

Changes in the Attitudes of Hungarian Shoppers in Times of Crisis*

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The world is currently facing at least four simultaneous crises, including the still relevant shadow of the Covid-19 pandemic, the consequences of the Russia–Ukraine war, an economic crisis with significant inflationary pressures and a climate crisis that has been a decades-long source of anxiety for many. Each of these crises influences consumer and shopping behaviour and attitudes towards the future, with spill-over effects on the work of economic actors. Our study aims to contribute to an understanding of the relationship between crisis situations and shopping. Our findings are based on the results of an online survey conducted between 7 July and 20 July 2022. The online sample of 1,000 respondents is representative of the Hungarian population aged 18–74 in terms of gender, age, type of municipality, educational level and region. The aim of this study is to show how the four crises affect attitudes towards shopping, while it also touches upon the role of pleasure in shopping and the significance of anxiety about the future.

Journal of Economic Literature (JEL) codes: M31, M21, M30

Keywords: crises, consumer behaviour, quantitative research

1. Introduction; theoretical background to the analysis

People's lives and behaviour are affected by a wide range of national and global conflicts and critical life situations, such as disasters and emergencies. We are currently facing several crises, of which the Hungarian population is particularly affected by the livelihood crisis, the crisis linked to the Russia–Ukraine war, climate change and the lingering shadow of the Covid-19 pandemic. Based on the literature and our own empirical research, this paper explores the relationship between crisis situations and consumption, with the aim of showing how consumers' attitudes to shopping are affected by these crises.

* The papers in this issue contain the views of the authors which are not necessarily the same as the official views of the Magyar Nemzeti Bank.

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Following the typology of *Shaluf et al. (2013)*, modern society is faced with multiple crises around the world, including international political conflicts, social crises, economic crises and natural crises. The challenges associated with crises can also have a significant impact on people's consumption patterns. Crises can be sources of stress that force consumers to change their behaviour (*Mucci et al. 2016*). As found by *Durante and Laran (2016)*, stressful circumstances lead to higher consumer spending in some cases and lower spending in other situations, depending on the control over perceived pressures. In their research, they found that people who have low stress tolerance are more likely to save or spend on essentials in order to successfully manage the situation and regain control. They also stress that the threat can affect spending through two channels: (1) the level of control over the threat, and (2) how this control affects the perception of certain products as essential necessities. With regard to future plans, the assessment of risks, the various effects of the consequences of a decision and even its ethical aspects are not only examined by economic organisations (*Somogyvári 2020*), but also by households and consumers in times of tensions and crisis.

In relation to the threat of *natural disasters*, *Larson and Shin (2018)* concluded that higher levels of fear were associated with higher levels of utilitarian and hedonic shopping behaviour. This means that a natural disaster, while making it difficult to shop, will lead some consumers to compensate for the stress of the situation by shopping. Furthermore, individual conditions (such as fear) and external conditions (such as limited access to goods) can both lead to consumer vulnerability (*Baker et al. 2005*), which may be most likely reflected in the consumer's inability to satisfy their needs at all, or only to a lesser extent or at a lower standard of quality. This vulnerability has been studied in a number of contemporary crises, such as the Covid-19 pandemic (*Yap et al. 2021; Yazdanparast and Alhenawi 2022*).

Numerous studies have investigated and continue to investigate the changes in lifestyle and consumption that occurred as a result of the *Covid-19 pandemic* (*Jakopánecz 2021*). These clearly indicate that the pandemic has changed consumer behaviour globally (*Komonen and Seisto 2022*). In China, for example, people preferred smaller retail stores or opted to shop online to avoid close contact with other shoppers in crowded stores (*Li et al. 2020*). Indian consumers showed a high level of intentionality in terms of their financial situation during the pandemic (*Mehta et al. 2020*), while a study by *Komonen and Seisto (2022)* found significant changes and adaptability in the lifestyle of Finnish consumers.

Less information is available on the impact of *military conflicts* on consumption. Before Russia invaded Ukraine, the impact of war on consumer behaviour was an area that had hardly been researched. Although there have been studies on the attitudes of consumers living in war environments for extended periods (*Rawwas et al. 1998*) and on changes in markets and consumption during post-war recovery

(Shultz 2005; Manfredo and Shultz 2007), global effects have been less studied, and local military conflicts have rarely been evaluated from a consumption perspective. By contrast, in the context of the Russia–Ukraine war, several studies have now assessed the economic impact of this conflict, focusing on energy consumption and the related difficulties (Khudaykulova et al. 2022), the negative impact of the war on global stock market returns (Boungou and Yatié 2022) and the issues with food security (Yazbeck et al. 2022).

A number of studies are available that examine *global economic crises* at the macro level. Among the economic impacts, consumers are particularly affected by the cost of living crisis, which is ‘a situation in which the cost of everyday essentials like groceries and bills are rising faster than average household incomes’ (Webster and Neal 2022:475). This situation is associated with a slowdown in the global economy, uncertainty and high inflation, which has a significant impact on consumers’ options and may thus change their consumption patterns as well.

