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Who Are the Consumers of European Farmers' Markets? A Cross-Country Analysis

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ABSTRACT

With substantial growth in the number of farmers' markets (FMs) in developed countries, the number of consumers visiting FMs is also increasing. This study comparatively assesses the consumers of FMs in three European countries where FMs traditionally play a distinctive role in food supply chains. Based on representative samples from Hungary ($n = 614$), Italy ($n = 600$) and the UK ($n = 600$), the odds of consumers visiting FMs are identified as high. The logistic regression results provide insights into the possible characteristics of a typical FM consumer, while also revealing the reasons why consumers typically do not visit FMs. Both managerial and policy implications are defined.

JEL Classification: Q13, Q18

1 | Introduction

The spread of long supply chains has widened the gap between consumers and producers and increased distrust. However, the resurgence of traditional farmers' markets (FMs), a form of short food supply chain, offers a solution by restoring direct links and promoting trust and sustainability. FMs are said to rejuvenate direct, personal relationships between food producers and consumers and improve transparency, community resilience and environmental sustainability in an age that increasingly values these principles.

Modern supply chains are typically multi-stakeholder networks in which suppliers collaborate with manufacturing companies, retailers, wholesalers, and distributors to produce outputs of value to the customer (Mentzer et al. 2001). The emergence of such networks has affected food supply chains, as growing numbers of the former actors have gradually appeared between the producer and consumer, increasing the number of links from field to fork. The development of information technology, the acceleration of logistics, and the resulting globalization have also increased the complexity of such food supply chains (Dunne et al. 2011; Paciarotti and Torregiani 2021).

However, the complexity of food supply chains established in the second half of the twentieth century has resulted in several challenges (e.g., price increases, crop and product wastage, debatable quality, sustainability issues, etc.) (Aiello et al. 2017). The need to address these challenges and satisfy consumer demand for healthier and more sustainable food

has led to the emergence of short supply chains (Renting et al. 2003).

Although there is no single definition of short food supply chains (SFSCs), they are typically defined in relation to the proximity (whether geographical, political, chronological, etc.) of the producer to the consumer (Paciarotti and Torregiani 2021). In terms of sales, several classifications of short food supply chains are employed (e.g., individual vs. community, on-farm vs. off-farm sales, b2c and b2b sales, etc.). Among these classifications are FMs; however, several definitions of FMs coexist in European countries, and consumers are usually not familiar with them.

By eliminating various intermediaries, such as wholesalers and retailers, the supply chain associated with an FM is shortened on the distribution side to the extent that the distance between producer and consumer is eliminated. FMs are a prominent feature of short food supply chains, with a resurgence in the 1970s and 1980s after the interwar and post-war decline (Renting et al. 2003). As a result, the number of FMs has significantly increased in recent decades (Neumann and Mehlkop 2023; Török et al. 2024), paralleled by a surge in associated research. A significant proportion of research focuses on the shopping behaviors of consumers frequenting FMs, typically employing survey or interview methodologies to study one or a limited number of these markets (Maró et al. 2023). In these consumer studies, recurring trends among FMs have been observed by analyzing factors such as gender, age, educational attainment, marital status, family size and income. In other words, a picture of the typical FM consumer seems to be emerging.

Typical consumers of European FMs may be characterized well according to sociodemographic factors. Typically, they are middle-aged or older women (Abelló et al. 2013; Aguirre 2007; Berg and Preston 2017; Carson et al. 2016; Gary-Webb et al. 2018). However, there is variation outside this region. In Asia, the proportion of male consumers is typically larger (Shakeel Ul and Selvaraj 2013; Solanki and Inumula 2021), while in America, more equal gender participation in FMs has been reported (Aguirre González 2009; Schneider and Francis 2005). In terms of age, in some countries, the average age of visitors to FMs has been found to be significantly lower (e.g., Taiwan) (Ma and Chang 2022).

The majority of consumers of FMs are highly educated (Abelló et al. 2013; Fehrenbach and Wharton 2014; Foti and Timpanaro 2021; Glover et al. 2014) and have higher incomes (Åsebø et al. 2007; Carson et al. 2016; Dodds and Holmes 2017; Elepu and Mazzocco 2010; Foti et al. 2019). In developing countries (Aguirre González 2009; Hoppe et al. 2013; Pisarn et al. 2020; Solanki and Inumula 2021) and among US consumers targeted by government initiatives (e.g., the Supplemental Nutrition Assistance Program [SNAP][1]), low-income consumers are in the majority (Farmer et al. 2016; Garner and Ayala 2018; Pitts et al. 2017; Vargo et al. 2022). FM buyers in developed European countries and the US spend between 20 and 30 dollars per occasion (Abelló et al. 2013; Gumirakiza et al. 2017; Youngs 2003a) but much less in developing countries (Aguirre González 2009; Ma and Chang 2022).

FM customers typically live in an urban environment (in small or large cities) (Aguirre González 2009; Pisarn et al. 2020; Spilková 2018; Telligman et al. 2017), and the FMs they visit are usually located near their place of residence (Abelló et al. 2013; Dukeshire et al. 2010; Foti and Timpanaro 2021; Glover et al. 2014). Regarding the latter's household size, the most common arrangement is two people (Abelló et al. 2013; Anderson et al. 1996; Cicia et al. 2021; Farmer et al. 2016) or three to four family members (e.g., parents with few children) (Aguirre 2007; Foti et al. 2019; Gumirakiza et al. 2014; Vasco et al. 2018). In terms of the occupations of FM customers, there is a wide variety. The share of manual laborers is small (Spilková 2018), while retired customers, homemakers and mothers with young children participate in large numbers (Lanfranchi and Giannetto 2015; Mack and Tong 2015; Pascucci et al. 2011). In addition, consumers of FMs are more likely to accept aesthetically imperfect foods bought at this point of purchase (Pfeiffer et al. 2021; Vermeir et al. 2023).

On the other hand, the literature suggests that customers' perceptions deter them from shopping at FMs. First and foremost, these involve higher prices, but inappropriate opening hours and accessibility-related difficulties are also reported (Maró et al. 2023).

