Purchase preferences in Croatian stores framed by shoppers' demographic characteristics

Vretenar, Nenad; Prudky, Ivan; Kruljac Stanojević, Sandra

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Nenad Vretenar, Ph. D., Associate Professor
University of Rijeka, Faculty of Economics and Business, Croatia
E-mail address: nenad.vretenar@efri.hr

Ivan Prudky, MEcon., Assistant
University of Rijeka, Faculty of Economics and Business, Croatia
E-mail address: ivan.prudky@efri.hr

Sandra Kruljac Stanojević, BEcon.
University of Rijeka, Faculty of Economics and Business, Croatia
E-mail address: sandra.kruljac.stanojevic@gmail.com

PURCHASE PREFERENCES IN CROATIAN STORES FRAMED BY SHOPPERS' DEMOGRAPHIC CHARACTERISTICS

ABSTRACT

The Covid-19 crisis has significantly accelerated the change in shoppers' habits, leaning progressively more towards online shopping. However, with the lessening of the severity of global pandemic conditions, shoppers' habits will likely at least partially return to typical patterns. This research aims to check consumer preferences towards in-store shopping in the Republic of Croatia and analyse differences in choices considering demographic differences among respondents. Gender, age group, education level and respondents' work status were chosen as variables for distinction. The analysis used Mann-Whitney U, Kruskal Wallis H and Dunn Bonferroni's tests to determine significant differences in in-store shopping patterns between demographic (sub)groups. The results, based on analysis of the sample containing 394 respondents, show that, within all examined demographic groups, subjects prefer to shop in-store rather than online. However, distinct demographic subgroups still vary significantly in stated shopping preferences regarding the selected product groups, as well as the patterns of behaviour while shopping in stores.

Key words: *decision making, in-store shopping, preferences, shopping behaviour.*

1. Introduction

Understanding consumer preferences and behaviour patterns have always interested both microeconomics and decision theory. For example, the transitivity of preferences is a prerequisite for many important theories in economics. It is crucial to Savage's model of subjective expected utility (Karni, 2008), which is based on the ability of decision makers to understand their utility curve, which is the result of applying preferences. Understanding consumer behaviour is vital to companies' marketing efforts in the business world. However, in addition to marketing, understanding preferences is crucial for operations management (Grubišić (ed.), 2022) in its key areas such as capacity planning, inventory and supply chain management, etc. Understanding consumer preferences and behaviour is essential after the Covid-19 pandemic disrupted retail business, forcing retailers and their customers to turn to online commerce.

Online purchases from private persons for physical goods within the EU (Eurostat, 2023a) have an increasing trajectory, reaching 18.85% in 2022, with an increase of 0.73 percentage points (pp) compared to 2020 and 0.39 pp to 2021. However, in Croatia, online purchases from private persons for physical goods decreased, reaching 8.07% in 2022. This is a decrease of 1.21 pp compared to 2021 and 4.45 pp to 2020. The same trend is noticeable among product groups online, such as food and beverages (-1.79 pp in 2022/2020), computers, tablets, mobile phones or accessories (-2.93 pp in 2022/2020), consumer electronics and household appliances (-0.64 pp in 2022/2020), except for clothes, shoes or accessories with an increase in online purchases (+4.62 pp in 2022/2020) (Eurostat, 2023c). Therefore, a return to the pre-Covid-19 habits of more frequent shopping in stores is evident. The trend is supported by perceived barriers in online purchases by individuals (Eurostat, 2023d). The most common reasoning for not buying via a website or an app in Croatia were: individuals prefer to shop in person, they like to see products, loyalty to shops or force of habit – 29.04% (EU: 17.4%), individuals have concerns about the cost of delivery of goods – 7.07% (EU: 2.79%) and individuals have concerns about payment security or privacy – 5.82% (EU: 5.61%). The Croatian Bureau of Statistics data (2023) on retail turnover in 2021 and 2022 further confirms the preference for in-store purchases, with a recorded increase of 15.8% (2021 to 2020).

Based on the aforementioned information, this work aims to identify and determine the patterns in the purchase decisions of customer subgroups, especially when shopping in physical stores. The new knowledge that this work should lead to could provide answers to the research questions raised: *is there and how big is the difference in the extent of the preferred form of shopping among customers in Croatia, and does the behaviour while shopping in stores differ among subgroups of customers based on their gender, age group, work status and level of education they have achieved*. The intended impact of this research on decision theory is to shed additional light on the always puzzling behaviour of consumers, particularly with respect to their demographic characteristics. This is particularly important in understanding Croatian shoppers who, unlike shoppers in most other European countries, have taken a step back and returned to the pre-Covid 19 percent of in-shop purchases. This research aims to improve understanding of who these shoppers are and why they prefer to shop in stores. This research could also be useful to retail decision makers, as a better understanding of their customers' behavioural patterns will allow them to better adjust their operational strategies.

The literature review of the paper presents the theoretical framework and explains the chosen demographic determinants of buyers. The following section, Methodology, Sample, and Data, provides insight into the data collection and analysis tools used and an overview of the sample characteristics. The results section provides a general overview of the observed shopper preferences and behaviours, and then presents detailed differences in purchase decisions among demographic subgroups. Finally, the discussion section provides an overview of the research findings, which are contrasted with previous research findings, and concludes with the main findings, limitations, and implications of this paper.