Of the four major global crises examined in this study, the problem of *climate change* is not new and clearly affects consumers’ lifestyles (Bogáromi et al. 2020). The threat of a climate disaster has become part of everyday reality for people around the world. Climate change, i.e. a change in the climate caused directly or indirectly by human activity (Kolbert 2006), is ‘a socially represented phenomenon, environmental problem, threat, and narrative of environmental and societal risk and change’ (Reser et al. 2011:21). The link between consumption and environmental problems is a well-studied issue, and there is a rare consensus among academics in acknowledging the clear link between the climate crisis and consumption (Assadourian 2010). Consequently, consumption patterns need to be reviewed, but adopting pro-environmental behaviour, including conscious, sustainable consumption, can be a challenge for people (Gifford et al. 2018). As Sanne (2002) has noted, consumers are often constrained by systemic circumstances that make it difficult for them to change their consumption patterns.

A review of the research on crises and disasters shows that the relationship between crisis and consumption is under-researched, which may be related to the complexity and ambiguity of the study of the characteristics and aftermath of chaos and disaster (Iacobucci 2019). Studies are available on specific situations, such as climate change, the Covid-19 pandemic and inflation, and to a lesser extent on the perception of war risks. However, understanding how these threats, individually and collectively, relate to the relationship to shopping has not been a focus of interest for researchers before. While much is already known about the motivations of consumers and the factors influencing their behaviour (Hofmeister-Tóth 2014), our study aims to contribute to a specific area, that of the relationship between crisis situations and consumption. The aim of this research is therefore to show how the four crises that define life today (inflation, Covid-19, the Russia–Ukraine war, the

climate catastrophe) affect attitudes towards shopping, touching upon the role of pleasure in shopping and the significance of anxiety about the future.

2. Research history

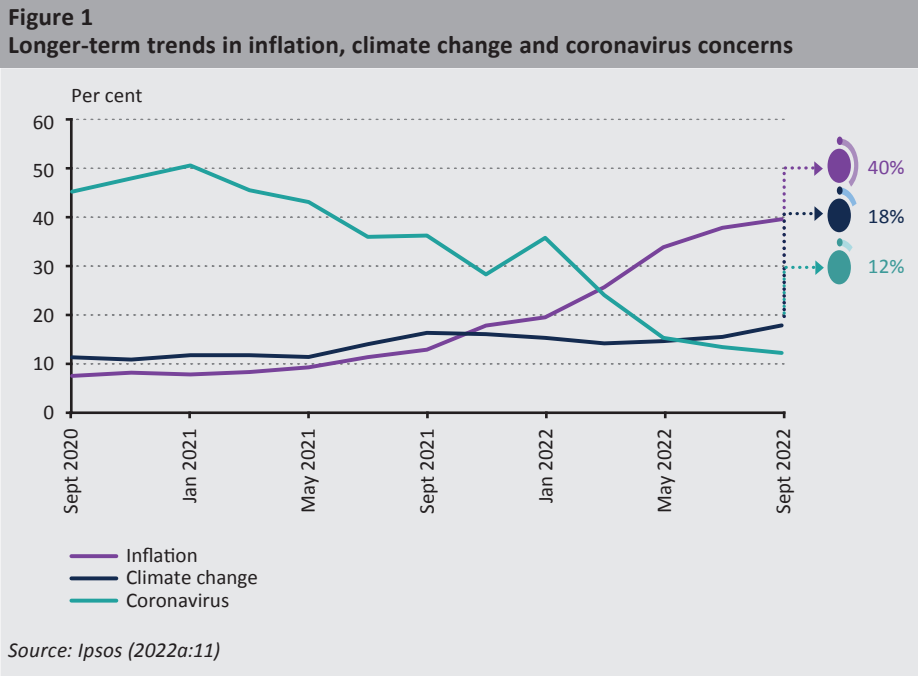
The topic has not only prompted theoretical study, as global and Hungarian research institutes, consultancies, governmental and public bodies have also conducted their own related research. The aim of this section is to give an overview, based on data for 2022, of what people fear and perceive as problems in the areas that are the subject of this paper, i.e. rising inflationary pressures, the coronavirus pandemic, the climate situation and the war. As our primary research was also conducted in 2022, we collected analyses that relate to that period.

A *GfK (2022)* study points out that the primary problems of the events cited above, together with supply chain disruptions, are causing market problems, through which they affect consumers. *Ipsos (2022a)* conducted a comprehensive survey of this topic in autumn 2022, interviewing 30,506 respondents aged 16–74 in 29 countries. The survey primarily measured the issues and topics that people were most concerned about globally, the ones they found the most worrying, and also asked respondents whether they thought things overall were heading in the right direction in their own countries. The aggregate results show that the biggest problem globally, by a wide margin, was inflation in October 2022 (42 per cent said it was a problem) (this had been the most frequently cited problem since April 2022). This was followed by poverty and social inequality (with a 32 per cent ratio). In October 2022, as inflation rose and coronavirus fears fell during the period under review, only 10 per cent of respondents said that the pandemic was a problem. In Hungary, 6 per cent of respondents said the same.

The countries with the highest rates of respondents considering inflation as a problem (*Ipsos 2022a*) were the following:

- Poland – 70 per cent
- Argentina – 66 per cent
- Canada – 56 per cent
- Hungary – 53 per cent
- Turkey – 52 per cent

Looking at the data over the longer term (2020–2022) and including climate change, we see that as panic about the Covid-19 pandemic subsided, inflation concerns increased, while climate change fears increased minimally (*Figure 1*).



