Article

Potential Impacts of Diversification of Food Retail Working Hours on Consumer Behaviour and the Benefits for Local Producers

Liga Proskina , Lana Janmere , Sallija Cerina , Irina Pilvere * , Aija Pilvere , Aleksejs Nipers , Daniela Proskina

Posted Date: 11 September 2024

doi: 10.20944/preprints202409.0902.v1

Keywords: agri-food; consumer behavior, food retail; Sunday trade regulation; local food trade

Article

Potential Impacts of Diversification of Food Retail Working Hours on Consumer Behaviour and the Benefits for Local Producers

Liga Proskina [1], Lana Janmere [1], Sallija Cerina [2], Irina Pilvere [3,*], Aija Pilvere [3], Aleksejs Nipers [3] and Daniela Proskina [3]

[1] Latvia University of Life Sciences and Technologies, Latvia
[2] Institute of Agricultural Resources and Economics, Latvia
[3] Latvia University of Life Sciences and Technologies, Latvia
* Correspondence: irina.pilvere@lbtu.lv; Tel.: +371 29217851

Abstract: The capability of large food retail chains to respond quickly to changes in consumer behaviour and their dominant market position affects all food market players and often conflicts with the interests of national food producers, which can reduce the presence of locally sourced products in the food product mix in the country. In Latvia, there have been several proposals to limit retailers' opening hours on weekends and public holidays to increase the viability of small local food producers, retailers, and catering enterprises; however, limiting retailers' opening hours without research-based arguments is unacceptable. The research studies conducted in Europe also do not give a unified conclusion. Household consumer behaviour in the food market is viewed as an essential argument for increasing domestic demand and economic stability. Accordingly, the present research aims to identify the impacts of diversification of opening hours of food supermarkets on consumer shopping habits and the implications for creating an advantage for small and medium agri-food producers in selling their products. The research applied a quantitative approach to identify the main trends in society (n=2738), with a survey including 31 variables to quantify consumer behaviour, values, and opinions and seven socio-demographic variables. If a decision were made in Latvia to close grocery shops on Sundays or reduce their opening hours on weekends, 85% of consumers indicated that they would be unlikely to change their usual shopping location and would plan to shop at a supermarket on other days. The choice between farmers' markets and local food shops on Sundays would be made by 45% of consumers, with more than half (53%) of them shopping at local food shops at least a few times a month. It could, therefore, be argued that reducing the opening hours of supermarkets and closing them on Sundays and public holidays do not provide a competitive advantage and do not divert consumers to small and medium agri-food producers.

Keywords: agri-food; consumer behavior; food retail; Sunday trade regulation; local food trade

1. Introduction

Food security is strategically vital for every country, and a well-developed food system significantly impacts food availability and the population's ability to enjoy a balanced and sustainable diet. From a national perspective, food produced in a country is linked to national security, sustainability, and local economic growth, thereby contributing to production, employment, and rural development [1]. Food retailing is essential in the entire food system, bringing produced and processed food to consumers [2,3]. The global food and grocery retail market is estimated at USD 11 932.5 billion in 2023 and USD 3 256.1 billion in Europe and is expected to grow at a compound annual growth rate (CAGR) [4,5] of 3.2% between 2024 and 2030. Alongside the strong growth of

 doi:10.20944/preprints202409.0902.v1

supermarkets, consumer interest in buying local produce at farmers' markets, directly from the producer, etc., is increasing yearly. In European countries, this demand varies from country to country, ranging from 5-32% [6], yet in most cases there is a positive demand trend.

Large food retail chains are focused on marketing activities in line with consumer needs and expectations and can respond quickly to changes in consumer behaviour. However, the economic interests of large retailers often contradict the interests of national food producers, which, to a large extent, reduces the presence of locally sourced products in any country's retail food product mix. Research on the economically desirable ratio of imported to national food products on supermarket shelves is virtually non-existent. Yet, some research studies suggest that national grocery chains supply up to 15% more local (nationally produced) food products than international retail chains do [7]. From an economic perspective, the potential for marketing (location and type) food is directly affected by product-specific characteristics, e.g., the shelf life or historical recognition in the particular market, as well as the ability of the producer to provide a regular and sufficient supply of the product to the retail market. However, the concentration of market power by a few retailers increases the pressure on the supply chain and the dependence of local producers and suppliers on them through unilateral market pricing [8,9].

In 2022 in Latvia, the food retail turnover totaled EUR 3815 million, and the annual rate of change in retail sales was 4.2%. The food retail segment is comprised of 13 national and international chains that provide food retail opportunities to 1.88 million people (at the beginning of 2023) [10]. In 2022, the two largest chains (RIMI LATVIA Ltd. and MAXIMA Latvija Ltd.) had an indicative market share of almost half (47.5%) in terms of turnover [11], while the five largest chains accounted for 72.2% of the total retail turnover. The remaining market players – small chain shops and small shops – control a small market share of around a few percent. It could, therefore, be argued that there are serious concerns about fair competition for the products of local producers and suppliers. At the same time, it should be noted that both supermarkets and non-chain grocery shops sell mainly so-called long-term food products and few short-expiry or short-term products [12]. This requires seeking ways to increase the share of domestically sourced food in retail sales by encouraging consumers to buy locally grown and produced food.

Reducing the opening hours of food retailers on weekends and/or public holidays is often viewed as a potential support mechanism to improve the competitive situation of local small and medium food producers/retailers, to encourage higher consumer activity in local farmers' markets, specialist shops, etc [13]. Global trends show that some countries have experience with closing some shops on weekends, while some countries have abandoned this idea. European Union (EU) law allows each Member State to set its policy concerning working on Sundays. Yet, the European Commission recommends lifting bans on retail opening hours as one of three key recommendations to increase retail competition and make the single retail market more open. Therefore, the EU Member States apply different approaches to regulating shop opening hours, e.g., strict regulation of opening hours and bans on Sundays and/or public holidays in Germany, Austria, Spain, and Poland; shorter opening hours or some restrictions on certain public holidays, e.g., in the Czech Republic, Greece, Slovakia and in the Member States not regulating food retail opening hours: Latvia, Lithuania, Finland, Ireland, etc. [14].

Similarly, several proposals have been made in Latvia to limit the opening hours of food retailers on weekends and public holidays to increase the viability of small local food producers, retailers, and catering enterprises. In this respect, the consumer is essentially the decisive factor. i.e., whether s/he is willing to change his or her usual shopping location and convenience in favour of visiting local shops and farmers' markets on weekends and public holidays, which is the main focus of the present research.

Household consumption behaviour is perceived by many researchers as an essential argument for the growth of domestic demand and economic stability. For example, in Hungary, a decision made in 2015 to limit the opening hours of shops in response to a public backlash was reversed a year later (2016). As regards the food industry, it could be argued that consumer behaviour is a sensitive issue that directly affects food production and marketing [15]. Even though, according to economic

 doi:10.20944/preprints202409.0902.v1

theories, food has an inelastic demand due to its significance in household consumption, the growing supply of food in the market and the rapid increase in the cost of food (food price inflation in Europe was expected to average 12.8% in 2023) [16] force consumers to choose a particular product. Buyer behaviour is determined by the lifestyle, financial situation, and the place of residence. Habits change temporarily, of course, but some circumstances prevent them from becoming a general principle of life. Consumers make decisions about the choice of a shop and products, the frequency and timing of shopping, and adjust their food expenses to their means and preferences, thereby actually choosing the products of particular producers.

Research shows that the most important criteria for buying food in Latvia are quality and price [6,17,18]. In the case of price, Latvian households have historically spent a higher proportion of their income on food compared with the European average; in 2022, according to Eurostat data, the EU27 average was 13.6%, while in Latvia it was 19.6% [19], which partly explains why Latvian residents are price-sensitive when it comes to their food choices. Another important aspect is that consumers also attach great importance to the country of origin and the producer when buying food for household needs [17], thereby indicating local patriotism towards national food producers [20] and stressing support for food production practices that balance environmental, biodiversity and social needs [21]. In Latvia, however, locally sourced food accounted for only 45% of the shopping basket, while the remaining 55% was imported food [22].

The present research aims to identify the impacts of diversification of opening hours of food supermarkets on consumer shopping habits and the implications for creating an advantage for small and medium agri-food producers in selling their products. The research raised the following questions: 1) what is the consumer's attitude towards closing shops on Sundays, and will the consumer behaviour change; 2) will consumers make purchases in small local specialist shops and farmers' markets if the opening hours of supermarkets are reduced or the supermarkets are closed on holidays.

2. Materials and Methods

A quantitative research approach was applied to examine the aspects of Latvian consumers' food purchasing behaviour and the role of supermarkets as food outlets, as well as the consumers' views on the potential closure of supermarkets on Sundays or the reduction of the opening hours on weekends to identify key trends in society rather than focusing on individual specific cases. The data collection method was a survey, and a questionnaire was designed for it. The questionnaire included 31 variables for the quantitative measurement of consumer behaviour, values, and opinions and seven variables for identifying the socio-demographic status of consumers: -1) for measuring food purchasing habits, the questionnaire asked: "What have been your shopping habits in the last month?". The question included eight variables measured on a symmetric scale of frequency from 1 to 5: always, often, sometimes, rarely, and never; 2) for identifying consumers' values concerning the choice of a particular outlet, the questionnaire asked: "When you think about where to buy food, how important are various aspects of the choice of an outlet to you?". The question included seven variables measured on a symmetric scale of importance from 1 to 4: very important, partly important, unimportant, very unimportant; 3) for identifying the most popular food shops for consumers, the questionnaire asked: "How often do you shop at various outlets to get the food you and your family need?". The question included seven variables, measured on a symmetric scale of frequency from 1 to 5: several times a week, once a week, a few times a month, less than once a month, never; 4) for identifying when consumers buy food, the questionnaire asked "On which days of the week do you usually buy food for yourself or your household?" The question included three variables measured on a symmetric scale of frequency from 1 to 5: always, often, sometimes, rarely, never. In addition, the respondents were offered a reply option "no answer"; 5) to identify what consumers would do if the opening hours of food supermarkets were changed, the questionnaire asked: "What would be your action and situation if a decision were made in Latvia to close food supermarkets on Sundays and/or reduce the opening hours on weekends?". The question included six variables measured on a Likert scale from 1 to 4: definitely yes, rather yes, rather no, definitely no; 6) the questionnaire also

 doi:10.20944/preprints202409.0902.v1

asked questions about the respondent's gender, age, places of residence, income, involvement in food retail as well as in shopping for food for their households to identify their socio-demographic status.