2. Literature review

Despite the increase in online retail channels and the many benefits online shopping offers, physical stores are crucial to customers' shopping experiences (Kim et al., 2020). Online shopping still does not match the value in-store retail gives. It lacks the important physical cues of experiencing products (Rathee & Rajain, 2019; Moon, Choe, Song, 2021; Hermens et al., 2022), shoppers lack trust in the system (Hermens et al., 2022), and it does not meet social interaction needs (Aw et al., 2021; Rummo et al., 2022). In-store and online retail cannot be viewed solely as competition but as complementary businesses (Moon, Choe, Song, 2021). To

survive, shopping stores need to adjust and diversify store functions. To adapt appropriately, the shoppers' in-store decision-making behaviour and the factors to their behaviour need a better understanding. The population and its demographics within some geographical distance from a shopping store represent the potential clients. Customers' behaviour towards any goods is not monolithic, so an analysis of their demographic is needed to understand it.

Considerable research aimed to determine behavioural patterns and preferences in shopping, specifically for each *gender*. When explaining gender differences in in-store behaviour, Luceri and Latusi (2012) found women are more likely to spend more time in stores as shopping is for them a more pleasant activity. A study published by Audrain-Pontevia and Vanhuele (2016) and Kim et al. (2020) showed significant gender differences in in-store shopping where male and female shoppers had different loyalty reasoning and the mental imagery of a store. Hood et al. (2020) observed that men and women influenced their purchase decision behaviour differently during in-store shopping. Moon, Choe and Song (2021) determined that women are likelier to make online purchases, while men prefer shopping in-store. Genders will act differently depending on the type of product purchased (Bašić, Gaćina, Blažević, 2020; Boustani, Sayegh, Boustany, 2022). No difference in the spending habits between men and women was found during in-store shopping, but when conducted online, women tend to spend more (Troung, Troung, 2022).

When considering possible *age* differences, Moon, Choe & Song (2021) find that men in their 20s and 30s are most likely to choose to shop online, confirming research findings from Hood et al. (2020), who determine that younger generations, but not the youngest, are more likely to purchase online. This aligns with results (Audrain-Pontevia, Vanhuele, 2016) that shoppers' loyalty to in-store shopping changes after age 35. Buhaljoti, Habili and Abazi (2022) find shoppers aged 20-29 are most likely to make online purchases, with the intention decreasing with increase of the shoppers' age. Rummo et al. (2022) agree that the likeliness of buying online decreases with age, attributing such behaviour to a lack of social interactions in online purchases. Troung and Troung (2022) find no significant spending differences in age groups while shopping in-store. Önder and Demirel (2022) in their research found that age of the head of the family is among independent variables to affect online shopping frequency, but it is the least effective variable in their research. That is in line with recent research of Ud-Daula and Hassan (2023) where age and gender are significant but least impactful factors in a switch from in-store to online shopping.

Colaço and de Abreu e Silva (2021) and Buhaljoti, Habili and Abazi (2022) find that in-store shopping preferences are negatively related to *education level*. No difference in spending levels during in-store shopping was determined while comparing different education level shoppers. While shopping online, the spending habits were much different, with the higher education level shoppers spending less than the lower education ones (Troung & Troung, 2022). Procher and Vance (2013) found no significance of education on the extent of shopping in stores and are arguing that possessing a driver's licence is a more important factor than education level. İlhan and İşçioğlu (2015) found a positive relation between education level and a probability of buying groceries online. Kumar (2014) showed that level of education strongly influences consumers' information seeking. However, research on influence of education is still inconclusive, as Pattanaik, Mishra and Moharana (2017) found no relation between education level and shopping patterns.

Pattanaik, Mishra and Moharana (2017) found no relation between *work status* and shopping patterns. Shoppers from higher social grades are more likely to buy online than those from lower grades (Hood et al., 2020). Social grade in their research is not the same as work status but is closely related. The authors find that employed individuals are more likely to visit stores on their commute to or from work, which is consistent with Smith et al. (2021) findings that individuals employed full-time or part-time are more prone to revisit physical stores on their

way to/from work. This is in line with pre-pandemic research by Lucieri and Latusi (2016) that employed individuals are more likely to visit more different stores when shopping. This is explained by the greater opportunity to visit them related to their commute. In contrast, Baltas et al. (2010) argued that working shoppers tend to engage in simplified shopping behaviour due to a lack of time. Procher and Vance (2013) found the connection between employment status and gender where employment reduces the relative amount of shopping in stores for women, but they are nevertheless more engaged in shopping than men in comparable employment status. İlhan and İşçioğlu (2015) were exploring engagement of women in online grocery shopping and found that employed women are more likely to shop online.

3. Methodology, sample and data

The empirical research was conducted from May to September 2022 using an online Google Forms questionnaire to collect the appropriate data. The total of 394 respondents filled out the questionnaire giving valid responses, presenting the sample for the research. A few different social networks were used to distribute the online Google Forms questionnaire to reach a diverse respondent group, thus achieving size and, later on, the aimed structure of the sample. The questionnaire consisted of questions that examine consumer shopping habits in in-store and online shopping. The demographic characteristics of the respondents are shown in Table 1, where the diversity of the sample can be observed. It can be observed that most respondents are women and that ¾ of respondents are between 21 to 50 years of age. Five groups of respondents were made based on their work status. Most respondents (75.1%) have an active working status (employed pupils/students, private/public sector employees and entrepreneurs), and almost half are employed in the private/public sector. Respondents are from different levels of education, where the largest subgroups are those with a high school education, followed by those with a university masters.