The renaissance of modern SFSCs and FMs began in the 1970s when consumers' antipathy to the industrialization of the food supply chain and global food trade started to grow, environmental concerns about food production emerged, and the former's desire for tasty, seasonal and fresh products strengthened (Basil 2012). In North America, government regulations (e.g., SNAP) supported the rise of FMs (Brown 2001). However, in European countries, this development can be traced back to the 1980s, with FMs considered one of the critical elements of SFSCs, later supported by Common Agricultural Policy (CAP) (Canfora 2016; Drăgoi and Grubor 2021; Renting et al. 2003). The presence and importance awarded to FMs are strongest in the United Kingdom, Southern Europe (e.g., Italy and Spain), and Central and Eastern Europe (e.g., Hungary and Poland) (Blumberg and Mincyte 2019; Maró et al. 2022; Maró et al. 2023; Sonnino and Marsden 2006; Vecchio 2009, 2011). In Anglocentric countries (particularly the US and the UK), modern FMs have reappeared and played an increasingly important role (McEachern et al. 2010) after largely disappearing due to the spread of hyper- and supermarkets (Guthrie et al. 2006). FMs are the traditional means of food retailing in Mediterranean countries and have been an important retail outlet for food products for centuries (Guthrie et al. 2006). However, in many Central and Eastern European countries (e.g., Czechia and Hungary), FMs emerged and became widespread alongside traditional food self-provisioning practices (Vittersø et al. 2019).

SFSCs have received increasing attention in recent decades in relation to sustainable food consumption and supporting local economies (Renting et al. 2003; Török et al. 2024). SFSCs aim to reduce the length of food supply chains, create more direct links between producers and consumers, and promote the development of sustainable, local food systems. One of the most significant elements of these chains is FMs, which are reviving and increasingly becoming a symbol of sustainable and ethical food consumption (Gary-Webb et al. 2018; Maró et al. 2023; Neumann and Mehlkop 2023). Customers do not just value the

possibility of purchasing foodstuff at FMs—they also appreciate the community experience and personal connections. One of the main attractions of SFSCs and FMs is sustainability, as the shorter supply chains reduce the carbon footprint and support local farmers (Majewski et al. 2020; Paciarotti and Torregiani 2021). An important question is, therefore, which factors influence consumers' purchasing decisions at FMs and what differences can be observed between the analyzed countries, with their historically distinct SFSC pathways. In addressing these issues, the study deepens the understanding of consumer habits in SFSCs and FMs and provides insight into European trends in sustainable food consumption.

As we have seen, the literature on FM consumers is plentiful, these surveys typically focus on American consumers. European FMs are underrepresented, although this form of food supply chain was traditionally dominant in Europe (Maró et al. 2023).[2] Moreover, the vast majority of these consumer surveys followed a single-country approach, and only three studies we have identified undertook comprehensive comparisons (Dobbelstein et al. (2021) in Germany and South Africa, Scholten (2006) in the UK and US, and Wills and Arundel (2017) in Australia and Canada). Such single-country studies often do not involve sufficient comparability, as different sampling strategies, cultural differences and local regulations can strongly influence the results and their interpretability (Abelló et al. 2014; Carson et al. 2016; Solanki and Inumula 2021). In addition, several of the cited studies rely on secondary data (e.g., government statistics or earlier surveys), which, while providing valuable context, do not always reflect the latest consumer trends and attitudes (Jablonski et al. 2022). The use of secondary data may limit the depth of the research. Furthermore, in many cases, the samples used in studies are not representative of the entire population. For example, urban, lower or higher-educated respondents may be overrepresented in samples generated through online questionnaires (Carson et al. 2016; Elepu and Mazzocco 2010; Ruelas et al. 2012).

Thus, the contribution of our study to the literature is twofold. First, to the best of our knowledge, our study is the first to provide a comprehensive overview of three countries' FMs. It attempts to identify the similarities and differences among the consumers of the selected countries, applying the same methodological approach. Considering the aforementioned methodological shortcomings, one of the main strengths of this study is that it describes a comparative, multi-country analysis undertaken using a uniform methodology and directly collected primary data. The questionnaire and sampling procedure that were used allow for better comparability of the results and avoid the biases of single-country studies. Second, our study compares three European countries where FMs have traditionally and historically played a distinguished role despite very different food cultures (Central and Eastern Europe, Mediterranean Europe, and Western Europe). Moreover, in all three selected countries, several governmental incentives have contributed to the renaissance of the respective FMs, resulting in significant growth in the number of these markets over the last 30 years (Archer et al. 2003; Pascucci et al. 2011; Szabó and Juhász 2015).

The paper is structured as follows. After this background and literature review, the following section describes the sampling, participants of the surveys and the dataset that was constructed, together with the methodology of the logit regression models. Section 4 provides the results for all three countries; afterwards, similarities and differences among them are highlighted. The final section discusses the results in relation to prior literature and concludes.

2 | Materials and Methods

2.1 | Sampling and Participants

Data were collected through an online survey in October–November 2023, based on representative samples in Hungary ($n = 614$), Italy ($n = 600$) and the UK ($n = 600$). The online survey participants were recruited by a market research company called Szinapszis Ltd., a member of the Quercus Consulting Group. During the recruitment process, two filtering criteria were used to screen potential respondents: (1) those currently residing in the respective country and (2) responsible or co-responsible for food purchases in the household.

The survey consisted of four main parts. After the screening questions, the first section collected data on general sociodemographic characteristics (e.g., gender, age, etc.). The following section asked about general food purchasing habits (e.g., the most typical place for food shopping). Then, FM-related attitudes were surveyed for those who had visited an FM in the previous 6 months (e.g., frequency) and those who had not (e.g., reasons for not visiting). The last section collected specific socioeconomic data about respondents (e.g., occupation and income situation).

The selected countries represent European regions where FMs have historically played an important role in the food supply chain (Central Europe, West Europe and Mediterranean Europe, respectively). With this selection, we aimed to provide a comprehensive overview of typical European FM consumers in countries where FMs play a distinctive role among SFSCs.

Data collection was specifically administered in autumn, with consumers' purchasing habits at FMs captured for the past 6 months, given the period from spring to autumn can be considered the most active period due to seasonality and availability of the produce (Bir et al. 2019; Dukeshire et al. 2010; Fjeld and Sommer 1982; Garner and Ayala 2018; Ruelas et al. 2012).

The characteristics of the samples are described in Table 1. The sample can be considered representative of the entire population in terms of gender and age. However, due to the online data collection process, sampling biases (e.g., populations underrepresented because of a lower rate of access to the internet, or self-selection) might have occurred, which is typical of online surveys (Bethlehem 2010). In terms of place of residence, the Italian sample includes the largest proportion of city dwellers, while the Hungarian one includes the largest proportion of respondents from rural areas. Regarding education, at least 85% of respondents in all countries have at least an upper-secondary education or college qualification; thus, unsurprisingly, there is a large proportion of white-collar workers in the sample. The declining reproductive capacity in Europe is clearly shown by

TABLE 1 | Sample characteristics.