The survey of consumers was conducted electronically by publishing a link to the questionnaire on various publicly accessible websites between 1 September and 30 September 2023. The electronic questionnaire was restricted for data quality control purposes and could only be completed once per electronic device. A press release was made to publicize the survey and attract respondents, which was sent to the national media used as an information channel by the population of Latvia. Printed media published it, and information about the survey was broadcast on the national television channel Latvian Television. Thus, a non-probability convenience sample was made to select consumers, allowing for a broad stakeholder representation in the survey.

Table 1. Sociodemographic characteristics of the respondents, n=2738.

Criteria	Percentage of respondents, %
Gender	
Woman	76
Man	24
Age, years	
18-34	20
35-44	23
45-54	27
55-64	21
65 and older	9
Place of residence	
State City*	52
City/town**	34
Rural municipality	14
Involvement in shopping for food	
I do most of the grocery shopping	63
I share shopping with other household members (spouse, parents, children or others)	36
Food is purchased by another member of the household	1
Average income per household member over the last six months (after taxes)	
Less than 499 EUR	15
500-899 EUR	36
900-1299 EUR	23
1300-1699 EUR	10
1700 EUR and more	16
Employed in a grocery shop	
Yes	8
No	92

**The State city category included the capital, Riga, with 605 000 inhabitants, and the largest 9 cities, with a population of 21-80 thousand. **The city/town category included populated places with a population of 1-20 thousand. Source: authors' calculations.*

The sample consisted of 2738 Latvian residents from different socio-demographic groups. Although the representation of individual groups was not proportional to the general population, the sample size was sufficient to conclude the main trends in consumer behaviour and opinions. According to the data of the Central Statistics Office of Latvia, in 2023, there were 1.24 million inhabitants aged 18-69 in the country [10]. The minimum number of in-habitants for a reliable study of customer results is 385 respondents (95% confidence level, 5% error) [23]. Still, since the non-probability, availability sampling method was used, the number of respondents increased significantly (n=2738).

Various descriptive statistics were used in survey data analyses. The frequency distribution of all the variables included in the questionnaire was expressed in relative terms (%). At the same time, the arithmetic mean (M) indicated the average trend of the distribution, and the standard deviation (SD) was calculated to analyse the dispersion of opinions. To identify correlations between the individual questions, a Kendall correlation coefficient was calculated; it was moderately high in the

 doi:10.20944/preprints202409.0902.v1

range of 0.4 to 0.6, as a correlation above 0.61 is considered a strong correlation. Two non-parametric tests, a Mann-Whitney test, and a Kruskal-Wallis test, were performed to identify statistically significant differences in opinions. The p-value was used to interpret the results in both cases, compared with a significance level of 0.05. Statistically significant differences of opinions were indicated by all p-values calculated by the tests, which were below the significance level.

3. Results

3.1. Characteristics of Shopping Habits of Residents in Latvia

The survey on the shopping habits of the population showed that more than half of the respondents (55%) always or often bought food in large quantities and tried not to visit shops every day. In comparison, a quarter of the respondents (25%) said they rarely or never did so (Table 2). Occasionally, 20% of the respondents managed to buy food in larger quantities and did not visit shops every day. However, there was a significant dispersion of habits in this respect (SD=1.23), and the average trend in favour of less frequent visits to shops could not be considered stable. A similar phenomenon could be observed in the responses on shopping out of necessity, as there was also a relatively high degree of disagreement between the various groups (SD=1.15). Of the total respondents, 16% always made purchases out of necessity without planning them, while more than half of the respondents (56%) often or sometimes did so. Spontaneous, unplanned visits to shops were wholly avoided by 6% of the respondents, and unplanned visits were rarely made by 22%.

Even though the respondents' behaviours varied regarding visiting shops, another more stable trend was that they carefully planned the quantity of food needed for the household. This was always or often the case for 62% of the consumers surveyed, with 22% managing it occasionally. Planning food quantities was rarely or never a characteristic of 16% of the respondents. Interestingly, a similar proportion of the consumers did not plan their shop visits and shopped spontaneously.

However, there was a strong trend in choosing a particular shop. Of the total respondents, 82% said they tried to buy all their groceries in one or two shops and did not visit many. Only 8% shopped at more than one or two shops. In this respect, there was a relatively high level of agreement (SD=0.98) and consumer confidence in certain grocery shops.

The consumer behaviours of the respondents were similarly stable: 68% of the respondents always or often preferred to buy raw food rather than semi-finished or ready food, while 23% said they sometimes preferred to buy raw food. Semi-finished/finished food was purchased more than other foods by 9% of the respondents, which was not a stable trend. Overall, 32% of the respondents, about a third of the respondents, said that semi-finished/finished food accounted for a higher proportion of their purchases than food for cooking, at least sometimes.

Table 2. Consumers' typical shopping habits during the last month (n=2738).

Statements	Distribution of respondent replies *, %					Total		Gender (M)		Income per household member (EUR)					Type of populated area		
	1	2	3	4	5	M	SD	Woman	Man	Less than 499	500-899	900-1299	1300-1699	1700+	State City	Town	Rural area
								M	M	M	M	M	M	M	M	M	M
1. I buy food in larger quantities, and I do not visit shops every day	20	35	20	16	9	2.59	1.23	2.57	2.66	2.65	2.58	2.56	2.58	2.48	2.65	2.62	2.28
p-value								*0.177*			*0.570*					*0.000*	
2. I shop as needed; I do not plan visits to shops in advance	16	33	23	22	6	2.68	1.15	2.70	2.62	2.70	2.72	2.59	2.66	2.73	2.64	2.64	2.93
p-value								*0.099*			*0.231*					*0.000*	
3. I try to buy all the food I need in one/two shops, and I	40	42	10	5	3	1.89	0.98	1.89	1.92	2.00	1.88	1.83	1.92	1.77	1.89	1.93	1.82

 doi:10.20944/preprints202409.0902.v1

do not go to many shops																		
p-value								*0.865*				*0.055*				*0.189*		
4. I carefully plan the quantity of food needed for my household	22	40	22	12	4	2.38	1.08	2.35	2.49	2.24	2.28	2.45	2.50	2.50	2.43	2.34	2.28	
p-value								*0.003*				*0.000*				*0.032*		
5. I prefer to buy raw food and rarely buy semi-finished/ready food	24	44	23	7	2	2.19	0.95	2.12	2.44	2.21	2.12	2.20	2.15	2.28	2.26	2.13	2.11	
p-value								*0.000*				*0.070*				*0.004*		
6. I buy mostly discounted foods	24	47	22	5	2	2.13	0.89	2.10	2.25	1.85	2.04	2.14	2.23	2.42	2.15	2.06	2.27	
p-value								*0.001*				*0.000*				*0.000*		
7. I prefer local foods	11	37	35	13	4	2.62	0.97	2.61	2.68	2.78	2.60	2.56	2.63	2.61	2.65	2.62	2.55	
p-value								*0.166*				*0.037*				*0.227*		
8. I prefer food of certain brands	7	38	31	17	7	2.77	1.02	2.72	2.92	2.90	2.82	2.70	2.62	2.68	2.73	2.79	2.82	
p-value								*0.000*				*0.002*				*0.294*		

** Calculations used the reply scale: 1 – always, 2 – often, 3 – sometimes, 4 – rarely, 5 – never; M- MEAN; SD – STD.DEVIATION. Source: authors' calculations.*

The price of a food product plays a vital role in consumer behaviour. With the highest agreement (SD=0.89), most respondents (71%) said they mainly bought discounted food. Of the total, 22% bought promotional foods at least sometimes, and 5% rarely. However, there was a relatively wider dispersion of opinions on the choice of local foods (SD=0.97), with the survey data showing that the consumers had a higher level of trust in promotional foods than in local foods. Only 11% of the respondents always preferred local foods. Overall, 48% of the respondents always or often bought them. Local food was sometimes chosen by slightly over a third of the respondents (35%). However, 17% said they rarely or never did so. Their consumer confidence in specific brands was even slightly lower. Only 7% of the respondents always preferred them. Overall, 45% always or often bought food from particular brands. However, there was a high dispersion of opinions on this issue (SD=1.02), with 31% of the respondents giving it occasional attention and 24% rarely or never.

An analysis of the food consumption and shopping habits of the whole sample surveyed revealed that there was no typical correlation between specific habits, and it was not possible to conclude that the respondents who shopped less often planned more of their household food or those who preferred local food were more likely to choose specific brands. In both cases, as in all other pairs of habits, the correlation coefficient did not exceed 0.3 and was low. This was due to significant differences in habits between various socio-demographic groups. Statistically significant differences (Table 2) could be observed between women's and men's habits in the following aspects: I carefully plan the quantity of food needed for my household, I prefer to buy raw food and rarely buy semi-finished/ready food, I buy mostly discounted foods, and I like food of certain brands.