Table 1: Demographic characteristics of respondents

Category	Item	Frequency	(%)
Gender	Male	109	27.7
	Female	285	72.3
Age group	<21 years	31	7.9
	21-30 years	106	26.9
	31-40 years	91	23.1
	41-50 years	105	26.6
	51-60 years	29	7.4
	60+ years	32	8.1
Work status	Unemployed	71	18.0
	Employed pupil/student	67	17.0
	Entrepreneur	38	9.6
	Private/public sector employee	191	48.5
	Retired	27	6.9
Education level	Lower education	28	7.1
	High school education	175	44.4
	Bachelor education	59	15.0
	University master education or higher	132	33.5

N = 394

Source: Authors

This survey aims to examine and allow a better understanding of buying preferences of distinct product groups. Additional interests in the research were the behaviour of individuals while

shopping: setting a shopping budget, behaviour traits while in-store shopping, frequency of purchasing unnecessary products and satisfaction levels after a shopping experience. As a continuation of the behavioural patterns, the in-store shopping decision-making was questioned in more detail, exploring the importance of specific in-store shopping features. In addition to the general values for selected indicators, the differences among groups of subjects were analysed according to their demographic characteristics (gender, age group, working status and education level). Using IBM SPSS Statistics 20, Mann-Whitney U, Kruskal Wallis H, and Dunn-Bonferroni pairwise comparison tests were conducted to determine the (non)existence of statistically significant differences among certain demographic groups of respondents.

4. Results

The first set of questions referred to the buying preferences for specific product types: groceries, clothing and footwear, technical equipment, and gifts and presents, where respondents could choose more frequent shopping in-store (1) or online (2). Respondents prefer in-store shopping for all product groups (Table 2). Almost all (98.2%) respondents preferably buy groceries in-store, 62% of respondents prefer in-store clothing and footwear purchases, 61.4% for technical equipment in-store, and 67.0% for gifts and presents.

Most respondents (59.9%) claimed to put a limit on their shopping budget. The mean value of 2.98 was noted when evaluating answers to the statement "I often happen to buy products that I don't need" using a Likert scale (1 = disagree - 5 = agree), meaning respondents cannot deny or fully agree with it. The level of satisfaction (1 = dissatisfied - 5 = satisfied) of the respondents after the purchase, both in-store and online, has a mean value of 4.15, indicating that the respondents are mildly satisfied after the shopping activity. Only 2.8% of the respondents showed any level of dissatisfaction. While in the store, 68.0% of the respondents conducted their shopping activity relaxed, without time pressure (1), against 32.0% of those who shop in a hurry, aiming to leave the store as soon as possible (2). When asked about acting in crowds in stores, 50.8% of the respondents claimed they remain calmly waiting to reach the cash registers (1), 28.2% of them decided to visit the store at another point in time (2), and 21.1% gave up on the intended purchases (3).

Table 2: Descriptive statistics on respondents' shopping preferences

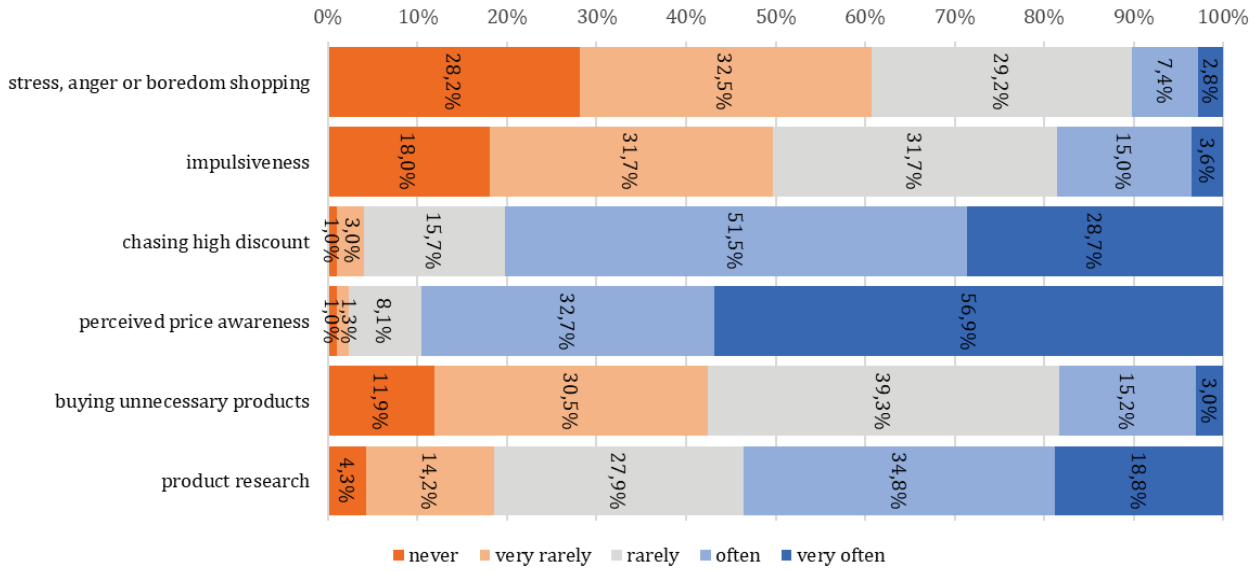
In-store and online shopping	**N**	**Min.**	**Max.**	**Mean**	**Std. Dev.**
Shopping preferences - groceries	394	1	2	1.02	0.132
Shopping preferences - clothes and footwear	394	1	2	1.38	0.486
Shopping preferences - technical equipment	394	1	2	1.39	0.487
Shopping preferences - gifts and presents	394	1	2	1.33	0.471
Shopping budget limit	394	0	1	0.60	0.491
Frequent purchase of unnecessary products	394	1	5	2.98	1.317
Post-shopping satisfaction level	394	1	5	4.15	0.855
In-store shopping	**N**	**Min.**	**Max.**	**Mean**	**Std. Dev.**
Behaviour while shopping in shopping stores	394	1	2	1.32	0.467
Behaviour when encountered by crowds in stores	394	1	3	1.70	0.799
Shopping in stores reasoning: stress, anger or boredom shopping	394	1	5	2.24	1.031
Shopping in stores: impulsiveness	394	1	5	2.54	1.060