	Total sample ($n = 1814$)	HU sample ($n = 614$)	IT sample ($n = 600$)	UK sample ($n = 600$)
Gender (%)				
Female	51.16	50.33	51.00	52.17
Male	48.68	49.51	49.00	47.50
Other/Prefer not to say	0.17	0.16	0.00	0.33
Age				
Average	45.00	44.55	46.95	43.52
(Median)	(45.00)	(45.00)	(48.00)	(42.00)
[Standard deviation]	[14.34]	[14.43]	[13.80]	[14.59]
Residence type (%)				
City	39.09	41.53	36.17	39.50
Medium/Large town	45.31	39.25	52.00	44.83
Village	15.60	19.22	11.83	15.67
Highest level of education (%)				
Lower secondary education or below	9.48	2.77	9.50	16.33
Upper secondary education or college qualification below a degree	51.43	59.45	57.00	37.67
Higher education	39.09	37.79	33.50	46.00
Employment status (%)				
White-collar employee	41.73	42.35	38.17	44.67
Blue-collar employee	17.26	24.76	10.33	16.50
Self-employed/freelance	7.88	3.75	12.50	7.50
Retired/no longer working	11.36	15.64	9.17	9.17
Student	5.29	4.72	6.83	4.33
Homemaker	6.89	3.42	12.50	4.83
Unemployed	7.17	3.42	9.83	8.33
Other	2.43	1.95	0.67	4.67
Number of persons in the household (%)				
1 person	14.00	12.54	13.00	16.50
2 persons	32.30	39.74	25.00	32.00
3 persons	23.65	23.13	28.17	19.67
4 or more persons	30.04	24.59	33.83	31.83
Number of children in the household (%)				
No children	64.11	65.47	69.00	57.83
1 child	18.19	18.89	16.00	19.67
2 or more children	17.70	15.64	15.00	22.50
Subjective income status[a]				
Average	20.28	19.67	20.91	20.29
(Median)	(21.00)	(20.00)	(21.00)	(21.00)
[Standard deviation]	[7.68]	[7.85]	[7.35]	[7.80]

[a]Subjective income status is measured on a scale of 0–35, where higher values refer to lower income status. The methodology for the calculation is explained in the Appendix A.

household size and the fact that very few households have two or more children. Regarding subjective income status, the CFPB Financial Well-Being Scale was used as a basis (Consumer Financial Protection Bureau 2015). This scale is widely recognized as a valid and reliable measure of financial well-being, and it has been developed through extensive psychometric testing and validated across diverse populations (CFPB 2017). Unlike traditional income-based indicators, the

CFPB scale captures a more holistic view of financial security. Previous studies have confirmed its strong internal consistency and construct validity, demonstrating its significant correlations with objective financial indicators, such as savings or debt levels (CFPB 2022; Comerton-Forde et al. 2022; Czine et al. 2024). Furthermore, the CFPB scale has been successfully applied in cross-national research, supporting its robustness across different socioeconomic and cultural contexts (Netemeyer et al. 2018). Given its comprehensive nature and established reliability, it provides an appropriate basis for assessing subjective income status in this study.

2.2 | Statistical Analysis

During the research, in addition to the standard descriptive statistical indicators, regression modeling was performed; based on the scale of measurement of our dependent variable, we built a binary logistic regression model (Dalpiaz 2021; Wooldridge 2010).

Besides the estimation of the share of consumers shopping at FMs, the investigation was structured around three main research questions (RQs):

- RQ1: Does familiarity with the concept of FMs play a decisive role in visits to FMs?
- RQ2: In relation to visits to FMs, which perceived barriers/costs have the most significant (negative) influence?
- RQ3: Which factors most influence visiting FMs?

In the case of binary logistic regression modeling, the dependent variable is a simple nominal measurement level variable with a maximum of two categories. Due to the limitation caused by the mentioned binary output, identifying the model that best describes the relationship is done by calculating logarithmic chances and applying the maximum likelihood method. In the case of binary logistic regression, the response variable may be based on the formula in Equation 1.

$$\log\left(\frac{prob(Y_i = 1)}{1 - prob(Y_i = 1)}\right) = b0 + b1X1, \quad (1)$$

where $prob(Y_i = 1)$ indicates the probability of occurrence of the dependent variable, b_0 indicates the constant term of the equation, while b_1 denotes the estimated coefficient for the independent variable X.

Similar to traditional OLS regression modeling, model building can be done based on several approaches (e.g., stepwise algorithms or the simple enter method). In addition, the goodness of the models can be evaluated with several model fit indicators (e.g., McFadden R^2, Nagelkerke R^2, Cox & Snell R^2). For our study, we used the enter technique to build the model (which includes all independent variables deemed interesting from the point of view of the research objective and leaves them in the model regardless of their significance), and the McFadden R^2 indicator was used to evaluate the fit of the models. The dependent variable is the question, "Have you shopped at a farmers' market in the last 6 months?" The details of our explanatory variables are presented in Table 2.

To test the differences in some explanatory variables in the model by country, Pearson's Chi^2 test was used. This method examines the relationship between two up to ordinal measurement level variables using a non-parametric approach (Field 2009).

The statistical software JASP 0.16.2.0 was used to analyze the data (JASP Team 2023). CFA and measurement invariance analyses were performed using the R program's lavaan package, while Cronbach's alpha was calculated using the psych package (Revelle 2020; Rosseel 2012; Team, R. C 2020).

3 | Results

3.1 | Share and Food-Purchasing Habits of Consumers Shopping at FMs

Before asking respondents about their FM purchasing habits, we briefly explained what FMs are according to the national regulations in the respective countries. This was important for creating a clear understanding of the real meaning of FMs among respondents.

The share of respondents from the total sample who had shopped at an FM in the last 6 months before the surveying was large, at almost two-thirds (see Table 3).

However, country-specific characteristics exist. Based on Pearson's Chi^2 test, we conclude that there is a significant relationship between the variables ($\chi^2 = 77.\ 28$; df = 2; $p < 1\%$; Cramer's V = 0.21), with significantly more Hungarians and significantly fewer British having shopped at FMs.