However, there were differences in habits between the respondents from various income groups: I carefully planned the quantity of food needed for my household, I mainly bought discounted foods, I preferred local foods, and I preferred food from certain brands. The consumption habits also revealed predictable differences influenced by the place of residence between those living in State cities, urban areas/small towns, and rural areas: I buy food in larger quantities, and I do not visit shops every day; I shop as needed, I do not plan visits to shops, I carefully plan the amount of food required for my household, I prefer to buy raw food and rarely buy semi-finished/ready food, I buy mostly discounted foods.

Two factors were most important for the consumers surveyed when choosing a shop: the available food product mix and the price level. The food product mix was considered very important by 70% of the respondents and partly crucial by 26%. There was a high level of agreement on this

 doi:10.20944/preprints202409.0902.v1

aspect (SD=0.57). The same low dispersion also characterized the respondent's opinions on the price level (SD=0.56). Yet, there were slight differences in the frequency distribution: the price level was significant for 65% and partly crucial for 32% of the respondents. Accordingly, the average trend indicating the importance of the aspect was higher for the product mix (Table 3). The third most important aspect in choosing a particular shop was its proximity to the place of residence. There was a high level of agreement (SD=0.68) on this aspect, although it was slightly lower than that on the product mix and the price level. The proximity to the place of residence was rated as very important by 54% and as partly important by 38% of the respondents. However, all the aspects related to the opening hours of a particular shop were, on average, rated as less important than the product mix, the price level, and proximity to home. The availability of the shop on Sundays was very important for 26% and partly important for 20% of the consumers (46% in total). There was a significant dispersion of opinions on this issue (SD=1.12), with 30% of the consumers surveyed saying it was of little importance and 24% saying it was of no importance. Nevertheless, the availability of shops at weekends was also a matter of divided opinion (SD=1.04), yet most consumers (57%) considered it very or partly important. Shopping at weekends was of little importance to 27%, while it was of no importance to 13% of the respondents. A similar average trend in the respondents' ratings of the availability of shops on Sundays was also observed in their ratings of the availability of shops in the late evening hours after 20:00. Overall, this option was very important or partly important for 49%; while it was of low importance for 35% of the respondents. In contrast to the ratings of the availability of shops on Sundays, the ratings of their availability in the late evening hours had higher agreement (SD=0.99).

Table 3. Aspects of shopping for food and the choice of a location (n=2738).

Statements	Distribution of respondent replies *, %				Total		Gender (M)		Income per household member (EUR)					Type of populated area		
	1	2	3	4	M	SD	Woman	Man	Less than 499	500-899	900-1299	1300-1699	1700+	State city	Town	Rural area
							M	M	M	M	M	M	M	M	M	M
1. Food product mix available at the shop	70	26	3	1	1.34	0.57	1.31	1.43	1.42	1.40	1.30	1.26	1.30	1.31	1.37	1.38
p-value							*0.000*				*0.001*				*0.016*	
2. Proximity of the shop to my place of residence	54	38	7	1	1.56	0.68	1.54	1.63	1.58	1.58	1.52	1.52	1.59	1.47	1.60	1.80
p-value							*0.002*				*0.688*				*0.000*	
3. Availability of the shop in the late evening hours after 20.00	21	28	35	16	2.47	0.99	2.50	2.38	2.55	2.63	2.40	2.35	2.38	2.35	2.55	2.73
p-value							*0.011*				*0.000*				*0.000*	
4. Availability of the shop on holidays	33	27	27	13	2.20	1.04	2.20	2.19	2.27	2.31	2.19	2.08	2.15	2.09	2.27	2.42
p-value							*0.582*				*0.007*				*0.000*	
5. Availability of the shop on Sundays	26	20	30	24	2.53	1.12	2.55	2.46	2.53	2.65	2.56	2.46	2.49	2.42	2.60	2.75
p-value							*0.119*				*0.070*				*0.000*	
6. The price level of food products available at the shop	65	32	3	0	1.39	0.56	1.38	1.41	1.25	1.34	1.43	1.45	1.52	1.40	1.36	1.43
p-value							*0.267*				*0.000*				*0.092*	
7. Possibility to buy food products in the online shop and order home delivery	8	13	37	42	3.13	0.93	3.10	3.22	3.25	3.19	3.07	3.12	2.98	3.03	3.21	3.29
p-value							*0.007*				*0.001*				*0.000*	

 doi:10.20944/preprints202409.0902.v1

Calculations used the reply scale: 1 – very important, 2 – partly important, 3 – unimportant, 4 – very unimportant; M-MEAN; SD – STD.DEVIATION. Source: authors' calculations.

Statistically significant differences in opinions on the opening hours of shops were found between the respondents of different genders, ages, income levels, and types of places of residence (Table 3). The availability of shops during late evening hours was more important for men, individuals aged 18-34, those with higher incomes, and those living in urban areas. However, the availability of shops at weekends was more important for younger people aged 18-34, with an average income of between EUR 1300-1699 per household member, and those living in urban areas. The availability of shops on Sundays varied only according to the type of residence and was more often rated as necessary by those residing in State cities. Compared with the other aspects of shops, the possibility of buying food products from an online shop and ordering home delivery was the least important criterion for consumers. The characteristics of the survey sample might influence this result, yet with high agreement (SD=0.93) the majority of the respondents (79%) considered it to be of little or no importance. The availability of an online shop was essential for only 8% and partly important for 13% of the respondents. A similar situation was found in consumer habits, as 61% of the respondents never bought groceries online (Table 3) and therefore considered this option as unimportant or very unimportant. Only 12% shopped online at least a few times a month, while 27% did so less than once a month.

There was at least a moderately strong positive correlation between the aspects related to the shop's opening hours, which was statistically significant (Table 4). The survey revealed that the correlation between the availability of the shop on holidays and the availability of the shop on Sundays was strong (r=0.79). In contrast, a moderately strong correlation was found between the availability of the shop on Sundays and the availability of the shop in the late evening hours (r=0.54) and between the availability of the shop on holidays and the availability of the shop in the late evening hours (r=0.56). It could be concluded that the respondents' behaviour was typical: if one aspect of opening hours was essential to them, the other elements were also important, but if one aspect was unimportant or very unimportant, so were the different aspects. It should be noted that shopping at particular farmers' markets was a rare habit among the consumers surveyed. Only 14% of the respondents did it at least a few times a month, 42% less often, and 44% never. The accessibility of farmers' markets could partly explain the distribution of respondent replies, as they are located in certain parts of Latvia and are often held irregularly. The consumers were more likely to visit general marketplaces, as significantly more consumers shopped there at least a few times a month than at farmers' markets, i.e., 34% of the respondents. Of the total respondents, 45% shopped less than once a month at a general marketplace, which was similar to the proportion of those visiting farmers' markets. The proportion of consumers who never visited general marketplaces was lower – a fifth or 21%.

Table 4. Correlation between various aspects of the availability of shops (n=2738).

Aspects		1. Food product mix available at the shop	2. Proximity of the shop to my place of residence	3. Availability of the shop in the late evening hours after 20.00	4. Availability of the shop on holidays	5. Availability of the shop on Sundays	6. The price level of food products available at the shop	7. Possibility to buy food products in the online shop and order home delivery
1. Food product mix available at the shop	correlation	1	0.124	0.151	0.218	0.195	0.151	0.052
	p-value	-	0.000	0.000	0.000	0.000	0.000	0.003

 doi:10.20944/preprints202409.0902.v1

2. Proximity of the shop to my place of residence	correlation	0.124	1	0.160	0.150	0.134	0.180	0.051
	p-value	0.000	-	0.000	0.000	0.000	0.000	0.003
3. Availability of the shop in the late evening hours after 20.00	correlation	0.151	0.160	1	0.567	0.544	0.075	0.033
	p-value	0.000	0.000	-	0.000	0.000	0.000	0.042
4. Availability of the shop on holidays	correlation	0.218	0.150	0.567	1	0.793	0.100	0.009
	p-value	0.000	0.000	0.000	-	0.000	0.000	0.565
5. Availability of the shop on Sundays	correlation	0.195	0.134	0.544	0.793	1	0.084	-0.005
	p-value	0.000	0.000	0.000	0.000	-	0.000	0.775
6. The price level of food products available at the shop	correlation	0.151	0.180	0.075	0.100	0.084	1	0.031
	p-value	0.000	0.000	0.000	0.000	0.000	-	0.082
7. Possibility to buy food products in the online shop and order home delivery	correlation	0.052	0.051	0.033	0.009	-0.005	0.031	1
	p-value	0.003	0.003	0.042	0.565	0.775	0.082	-

Source: authors' calculations.

However, 38% and 39% of the respondents visited specialist and small food producer shops at least a few times a month and less than once a month. Of the total, 23% never visited them; however, the survey did not reveal whether this was a deliberate choice or the unavailability of such shops close to home, which was one of the most important factors for consumers in choosing where to shop for food.

Two types of shops were most commonly and regularly visited by the consumers surveyed: food supermarkets outside large shopping centres and small grocery shops close to where they lived/worked. About two-thirds of the consumers, or 68%, shopped at supermarkets at least once a week or more often, while 58% shopped at small grocery shops in their vicinity just as often. This was a majority in both cases and showed a clear behavioural trend. In addition, 18% shopped in supermarkets a few times a month, while 21% chose small grocery shops near them a few times a month. A fifth of the respondents chose small shops less than once a month or never, while 14% chose larger food shops.