Shopping in stores: chasing high discount	394	1	5	4.04	0.811
Shopping in stores: perceived price awareness	394	1	5	4.43	0.779
Shopping in stores: buying unnecessary products	394	1	5	2.67	0.974
Shopping in stores: product research	394	1	5	3.49	1.082
Shopping in stores: staff kindliness importance	394	1	5	4.52	0.714
Shopping in stores: routine or urgency	394	1	5	3.28	1.275
Shopping in stores: communication with people	394	1	5	2.55	1.344

Source: Authors

The further focus of the analysis in this paper was in-store shopping decision-making behaviour. Respondents evaluated the statements offered to describe in-store shopping with the help of a Likert scale measurement (1 = never - 5 = very often). Table 2 summarises the mean value of the responses, and Figure 1 the share of respondents' answers. On average, stress, anger or boredom is rarely a reason for shopping (M = 2.24). Similarly, respondents state that (very) rarely buy impulsively while shopping in-store (M = 2.54). The proportion of those who often or very often buy impulsively is 18.6%. The statement about buying unnecessary products can be directly connected to impulsiveness. Respondents rarely buy unnecessary products during in-store shopping (M = 2.67), with 18.2% of respondents claiming to purchase unnecessary products often or very often. Comparing the previous values to the reported frequency of unnecessary products in general, regardless of the form of shopping (M = 2.98), it is possible to conclude that respondents are less likely to buy impulsively or to buy unnecessary products while shopping in-store. The reasons can be derived from the remaining claims the respondents evaluated. More than half of respondents use in-store shopping for product research (M = 3.49). As much as 89.7% claim that when in-store shopping often or very often, they have a good idea of product prices (M = 4.43). Price levels as a decision-making argument for in-store purchases are also visible from the statement on chasing high discounts (M = 4.04), for which 80.2% of respondents claim to do often or very often while shopping in-store.

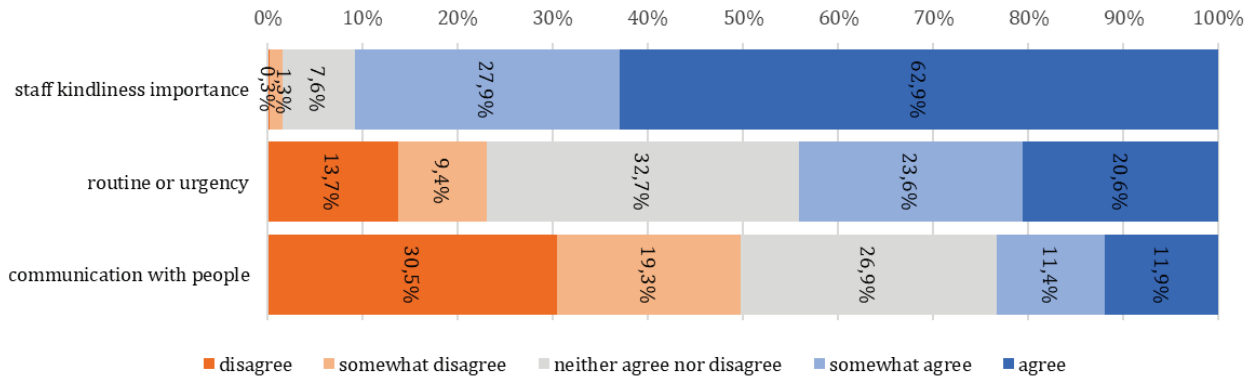
Figure 1: Respondents' in-store shopping behaviour



Source: Authors

In the last segment of Table 2 and Figure 2, some specific factors of in-store shopping are examined. Respondents assessed the level of agreement with the stated statements on a Likert scale (1 = disagree - 5 = agree). Staff kindliness is very important to the respondents (M = 4.52), as 90.8% agree or somewhat agree. However, when buying in-store, communication with people proved not particularly important (M = 2.55). Only 23.3% agree or somewhat agree that communication with people is why they choose in-store purchases instead of online purchases. Another reason for choosing in-store shopping is routine or urgency, but the respondents cannot fully agree with this statement nor refute it (M = 3.28). In more detail, 44.2% of respondents agree or partially agree that they do their in-store shopping out of routine or urgency, 32.7% are indecisive, and 23.1% disagree or somewhat disagree.