It is important to note that before defining FMs and asking whether respondents had shopped at one, we asked about their knowledge of the concept of FMs (RQ1). We provided three true-or-false sentences concerning the main characteristics of the latter related to the respective national regulations (e.g., concerning where FMs can be organized or who can sell at one). As Table 4 indicates, a significant majority of respondents (approximately 80%) were unaware of the content of FM regulations concerning FMs. A hypothesis test was performed to determine the overall awareness of the definition regarding the country of the respondent ($\chi^2 = 124.50$; df = 2; $p < 1\%$; Cramer's V = 0.26). This showed that significantly more Hungarian respondents were unaware of the definition than British and Italian ones.

Without using grouping by countries as a basis, four significant relationships can be identified between shopping at FMs and the most preferred place for purchasing food (see Table 5). Generally, consumers who visited FMs preferred *not to shop at supermarkets* ($\chi^2 = 10.69$; df = 1; $p < 1\%$; Cramer's V = 0.08). However, the same consumers *preferred convenience stores* ($\chi^2 = 7.73$; df = 1; $p < 1\%$; Cramer's V = 0.07) *and hypermarkets* $\chi^2 = 4.21$; df = 1; p = 4%; Cramer's V = 0.05) significantly more than those who had not visited an FM. Interestingly, for

TABLE 2 | Variables in the regression model.

		Type of variable	Categories of variable	Sign of variable in the model
	Have you shopped at a farmers' market in the last six months?	Dependent variable	Yes	Y
			No	Reference category
Sociodemographic	Gender	Explanatory variable	Male	X_1
			Female	Reference category
	Age		Scale variable	X_2
	Residence type		Medium/Large town	X_3
			Village	X_4
			City	Reference category
	Highest level of education		Upper secondary education or college qualification below a degree	X_5
			Higher education	X_6
			Lower secondary education or below	Reference category
	Income status		Treated as a scale variable	X_7
	Employment status		Blue-collar employee	X_8
			Self-employed/freelance	X_9
			Retired/no longer working	X_{10}
			Student	X_{11}
			Homemaker	X_{12}
			Unemployed	X_{13}
			White-collar employee	Reference category
	Number of persons in the household		1 person	X_{14}
			2 persons	X_{15}
			3 persons	X_{16}
			4 or more persons	Reference category
	Number of children in the household		1 child	X_{17}
			2 or more children	X_{18}
			No children	Reference category
Familiarity	Aware of FM definition		Yes	X_{19}
			No	Reference category
Deterrent to visiting an FM	Distance		Yes	X_{20}
			No	Reference category
	Opening hours		Yes	X_{21}
			No	Reference category
	High prices		Yes	X_{22}
			No	Reference category
	Convenience		Yes	X_{23}
			No	Reference category
	Small selection		Yes	X_{24}
			No	Reference category

(Continues)

TABLE 2 | (Continued)

	Type of variable	Categories of variable	Sign of variable in the model
	Lack of information	Yes	X_{25}
		No	Reference category
	Other non-purchase reason	Yes	X_{26}
		No	Reference category

Note: For variables treated as non-scale variables, dummy coding was used; in each case, the k-1 (where k denotes the number of categories of the variable) coefficient was estimated, and the last category was treated as a reference category. Explanation of the "Aware of FM definition" variable is described in more detail in the following section.

TABLE 3 | Descriptive statistics of the regression model variables.

	Total sample ($n = 1814$)	HU sample ($n = 614$)	IT sample ($n = 600$)	UK sample ($n = 600$)
Have you shopped at a farmers' market in the last six months? (%)				
Yes	64.17	74.59	66.83	50.83
No	35.83	25.41	33.17	49.17

consumers who visit FMs, the FM was among the *preferred locations for purchasing food* ($\chi^2 = 261.04$; df = 1; p < 1%; Cramer's V = 0.38).

On a country-level analysis, it is of the utmost importance to highlight that for all three countries, for those consumers visiting FMs, the latter was among *the three most important food purchasing sources* ($\chi^2 = 96.03$; df = 1; p < 1%; Cramer's V = 0.40; $\chi^2 = 55.13$; df = 1; p < 1%; Cramer's V = 0.30; and $\chi^2 = 91.27$; df = 1; p < 1%; Cramer's V = 0.39, for the HU, IT and UK samples, respectively). In addition, Hungarian FM consumers *purchased food more often in convenience stores and less often in hypermarkets* than non-FM consumers ($\chi^2 = 96.03$; df = 1; p < 1%; Cramer's V = 0.40; $\chi^2 = 11.09$; df = 1; p < 1%; Cramer's V = 0.13, respectively).

3.2 | Reasons Why Consumers Do Not Visit FMs

Before presenting the further analysis of FM consumers, it is worth investigating the main barriers for those who do *not* visit FMs (RQ2). Those selected by the respondents are summarized in Table 6.

Based on the results of Pearson's Chi^2 test, we identified a significant correlation with *distance* ($\chi^2 = 10.59$; df = 2; p = 5%; Cramer's V = 0.11). Examining Pearson's residuals, we found that those British respondents who do not purchase at the FM due to the issue of distance are overrepresented. Among Hungarians, considerably fewer people stay away from FMs for this reason. In the case of *opening hours* ($\chi^2 = 37.88$; df = 2; p < 1%; Cramer's V = 0.20), those Hungarian respondents who do not shop at FMs due to the inadequate opening hours are significantly overrepresented. In contrast, significantly fewer British respondents stay away for this reason. Regarding *high prices* ($\chi^2 = 7.30$; df = 2; p = 2.6%; Cramer's V = 0.09), significantly fewer Italian respondents do not shop at a FM for this reason. We also identified a significant correlation with *convenience* ($\chi^2 = 41.22$; df = 2; p < 1%; Cramer's V = 0.21). British respondents value convenience significantly more, while among Italian respondents, significantly fewer people do not buy for this reason. Regarding the *small selection*, significantly more Hungarian respondents do not purchase at a FM for this reason than UK respondents. Regarding a *lack of information* ($\chi^2 = 0.51$; df = 2; p = 77.4%) and 'other' non-purchase reasons ($\chi^2 = 0.04$; df = 2; p = 98.1%), no significant relationship can be established.

3.3 | Factors Influencing Visiting FMs

To build our first regression model, we used the full sample, from which we excluded 47 observations based on the "sex of respondent" question (respondents who answered "Other/I do not want to specify") and the occupation question (respondents who answered "Other"). However, as noted earlier in the methodology subsection, our model-building technique was the so-called "enter" method, i.e. we entered (and left in, regardless of whether they had a significant effect) all the variables described in Table 7. When testing for multicollinearity, we identified > 2 VIF (variance inflation factor) values.[3] It was considered reasonable to exclude persons living in a household from the modeling.