The survey did not identify typical groups of consumers in the respondent sample who would prefer only one type of shop or a particular combination of shop types. However, there were statistically significant differences in the preference for specific shops among different socio-demographic consumer groups (Table 5). Men aged 54 and under, those with an income of more than EUR 1 300 per household member, and those living in a State City were more likely to shop in large

 doi:10.20944/preprints202409.0902.v1

shopping centres. The impact of the type of populated area on consumer choices was self-evident, as the availability of such shops was mostly limited to State cities. The profiles of typical food shoppers were similar, as the shoppers were more likely to be male, under 44 years of age, and living in State cities. In contrast, small grocery shops near home were often preferred by people aged 44 and under and people living in cities/towns. Visitors to specialist and small food producer shops did not allow us to identify a distinct customer portrait. Still, they tended to be 35-54 years old and had an average income of EUR 900-1299 per household member.

Table 5. Frequency of shopping for food at various shops (n=2738).

Statements	Distribution of respondent replies *, %					Total		Gender (M)		Income per household member (EUR)					Type of populated area		
	1	2	3	4	5	M	SD	Woman	Man	Less than 499	500-899	900-1299	1300-1699	1700+	State city	Town	Rural area
								M	M	M	M	M	M	M	M	M	M
1. Large shopping centres (total rental floorspace >2500m²)**	9	10	16	41	24	3.62	1.21	3.68	3.42	3.82	3.83	3.54	3.38	3.41	3.39	3.81	4.01
p-value								*0.000*				*0.000*				*0.000*	
2. Food supermarkets outside large shopping centres (400 -2499m²)**	37	31	18	11	3	2.12	1.11	2.16	2.01	2.17	2.16	2.11	2.05	2.07	2.03	2.14	2.42
p-value								*0.008*				*0.688*				*0.000*	
3. Small grocery shops near where I live/work (<400m²)**	38	20	21	16	5	2.30	1.27	2.28	2.33	2.20	2.14	2.29	2.53	2.40	2.43	2.14	2.18
p-value								*0.425*				*0.000*				*0.000*	
4. Specialist, small food producer shops	4	11	23	39	23	3.67	1.07	3.68	3.62	3.69	3.61	3.66	3.83	3.63	3.77	3.52	3.63
p-value								*0.231*				*0.080*				*0.000*	
5. General marketplaces	3	12	19	45	21	3.69	1.02	3.69	3.70	3.65	3.65	3.67	3.78	3.77	3.63	3.68	3.92
p-value								*0.543*				*0.146*				*0.000*	
6. Special farmers' markets (held once a week or less often)	1	4	9	42	44	4.25	0.83	4.27	4.22	4.34	4.27	4.18	4.29	4.22	4.28	4.20	4.29
p-value								*0.103*				*0.010*				*0.382*	
7. Online shop/home delivery	1	3	8	27	61	4.44	0.85	4.42	4.49	4.63	4.50	4.41	4.39	4.25	4.31	4.55	4.62
p-value								*0.033*				*0.000*				*0.000*	

** Calculations used the reply scale: 1 – always, 2 – often, 3 – sometimes, 4 – rarely, 5 – never; M- MEAN; SD – STD.DEVIATION. ** according to a CRE classification by the ICSC (International Council of Shopping Centres), Latvia, 2015. https://www.lanida.lv/sites/default/files/inline-files/CRE_classification_retail_LAT.pdf. Source: authors' calculations.*

Women and men were similarly likely to buy food at general marketplaces and more likely to be aged 55 and over and live in cities where such marketplaces were available. In contrast, farmers' markets were typically frequented by people aged between 45 and 64, with an average income of between EUR 900 and 1299 per household member.

 doi:10.20944/preprints202409.0902.v1

Although the respondent sample was relatively small, the average trends showed that online shop users were more likely to be women, young people with a high income above EUR 1700 per household member, and living in a State City.

3.2. Impacts of Reducing the Opening Hours of Food Supermarkets or Closing Them on Holidays on Consumer Shopping Behaviour

Even though consumer behaviour regarding the choice of shops differed, the time of the week, when most consumers preferred to buy food, was similar. Three-quarters, or 75%, of the respondents always or often shopped on weekdays, and only 2% did not. Of the total, 7% rarely shopped for food on weekdays, and together with those who never shopped on weekdays, the figure did not even exceed a tenth. As there were statistically significant differences in the choice of a weekday between different age groups and the type of populated area, it could be concluded that people aged 35-44 and living in an urban area/town were the most likely to shop on weekdays (Table 6).

Table 6. Food shopping days (n=2738).

Statements	Distribution of respondent replies*, %						Gender		Income per household member (EUR)					Type of populated area		
	1	2	3	4	5	6	Woman	Man	Less than 499	500 - 899	900-1299	1300 - 1699	1700 +	State City	Town	Rural area
Weekdays	31	44	14	7	2	2	2.01	2.09	1.96	1.98	2.03	2.13	2.08	2.06	1.94	2.11
Saturdays	15	33	24	21	5	2	2.69	2.60	2.71	2.76	2.63	2.62	2.66	2.56	2.74	2.91
Sundays	12	20	17	29	19	3	3.27	3.11	3.22	3.43	3.15	3.07	3.19	3.02	3.38	3.64

** Average coefficients were calculated using the reply scale: 1 -Always characteristic of me, 2 -Often characteristic of me, 3 -Occasionally characteristic of me, 4 -Rarely characteristic of me, 5 -Never characteristic of me, 6 -No answer. Source: authors' calculations.*

Saturdays were the time for food shopping for 48% of the consumers surveyed. Of the respondents, 15% always did so, and 33% often did so. A higher dispersion of shopping habits was for Saturday shopping than weekday shopping, with 24% sometimes and 21% rarely shopping on Saturdays. These two groups made up an equally high proportion compared with those who shopped regularly on Saturdays. Five % of the consumers never shopped on Saturdays. Moreover, there were statistically significant differences between the respondent groups. Men, people of pre-pension age (under 65), and State City residents were more likely to shop on Saturdays.

On Sundays, relatively fewer respondents always or often shopped for food, approximately a third or 32%, while almost half of them, 48%, did it rarely or not at all, and 17% did it occasionally; therefore, there was a high dispersion of shopping habits, and it was challenging to identify the average trend in consumer behaviour. The data for the various socio-demographic groups showed statistically significant differences between genders, ages, income levels, and types of populated areas. Men, 18-34-year-olds, those with an average income of between EUR 900 and 1699 per household member, and those living in urban areas were likelier to shop for food on Sundays.

There was a moderately strong positive correlation (r=0.55) between those who shopped for food on Saturdays and those who did it on Sundays, meaning that there were typical groups of consumers who did or did not make food purchases at the weekend or on one of the weekend days (Table 7).

 doi:10.20944/preprints202409.0902.v1

Table 7. Correlations between days of shopping for food (Sunday/Saturday) (n=2738).

	Criteria		Sundays					Total
			Always characteristic of me	Often characteristic of me	Occasionally characteristic of me	Rarely characteristic of me	Never characteristic of me	
Saturdays	Always characteristic of me	A*	58	12	12	10	8	100
		B**	72	8	10	5	7	15
	Often characteristic of me	A	5	50	18	22	5	100
		B	14	81	35	24	9	34
	Occasionally characteristic of me	A	3	6	35	43	13	100
		B	6	7	51	35	17	25
	Rarely characteristic of me	A	3	4	2	49	42	100
		B	4	4	3	35	46	21
	Never characteristic of me	A	10	1	2	6	81	100
		B	4	0	1	1	21	5
	Total	A	13	21	17	30	19	100
		B	100	100	100	100	100	100

**A - Relative indicators for Saturday visitors; **B - Relative indicators for Sunday visitors. Kendall's correlation coefficient r=0.55, p<0.05. Source: authors' calculations.*

Of the total consumers who always shopped for food on Sundays, 72% also did it on Saturdays, and of the total consumers who frequently bought food on Sundays, 81% also did it on Saturdays. However, 81% who never shopped for food on Saturdays did not do it on Sundays, and only 21% of those who never bought food on Sundays did not do it on Saturdays; therefore, 79% of those who did not visit the shops on Sundays did it on Saturdays.

Thirty % of those who never shopped on Saturdays always and 33% of those who rarely shopped on weekdays did it on Saturdays. In total, 63% always bought food on Saturdays and did not visit food shops midweek (Table 8). In contrast, 46% of those who rarely shopped on weekdays and 21% who never shopped on weekdays shopped on Saturdays.

Table 8. Correlations between days of shopping for food (Saturdays/weekdays) (n=2738).

	Criteria		Weekdays					Total
			Always characteristic of me	Often characteristic of me	Occasionally characteristic of me	Rarely characteristic of me	Never characteristic of me	
Saturdays	Always characteristic of me	A*	43	18	19	16	4	100
		C**	21	6	20	33	30	15
	Often characteristic of me	A	16	55	18	10	1	100
		C	18	42	43	46	21	34
	Occasionally characteristic of me	A	29	52	15	3	1	100
		C	23	29	26	10	14	25
	Rarely characteristic of me	A	45	45	6	3	1	100
		C	30	21	9	8	14	21
	Never characteristic of me	A	58	23	6	4	9	100
		C	8	2	2	3	21	5
	Total	A	32	45	14	7	2	100
		C	100	100	100	100	100	100

** A - Relative indicators for Saturday visitors; **C - Relative indicators for weekday visitors. Kendall's correlation coefficient r=-0.18, p<0.05. Source: authors' calculations.*

 doi:10.20944/preprints202409.0902.v1

In contrast, 49% of those who never shopped on weekdays and 24% of those who rarely shopped on weekdays always shopped on Sundays. In total, 73% always bought food on Sundays and did not visit grocery shops in the middle of the week (Table 9). In addition, 16% of those who never shopped on weekdays and 38% of those who rarely shopped on weekdays often shopped on Sundays.