In Hungary, climate change was considered a problem at a lower rate (9 per cent) than the global average (17 per cent) (Ipsos 2022a). The survey also asked respondents whether they considered military conflicts between nations to be a problem. 11 per cent of all respondents (i.e. the global average) responded affirmatively, compared to 12 per cent in Hungary.

The last key finding of the Ipsos (2022a) survey was that, globally, 64 per cent thought that things were not heading in the right direction in their own country, compared to 81 per cent in Hungary.

We also present the results of another survey by Ipsos (Ipsos 2022b), as we believe that they all contribute to our understanding of how people think about the future in the present situation. The research surveyed 24,471 18–74-year-olds in 36 countries using the Global Advisor online platform in the second half of October 2022.

Table 1 summarises the main findings, which indicate that Hungarians seem to be more pessimistic than the global average about the issues under review (most notably inflation, unemployment and an end to the war). There were also some signs of optimism in some areas: for example, lower proportions of Hungarians thought that 2023 would be the hottest year on record and lower proportions thought there would be lockdowns due to Covid.

Statement	Global proportion of respondents who consider it likely	In Hungary, proportion of respondents who consider it likely
Prices will increase faster than people's incomes.	79	86
Inflation in my country will be higher in 2023 than in 2022.	75	79
Interest rates in my country will be higher in 2023 than in 2022.	74	72
Unemployment in my country will be higher in 2023 than in 2022.	68	76
The war in Ukraine will end in 2023.	40	36
There will be more extreme weather events in my country in 2023 than there were in 2022.	65	65
2023 will be the hottest year ever recorded in my country.	57	45
There will be no further Covid-19 lockdowns in my country.	60	51
2023 will be a better year for me than 2022 was.	65	69
The global economy will be stronger in 2023 than it was in 2022.	46	31

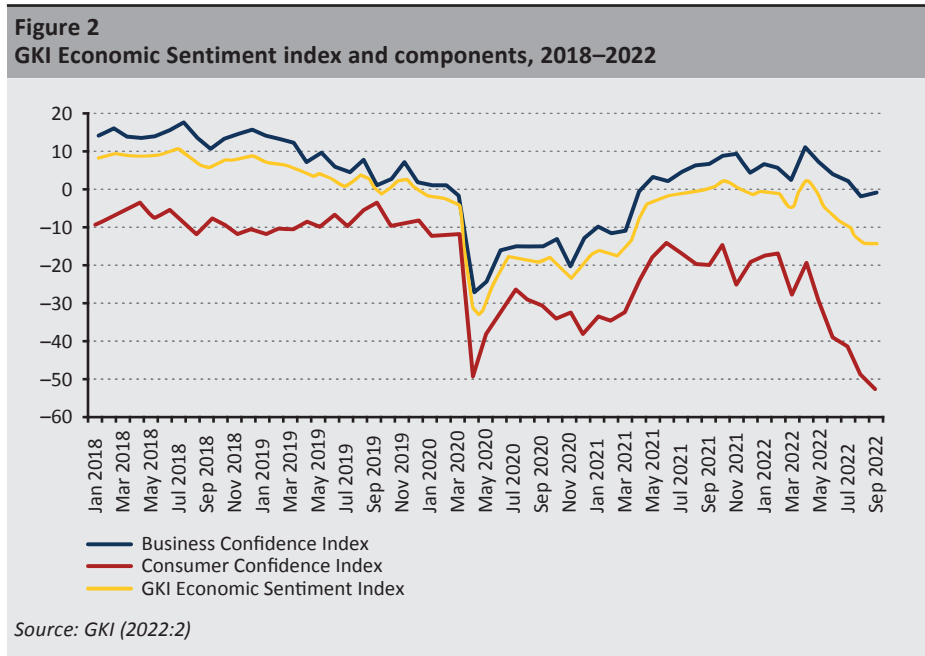
Source: Ipsos (2022b)

The research results reported by *Bazzoni et al. (2022)* show that the proportion of people with more pessimistic expectations increased in 2022 H2, rising from between 17 and 24 per cent in 2021 to 43 per cent in September 2022 (in this case, a sample of more than 5,000 people was surveyed in Europe).

Condon et al. (2022) found in an online survey of 1,247 people that inflation was the main risk factor, but that geopolitical instability and conflict were also a concern for many. The survey was conducted as part of the McKinsey Global Survey, which included interviews on several continents around the world, including Europe, North America, China, Asia–Pacific, South Asia, Middle East, Latin America and Africa.

Although we have referred to some Hungarian data above, we will supplement these with further, specifically Hungarian research results. The consumer confidence index measured by *GKI (2022)* fell even lower by the end of 2022 than at the start of the Covid-19 pandemic in Hungary (*Figure 2*), indicating pessimism in the Hungarian

population. Although the reasons for the decline in consumer confidence have not been investigated, the above data also suggest that inflation and geographical proximity to war played a major role.



The *Hétfa Kutatóintézet és Elemző Központ* (2022) conducted a telephone survey of 1,000 people in Hungary in the first half of February 2022, in the days before the outbreak of the war in Ukraine. The survey found that Hungarians saw rising prices and the healthcare situation as the biggest challenges, followed by education, poverty and concerns due to coronavirus. Respondents put the sustainability challenges they perceived after these five factors.