Before starting the modeling, we examined the suitability of the questionnaire for measuring the income status of respondents (discussed in detailed in the previous chapter) in our sample. The results of the confirmatory factor analysis (CFA) showed a good model fit for all three countries (UK sample: CFI = 0.995, TLI = 0.975, RMSEA = 0.086, SRMR = 0.019; Hungarian sample: CFI = 0.999, TLI = 0.995, RMSEA = 0. 039, SRMR = 0.011; Italian sample: CFI = 0.999, TLI = 0.997, RMSEA = 0.028, SRMR = 0.010). The standardized factor loadings ranged from 0.603 to 0.921 for the UK sample, from 0.478 to 0.900 for the Hungarian sample, and from 0.693 to 0.871 for the Italian sample. Based on the modification indexes, some item correlations were allowed (between statements 1 and 2, 1 and 4, 1 and 5 for the UK sample; between statements 3 and 5, 4 and 5 for the Hungarian sample; and between statements 1 and 4 for the Italian sample), which improved the fit. The internal consistency of the scale was high for all three countries (UK sample: Cronbach's alpha = 0.88; Hungarian sample: Cronbach's alpha = 0.89; Italian sample: Cronbach's alpha = 0.90), indicating strong coherence among the items. The results suggest

TABLE 4 | Share of consumers aware of the definition of farmer's markets in respective countries (%).

	Total sample ($n = 1\,814$)	HU sample ($n = 614$)	IT sample ($n = 600$)	UK sample ($n = 600$)
Aware	19.85	5.38	25.50	29.00
Not aware	80.15	94.63	74.50	71.00

TABLE 5 | Analysis of the relationship between purchases at a farmers' market in the last 6 months and preferred place of purchase by country.

	Total		HU		IT		UK	
Most important places for buying foodstuffs	Shop at FM ($n = 1164$) (%)	Do not shop at FM ($n = 650$) (%)	Shop at FM ($n = 458$) (%)	Do not shop at FM ($n = 156$) (%)	Shop at FM ($n = 401$) (%)	Do not shop at FM ($n = 199$) (%)	Shop at FM ($n = 305$) (%)	Do not shop at FM ($n = 295$) (%)
Supermarket	74.31^{-}	81.08	53.49	55.13	86.78	87.44	89.18	90.51
Discount	65.12	64.92	76.42	82.05	59.85	65.33	55.08	55.59
Convenience store	26.46^{+}	20.62	27.29^{+}	17.95	24.19	18.09	28.20	23.73
Farmers' market	35.82^{+}	2.15	45.85^{+}	2.56	28.93^{+}	3.02	29.84^{+}	1.36
Hypermarket	30.07^{+}	25.54	48.03^{-}	63.46	32.42	33.67	0.00*	0.00*

Note: Respondents were asked to select up to three places where they normally buy groceries. Columns do not therefore sum to 100%. * As hypermarkets are atypical in the UK, this option was not available for UK respondents. "+" in the superscript: Pearson's residual > 2, "−" in the superscript: Pearson's residual < -2.

TABLE 6 | Reasons for not visiting FMs[a].

	Total ($n = 920$) (%)	HU ($n = 264$) (%)	IT ($n = 261$) (%)	UK ($n = 395$) (%)
Distance	51.96	45.83	49.04	57.98
Opening hours	20.44	31.82	21.46	12.15
High prices	35.00	39.77	28.74	35.95
Convenience	21.63	18.18	10.73	31.14
Small selection	8.48	14.77	6.90	5.32
Lack of information	18.26	19.70	17.63	17.72
Other non-purchase reason	8.15	7.96	8.05	8.35

[a]Respondents could select more than one reason, so columns may not sum to 100%.

that the scale has good reliability and fits the latent structure well in the case of all three countries. The results of invariance testing indicate that the metric invariance of the scale was met ($\Delta CFI = -0.014$), suggesting that the factor structure and the weights of the items associated with the factors are similar across the three countries. This reassures us that the scale items contribute to the underlying factor in the same way in all samples. However, the condition of scale invariance was not met ($\Delta CFI = -0.038$), suggesting that respondents may interpret the scores associated with each item differently across countries. This means that making direct comparisons of raw scores across countries may be unwise. Hence, deploying logistic regression analysis for each country separately was justified as it helps avoid measurement bias due to cultural differences. Based on this, however, the income variable was dropped from the aggregate model.

With the regression model estimation, a significant relationship was identified between the dependent variable (purchased at FM in the last 6 months) and the explanatory variables of the model (RQ3). Based on the confusion matrix values, the sensitivity values, which represent the proportion of correct predictions associated with purchasing from a FM (true positive cases), are 88.10% for the full sample, 90.65% for the Hungarian sample, 90.75% for the Italian sample and 80.95% for the UK sample. In comparison, the specificity value is 73.56% for the full sample, 48.68% for the Hungarian sample, 81.12% for the Italian sample and 82.25% for the UK sample (i.e., the proportion of correct predictions of the output not occurring, or true negative cases). Thus, the overall accuracy of the cases predicted by the full sample model is 82.97%, by the Hungarian sample model 80.03%, by the Italian sample model 87.58%, and by the UK sample model, 81.60%.

TABLE 7 | Coefficient estimates for the estimated model.