Table 9. Correlations between days of shopping for food (Sundays/weekdays) (n=2738).

	Criteria		Weekdays					Total
			Always characteristic of me	Often characteristic of me	Occasionally characteristic of me	Rarely characteristic of me	Never characteristic of me	
Sundays	Always characteristic of me	B*	43	15	20	14	8	100
		C**	16	4	17	24	49	12
	Often characteristic of me	B	12	53	20	13	2	100
		C	8	25	31	38	16	21
	Occasionally characteristic of me	B	24	49	21	5	1	100
		C	13	19	25	11	7	17
	Rarely characteristic of me	B	32	55	9	4	0	100
		C	30	37	19	16	3	30
	Never characteristic of me	B	54	33	6	4	3	100
		C	33	15	8	11	25	20
	Total	B	32	45	14	7	2	100
		C	100	100	100	100	100	100

**B - Relative indicators for Sunday visitors; **C - Relative indicators for weekday visitors. Kendall's correlation coefficient r=-0.23, p<0.05. Source: authors' calculations.*

In Latvia, if a decision were made to close grocery shops on Sundays or reduce the opening hours on weekends, the consumers indicated, with a very high level of agreement (SD=0.86), that they would be unlikely to change their usual shopping locations and would plan to shop at a supermarket on other days. This was the case for 58% or 28% of the respondents, representing a total of 86% or a large group of consumers and showing a solid average trend. This decision did not differ significantly in age, income, and type of populated area (Table 10).

As an alternative to closed supermarkets, 13% of the respondents would choose farmers' markets or local producer food shops. In comparison, 32% would be more likely to visit them, representing 45% of the total respondents. However, they are not new consumers who change their habits, as locally produced food is bought at least a few times a month by more than half (53%) who said they were likely to choose it as an alternative to a supermarket at the weekend. Farmers' markets were already visited by over a fifth (22%) of those likely to see them at the weekend.

However, it should be acknowledged that the most common answer regarding choosing local food shops and farmers' markets instead of supermarkets was "rather no". This was the case for 38% of the respondents, and 17% would not shop in such places. There is a high dispersion of opinions, and the average trend favoured those who would not choose farmers' markets/local producer shops as an alternative at the weekend. In total, this represented 55% of the consumers surveyed. There was a significant difference in opinions among them, as those who would not choose such an alternative were more likely to be those with an income of up to EUR 499 and living in State cities.

In total, 38% of the consumers surveyed would look for alternative supermarkets at weekends, while the majority (62%) would not. Regarding this aspect, there was some dispersion of opinions and significant differences between various socio-demographic consumer groups. Men aged 34 and under, those with an average income of between EUR 900 and 1699 per household member, and those living in urban areas would be more likely to look for other food shopping possibilities if food supermarkets were closed. People living in rural areas were the least likely to look for other alternatives.

 doi:10.20944/preprints202409.0902.v1

Table 10. Consumer behaviour if a decision is made in Latvia to close food supermarkets on Sundays and/or reduce the opening hours on weekends (%) (n=2738).

Statements	Distribution of respondent replies*, %				Total		Gender (M)		Income per household member (EUR)					Type of populated area		
							Woman	Men	Less than 499	500-899	900-1299	1300-1699	1700+	State City	Town	Rural area
	1	2	3	4	M	SD	M	M	M	M	M	M	M	M	M	M
1. I would plan to shop at the supermarket on other days	58	28	9	5	1.62	0.86	1.59	1.74	1.65	1.55	1.64	1.55	1.64	1.63	1.65	1.60
p-value							*0.000*				*0.200*				*0.399*	
2. I would shop more often at farmers' markets/grocery shops of local producers	13	32	38	17	2.60	0.91	2.60	2.61	2.67	2.50	2.58	2.63	2.63	2.68	2.51	2.53
p-value							*0.662*				*0.007*				*0.000*	
3. I would look for other possibilities to buy the necessary food on Sunday as well	15	23	39	23	2.69	0.98	2.73	2.54	2.74	2.79	2.63	2.55	2.67	2.58	2.78	2.87
p-value							*0.000*				*0.001*				*0.000*	
4. Possibilities for buying food would not decrease for me, and I would buy food as before	29	43	19	9	2.08	0.91	2.05	2.18	2.05	2.01	2.12	2.14	2.13	2.15	2.02	1.96
p-value							*0.004*				*0.070*				*0.000*	
5. There would be less unused and wasted food in my household	13	19	35	33	2.88	1.00	2.87	2.94	2.83	2.78	2.86	2.97	2.95	3.02	2.74	2.74
p-value							*0.089*				*0.026*				*0.000*	
6. I would have significant difficulty buying the necessary daily food	15	13	23	49	3.05	1.10	3.08	2.96	2.97	3.19	3.05	3.02	3.01	2.94	3.13	3.25
p-value							*0.051*				*0.007*				*0.000*	

** Coefficients were calculated using the reply scale: 1 – definitely yes, 2 – rather yes, 3 – rather no, 4 –no; M- MEAN; SD – STD.DEVIATION. Source: authors' calculations.*

A clear majority of the consumers (72%) believed that closing food supermarkets on Sundays or reducing the opening hours would not decrease their food shopping opportunities and that food would be purchased as before, whereas 28% disagreed. They were most likely to be male, aged 45-54, and living in urban areas. A similar distribution of opinions was found for the respondents giving a rating to the statement "I would have significant difficulty in buying the necessary daily food", with 72% disagreeing and 28% agreeing. The two statements had a moderately strong negative correlation (r=-0.41). The residents who said that changes in the opening hours of supermarkets would make it very difficult for them to buy the daily groceries they need were also more likely to say that they would not plan to shop at the supermarket on other days (r=-0.4) and would not shop at farmers' markets or local producer shops (r=-0.4). This attitude might be influenced by objective factors that prevent people from buying food on other days and individual subjective decisions. Statistically significant differences in opinions on this issue emerged between different income groups and the types of populated areas. People with an income of up to EUR 499 per household member and living in urban areas were more likely to experience difficulty in buying food.

The respondents were somewhat skeptical about reducing food waste in their households during changes in supermarket opening hours. If a decision were made to close supermarkets on Sundays or reduce the opening hours at weekends, 13% would have less unused and discarded food, while 19% would rather have less. This was the view of those more likely to have an income of

 doi:10.20944/preprints202409.0902.v1

between EUR 500 and 899 per household member and live in urban areas. In total, 68% believed that the amount of unused and discarded food in their households would remain the same. They were more likely to have higher incomes and live in urban areas/ towns or rural areas.

3.3. The Experimental Conclusions

The residents surveyed most often chose to buy food in two types of shops: food supermarkets outside large shopping centres and small food shops close to where they lived/worked. Other alternatives were not typical for most of them and were chosen by certain small groups. No typical group would prefer only one type of shop or a particular combination of the types thereof.

Most respondents were characterized by buying food in larger quantities and visiting shops less frequently. Regarding this aspect, however, there was a significant dispersion of shopping habits, and the average trend towards less frequent visits to shops was not considered stable across all the socio-demographic groups. Moreover, unplanned shopping was also a characteristic of most consumers surveyed.

Two factors were most important for consumers when choosing a shop: the food product mix available at the shop and the price level of food products available at the shop. In addition, the shop's proximity to the residence was also essential for them to. Nevertheless, all the aspects related to the opening hours of a particular shop were, on average, rated as less important than the product mix, the price level, and the proximity to the place of residence. The availability of shops on Sundays was generally crucial to 46%. In comparison, the availability of shops at weekends was important to 57%, and the availability of shops in the late evening hours after 20:00 was important to 49% of the respondents. In addition, if one aspect of opening hours was essential to them, the others were also important, whereas if one aspect was unimportant or very unimportant, so were the others.

Although consumer behaviour regarding the choice of shops differed, the time of the week when most consumers chose to buy food was similar. Three-quarters, or 75%, always or often shopped on weekdays, and only 2% of the respondents did not. Saturdays were the time of the week for food shopping for 48%, while Sundays were always or often the time for food shopping for a comparatively smaller number of respondents, approximately a third or 32%.

Typical groups of consumers who did or did not shop at the weekend or on a weekend day could be identified. Of the total consumers who always bought food on Sundays, 72% also did it on Saturdays, and of the total consumers who frequently bought food on Sundays, 81% also did it on Saturdays. However, 81% of those who never bought food on Saturdays did not do it on Sundays, while only 21% of those who never bought food on Sundays did not do it on Saturdays; therefore, 79% of those not shopping on Sundays did it on Saturdays. Moreover, 30% of those who never and 33% of those who rarely shopped on weekdays did it on Saturdays.

If a decision were made in Latvia to close grocery shops on Sundays or reduce the opening hours on weekends, 85% of the consumers indicated that they would be unlikely to change their usual shopping locations and would plan to shop at a supermarket on other days. In total, 38% would look for other alternatives to supermarkets at weekends, while the majority (62%) would not do it.

