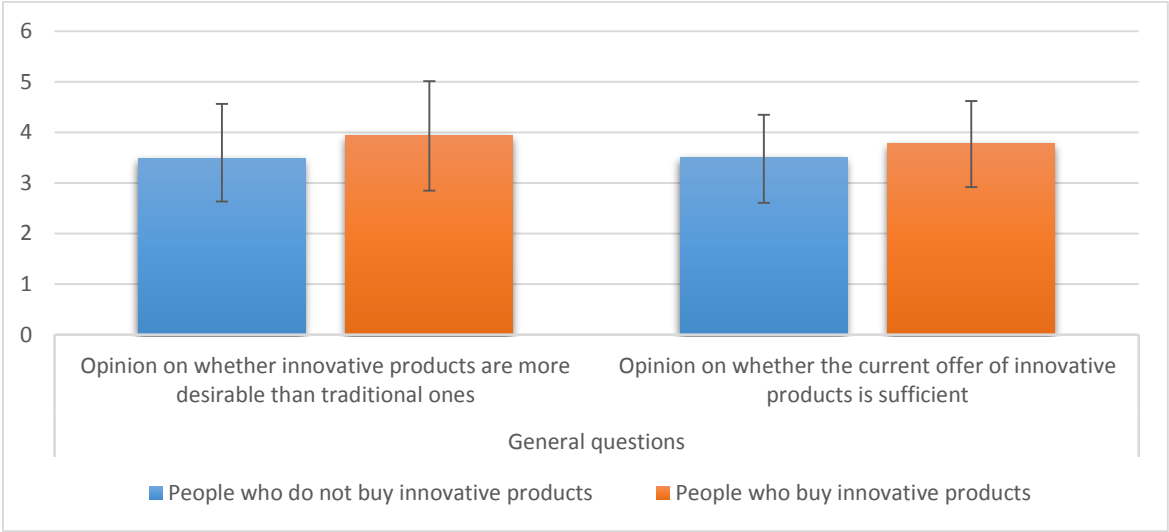
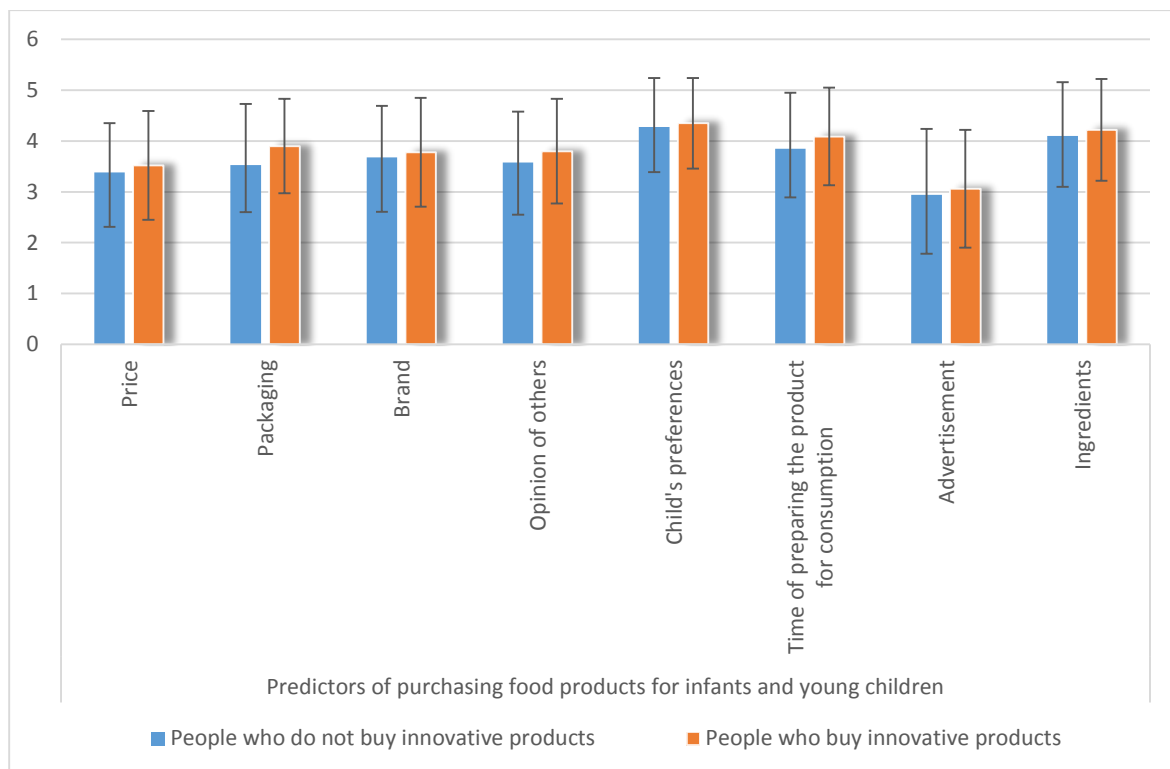


Figure 2. Purchasing innovative food products for infants and young children.

Source: own data.



**Figure 3.** Predictors of purchasing food products for infants and young children.

Source: own data.

During the following stage of the analysis, it was examined whether there is a correlation between buying products immediately after their introduction to the market and opinions on whether brand loyalty facilitates deciding to purchase and whether innovative products are more desirable than traditional ones. For this purpose, the Pearson's  $r$  correlation analysis was performed, the results of which are presented in Table 6.