	Coefficient (Robust standard error)			
	Full sample	**Hungarian sample**	**Italian sample**	**UK sample**
b_0	2.89***	2.84***	2.93***	3.57***
	(0.43)	(1.04)	(0.92)	(0.81)
b_{male}	−0.18	−0.22	−0.19	−0.07
	(0.15)	(0.26)	(0.31)	(0.25)
b_{age}	−0.01	0.02	−0.02	−0.02**
	(0.01)	(0.01)	(0.01)	(0.01)
b_{town}	−0.24	0.15	−0.20	−0.54**
	(0.15)	(0.29)	(0.30)	(0.27)
$b_{village}$	−0.03	0.02	0.39	−0.22
	(0.22)	(0.37)	(0.52)	(0.36)
$b_{secondary\ education}$	0.27	−0.90	0.59*	−0.01
	(0.22)	(0.78)	(0.33)	(0.35)
$b_{higher\ education}$	0.28	−0.79	0.44	0.10
	(0.24)	(0.85)	(0.43)	(0.36)
b_{income}	—	−0.01	0.02	0.01
		(0.02)	(0.02)	(0.02)
$b_{blue\text{-}collar\ employee}$	−0.02	−0.10	0.42	−0.48
	(0.23)	(0.40)	(0.53)	(0.34)
$b_{self\text{-}employed}$	−0.30	0.56	0.39	−0.80**
	(0.28)	(0.87)	(0.56)	(0.34)
$b_{retired}$	−0.27	−0.59	0.47	−0.81*
	(0.24)	(0.46)	(0.53)	(0.45)
$b_{student}$	−0.09	0.28	0.26	−0.64
	(0.36)	(0.60)	(0.85)	(0.55)
$b_{homemaker}$	−1.30***	−0.40	−1.01**	−2.19***
	(0.24)	(0.70)	(0.44)	(0.53)
$b_{unemployed}$	−0.79***	−0.69	−0.64	−0.98**
	(0.23)	(0.53)	(0.40)	(0.42)
$b_{one\ child}$	0.10	0.10	0.06	0.16
	(0.20)	(0.36)	(0.41)	(0.34)
$b_{two\ or\_more\_children}$	0.08	−0.07	0.35	−0.18
	(0.20)	(0.36)	(0.45)	(0.30)
$b_{awareness\_definition}$	0.11	0.09	0.48	0.36
	(0.18)	(0.41)	(0.35)	(0.29)
$b_{distance}$	−2.77***	−2.45***	−3.96***	−2.51***
	(0.17)	(0.32)	(0.42)	(0.27)
$b_{opening\ hours}$	−0.69**	−0.56	−2.16***	0.10
	(0.30)	(0.42)	(0.57)	(0.55)
$b_{high\ prices}$	−1.56***	−1.53***	−2.23***	−1.47***
	(0.22)	(0.33)	(0.56)	(0.33)
$b_{convenience}$	−1.43***	−1.85***	−1.26*	−1.28***
	(0.27)	(0.49)	(0.66)	(0.35)
$b_{small\ selection}$	0.03	0.30	−1.39	−0.32
	(0.39)	(0.60)	(0.98)	(0.49)
$b_{lack\ of\ information}$	−2.10***	−0.83*	−3.11***	−3.03***
	(0.30)	(0.48)	(0.75)	(0.58)
$b_{other\ non\text{-}purchase\ reason}$	−2.66***	−2.61***	−3.99***	−1.66***
	(0.37)	(0.71)	(0.77)	(0.61)

(Continues)

TABLE 7 | (Continued)

	Coefficient (Robust standard error)			
	Full sample	**Hungarian sample**	**Italian sample**	**UK sample**
χ^2 (df)	896.63*** (1 744)	221.72*** (577)	390.44*** (572)	325.17*** (546)
McFadden R^2	0.391	0.326	0.517	0.412

Note: Reference categories for variables: Did not shop at a farmers' market in the last 6 months (dependent variable), Female (Gender), City (Residence type), Primary education (Highest level of education), White-collar employee (Employment status), No child (Number of people under 18 in the household), Aware of definition (Not aware of definition of the farmers' market). *, ** and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Among the coefficient estimates, those for age (UK sample), urban residence (UK sample), secondary education (Italian sample), self-employed (UK sample), retired (UK sample), homemaker (Italian and UK samples) and labor market status: unemployment (UK sample), and most of the reasons for not purchasing that we examined are statistically significant (based on a 10% significance level).

The odds ratios for the models are provided in Table A1.

4 | Discussion

Previous studies and surveys rarely report the share of consumers attending FMs, as they either focus only on FM consumers or SFSC consumers in general (without data on FMs). Therefore, the first important outcome of our research is the conclusion that the share of consumers shopping at FMs is large in all three countries (51-75%, with an average value of 64.5%). This is a remarkable share compared to previous results from around the world (42%–73%) (e.g., Dobbelstein et al. 2021; Gumirakiza and Schroering 2019; Statista 2020; T Nagy-Pető et al. 2023; Wolf et al. 2005). However, it should be noted that FMs have a long and continuous history in the selected three countries and are embedded more than in many other European countries. From a policy perspective, it is interesting to note that the concept of FMs is unclear to customers and they may be unaware of why European policymakers support SFSC initiatives, including FMs (European Commission 2013).

Our results also clearly indicate that respondents who visit FMs can be considered consumers who are open to using non-conventional food supply chains. First, consumers who shop at FMs are significantly less interested in purchasing food at supermarkets, where European consumers traditionally buy foodstuffs (Abelló et al. 2013; Hughes 2002). Second, for those respondents who do shop at FMs, the latter are among the most important places for buying foodstuffs, a finding supported at the country level. Third, FM consumers prefer convenience stores, which are also less obviously part of the globalized food supply chain concept. In addition, in Hungary, FM consumers visit hypermarkets significantly less than those who do not.

It is also important to understand why consumers do not purchase food at FMs. Our results indicate that distance (between the place of residence and the FM) and high prices (compared to supermarkets) are the reasons most frequently identified in all three countries. For Hungarians and Italians, opening hours (e.g., FMs are open only on selected day(s) of the week with limited opening hours), while for British respondents, convenience (e.g., the limited variety of products) is among the three major reasons. In addition, a lack of information (e.g., concerning where and when FMs can be accessed) is a major factor behind consumers do not visit FMs in Hungary, Italy and the UK. These findings are in line with those of previous studies.

According to the literature review on FM consumers by Maró et al. (2023), the perception of higher prices at FMs than in-store was the main reason that customers do not shop at FMs. The factor of price is a reason for non-purchasing in the countries we examined (e.g., in Hungary—see Szabó and Juhász 2015) and in other European (Dobbelstein et al. 2021), North American (Bir et al. 2019; Dodds et al. 2014; Wills and Arundel 2017; Witzling and Shaw 2019) and developing world countries (Aguirre 2007). Even though price is an important consideration in most research, some studies (Rust 2020; Youngs 2003b) show that FM buyers perceive lower prices at FMs than other shopping venues. Also, the increase in inflation in EU countries has made prices at FMs and retailer units more similar. The interplay between inflationary pressures and agricultural pricing is multifaceted and influenced by factors such as supply and demand dynamics, production costs, monetary policy, and external shocks (e.g., the energy crisis) (Coluccia et al. 2021; Kotz et al. 2024; Maró et al. 2025). One of the principal advantages of SFSCs is that they minimize the number of intermediaries, thereby potentially mitigating the transmission of inflation and inflationary pressure to consumer prices (Maró et al. 2023; Renting et al. 2003). However, small-scale producers who sell at FMs continue to face rising input costs, including energy prices, transport costs and raw material prices, all of which have substantially increased in recent years (Maró et al. 2025; Neumann and Mehlkop 2023).