Of the respondents, 45% would choose farmers' markets and local producer food shops, yet they would not be new consumers who changed their habits. Locally sourced food was already shopped for at least a few times a month by more than half (53%) of those willing to choose it as an alternative to a supermarket at the weekend. Farmers' markets were already visited by over a fifth of consumers (22%), who were most likely to see them on weekends.

Most consumers (72%) believed that closing supermarkets on Sundays or reducing the opening hours would not reduce their food shopping opportunities and that food would be bought as before. Less than a third (28%) said such a decision would make it difficult for them to buy the food they need, as they would not plan to shop at a supermarket on other days or at local producer shops/farmers' markets. This attitude was influenced by objective factors that prevent people from buying food on different days due to their work or other commitments and individual subjective decisions.

 doi:10.20944/preprints202409.0902.v1

4. Discussion

On the contrary, the restriction or liberalisation of supermarket opening hours is a topic periodically examined in the context of ongoing socioeconomic processes [24–26]. Danchev&Genakos (2015) stress that the reduction of retail opening hours affects consumers' choices of shopping time, gives the shoppers less time to compare products and search for the best price, and increases the opportunity cost of shopping time[14]. At the same time, the researchers stress that retail businesses might lose revenue to competitor businesses/shops that are allowed to work on Sundays. This conclusion leads us to believe that closing supermarkets on Sundays gives an advantage to small local food shops and producers in the local market. To the food production and marketing chain, "local" is interpreted differently. In a narrow sense, it is food produced, processed, and marketed within a particular geographical area within a radius of 50-160 km, depending on the size of the urbanized area within that area [27], emphasising the short distribution chain between the producer and the consumer [28] and linking it to the concept of natural goods and services supplied by various businesses in rural areas [29]. More recent research has a broader and more flexible understanding of the local food system, which varies according to the relative position of actors in the supply chain and their role in food production [30]. The term local involves multiple interpretations, including characteristics commonly attributed to locally grown products (e.g., freshness, environmental sustainability, and support for the local economy [31,32]. When analysing the food retail segment, the term local food is usually associated with food produced in the country that is or is intended to be sold in the market.

Consumer shopping habits on Sundays might vary, depending on various factors, e.g., culture, national traditions, opening hours, and individual preferences [33]. In the food market, consumer shopping habits and the historical impact of regulating shop opening hours play an essential role. In some countries or cultures, shopping on Sundays is a common practice, as it is the usual day off during the week, and people can use it to do all their shopping. The opposite practice, with a ban on Sunday shopping, is argued for protecting the interests of retail employees [34] and maintaining a balance between the needs of the company and the wishes of employees and their families, social welfare, and human health [35].

If discussing the closure of supermarkets on weekends and public holidays to increase local food sales, several arguments point to consumers' growing interest in buying local farmers' produce through direct selling and farmers' markets [36–38]. This, to some extent, contradicts the consumer opinions identified by the survey, which showed that the consumers had already made up their minds about the most convenient place to buy food, and restricting the opening hours of grocery shops would unlikely result in an increase in the consumer flow towards local farmers' markets and small shops. According to data on fresh food sales in the EU, direct sales from farmers accounted for only 2% of the fresh food market. Most of the food reaches consumers through supermarkets [39]. This suggests that the market behaviour of consumers in Latvia would not make the desired contribution to the turnovers of local small and medium producers if food shops were closed on Sundays. This was evidenced by the experience in Poland – a ban on Sunday shopping in the period 2018-2021 led to the closure of approximately 6500 shops in Poland –, most of them represented small and medium local food producers and shops, which were supposed to benefit from the restriction of opening hours for supermarkets [40]. In Finland, in contrast, a decline in consumer activity at small shops was the result of the opposite effect: the liberalization of retailer opening hours [41]. According to a report by the Finnish Trade Federation in 2016, the deregulation of opening hours had both positive and negative effects: because of a change in consumer behaviour, the number of employees employed by supermarkets increased by 2 500 in the first half of the year, while the number of employees in small family-run shops decreased by 2000 [42], thereby having a net positive effect on employment. This experience also indicates large retailers' shopping convenience, which is essential for today's consumers. The introduction of measures to liberalize opening hours for retail businesses in Germany increased total employment by 3-4% [43], mainly because of an increase in part-time jobs, while full-time employment was unaffected. The positive employment effect from the liberalization of opening hours for grocery shops was due to the entry of new firms and the creation of additional

 doi:10.20944/preprints202409.0902.v1

jobs by existing businesses [44]. Still, despite the higher employment and consequently higher labour costs, no significant price increase was found, which could partly be explained by the positive effect of deregulation on the number of companies competing in the market.

On the other hand, restricting shop opening hours on Sundays might lead to a situation similar to that before the liberalization of shop opening hours in Austria, where cross-border shopping was observed in countries with more liberal shopping hours [45]. Closing shops on Sundays increased the movement of people to non-regulated retail countries and the outflow of money out of the country. This was also evidenced by the experience in Finland, where, from 1969 to 2016, retailers' opening hours were gradually liberalized and wholly deregulated. Before the complete deregulation of shop opening hours in Finland, TNS Gallup surveyed the liberalization of shop opening hours in Finland in 2015, involving 1000 respondents (n=1000). The survey results showed that 92% of the respondents were satisfied with the current opening hours of shops they regularly visited, which had more to do with their experiences and traditions. However, when asked: "Do you want the largest shops and hypermarkets to be open on public holidays such as Christmas and Easter?", almost eight in ten respondents (79%) answered that they did not want shopping centres to be open on public holidays such as Christmas and Easter and do not feel the need to go shopping on public holidays [46]. This could indicate that the consumers wanted to spend the holidays with family and friends. At the same time, however, there was a strong tendency for the residents of Finland to visit and shop cross-border in neighbouring countries during the holidays. The rationale for lifting the opening hour restrictions in Finland was to meet consumer interests better and reduce competitive pressure from the unregulated retailing in Sweden, which regularly attracted Finnish shoppers at weekends.

While traditional shopping will not disappear, e-commerce has expanded considerably in recent years, especially after the Covid-19 crisis. To ensure that face-to-face commerce, whatever its scale, is competitive with Internet commerce, both scientists [47] and retailers [48] point to the need to remove restrictions on opening hours. There is also an increase in people wanting home delivery of groceries, pre-selecting the product, and ordering it online [49]. International studies also confirm this, which show that more and more people prefer online shops [50,51], which will place an increasing competitive burden on traditional face-to-face retailing in the near future [52].

Italian researchers have also reported on the benefits of lifting restrictions on shop opening hours [53], emphasizing the high level of consumer interest in shopping on Sundays and pointing out that 58% of the population has made Sunday shopping a habit and that the turnovers of retailers on Sundays represent almost 15% of their total weekly turnovers. In addition, the researchers pointed out that the number of small retailers has decreased by only 1.4% in the five years since the liberalization of shop opening hours in Italy (2012-2017), which did not hurt the economic situation. The benefits included increased jobs in retail and related industries (including food production and processing) and more leisure alternatives for the public.

The latest research on the availability of locally produced food in the market emphasizes that small farms and small food businesses account for a significant share of regional food supply [54] and point out the need to increase consumer access to food produced by small farms and small food businesses through various distribution channels, as local food production can have proportionally higher secondary impacts on the local economy as well as create new jobs [55,56], engage community members, increase incomes and living standards and prevent migration to urban areas or other countries [57].

In European countries, a tiny proportion of consumers (17%) tend to buy food from local businesses and farmers in the narrower sense of the term [58]. Focus group discussions in some countries (GR, UK, PL) highlighted the need for small specialist or local food shops [54], which can largely be explained by a EuroCommerce report [58] on the relatively low interest of consumers in buying food from farmers and local producers: in 2022, in the UK it was only 5% of consumers, while in Poland it was 13%. However, the Latvian focus group only highlighted improving access to supermarkets for small farms and small food businesses [54].

In today's fast-changing society in which people lack time and flexibility in all areas of life becomes a top priority [59], some shops, tiny ones, cannot compete with online retailers, which was

 doi:10.20944/preprints202409.0902.v1

also highlighted in recommendations by some national focus groups, thereby promoting new online distribution channels (RO, PL) and food vending machines in local communities (UK) (Moreno-Pérez, O.M). It should be noted that in the current online food distribution networks, Italian (67.3%) and German (60.7%) service providers put the most significant focus on the local food product mix [60]. The above recommendations regarding local food available in the market, to some extent, explain the concerns expressed by Polish small food producers and retailers in the public domain that restrictions on opening hours have resulted in shoppers shifting their shopping to other days of the week, and that, consequently, sales for small retailers have decreased on Sundays [61]. For grocery shops, shopping was shifted to Mondays and Tuesdays of the following week to ensure delivery. Still, no increase in the number of shoppers purchasing food on Fridays or Saturdays before the non-shopping Sundays was observed [62], thereby confirming our survey results that consumer are willing to buy locally produced food, making 2-3 visits to shops per shopping trip, and if it is "on the way" from/to work, school or home. However, consumers are not ready to give up the convenience of shopping at food supermarkets, and reducing the opening hours thereof will not divert consumers to local producers.

5. Conclusions

The residents of Latvia shopped for food mostly at supermarkets, outside large shopping centres and/or small food shops close to where they live/work. Most consumers buy food in larger quantities and visit shops less frequently. Two factors were most important for consumers when choosing a shop: the food product mix available at the shop and the price level of food products available at the shop. If a decision were made in Latvia to close grocery shops on Sundays or reduce the opening hours on weekends, 85% of the consumers indicated that they would be unlikely to change their usual shopping locations and would plan to shop at a supermarket on other days. The choice between farmers' markets and local food shops on Sundays would be made by 45% of the consumers, but not all are new consumers who have changed their habits. More than half (53%) of the consumers who expressed their willingness to shop at local food shops on the weekend as an alternative to the supermarket already did it at least a few times a month. Slightly more than a fifth (22%) of those who would most likely choose farmers' markets on the weekends already shopped there.