**Table 6.**

*Correlation of the frequency of purchasing products immediately after introducing them to the market with an assessment of whether brand loyalty makes it easier to make a purchase decision and whether innovative products are more desirable than traditional ones*

		<b>Buying innovative nutrition products immediately after introducing them to the market</b>
Opinion on whether brand loyalty makes it easier to make purchase decisions	$r$ Pearsona	0,06
	significance	0,294
Opinion on whether innovative products are more desirable than traditional ones	$r$ Pearsona	0,13
	significance	<b>0,018</b>

Source: own compilation.

The analysis showed a statistically significant positive relation only between the opinion on buying products as soon as they are launched and the opinion on whether innovative products are more desirable than traditional ones. This means that, as buying products immediately after their introduction to the market increases, so does the respondents' belief that innovative products are more desirable than traditional ones. However, it should be noted that the observed relationship appeared to be weak ( $r < 0.30$ ).

It was then examined whether there was a correlation between the assessment of whether the current offer of innovative products is sufficient and the frequency with which individual products are purchased. For this purpose, the Pearson's  $r$  correlation analysis was performed, the results of which are shown in Table 7.

**Table 7.**

*Correlation of assessing the current offer of innovative products with the frequency of purchasing given products*

<b>Opinion on whether the current offer of innovative products is sufficient</b>		
Most frequently purchased food products for infants and young children		
Fruit mousses in tubes	<i>r</i> Pearsona	0,11
	significance	<b>0,018</b>
Porridges	<i>r</i> Pearsona	-0,05
	significance	0,301
Freeze-dried fruit	<i>r</i> Pearsona	0,11
	significance	<b>0,022</b>
Dinners in jars	<i>r</i> Pearsona	-0,06
	significance	0,224
Desserts in jars	<i>r</i> Pearsona	-0,06
	significance	0,209

Source: own compilation.

The analysis showed statistically significant positive relations between assessing the current offer of innovative products and the frequency of buying fruit mousses in tubes and freeze-dried fruit. This means that as the assessment of the current range of innovative products increased, so did the frequency of the aforementioned products. However, it should be noted that the observed relationship appeared to be weak ( $r < 0.30$ ). In terms of the other correlated pairs of variables, there were no statistically significant relations.

## 5. Discussion

The results indicated above constitute the outcome of the literature research and the conducted empirical studies. The theoretical considerations carried out and the results of the empirical research have demonstrated the relevance of the set research hypotheses and enabled the scientific objective set in this thesis to be achieved.

The following conclusions concerning the verification of the set hypotheses result from the empirical studies:

- brand loyalty makes it easier to make a decision concerning buying innovative products as soon as they are launched,
- there is a correlation between buying products immediately after they are introduced to the market and whether innovative products are more desirable than traditional ones,
- there is a link between assessing whether the current offer of innovative products is sufficient and frequency.

Analysing the results of the conducted survey shows that Polish buyers are characterised by a wide range of perceiving and interpreting product innovation. The collected data confirms the relatively high level of accepting innovative food products for infants and young children, even immediately after their launch. Consumer expectations concerning the quality of a product, its composition, the production process, as well as the benefits of consuming it, are important for the success of a new food product. Lack of knowledge about a product can give rise to negative attitudes towards it and feelings of apprehension that do not work in favour of accepting it.

Polish consumers are open to new, innovative product categories. All these factors are driving the infant and young children food market, as manufacturers are constantly expanding their offers, tempting parents with new products.

In summary, the food market for infants and young children constitutes a good place for introducing innovations, both in terms of existing and new products. This allows expanding the range of products, creating new markets and thus attracting new customers with specific requirements and needs.

## 6. Conclusion

Presenting the contribution of the present manuscript to existing knowledge and the originality of the presented material in a synthetic manner, it should be pointed out that its essential scientific values are:

### **on a theoretical plane:**

- synthesizing customer attitudes in terms of product innovation,
- verifying consumer preference interdependence and acceptance of innovative food products for infants and young children;

### **on an empirical plane:**

- identifying customer attitudes towards traditional and innovative products for infants and young children in the FMCG sector;

### **on a practical level:**

- through disseminating research results, supporting managers operating in the FMGC sector in an aware and effective planning and implementing product innovations for infants and young children,
- identifying barriers that significantly impede implementing innovative foods for infants and young children.

However, the subject presented in the article concerning customer attitudes towards novel foods for infants and young children cannot be considered exhaustive, because the discussed topic constitutes a multifaceted and interdisciplinary research area.

In the conducted study, the respondents consisted only in parents from Poland, so in the future it would be worthwhile to carry out research in other European countries and compare the obtained results with regard to shopping behaviour. It should be also considered to verify the posed hypotheses and extend the research field to include a variety of innovative products from the FMCG sector and the process of implementing them on the market. The year 2020 in the market of fast-moving goods is considered to be the year of covid. Nevertheless, a lot of new products appeared on the FMCG market. The process of preparing an innovation, especially in large organisations, is a lengthy process. Most of the innovations were planned as far back as before the pandemic, and in many cases COVID-19 merely postponed the debut of new products on the market. The share of innovation has increased among products such as coffee, water and washing powders. In terms of the above, a research problem for the future that would be worth analysing consist in how COVID has influenced the significance of innovation particularly in categories with a high proportion of impulse purchases, often consumed outside (sweets, ice cream, or beverages).

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