The current situation is clearly a matter of interest to research institutes and economic actors with different profiles, and many studies provide a snapshot or a longer-term analysis of trends. Summarising the results of the surveys presented in this section, it seems that inflation is the biggest concern for populations in 2022, whether they were respondents from Hungary or other countries. The coronavirus situation was the least of people’s concerns, but there was no direct fear of war or a climate crisis.

3. Material and method

We conducted an online survey to assess different areas of Hungarian consumer and shopping habits. The data was collected between 7 July and 20 July 2022 with the help of a professional market research company. Constituting part of a larger survey, our questionnaire (see *Appendix*), included, *inter alia*, statements on the relationship between crisis situations and shopping, voluntary restrained consumption, attitudes to sustainability and concerns about the future, some of which are analysed in this article.

The online sample is representative of the Hungarian population aged 18–74 with online access in terms of gender, age, type of municipality, educational attainment (primary, secondary or tertiary) and region. It is important to note that, by itself, the sample is not fully representative given its size of 1,000; therefore, to ensure representativeness, we have weighted the survey results back in line with the national ratios. The original sample size was 1,000, but following *Szűcs et al. (2023)*, we carried out thorough data cleaning, so that the final sample consists of the answers of 839 respondents. Based on our experience with previous online questionnaires, we opted for a thorough data cleaning exercise to avoid inconsistent results later on. Our aim was to exclude from the sample respondents who probably simply ‘clicked through’ in their answers to the Likert-type questions without actually understanding them. For this reason, we excluded respondents who had a 0 standard deviation in their responses to Likert-type questions (33 in total) and respondents who gave significantly inconsistent answers (118 in total). Differences between the original and the cleaned sample were tested primarily by using the Chi-squared test based on *Sajtos and Mitev (2007)*, and the Mann-Whitney U test for the single continuous variable. Based on these tests, the two samples do not differ significantly with respect to gender ($p=0.385$), age ($p=0.567$), regions ($p=0.873$), type of municipality ($p=0.942$) or education ($p=0.828$), so it can be concluded that the data cleaning procedure used to eliminate selection bias did not result in demographic-level bias, and the cleaned sample is suitable for analysis. Study participants were aged between 18 and 74 years (Mean=46.9, SD=15.31); for descriptive statistics on the sample, see *Table 2*.

Table 2		
Presentation of the sample		
	Sample (n=839)	Total population, Central Statistical Office (HCSO)
Gender (%)		
Male	48.1	48.0
Female	51.9	52.0
Age (%)		
18–29 years	18.8	21.0
30–39 years	20.3	22.4
40–49 years	18.2	18.4
50–59 years	19.8	19.1
60–69 years	16.3	14.5
70–74 years	6.6	4.6
Region (%)		
Central Hungary	31.2	31.5
Northern Hungary	11.7	11.3
Northern Great Plain	14.1	14.6
Southern Great Plain	12.0	12.5
Southern Transdanubia	10.6	8.9
Central Transdanubia	10.6	11.0
Western Transdanubia	9.8	10.2
Type of settlement (%)		
Budapest	18.6	17.5
City with county rights, county seat	21.9	20.3
Other city/town	30.1	32.2
Village, settlement	29.5	29.9
Education (%)		
Primary education	47.5	50.6
Secondary education	33.1	32.3
Tertiary education	19.5	17.1
<i>Source: Compiled based on online research and HCSO (2023)</i>		

To measure crisis situations, we used specific statements that focus on the relationship to shopping in relation to the crises under review. Our statements measured a general subjective impression of each crisis situation, which for our purposes did not specifically quantify the monetary changes in shopping. We included four crisis situations in our study: 1. Covid-19 pandemic, 2. Russia–Ukraine war, 3. rising inflation, 4. climate catastrophe. The questions were formulated similarly in all the topics, such as for example: ‘How much has rising inflation

changed your attitude towards shopping?'. Respondents expressed their opinions on a 10-point scale, where the end points were (1): 'changed in a negative direction' and (10): 'changed in a positive direction'.

Respondents expressed their concerns about the future with the help of a statement where responses ranged from (1) 'strongly disagree' to (5) 'strongly agree' on a 5-point Likert scale. The question used represents a scenario from the Worry Domains Questionnaire (WDQ) developed by *Tallis et al. (1992)*.

Attitudes to shopping were measured using the approach of *Babin et al. (1994)*, asking whether or not shopping was a real pleasure for respondents. Opinions were measured on a Likert scale of 10, from 1 (I really dislike shopping) to 10 (I definitely like shopping). In this case, the use of a 10-point scale as opposed to a 5-point scale was justified by the need to align with previous literature.

Attitudes towards sustainable shopping were also measured by the consumption reduction associated with sustainability. This phenomenon has been measured in a variety of ways in previous studies (*Pangarkar et al. 2021*) due to the lack of a uniform definition. Our survey included three items on reducing consumption, such as 'I have reduced my consumption to protect the environment', 'I am more careful about what I buy because I know how harmful overconsumption is' and 'I have recently stopped buying more products because I am more environmentally conscious'. To check the consistency of these three statements, a Cronbach's alpha test was performed with a value of 0.76, which can be considered a reliable measure of the phenomenon.