Figure 2: Respondents' in-store shopping factors



Source: Authors

In addition to the general values in the interest of research, differences among sub-groups of respondents according to gender, age, working status and level of education have been observed. Mann-Whitney U tests were utilised to compare the differences between the gender

groups, and Kruskal Wallis H tests were conducted for other demographic groups. Dunn's post hoc pairwise comparison tests adjusted with the Bonferroni error correction were used to determine the groups showing significant differences.

4.1. Gender based differences

Using the Mann-Whitney U test for shopping activities based on the gender of the respondents (Table 3), two product groups showed statistically significant differences between male and female respondents. Female respondents show lower tendencies to shop for clothes and footwear in-store as opposed to tendencies to shop online than their male counterparts. In contrast, men show a lower level of in-store shopping for technical equipment than women. Regarding shopping behaviour for groceries, gifts and presents, no significant difference was present when comparing the two groups. Shopping budget limitations and post-shopping satisfaction levels are equal among genders. Statistically significant differences were present for the frequency of unnecessary purchases, where the female respondents had a higher mean value.

Table 3: Mann-Whitney U test for shopping activities based on gender

	Shopping preferences - groceries	**Shopping preferences - clothes and footwear**	**Shopping preferences - technical equipment**	**Shopping preferences - gifts and presents**	**Shopping budget limit**	**Post-shopping satisfaction level**	**Frequent purchase of unnecessary products**
Mann-Whitney	15348.000	12140.000	11799.500	15525.500	14293.500	13846.500	13056.500
Wilcoxon W	21343.000	18135.000	52554.500	56280.500	20288.500	19841.500	19051.500
Z	-0.797	-3.994	-4.378	-0.008	-1.443	-1.781	-2.506
Asymp. Sig. (2-tailed)	0.425	0.000	0.000	0.993	0.149	0.075	0.012

Grouping variable: Gender

Source: Authors

Table 4 shows influencing factors on in-store shopping decisions between genders. The only significant differences were in-store shopping reasoning of stress, anger and boredom, and impulsiveness, where for both behaviours, female respondents showed a higher mean value than men. Regardless of the shopping site (on-site or online), women are likelier to buy unnecessary products from men. For the other factors, such as chasing high discounts, perceived price awareness, the possibility of product research and the frequency of purchasing unnecessary products, no significant differences between women and men were evident.

Table 4: Mann-Whitney U test for statements influencing in-store shopping decisions based on gender

	Stress, anger or boredom shopping	Impulsiveness	Chasing high discount	Perceived price awareness	Buying unnecessary products	Product research
Mann-Whitney	12847.000	13308.500	14114.500	14725.000	14088.000	13698.500
Wilcoxon W	18842.000	19303.500	20109.500	20720.000	20083.000	54453.500
Z	-2.772	-2.284	-1.534	-0.904	-1.501	-1.884
Asymp. Sig. (2-tailed)	0.006	0.022	0.125	0.366	0.133	0.060

Grouping variable: Gender

Source: Authors

4.2. Age group based differences

The succeeding demographic determinant analysed was the age of the respondents. The six age groups are formed, as shown in Table 1. The Kruskal Wallis H test results provided evidence of significant differences between age groups only when buying clothes and footwear. No significant difference was present for buying the other product groups (Table 5). Dunn's pairwise comparison tests were carried out for the age groups. Strong evidence was found of a difference between the groups 60+ and 21-30 years old ($p = 0.001$). The younger age group favoured online shopping when buying clothes and footwear ($M = 1.509$), while the most senior age group heavily chose in-store shopping ($M = 1.125$). There are also significant differences in post-shopping satisfaction levels between the 60+ group to the age groups less than 20 years ($p = 0.008$) and 21-30 years ($p = 0.015$). The younger age groups show higher levels of satisfaction (<21 years: $M = 4.516$; 21-30 years: $M = 4.340$) than the oldest age group (60+ years: $M = 3.719$). Significant differences in frequent purchases of unnecessary products were found between age groups 41-50 years and 21-30 years ($p = 0.018$), where the older age group was less frequently purchasing unnecessary products ($M = 2.695$) than the younger ($M = 3.292$).

Table 5: Kruskal Wallis H test for shopping activities based on age groups

	Shopping preferences - groceries	Shopping preferences - clothes and footwear	Shopping preferences - technical equipment	Shopping preferences - gifts and presents	Shopping budget limit	Post-shopping satisfaction level	Frequent purchase of unnecessary products
Chi-Square	4.479	20.379	10.708	6.633	10.688	18.519	16.706
Df	5	5	5	5	5	5	5
Asymp. Sig.	0.483	0.001	0.057	0.249	0.058	0.002	0.005

Grouping variable: Age group

Source: Authors

No significant differences were found among age groups regarding the influencing factors for in-store shopping decisions (Table 6), behaviour while encountering crowds, or the importance of staff kindliness (Table 7). Significant differences were confirmed for in-store shopping reasoning of routine, urgency, and communication with people. The age group 60+ shows significant differences in choosing in-store shopping because of routine or urgency compared

to the other age groups having a much higher tendency for in-store shopping because of this specific determinant (M = 4.125) than the other age groups. Similar results were encountered with the determinant communication with people. Once again, the age group 60+ years has significantly different results (M = 3.313) than the respondents from the two youngest age groups (<20 years: M = 2.161; 21-30 years: M = 2.123).