A clear majority of the consumers (72%) believed that closing food supermarkets on Sundays or reducing the opening hours would not decrease their food shopping opportunities and that food would be purchased as before. A third (28%) admitted that such a decision would make buying the food they need difficult, as they would not plan to shop at a supermarket on other days or at local producer shops/farmers' markets. Consumers are not ready to give up the convenience of shopping at food supermarkets, and reducing the opening hours thereof is not going to divert consumers to local food producers – specialist small shops and farmers' markets – in case the opening hours of supermarkets are reduced, or supermarkets are closed during the holidays. It could, therefore, be argued that reducing the opening hours of supermarkets and closing them on Sundays and public holidays do not provide a competitive advantage and do not divert consumers to small and medium agri-food producers.

Author Contributions: Conceptualization, A.P. and I.P.; methodology, A.P.; software, L.J.; validation, L.P., A.N. and S.P.; formal analysis, A.P.; investigation, I.P.; resources, L.P. and D.P.; data curation, A.P.; writing—original draft preparation, L.P.; writing—review and editing, A.P.; L.P., I.P., A.N., and S.C., visualization, L.J. and S.C.; supervision, L.P.; project administration, L.P.; funding acquisition, L.P. All authors have read and agreed to the published version of the manuscript.

Funding: The research was promoted with the support of the Ministry of Agriculture of the Republic of Latvia scientific project "The impact of the implementation of diversification of working hours of food supermarkets on the food supply chain", agreement No. 10.9.1-11/23/1984-e.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Acknowledgments: In this section, you can acknowledge any support given which is not covered by the author contribution or funding sections. This may include administrative and technical support, or donations in kind (e.g., materials used for experiments).

Conflicts of Interest: The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

References

1. Dioula, B.M.; Deret, H.; Morel, J.; Vachat, du E.; Kiaya, V. Enhancing the role of smallholder farmers in achieving sustainable food and nutrition security. In ICN2 Second International Conference on Nutrition "Better Nutrition, Better Lives" Rome, Italy, 2013. Available online: https://openknowledge.fao.org/server/api/core/bitstreams/9eb3ad41-7e38-4d54-8110-0633aefeb8eb/content (accessed on 20 January 2024).
2. Baret, C.; Lehndorff, S.; Sparks, L. Flexible Working in Food Retailing: A Comparison Between France, Germany, Great Britain and Japan. Publisher: Routledge Studies in Retailing, UK, 2000, pp.216.
3. Szwacka-Mokrzycka, J.; Rivza, B.; Lemanowicz, M.; Uljanova, E. A study on consumer behaviour in the food market Eastern European countries case. Reviewers: Konstantinova, E.; Parlińska M. Publisher: Warsaw University of Life Sciences Press, Warsaw, Poland, 2021, pp.143.
4. Food & Grocery Retail Market Size & Trends. Available online: https://www.grandviewresearch.com/industry-analysis/food-grocery-retail-market (accessed on 2 August 2024).
5. Europe Grocery Retail Market 2024–2033. Available online: https://www.custommarketinsights.com/report/europe-grocery-retail-market (accessed on 8 August 2024).
6. EuroCommerce. Retail and Wholesale. The State of Grocery Retail 2024. Europe. Reports and studies - Competitiveness & Single Market. Available online: https://www.eurocommerce.eu/2024/04/signs-of-hope-the-state-of-grocery-retail-2024/ (accessed on 3 August 2024).
7. Kasza, G.; Oláh, J.; Popp, J.; Lakner, Z.; Fekete, L.; Pósa, E.; Nugraha, W.S.; Szakos, D. Food miles on the shelves: the share of local food products in the Hungarian retail sector. *Agric. Econ.* **2024,** 12, pp.1-24. https://doi.org/10.1186/s40100-024-00297-8
8. Grzesiuk, A. Sunday Trading Ban in Poland: Reflection After Three Years. *European Research Studies Journal* **2021,** 14 pp.233-242. https://doi.org/10.35808/ersj/2425 .
9. Zeballos, E.; Dong, X.; Islamaj, E. A Disaggregated View of Market Concentration in the Food Retail Industry. Available online: https://www.ers.usda.gov/publications/pub-details/?pubid=105557 (accessed on 9 August 2024).
10. Official statistics portal. Official statistics of Latvia. 2023. Available online: https://stat.gov.lv/lv/statistikas-temas/iedzivotaji/iedzivotaju-skaits/247-iedzivotaju-skaits-un-ta-izmainas (accessed on 20 January 2024).
11. Lursoft IT, Available online: https://www.lursoft.lv/en/register-of-companies-annual-reports (accessed on 20 September 2023).
12. Swedbank. Economics and analysis: Macro Research Department. Available online: https://www.swedbank.lv/about/swedbank/about/economic (accessed on 21 January 2024).
13. Temperini, V.; Gregori, G.L. The impact of the liberalisation of opening hours on small retail enterprises. *International Journal of Sales, Retailing and Marketing* **2015,** 4, pp.47-59.
14. EuroCommerce. Retail and Wholesale. Available online: https://www.eurocommerce.eu/about-retail-wholesale/ (accessed on 3 May 2024).
15. Martinho, V.J.P.D; Bartkiene, E.; Djekic, I.; Tarcea, M.; Barić, I.C.; Černelič-Bizjak, M.; Szűcs, V.; Sarcona, A.; El-Kenawy, A.; Ferreira, V.; Klava, D.; Korzeniowska, M.; Vittadini, E.; Leal, M.; Bolhuis, D.; Papageorgiou, M.; Guiné, R.P.F. Determinants of economic motivations for food choice: insights for the understanding of consumer behaviour. *Int. J. Food. Sci. Nutr.* **2022**, 73, pp.127-139. https://doi.org/10.1080/09637486.2021.1939659.
16. EuroCommerce. Retai and Wholesale. Signs of Hope: The State of Grocery Retail 2024. Available online: https://www.eurocommerce.eu/the-state-of-grocery-retail/ (accessed on 20 May 2024).
17. Naglis-Liepa, K.; Paula, L.; Janmere, L.; Kaufmane, D.; Proskina, L. Local Food Development Perspectives in Latvia: A Value-Oriented View. *Sustainability*, **2022**, 14, pp.2589. https://doi.org/10.3390/su14052589 .
18. Grinberga-Zalite, G.; Zvirbule, A.; Hernik, J. Fostering a link between creativity and consumer acceptance: essential factors for advancing innovations in food industry. *Creativity Studies*, **2024**, 17, pp.309-322. https://doi.org/10.3846/cs.2024.19789 .