3.1. Statistical analyses performed

3.1.1. Descriptive analyses

Attitudes towards shopping, taking into account the crises and concerns about the future included in the survey, were assessed using descriptive statistics. The analyses also included statistical comparisons of the topics studied in terms of different demographic groups (*Malhotra and Simon 2009*).

3.1.2. Regression

General attitudes towards shopping ('How much do you like shopping in general?') may influence how respondents report changes in their attitudes towards shopping in the context of the crises under review. This relationship was assessed using linear regression analysis. Four analyses were conducted for each of the four crises, and as a first step, we checked in each model whether the variables to be included in the analysis met the basic conditions for performing linear regression.

In the analysis process, the following five conditions were checked, based on *Tranmer et al. (2020)*:

1. The variables to be included in the analysis are continuous or ordinal variables;
2. There is a linear relationship between the dependent and independent variables;
3. The error terms follow a normal distribution;
4. The data are homoscedastic;
5. No multicollinearity between independent variables.

This paper presents only those linear regression models that fully satisfy these conditions.

In our regression models, we used shopping preference as an independent variable and shopping attitudes due to the four crises as a dependent variable. IBM SPSS 28 software was used to analyse the data and Microsoft Excel 2021 software was used to visualise the results.

3.1.3. Cluster analysis

The cluster analysis was carried out using variables measuring the change in the attitude towards shopping due to the crises. Prior to analysis, our variables were standardised to facilitate the interpretation of the resulting groups. Using the clustering characteristics, we first performed a hierarchical cluster analysis to determine the optimal number of groups (*Simon 2006*). We then identified the groups using K-means clustering, taking into account the optimal number of groups, and checked that, based on the ANOVA table of the analysis, all the parameters we examined were indeed classified as group-constituting. Based on their characteristics, we allocated names to the resulting groups that best capture their characteristics and thus express their essence. As a final step in the cluster analysis, we conducted a background analysis of the clusters, examining the demographic differences between them and their agreement with the statements highlighted in the research. To determine significant differences, a Chi-squared test was performed for nominal variables and an analysis of variance for Likert-type ordinal variables (*Sajtos and Mitev 2007*).

The data were analysed using SPSS 28 software.

3.2. Results

3.2.1 Attitudes to shopping in the context of the current crises

Our results show that all the crisis situations we investigated have a negative impact on attitudes towards shopping, but by different magnitudes. Attitudes towards shopping are most threatened by rising inflation and are less affected by the war in Ukraine, the climate disaster and the Covid-19 pandemic (*Table 3*). This is demonstrated by the fact that there is more than a full scale value difference

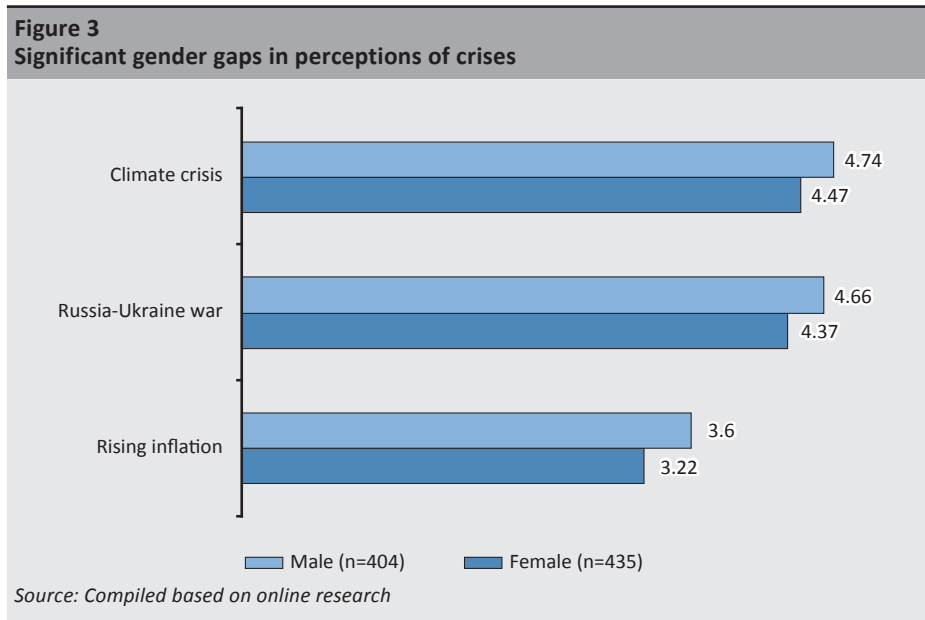
between the average values of rising inflation and of the Russia–Ukraine war. To facilitate interpretation, we refer back to the characteristics of the questions: ‘How much has... changed your attitude to shopping?’. Respondents expressed their opinions on a 10-point scale, where the end points were (1): ‘changed in a negative direction’ and (10): ‘changed in a positive direction’.

Table 3
Impact of crisis situations on attitudes towards shopping (n=839)

Reason for changed attitude towards shopping	Mean	Deviation
Rising inflation	3.40	1.828
Russia–Ukraine war	4.51	1.688
Climate change	4.60	1.468
Covid-19 pandemic	4.81	1.634

Source: Compiled based on online research

When examined by demographic group, there is a statistically significant difference between men’s and women’s views on the shopping implications of inflation, climate change and war. In all cases, women’s perceptions changed more negatively than men’s in relation to these crises, see *Figure 3* for details.