Table 6: Kruskal Wallis H test for statements influencing in-store shopping decisions based on age groups

	Stress, anger or boredom shopping	Impulsiveness	Chasing high discount	Perceived price awareness	Buying unnecessary products	Product research
Chi-Square	2.963	9.878	9.173	2.642	4.563	6.661
Df	5	5	5	5	5	5
Asymp. Sig.	0.706	0.079	0.102	0.755	0.471	0.247

Grouping variable: Age group

Source: Authors

Table 7: Kruskal Wallis H test for statements influencing in-store shopping determinants based on age groups

	Behaviour while shopping	Behaviour when encountered by crowds	Staff kindliness importance	Routine or urgency	Communication with people
Chi-Square	9.809	9.117	2.932	20.361	25.678
Df	5	5	5	5	5
Asymp. Sig.	0.081	0.105	0.711	0.001	0.000

Grouping variable: Age group

Source: Authors

4.3. Work status based differences

The analysis of differences in shopping behaviour regarding the respondent's work status (see Table 1) showed significant differences while shopping for clothes, footwear and technical equipment (Table 8). Regarding clothing and footwear purchases, a significant difference occurred while comparing the shopping habits of employed pupils/students and retirees (p = 0.001). Employed pupils/students turn to online shopping (M = 1.552), contrasting retirees who choose in-store shopping (M = 1.111), aligning with behavioural differences based on age groups. The younger age groups preferred online shopping for clothes and footwear, and the oldest group heavily favoured in-store shopping. The significant difference between different works status groups regarding technical equipment purchases is between entrepreneurs and retirees (p = 0.027), where the entrepreneurs tend to buy technical equipment more online (M = 1.553), in sharp contrast to the retirees (M = 1.185). Significant differences for the remaining product groups were not determined. The work status groups had statistically different habits in setting shopping budget limits, frequent purchases of unnecessary products and their post-shopping satisfaction level. Retirees (M = 0.815) were most adhered to setting a budget limit and significantly different (p = 0.05) from the entrepreneurs who were more relaxed with their shopping limits (M = 0.473). Employed pupils/students purchased more frequently unnecessary products (M = 3.567), which was significantly different to public/private sector employees (p = 0.003) and retirees (p = 0.002), who were much more careful with their purchases (M = 2.874 and M = 2.444 respectively). Evident differences occurred between the same groups regarding their post-shopping satisfaction level. Very satisfied (M = 4.522) were the employed

pupils/students, different to less satisfied private/public sector employees (p = 0.004) and retirees (p = 0.000).

Table 8: Kruskal Wallis H test for shopping activities based on work status

	Shopping preferences - groceries	Shopping preferences - clothes and footwear	Shopping preferences - technical equipment	Shopping preferences - gifts and presents	Shopping budget limit	Post-shopping satisfaction level	Frequent purchase of unnecessary products
Chi-Square	2.682	17.419	12.966	4.988	14.766	22.851	18.194
Df	4	4	4	4	4	4	4
Asymp. Sig.	0.612	0.002	0.011	0.289	0.005	0.000	0.001

Grouping variable: Work status

Source: Authors

The only significant differences regarding the influencing factors for in-store shopping decisions found among the respondents with different work statuses were impulsiveness and chasing high discounts (Table 9). Retirees were less likely to impulsively buy in-store (M = 2), significantly different (p = 0.013) to employed pupils/students (M = 2.791) but were more likely to chase high discounts in-store (M = 4.296) than entrepreneurs (p = 0.07, M = 3.711). No significant differences among work status groups regarding shopping in-store behaviour were proven. Still, some were evident while encountering crowds (Table 10), where employed pupils/students and entrepreneurs acted differently (p = 0.013). Employed pupils/students were most likely to remain calmly waiting to reach cash registers (M = 1.493), while entrepreneurs would choose to visit the store at another time (M = 2). Staff kindliness is equally important across all the work status groups. Lastly, significant differences were evident in choosing in-store shopping because of routine or urgency and communication with people reasoning. Employed pupils/students, like the youngest respondents, least favourably chose in-store shopping because of routine or urgency (M = 3.015). This is significantly different (p = 0.042) from the retirees who, like the oldest age group, most agreed to choose in-store shopping precisely because of that reason (M = 3.889). Retirees also tend to choose in-store shopping because of the communication with people (M = 3.333), which is significantly different to employed pupils/students (p = 0.017) as well as to the unemployed subgroup (p = 0.011), who somewhat disagree with that statement (M = 2.329 and M = 2.338 respectively).

Table 9: Kruskal Wallis H test for statements influencing in-store shopping decisions based on work status

	Stress, anger or boredom shopping	Impulsiveness	Chasing high discount	Perceived price awareness	Buying unnecessary products	Product research
Chi-Square	2.777	11.397	10.252	2.224	9.332	2.513
Df	4	4	4	4	4	4
Asymp. Sig.	0.596	0.022	0.036	0.695	0.053	0.642

Grouping variable: Work status

Source: Authors

Table 10: Kruskal Wallis H test for statements influencing in-store shopping determinants based on work status

	Behaviour while shopping	Behaviour when encountered by crowds	Staff kindliness importance	Routine or urgency	Communication with people
Chi-Square	6.955	11.531	3.679	10.551	12.909
Df	4	4	4	4	4
Asymp. Sig.	0.138	0.021	0.451	0.032	0.012