19. Eurostat. Final consumption expenditure of households, by consumption purpose. Available online: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Household_consumption_by_purpose (accessed on 8 August 2024).
20. Vargas, A.M.; de Moura, A.P.; Deliza, R.; Cunha, L.M. The Role of Local Seasonal Foods in Enhancing Sustainable Food Consumption: A Systematic Literature Review. *Foods*, **2021**, 10, pp.2206. https://doi.org/10.3390/foods10092206 .
21. Djekic, I.; Batlle-Bayer, L.; Bala, A.; Fullana-i-Palmer, P.; Jambrak, A.R. Role of the Food Supply Chain Stakeholders in Achieving UN SDGs. *Sustainability*, **2021**, 13, pp.9095. https://doi.org/10.3390/su13169095 .
22. Swedbank. Economics and analysis: Macro Research Department. Available online: https://www.swedbank.lv/about/swedbank/about/economic (accessed on 21 January 2024).
23. Smoluk-Sikorska, J.; Śmiglak-Krajewska, M.; Rojík, S.; Fulnečková, P.R. Prices of Organic Food—The Gap between Willingness to Pay and Price Premiums in the Organic Food Market in Poland. *Agriculture* **2024**. 14, pp.17. https://doi.org/10.3390/agriculture14010017 .
24. Brcic-Stipcevic, V.; Renko, S. Trading hours as a competitive service in retailing. In 2nd International Conference: An Enterprise Odyssey: Building Competitive Advantage Proceedings, Zagreb Croatia (19.06.2004), pp.1639-1649.
25. Dijkgraaf, E.; Gradus, R. Explaining Sunday Shop Policies. *De Economist*, **2007,** 155, pp.207-219. https://doi.org/10.1007/s10645-007-9055-0 .
26. Danchev, S.; Genakos, Ch. Evaluating the impact of Sunday trading deregulation. Available online: https://ideas.repec.org/p/cep/cepdps/dp1336.html (accessed on 3 August 2024).
27. La Trobe, H. Farmers' markets: consuming local rural produce. Int. *J. Consum. Stud.* **2001**, 25, pp.181-192. https://doi.org/10.1046/j.1470-6431.2001.00171.x .
28. Kneafsey, M.; Venn, L.; Schmutz, U.; Balázs, B.; Trenchard, L.; Eyden-Wood, T.; Bos, E.; Sutton, G.; Blacket, M. Short Food Supply Chains and Local Food Systems in the EU. Publisher: Office of the European Union. Luxembourg, 2013. Available online: https://doi.org/10.2791/88784 (accessed on 17 August 2024).
29. Karner S. (ed.) Local Food Systems in Europe: Case Studies from Five Countries and What They Imply for Policy and Practice. FAAN. Available online: https://www.genewatch.org/uploads/f03c6d66a9b354535738483c1c3d49e4/FAAN_Booklet_PRINT.pdf (accessed on 4 January 2024).
30. Granvik, M.; Joosse, S.; Hunt, A.; Hallberg, I. Confusion and Misunderstanding-Interpretations and Definitions of Local Food. *Sustainability* **2017**, 9, pp.1981. https://doi.org/10.3390/su9111981 .
31. Aschemann-Witzel, J.; Randers, L.; Pedersen, S. Retail or consumer responsibility? - Reflections on food waste and food prices among deal-prone consumers and market actors. *Bus Strat Env.* **2023**, 2, pp.1513-1528. https://doi.org/10.1002/bse.3202 .
32. Cvijanović, D.; Ignjatijević, S.; Tankosić, J.V.; Cvijanović, V. Do local food products contribute to sustainable economic development? *Sustainability* **2020,** 12, pp.2847. https://doi.org/10.3390/su12072847 .
33. Swimberghe, K.R.; Wooldridge, B.R.; Ambort-Clark, K.A.; Rutherford, J. The influence of religious commitment on consumer perceptions of closed-on-Sunday policies: an exploratory study of Chick-fil-A in the southern United States. *Int. Rev. Retail Distr.* **2013**, 24, pp.14-29. https://doi.org/10.1080/09593969.2013.809014 .
34. Wirtz, A.; Nachreiner, F.; Rolfes, K. Working on Sundays–Effects on Safety, Health, and Work-life Balance. *Chronobiol. Int.* **2011**, 28, pp.361-370. https://doi.org/10.3109/07420528.2011.565896 .
35. Warneck, F. Trading hours: it's about the society we want. Available online: https://www.etui.org/topics/health-safety-working-conditions/hesamag/discounting-the-workers-conditions-in-the-retail-sector/trading-hours-it-s-about-the-society-we-want (accessed on 18 January 2024).
36. Nikolova, M. Opportunities and challenges in the sale of agricultural products from small and family farms in Bulgaria. *Trakia Journal of Sciences* **2020**, 18, pp.549-559. https://doi.org/10.15547/tjs.2020.s.01.088 .
37. Herrero, M.; Hugas, M.; Lele, U.; Wirakartakusumah, A.; Torero, M. A Shift to Healthy and Sustainable Consumption Patterns. In: von Braun, J., Afsana, K., Fresco, L.O., Hassan, M.H.A. (eds) Science and Innovations for Food Systems Transformation. Springer, Cham. 2023, pp.59-85. https://doi.org/10.1007/978-3-031-15703-5_5https://doi.org/10.1007/978-3-031-15703-5 .
38. Crawford, B.; Byun, R.; Mitchell, E.; Thompson, S.; Jalaludin, B.; Torvaldsen, S. Seeking fresh food and supporting local producers: perceptions and motivations of farmers' market customers. *Australian Planner* **2018,** 55, pp.28-35. https://doi.org/10.1080/07293682.2018.1499668 .
39. Estimates of European food waste levels. Available online: http://www.ivl.se/webdav/files/Rapporter/C186.pdf (accessed on 4 August 2024).

40. Kosonoga, J. Powierzenie wykonywania pracy w handlu w niedziele lub święta wbrew zakazowi w orzecznictwie Sądu Najwyższego. Entrusting work in trade on Sundays or public holidays, contrary to the prohibition in the jurisprudence of the Supreme Court. *Praca i Zabezpieczenie Społeczne* **2021,** 11, pp.38-45. https://doi.org/10.33226/0032-6186.2021.11.5 .
41. Myynti putosi pikkukaupoissa – aukiolojen vapauttaminen ohjasi myyntiä suuriin kauppoihin. Available online: https://www.kaleva.fi/myynti-putosi-pikkukaupoissa-aukioloaikojen-vapaut/1743011 (accessed on 30 January 2024).
42. Näin aukioloaikojen vapauttaminen vaikutti kauppaan: kasvu hiipuu, mutta työntekijöitä satoja enemmän. Available online: https://www.aamulehti.fi/talous/art-2000007367643.html (accessed on 30 January 2024).
43. Bossler, M.; Oberfichtner, M. The Employment Effect of Deregulating Shopping Hours: Evidence from German Food Retailing. *Economic Inquiry* **2017**, 55, pp.757-777. https://doi.org/10.1111/ecin.12394 .
44. Goos, M. Sinking the blues: The impact of shop closing hours on labor and product markets. Publisher: London School of Economics and Political Science. Centre for Economic Performance, London, UK, 2004, pp.52.
45. Philippe, C. Liberalizing shop opening hours. Available online: https://www.institutmolinari.org/2007/04/13/liberalizing-shop-opening-hours/ (accessed on 5 August 2024).
46. TNS Gallup, 2015. Kaupan aukiolo graafit. Available online: https://www.pam.fi/media/pam.fi-uutiskuvat/kaupan_aukiolo_graafit.pdf (accessed on 20 August 2023).
47. Bonnet, C.; Etcheverry, C. The Impact of Online Grocery Shopping on Retail Competition and Profit Sharing: an Empirical Evidence of the French Soft Drink Market. Available online: https://www.tse-fr.eu/sites/default/files/TSE/documents/doc/wp/2021/wp_tse_1225.pdf (accessed on 17 August 2024).
48. Sullivan, A. Is it time Germany opened up on Sundays? Available online: https://www.dw.com/en/is-it-time-germany-opened-up-its-stores-on-sundays/a-57191980 (accessed on 28 August 2024).
49. Dominici, A.; Boncinelli, F.; Gerini, F.; Marone, E. Determinants of online food purchasing: The impact of socio-demographic and situational factors, *J. Retail. Consum. Serv.* **2021**, 60, pp.102473, https://doi.org/10.1016/j.jretconser.2021.102473 .
50. European e-commerce report 2023. Available online: https://www.eurocommerce.eu/app/uploads/2023/09/2023-european-e-commerce-report-light-version-final-19-sep.pdf (accessed on 2 August 2024).
51. Blumtritt, C. Online Food Delivery Report 2019. Available online: https://www.statista.com/ http://dspace.unive.it/bitstream/handle/10579/17548/873245-1242534.pdf?sequence=2 (accessed on 22 August 2024).
52. The Rise of e-Commerce Holiday Shopping. Available online: https://nielseniq.com/global/en/insights/education/2023/online-holiday-shopping-what-you-need-to-know/ (accessed on 18 January 2024).
53. Passaro, P.; Perchinunno, P.; Schirone, D. Sunday consumer behavior: A case study in retail marketing. Afr. J. Bus. Manag. **2020,** 14, pp.467-477. https://doi.org/10.5897/AJBM2020.9082 .
54. Moreno-Pérez, O.M.; Arnalte-Mur, L.; Cerrada-Serra, P. et al. Actions to strengthen the contribution of small farms and small food businesses to food security in Europe. *Food Sec.* **2024,** 16, pp.243-259. https://doi.org/10.1007/s12571-023-01421-0 .
55. Stein, A.J.; Santini, F. The sustainability of "local" food: a review for policy-makers. *Rev. Agric. Food Environ. Stud.* **2022,** 103, pp.77-89. https://doi.org/10.1007/s41130-021-00148-w .
56. Shideler, D.; Bauman, A.; Thilmany, D.; Jablonski, B.B.R. Putting Local Food Dollars to Work: The Economic Benefits of Local Food Dollars to Workers, Farms and Communities. *Choices* **2018**, 33, pp.19-26. https://doi.org/10.22004/ag.econ.276059 .
57. Ignjatijevi'c, S.; Milojevi´c, I.; Andzi´c, R. Economic analysis of exporting Serbian honey. *Int. Food Agribus. Manag. Rev*. **2018**, 21, pp.929-944. https://doi.org/10.22004/ag.econ.284905 .
58. EuroCommerce. Retail and Wholesale. The State of Grocery Retail 2024. Europe. Reports and studies - Competitiveness & Single Market. Available online: https://www.eurocommerce.eu/2024/04/signs-of-hope-the-state-of-grocery-retail-2024/ (accessed on 18 July 2024).
59. European Commission: Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, *Operational restrictions in the retail sector*, Publications Office**, 2018**, https://data.europa.eu/doi/10.2873/6677. Available online: https://op.europa.eu/en/publication-detail/-/publication/401417dc-43aa-11e8-a9f4-01aa75ed71a1/language-en (accessed on 4 August 2024).
60. Oncini, F. (2024). Online Food Provisioning Services and Where to Find Them: Pipelines, Platforms and the Rise of Dark Stores. In: Dulsrud, A., Forno, F. (eds) Digital Food Provisioning in Times of Multiple Crises. Consumption and Public Life. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-031-46323-5_2 .

 doi:10.20944/preprints202409.0902.v1

61. Perowicz, M. Zakaz handlu w niedzielę pogrąża tych, których miał chronić. W handlu elektronicznym czeka nas to samo. Available online: https://klubjagiellonski.pl/2021/06/23/zakaz-handlu-w-niedziele-pograza-tych-ktorych-mial-chronic-w-handlu-elektronicznym-czeka-nas-to-samo/ (accessed on 18 January 2024).
62. Cyrek, P. Dywersyfikacja stylów zakupowych klientów w kontekście zmian w tygodniowym rozkładzie pracy placówek handlu detalicznego // Diversification of customer shopping styles as a result of changes in the weekly work schedules of retail outlets. *Marketing Instytucji Naukowych i Badawczych*, **2020,** 36, pp.45-60. https://doi.org/10.2478/minib-2020-0016 .