The extent of public perception of the problem in the current multi-crisis situation can be illustrated by understanding how many respondents have had a negative change in their attitude to shopping as a result of one or more crises. Overall, the majority of respondents feel that their shopping attitudes have not changed due to crisis-induced threats (46.8%), with only 5.7 per cent of the sample reporting that all four crises have had a negative impact on their shopping attitudes, 13.8 per cent of the sample feeling the negative consequences of two threats and 26.5 per cent reporting a worsening of their shopping attitudes in relation to only one crisis. The latter were mainly motivated by rising inflation.

Taking into account the respondents who consider that all of the threats studied negatively affected their attitude towards shopping, women, 40–49-year-olds, those with lower educational qualifications and households without children are above average.

3.2.2. Concerns about the future and changing attitudes to shopping due to the crises

The majority of respondents are worried about the future (62.4%). The ratio is higher among women than men (67.4%, Pearson Chi-Square $p < 0.001$). Differences between groups in terms of other demographic characteristics were not found to be significant. *Table 4* shows the mean and the standard deviation of the group of apprehensive consumers compared to the total sample for each case of attitude towards shopping. The table shows that those who are worried about the future tend to rate the worsening of their attitude towards shopping as greater in relation to every crisis situation. This is evidenced by the fact that their averages are lower for each of the crisis situations, which implies a larger negative change.

Reason for changed attitude towards shopping	Whole sample (n=839)		Worried about the future (n=523)		Not worried about the future (n=108)	
	Mean	Deviation	Mean	Deviation	Mean	Deviation
Rising inflation	3.40	1.828	3.10	1.882	3.89	1.602
Russia–Ukraine war	4.51	1.688	4.29	1.808	4.63	1.435
Climate change	4.60	1.468	4.44	1.594	4.75	1.378
Covid-19 pandemic	4.81	1.634	4.71	1.784	4.80	1.462

Note: The scale used for measurement: 1 – changed in negative direction, 10 – changed in positive direction.
Source: Compiled based on online research

3.2.3. Love of shopping and the impact of the crisis on attitudes towards shopping

Our results show that, although with low R^2 values, i.e. weak correlations, the more a person likes shopping, the less likely it is that the pandemic situation, the war and the climate crisis have negatively changed their attitude towards shopping (Table 5). In the case of inflation, no statistically significant correlation was found in terms of changes in attitudes towards shopping.

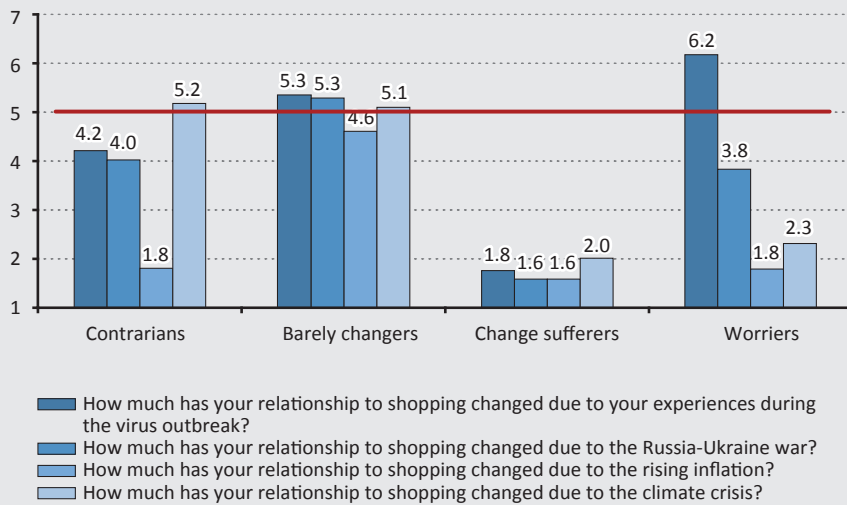
Reason for changed attitude towards shopping	R^2	Adjusted R^2	F	Significance level
Russia–Ukraine war	0.116	0.012	26.192	<0.001
Climate change	0.174	0.029	11.426	<0.001
Covid-19 pandemic	0.211	0.043	39.094	<0.001

Source: Compiled based on online research

3.3. Consumer groups, clusters

Not all of the factors studied which have a major impact on consumers have changed attitudes to shopping to the same extent. In order to obtain a more nuanced view of the changes in the behaviour of Hungarian consumers, it seemed necessary to form groups and interpret the shifts within them. In our cluster analysis, we used four clustering criteria, which were our questions relating to the four different crisis situations. All of these concerned how much the respondents thought each crisis had changed their attitudes towards shopping. As a result of our analysis, we divided the population into four groups based on their response to the effects that are likely to cause change (Figure 4). The optimal number of clusters was determined by hierarchical cluster analysis, where the diagram produced from the ‘Agglomeration schedule’ showed that both 4- and 6-group solutions would have been optimal. Ultimately, the 4-group solution proved to be the better solution for our research purposes and was chosen. Values above the red line in Figure 4 indicate that the situation has had a positively valued effect, while values below the line indicate a negative change. It is important to point out that although there is no middle value on the scale of one to ten, where there is an even number of scale points, experience shows that respondents consider a value of five to be a middle, quasi-neutral value, so we have drawn the red line representing the middle value here, too. Our claim is supported by the fact that, for attitudes measured on the ten-point scales, the proportion of respondents who rate a five is outstandingly high.