Grouping variable: Work status

Source: Authors

4.4. Education level based differences

This analysis showed different shopping patterns amongst separate education level groups (Table 11). Statistical differences were found among the groups for all product groups offered. While buying groceries, a significant difference occurs between the high school education group and the group with a university master's education or higher ($p = 0.003$), where the higher educated group shows some higher preference for buying groceries online. Significant differences appear between the two groups while shopping for clothes and footwear ($p = 0.020$), where the lower educated ($M = 1.143$) are most likely to choose in-store shopping. In contrast, the higher school educated are almost equally likely to choose between online and in-store shopping for clothes and footwear ($M = 1.440$). Significant differences also exist among groups when buying technical equipment. The lowest education group almost exclusively buys technical equipment in-store ($M = 1.036$), while the highest education level group tends to buy technical equipment online ($M = 1.523$). Regarding purchasing gifts and presents, significant differences ($p = 0.039$) occur between the lower education group and the university master or higher education group, where the highest-educated group uses online shopping significantly more ($M = 1.409$) than the lowest-educated group ($M = 1.143$). Other shopping behaviours also differ from the different education level groups. Shopping budget limitation, frequency of unnecessary product purchases and post-shopping satisfaction levels are all significantly different. Lower education respondents stick more strictly to a set budget limit ($M = 0.750$), in contrast to ($p = 0.050$) the university masters or higher education ($M = 0.507$). The frequency of purchasing unnecessary products significantly differs among university master's or higher education and high school education respondents ($p = 0.050$), with the high school education respondents buying such products more frequently ($M = 3.154$). The post-shopping satisfaction level shows significant differences between the lower education group and high school education ($p = 0.010$) and bachelor education level ($p = 0.001$). Expectedly, the lower education group responses had the lowest value ($M = 3.428$), but all groups tended to be mildly satisfied after the shopping activity.

Table 11: Kruskal Wallis H test for shopping activities based on education level

	Shopping preferences - groceries	Shopping preferences - clothes and footwear	Shopping preferences - technical equipment	Shopping preferences - gifts and presents	Shopping budget limit	Post-shopping satisfaction level	Frequent purchase of unnecessary products
Chi-Square	14.109	9.812	28.801	9.149	8.589	19.253	10.677
Df	3	3	3	3	3	3	3
Asymp. Sig.	0.003	0.020	0.000	0.027	0.035	0.000	0.014

Grouping variable: Education level

Source: Authors

Evidence of differing reasoning for in-store shopping decisions amongst distinctive education level groups is shown in Table 12. Impulsive in-store shopping behaviour significantly differed amongst the groups. The lower education level group had significantly different results than the bachelor education ($p = 0.043$) and the university master or higher education level group ($p = 0.021$). The lower education level group rarely impulsively decides to shop in-store ($M = 2.036$). In contrast, the bachelor education ($M = 2.661$) and the university master or higher education level group ($M = 2.614$) are proven to be more likely to make such decisions. The decision to shop in-store because of chasing high discounts also gave different results for the groups. The lower education level shoppers would more often choose in-store shopping because of the store's high discounts ($M = 4.464$). Such behaviour was significantly different to the remaining education level groups ($p = 0.017$; $p = 0.029$; $p = 0.006$), all of which would still often do in-store shopping because of the same. In-store shopping decisions because of product research also differed amongst the groups. The differences were significant between university master's or higher education and high school education ($p = 0.006$) and lower education level groups ($p = 0.002$). The highest educated group would often shop in-store because of product comparison ($M = 3.780$) than the two lower education level groups. No differences among the education level groups were evident within the stress, anger or boredom and perceived price awareness in-store shopping decisions, nor were they for buying unnecessary products. Once again, it is indicative that while in-store shopping, the frequency of purchasing unnecessary products is lower than the general mean value of in-store and online shopping combined.

Table 12: Kruskal Wallis H test for statements influencing in-store shopping decisions based on education level

	Stress, anger or boredom shopping	Impulsiveness	Chasing high discount	Perceived price awareness	Buying unnecessary products	Product research
Chi-Square	7.661	9.197	11.173	3.990	5.687	18.378
Df	3	3	3	3	3	3
Asymp. Sig.	0.054	0.027	0.011	0.263	0.128	0.000

Grouping variable: Education level

Source: Authors

Noticeable were the differences in behaviour while shopping in stores and when encountering crowds (Table 13). For both behavioural patterns, significant were the differences between groups with high school education and university master's or higher. The high school educated respondents to conduct their in-store shopping relaxed, without time pressure ($M = 1.240$), which is different from ($p = 0.004$) the highest educated group, who more often try to leave the

store as soon as possible (M = 1.424). The same pattern can be transposed to encountering crowds in stores. Although both groups tend to visit the store at some other time, the high school education level group shows a preference to calmly wait to reach the cash register (M = 1.554). University master's or higher education level respondents act differently (p = 0.008) and are more prone to leave and visit at another time (M = 1.856). Staff kindliness and communication with people importance do not differ amongst the groups. The differences were evident for shopping in stores because of routine or urgency. Significant differences were present between the lower education level group and all the other groups (p = 0.022; p = 0.002; p = 0.003), as they had the highest mean values (M = 4.071), somewhat agreeing with the statement of shopping in stores because of routine or urgency.