Based on the literature, distance causes the most problems in the UK among the examined countries. This agrees with the findings of studies conducted in the USA (Farmer et al. 2019; Jilcott Pitts et al. 2015; Ylitalo et al. 2019) that identify the relevance of distance instead of/besides price.

Regarding the factors that influence shopping at FMs in general (not country-specifically), we find that the odds of shopping at the latter is greater if the consumer is middle-aged, lives in a large city, has a higher-level education and employed as a white-collar worker, and has one child in the family. While most of these variables do not reach statistical significance in the full model, their estimated effects remain consistent with theoretical expectations and prior research, supporting their interpretive relevance. On average, one additional year of

consumers' age decreases the odds of shopping at an FM by 1%, indicating that the older a consumer is, the less likely they will purchase food at an FM. However, this finding should be evaluated carefully, as having a child, on the other hand, increases the odds by more than 11%. This suggests that consumers are most open to FMs when they are raising a (first) child, when, similar to attitudes with organic food, parents consider products from FMs to be healthier and more desirable for their child(ren) (Tung et al. 2015; Vasco et al. 2018). Typically, modern FMs are located in an urban environment (Elepu and Mazzocco 2010; Klimek et al. 2021; Shakow 1981), and our results suggest that residents of big cities (in our survey, those with more than 100,000 inhabitants) are more likely to visit FMs than those living in towns (5000–100,000 inhabitants). This might be connected to the less direct connection in cities to food-producing activities and less access to fresh and seasonal foods, often referred to as food deserts in the USA (Gary-Webb et al. 2018; Sadler 2016). A higher level of education is a crucial determinant. Compared to consumers with a primary level of education, those with a secondary education or diploma are significantly more likely to shop at FMs (+ 31% and +32%, respectively). This fully aligns with previous findings (Aguirre 2007; Dodds and Holmes 2017; Gary-Webb et al. 2018) and underlines the utmost importance of education in fostering positive attitudes towards FMs. Employment status are also crucial. Homemakers and unemployed consumers are significantly less likely to visit FMs (compared to white-collar workers), highlighting the price sensitivity of these consumer groups (Dodds and Holmes 2017; Obach and Tobin 2014). Exceptions are countries where various government initiatives support buying at FMs (Farmer et al. 2019; Gary-Webb et al. 2018).

The country-level breakdown models indicate similar results, although the Hungarian model did not identify significant associations (in terms of sociodemographic variables). In the UK, age, place of residence and employment status significantly influenced the odds; likewise, this latter factor was identified as relevant in the full model. In addition, being a student in the UK reduces the odds of purchasing food at FMs by 47% (although this effect is not statistically significant). This trend can be attributed to several structural and behavioral factors. British students are very price-sensitive due to typically high tuition fees and living costs, so they prefer to shop at cheap supermarkets (Kowalska et al. 2021; Wojciechowska-Solis et al. 2022). In addition, the dominance of supermarkets and the prevalence of online shopping reduce the need for markets (Chan 2022; Guthrie et al. 2006). Although sustainability is important to students, activities may focus more on reducing food waste and eating a sustainable diet than supporting local markets (Culliford and Bradbury 2020). In other countries, such as the US and Hungary, universities are more active in organizing markets on campus, thereby increasing student participation (Maró et al. 2022; Pothukuchi and Molnar 2015; Ward et al. 2014). In the UK, integrating markets into universities could help to increase student engagement.

4.1 | Managerial Implications

Our results suggest valuable managerial implications for both FM managers and producers.

First, consumers attracted by FMs are more liable to be engaged in alternative food supply chains and tend to be regular customers of such. This might indicate a way to increase involvement in other short food supply chains (e.g., box schemes or community-supported agriculture initiatives).

Second, the main reasons consumers do not visit FMs are also very informative. Though some are not easy to deal with (e.g., higher prices due to the smaller economies of scale or less product variety compared to supermarkets), others might be easily adjusted. Opening hours should be defined to meet the needs of the average metropolitan consumer. Instead of the typical Saturday early morning market, FMs could be opened on Fridays before the end of the working day of the typical FM consumer, so they can purchase fresh and seasonal raw materials for cooking at home on the weekend. Regarding place, easily accessible and central locations should be targeted. In addition, FMs might consider attracting consumers by locating their venues in office buildings where white-collar employees typically work. Another good practice might be bringing FMs closer to students by holding them on university campuses or near universities. The majority of university students are potential future buyers at FMs, as they possess or will possess the typical characteristics of FM buyers. A lack of information is also often mentioned as a barrier, suggesting that the communication channels typically used by FMs are not effective; therefore, they might be adjusted.

Third, a differentiated marketing strategy should be applied. One should consider the most typical FM consumers and focus on meeting their specific needs (e.g., providing activities for children, attracting the whole family). Besides purchasing food, such customers may highly value the atmosphere at the FM or maintaining relationships with others. However, atypical consumers should also be reached by providing targeted incentives (e.g., price discounts for students and pensioners).

4.2 | Policy Implications

From a policy perspective, FMs are supported in Europe as they provide market access to small-scale producers by directly linking farmers with final consumers and providing the latter with healthy, fresh and seasonal food. These objectives were only partially covered by our survey; however, results indicate that FM initiatives might live up to their promise. First, FMs can link urban consumers with farmers, which is supported when modern FMs are located in cities or next to cities. On the other hand, although Europe is not yet affected by the food deserts typical of US metropolitan areas, our results indicate that FMs can effectively reach vulnerable consumer groups (e.g., families with children) and provide them with access to fresh and healthy food.

Interestingly, consumers are usually not aware of the policy principles related to FMs (e.g., that they are places where local small-scale producers can sell their food products). One may interpret that consumers, first and foremost, care about the products available at FMs. This may raise questions such as whether it is reasonable to restrict who can sell what at FMs.

Some previously mentioned managerial implications also suggest policy implications. A (more) supportive legislative environment could further catalyze the spread of FMs, for example, in terms of where FMs can be set up. FMs can also play an educational role by creating more conscious consumers; for example, FMs organized at university campuses can reach students who are currently atypical but potential FM consumers.