Figure 4
Perception of change by cluster group



Note: Proportions of each cluster group within the sample: Contrarians: 24.4%; Barely changers: 58.0%; Change sufferers: 9.1%; Worriers: 8.5%. Red line is for the quasi-average value.

Source: Compiled based on online research

The characterisation of each cluster group is given in the description below, highlighting the characteristic features that explain the differences in response, although it is clear that validating and deepening these explanations requires a different methodology.

Contrarians (24.4%)

Members of this group show a positive shift in their attitude towards shopping due to the climate crisis, while inflation has induced a contrasting perception. They are mainly more highly educated persons, including high numbers of young people at the start of their lives, and mature single people. The perception of the climate crisis has led to a positive change in their shopping habits, but typically they have not really changed the content of their shopping basket in order to protect the environment. Inflation has clearly had a negative impact on their attitude to shopping. They appear to have marked concerns about the future.

Barely changers (58.0%)

The opinion of the members of the group is basically close to the line indicating 'no movement' for all factors, with a minimal negative impact of inflation, which is, uniquely, barely perceived by this group. The pandemic, the climate situation and the war have led to a minimal positive shift in their attitude towards shopping.

The group is of significant size and is dominated by males, older and with the highest income levels. The members of this group are the least worried about the future, tending towards the mean for almost all other attitudes tested. Since this group represents about 60 per cent of the sample, it may be true for a large part of the Hungarian population that the factors examined did not have a significant impact on their shopping routines at the time of the data collection. They have not reduced their consumption to protect the environment, nor do they tend to buy as little as possible.

Change sufferers (9.1%)

This group is negatively affected by all the changes, and they believe that all the factors examined have worsened their attitude to shopping. The members of this group are disadvantaged to start with, and are characterised by low levels of education and poor income. The segment is made up of older people living in small towns and villages, mainly women, and, of all the groups examined, this one includes the largest number of respondents who are unemployed or are in other status. They are cutting back on their shopping (their responses show that they are buying less because of environmental concerns), while they are the most concerned about the future. Their concern about the future is presumably intensified by livelihood issues, rather than as a consequence of other crisis phenomena of concern. It is important to point out that, since this is a group of persons in difficult financial situations, it is presumably inflation that dominates the changes in their shopping behaviour, even if they consider the impacts of all the crisis situations to be similar.

Worriers (8.5%)

This is the group most concerned about the future, which is understandable as it is the youngest age group, with a high proportion of people at the start of their adult lives and those with young children. Group members are characterised by a predominance of female respondents and a not very good income situation. They perceived a positive change in terms of the pandemic, while inflation had the most negative impact on their attitude towards shopping. Also prominent is the negative attitude towards shopping because of the climate crisis, with a high proportion indicating that they have recently given up buying more products because they are more environmentally aware.

As a result of the cluster analysis, we found that the 'Barely changers' group, which is of dominant size, is markedly resistant to various crisis situations in their attitude towards shopping, while for the smaller groups, we observed different reasons for change, ranging from being stuck in the minimal decision space provided by the financial situation to a marked expression of concern for the future. It may be assumed that a study combined with a qualitative research method would reveal

further implications. The interpretation of the results also needs to take into account the timing of the survey, as a more significant increase in inflation occurred after the July 2022 collection of the data, the impact of which would have been more pronounced at a later date.

4. Summary

In our study, we examined how people's attitudes towards shopping are changing as a result of the various crises we are currently experiencing. We included in the analysis the impact of the pandemic and the climate crisis, the Russia–Ukraine war and the inflation-triggered crises. A survey of 1,000 Hungarian adults (aged 18 to 74), conducted in 2022 on a representative sample of the Hungarian adult population, found that respondents reacted most negatively to inflation, while the impact of the other three crises was less pronounced, although those resulted in negative changes as well. Unsurprisingly, rising inflation was the main threat that changed the attitude of Hungarians towards shopping; after all, while average inflation in the EU-27 peaked in October 2022 (HICP: 11.5%) and has been slowing since then, in Hungary inflation peaked (26.2%) in January 2023, and started to fall only thereafter.¹ It is also worth adding that, overall, the majority of Hungarians are worried about the future, and the anxious are more likely to feel that crisis situations will negatively change their attitude towards shopping. However, Hungarians are widely known to be more pessimistic than the global average (*Ipsos 2022b*), which may have influenced this result.

The results of our research also suggest that women, who are typically the main shoppers in the family, are more sensitive to crises in their attitudes towards shopping, more open to reducing consumption for environmental reasons and more likely to be concerned about the future. Our results also show that not only gender, but also age and educational attainment influence the extent to which shopping attitudes change in a negative direction in the wake of crises. Thus, those in their thirties or with lower education levels are also more sensitive to the impact of crises on attitudes towards shopping. This conclusion is in line with previous studies: women are more likely to buy sustainable products (*Mohr and Schlich 2016*), more interested in and concerned about the future (*Tonn and Conrad 2007*), have a greater need for security and are more sensitive to crises (*Silva et al. 2022*). Previous studies have also shown that the more vulnerable are less able to cope with crises (*Quisumbing et al. 2008*). These factors should be taken into account in business activities that concern the groups indicated.