Table 13: Kruskal Wallis H test for statements influencing in-store shopping determinants based on education level

	Behaviour while shopping	Behaviour when encountered by crowds	Staff kindliness importance	Routine or urgency	Communication with people
Chi-Square	11.950	11.380	1.790	14.415	5.463
Df	3	3	3	3	3
Asymp. Sig.	0.008	0.010	0.617	0.002	0.141

Grouping variable: Education level

Source: Authors

5. Discussion

The analysis in this research showed that in-store shopping remains the dominant method for purchasing clothes and footwear, technical equipment, gifts and presents, especially groceries. Somewhat unexpectedly, routine or urgency is not the principal reason for choosing in-store shopping, and communication with people is even less important. However, staff kindliness is very important to shoppers. In-store shopping is conducted in a relaxed manner, without high time pressure. Infrequent occasions of stress, anger or boredom shopping and rare occurrences of impulsive shopping support the same. The frequency of unnecessary product purchases declines while shopping in stores, as shoppers often choose in-store shopping for product research and can very often easily perceive product prices.

Female shoppers are more likely to buy unnecessary products in general, but this is not true when shopping in-store. Impulsive in-store shopping or shopping because of stress, anger or boredom is more common with female shoppers. Moreover, women are likelier to shop for clothes and footwear online than men, i.e., comparatively less likely to shop in-store. Conversely, men are comparatively more prone to shop online when buying technical equipment, meaning women will be more in-store-oriented. These findings are in line with Boustani, Sayegh and Boustany (2022) but are different to Bašić, Gaćina and Blažević (2020) results that men more frequently buy tech products in-store.

The age of shoppers has proven to be influential with specific shopping determinants. Generally, shoppers up to 30 years of age buy unnecessary products more frequently than older ones, but not while shopping in stores. The younger shoppers are more satisfied after shopping than the older ones. As for the different product groups, significant differences occur only for clothing and footwear, for which the younger generations prefer online shopping. The 60+ year-old shoppers choose to shop in stores because of routine or urgency much more frequently than

all the other groups, and communication with people is, compared to different age groups, the most important determinant for choosing in-store shopping. These findings are relatable to the findings of Hood et al. (2020) and Moon, Choe and Song (2021), who found that younger people are more likely to buy online, as it is with Audrain-Pontevia and Vanhuele (2016) and Rummo et al. (2022) who found that older people are more likely to purchase in-store.

Somewhat foreseen by the previous demographic characteristics of shoppers is the influence of different work status groups. Employed pupils/students are most likely to wait in line when encountered by crowds in shopping stores and are the most likely to purchase unnecessary products. They prefer to buy clothing and footwear online and are the least likely to choose in-store shopping because of routine, urgency, or communication with people. Entrepreneurs are the least likely to set a shopping budget. If encountered by crowds, they will leave the store and come by at another time. This group is the most likely to buy technical equipment online. Private/public sector employees are less likely to buy unnecessary products, with retirees doing so the least. Retirees are also firm in setting budget limits. They choose in-store shopping because of routine or urgency and care the most about communication with people while shopping in shopping stores. They are almost sure to buy clothes, footwear, and technical equipment in shopping stores. These results contradict Troung and Troung (2022), who found no statistically significant differences between these groups.

Shoppers with lower education levels are the least likely to purchase products online, and they are most likely to set a shopping budget limit and have the lowest post-shopping satisfaction levels. They tend to shop in stores because of routine or urgency, are not prone to product research in stores, and do not shop impulsively, mostly chasing high discounts. High school education level shoppers buy groceries solely in-store. Still, they tend to buy clothes and footwear online, are most likely to buy unnecessary products, and are, together with bachelor education level shoppers, most satisfied post-shopping. While in the shopping store, they are relaxed, without time pressure, and calmly waiting in crowds to reach the cash register. Such shopping behaviour overlaps with younger shoppers and employed students/pupils. Bachelor and higher education level shoppers are the most likely to buy technical equipment online and to shop impulsively in stores. University masters or higher education shoppers will more often buy groceries online and are most likely to buy gifts and presents online. They are the least likely to set shopping budgets. They choose in-store shopping because product research is most important to them, but they will try to leave the shopping store sooner than later and visit it when less crowded. The tendency to lean towards online shopping for highly educated people is in line with the findings of Hood et al. (2020).

6. Conclusion

The Covid-19 pandemic has disrupted consumer habits and retailers' business practices, so a new balance between online and in-store shopping is sought. Statistical data show that the percentage of online purchases in Croatia is lower than the EU average, consistent with the research presented in this paper that showed consumers prefer shopping in-store for all product types. However, the consumer behaviour patterns and preferences analysis revealed some interesting statistically significant differences between the subsamples when respondents were grouped by age, gender, education level, and work status. By and large, the results confirm findings from previous research by other authors. However, not all research on this topic leads to similar conclusions about consumer decision patterns based on demographic analysis, so understanding consumer behaviour remains of interest to researchers and businesses. The

implications of this research to scholars is mainly that it provides additional insight into consumers' behaviour and provides an incentive for further research into factors framing decision making. For business practitioners, this research could provide an opportunity to further tailor their interventions to meet the needs of their customers. This research also has some limitations, some of which are due to the sample. The distribution of the data in the sample required the use of non-parametric methods. In addition, a larger sample size, harmonising the size of the subgroups, could allow better results. Another limitation relates to the questionnaire, as respondents who had no prior experience with online shopping were not asked to answer questions about their attitudes toward online shopping. Including their responses would allow for a better understanding of the concerns or barriers they face. In addition to overcoming these shortcomings, future research should also explore the reasons why some customers tend to avoid shopping in stores.

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