4.3 | Limitations

Our results can only be generalized to the whole of Europe with caution, as we have examined countries with historically positive attitudes towards FMs. In other European countries, where the regulatory environment is not as strongly in favor of FMs, the general attitudes of consumers might be substantially different due to the lower number of FMs. For each of the estimated regression models, an "enter" technique was used, that is, all variables of interest were included in the models and then retained (regardless of whether they represented a significant effect). We also did not test for interaction effects or attempt to include new variables in the explanatory variables. Although the research takes into account a number of factors (e.g., socio-demographic, barriers to visiting FMs), it does not examine in detail the psychological and cultural factors that may also influence FM attendance (e.g., trust in local producers, traditional eating habits, the influence of marketing). More in-depth qualitative research (e.g., interviews or focus groups) could help to explore these aspects.

5 | Conclusion

This study is the first to empirically characterize European FM consumers using a multi-country approach. It thus makes a unique contribution to the literature and helps understand how the SFSC concept, already widely supported in Europe, can be further developed based on consumers' characteristics.

The findings allow us to draw a number of conclusions. First and foremost, the results based on a three-country comparison are in line with those from previous case-study-like approaches. This confirms that the earlier results in the European literature on FMs are similar; they do not refer to isolated cases but can be interpreted more broadly. There is a need for simultaneous multi-country analyses since, in a fast-changing, challenging world (ref. COVID-19 or the recent period of high inflation in the European Union), FMs are also changing.

Second, in European countries, where FMs traditionally play a distinguished role, the share of consumers visiting FMs is large and these consumers have similar characteristics.

Third, consumers who do not visit FMs have analogous reasons for not doing so in all three countries, and many of these barriers might be overcome using managerial or policy instruments. This might further increase the number of FM consumers.

5.1 | Further Research Directions

Future research should explore consumers in European countries where FMs play a different role. Our study investigated three countries where FMs have traditionally been part of well-established food supply chains. Therefore, other parts of Europe (e.g., Western-European, Baltic or Balkan countries), other developed countries with different approaches (e.g., USA and the SNAP) or developing countries (e.g., Asian wet markets) could be included in comparative analyses. It would also be interesting to examine how supply-side actors (producers or market organizers) see the consumers of FMs and what they think about the related obstacles. In this way, the two most important actors in SFSCs, thus FMs, could develop together. From a methodological point of view, it may be worthwhile testing different model-building techniques (e.g., stepwise algorithms) and different interactions in the models and trying to include other explanatory variables to predict the dependent variables better.

Author Contributions

Áron Török: conceptualization, investigation, funding acquisition, writing – original draft, methodology, validation, visualization, writing – review and editing, formal analysis, supervision. **Gréta Maró:** conceptualization, writing – original draft, writing – review and editing. **Zsófia Jámbor:** conceptualization, writing – original draft, writing – review and editing. **Zalán Márk Maró:** conceptualization, writing – original draft, writing – review and editing. **Barbara Tocco:** conceptualization, writing – original draft, writing – review and editing. **Péter Balogh:** conceptualization, writing – original draft, writing – review and editing, methodology. **Péter Czine:** conceptualization, investigation, writing – original draft, writing – review and editing, methodology, visualization, software, formal analysis.

Ethics Statement

The Authors state that the manuscript obtained ethics approval of the Ethical Committee of the Corvinus University of Budapest (KRH/261/2023).

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Endnotes

[1]The SNAP (Supplemental Nutrition Assistance Program) is a federal program that provides funds (on a monthly basis) for people to buy the food they need to thrive.

[2]The systematic literature review of Maró et al. (2023), which collected empirical studies of FM consumers, identified 106 studies, of which 58 were conducted in the USA, 8 in Canada and 5 in Australia. Only 21 pieces of research surveyed different European FMs.

[3]Employment status (Full sample: VIF = 2.572, Hungarian sample: VIF = 4.183, Italian sample: VIF = 4.146, UK sample: VIF = 2.427, number of persons living in a household (Full sample: VIF = 2.573, Hungarian sample: VIF = 3.546, Italian sample: VIF = 2.362, UK sample: VIF = 3.757) and persons under 18 living in a household (Full sample: VIF = 2.533, Hungarian sample: VIF = 3.586, Italian sample: VIF = 2.139, UK sample: VIF = 3.434).

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Appendix A
Measuring Subjective Income Status

To assess subjective income, we evaluated five statements with our respondents on a scale from 1 to 7 (1: Strongly disagree, 7: Strongly agree), which were as follows: (1) "A large, unexpected expense would be difficult for me to handle," (2) "I'm just getting by financially," (3) "In a given month, a gift intended for a wedding, birthday, or other event will burden me financially," (4) "By the end of the month, I have no money left to spend," (5) "Sometimes I have unpaid bills." The scores given for the five statements were summed up and the "Subjective income status" variable was created from this (for which the maximum score was 35, indicating the "worst" income situation).

TABLE A1 | Odds ratios for the models.

	Odds ratio			
	Full sample	**Hungarian sample**	**Italian sample**	**UK sample**
b_0	18.07	17.15	18.75	35.51
b_{male}	0.83	0.80	0.83	0.93
b_{age}	0.99	1.02	0.98	0.98
b_{town}	0.79	1.16	0.82	0.58
$b_{village}$	0.97	1.02	1.48	0.81
$b_{secondary\ education}$	1.31	0.41	1.79	0.99
$b_{higher\ education}$	1.32	0.46	1.56	1.11
b_{income}	—	0.99	1.02	1.01
$b_{blue\text{-}collar\ employee}$	0.98	0.90	1.52	0.62
$b_{self\text{-}employed}$	0.74	1.74	1.48	0.45
$b_{retired}$	0.77	0.55	1.60	0.45
$b_{student}$	0.92	1.32	1.30	0.53
$b_{homemaker}$	0.27	0.67	0.37	0.11
$b_{unemployed}$	0.45	0.50	0.53	0.37
$b_{one\ child}$	1.11	1.10	1.06	1.17
$b_{two\ or\_more\_children}$	1.08	0.93	1.42	0.84
$b_{awareness\_definition}$	1.12	1.10	1.61	1.44
$b_{distance}$	0.06	0.09	0.02	0.08
$b_{opening\ hours}$	0.50	0.57	0.12	1.10
$b_{high\ prices}$	0.21	0.22	0.11	0.23
$b_{convenience}$	0.24	0.16	0.29	0.28
$b_{small\ selection}$	1.03	1.36	0.25	0.73
$b_{lack\ of\ information}$	0.12	0.44	0.04	0.05
$b_{other\ non\text{-}purchase\ reason}$	0.07	0.07	0.02	0.19

(Continues)

TABLE A1 | (Continued)