¹ https://www.ksh.hu/stadat_files/ara/en/ara0065.html

Cluster analysis has shown that there are also special response groups in addition to the 60 per cent dominant segment. The attitude of the 'Barely changers' group towards shopping has hardly changed as a result of the crises, and the respondents showed a remarkably low level of concern about the future. Another interesting result that deserves further investigation is that the members of the 'Worriers' cluster feel that the Covid-19 crisis has changed their attitude towards shopping in a positive way, even if only to a small degree. This may be linked to the changes in shopping habits developed by the Hungarian population during the pandemic. This points to the need for further research.

Limitations of our research include the difficulty of the survey questions and the complexity of the topic. Respondents may have had difficulty understanding the questions, which affects the reliability of the results. A further limitation is that both shopping and crises are associated with emotions, and it was not possible to explore this during this research. Likewise, there is a lack of understanding of the extent to which responses indicate desired or actual behaviour, which is particularly important in the case of environmentally conscious consumption. All this means that while our analysis was suitable for identifying correlations, we cannot reliably answer the question of what consumer considerations and explanations are associated with the responses and the related behaviour. To understand this, qualitative research will be needed in the future.

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Appendix

Questionnaire questions used in the analysis

Screening questions

Gender? female – male

Age?

Where do you live habitually?

1. capital city
2. city with county rights, county seat
3. other city/town
4. village, parish

Which region do you live in?

What is your highest completed level of education?

1. Up to 8 years of primary
2. Secondary technical school, vocational school
3. Grammar school
4. College, university

Questions

How much do you like shopping in general? Please rate your opinion on a scale of 10, where 1 means you strongly dislike shopping and 10 means you strongly like shopping.

I really don't like shopping	1 – 2 – 3 – 4 – 5 – 6 – 7 – 8 – 9 – 10	I really like shopping
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How much of a task or joy is shopping for you? Please give your opinion on a scale of 1 to 10, where 1 means that shopping is definitely a task for you and 10 means that it is definitely a joy.

task	1 – 2 – 3 – 4 – 5 – 6 – 7 – 8 – 9 – 10	joy
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How much has your attitude to shopping changed as a result of what you experienced during the pandemic? Express your opinion on a scale of 10, where 1 means that it has changed in a negative direction and 10 means it has changed in a positive direction.

changed in a negative direction	1 – 2 – 3 – 4 – 5 – 6 – 7 – 8 – 9 – 10	changed in a positive direction
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How much has the Russia–Ukraine war changed your attitude to shopping? Express your opinion on a scale of 10, where 1 means that it has changed in a negative direction and 10 means it has changed in a positive direction.

changed in a negative direction	1 – 2 – 3 – 4 – 5 – 6 – 7 – 8 – 9 – 10	changed in a positive direction
---------------------------------	--	---------------------------------

How much has rising inflation changed your attitude to shopping? Express your opinion on a scale of 10, where 1 means that it has changed in a negative direction and 10 means it has changed in a positive direction.

changed in a negative direction	1 – 2 – 3 – 4 – 5 – 6 – 7 – 8 – 9 – 10	changed in a positive direction
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How much has the climate crisis changed your attitude to shopping? Express your opinion on a scale of 10, where 1 means that it has changed in a negative direction and 10 means it has changed in a positive direction.

changed in a negative direction	1 – 2 – 3 – 4 – 5 – 6 – 7 – 8 – 9 – 10	changed in a positive direction
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How much do you agree with the following statements? Please express your opinion on a scale of 5, where 1 means you strongly disagree and 5 means you strongly agree.

1.	I am happy to buy as many things as I can.	1	2	3	4	5
2.	I am worried about the future.	1	2	3	4	5
3.	I am happy to try new brands.	1	2	3	4	5
4.	I want to slow down my life.	1	2	3	4	5
5.	I feel a great deal of uncertainty about how to implement my plans.	1	2	3	4	5
6.	Nowadays I consider multiple options for my shopping plans, because I do not know what will be feasible due to the changing circumstances.	1	2	3	4	5
7.	I love shopping.	1	2	3	4	5
8.	I want to speed up my life.	1	2	3	4	5
9.	I try to buy as few things as possible.	1	2	3	4	5

Which of the following groups would you most likely fit yourself into?

- 1 – Young person starting out in life
- 2 – Person with small child(ren)
- 3 – Person with older child(ren)
- 4 – Person with child(ren) no longer living at home
- 5 – Mature single
- 6 – No longer actively working

Where would you classify your family's monthly net income?

1. They make a very good living and can also set aside savings.
2. They make a living, but can put little aside.
3. Just enough to live on, and they can no longer save.
4. Sometimes it is not even enough to make a living.
5. They have daily livelihood problem(s).

Based on economic activity, where would you classify yourself?

- 1 – Full-time worker
- 2 – Part-time worker
- 3 – Public worker
- 4 – On maternity leave, childcare benefit
- 5 – Student
- 6 – Retired
- 7 – Unemployed
- 8 – Other