

Assessing Price Responsiveness in the Coffee Market: Insights from Poland, Hungary, and Romania

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Abstract. *Coffee consumption is a part of people's purchase, influenced by various factors, particularly by changes in its price. Knowledge of the quantity consumed define when its price varies is significant for marketers, policymakers, and researchers of the economic situation. The paper presents an analysis of the sensitivity of coffee consumption to its price in Poland, Hungary, and Romania. It emphasises the relationship between price fluctuations and consumption patterns over time. Previous scientific papers have pointed out that the flexible nature of demand is key for the markets of foods and drinks and that the markets get impacted by pricing strategies. Earlier studies have looked at different economic factors that press on coffee drinking, but few of them focused on its price sensitivity in the Central and Eastern European markets. This article plans to fill this gap by conducting a quantitative analysis of price-consumption dynamics using historical market data for three selected countries. The results show large variations in the degree to which prices fluctuate in all three markets, indicating divergent behavioural responses and money conditions. Findings indicate that while coffee consumption remains relatively stable under normal circumstances, specific price levels trigger unequivocal responses in demand. These matters contribute to a clearer understanding of how price influences demand and provide valuable insights for pricing, policymaking, and market movement predictions. It provides empirical evidence on the relationship between coffee price and its consumption, hence enriching the field of consumer economics. It adds value to the literature by filling a regional gap and increasing knowledge about demand dynamics in Central and Eastern Europe, thus providing relevant insight for all parties involved in the coffee industry and the development of economic policies.*

Keywords: Coffee Consumption, Price Sensitivity, Demand Elasticity, Consumer Behaviour, Market Analysis.

Introduction

Coffee is one of the most popular drinks and has great economic value, especially in Europe. For ages, coffee has moved from being a luxury item to a basic good, making it an important topic for economic studies. In countries such as Poland, Hungary, and Romania, the model of drinking coffee has been determined by many money - related and social aspect - such as income levels, price changes, and consumers behaviour. In countries such as Poland, Hungary, and Romania, coffee consumption patterns have been influenced by various economic and social factors—including income levels, price fluctuations, and consumer preferences (European Coffee Report, 2021). Consumer behavior in the context digital society has significantly changed purchasing decisions, including for staple goods like coffee (Drăghici & Constantinescu, 2024). Analysis based on economic models gives a better understanding of the market situation and how demand reacts when pressures come especially from financial instability.

Therefore, the price elasticity of demand remains one of the core concepts in the behaviour of consumers concerning coffee (Proença et al., 2022). It measures the degree at which changes in the price of coffee relate to changes in its consumption. As earlier studies indicated, coffee is generally considered an inelastic good despite its significance as a staple commodity; therefore, price changes do not influence it significantly (Vochozka et al., 2022). But market structure, income distribution, and consumer preference can alter such dynamics; for instance, economic transitions in Eastern European nations have considerably reshaped their consumption patterns (European Commission, 2019).

Previous studies have explored price elasticity in Western European markets (Bojnec & Fertő, 2020). This purpose of this paper is to look at how much the demand for coffee in Poland, Hungary, and Romania modifies when its price changes. It will use real data to see how changes in coffee prices affect the quantity of coffee consumed. The study uses a simple regression model to determine the level of elasticity and examine how sensitive consumers are to price changes. The lessons will give new ideas about buyer habits, market efficiency, and possible plans for firms operating in the coffee industry. Also, this research adds new insights on demand elasticity and market stability in Central and Eastern Europe.

Poland, Hungary, and Romania were selected for this analysis due to their distinct economic transformations and evolving consumer behaviors in the coffee market. These countries exhibit varied levels of price sensitivity and income-driven consumption patterns, making them ideal for studying the impact of price fluctuations on coffee demand in the context of Central and Eastern Europe. These transformations have also shaped the competitiveness of Romania's agri-food sector in international trade, which indirectly influences coffee market trends (Istudor & Petrescu, 2021).

The structure of this paper is the following one: the next section provides a literature review relating to most relevant research on coffee consumption and price elasticity. This is followed by a methodology section that provides the data sources and analytical techniques employed. Results, based on empirical findings, are presented following the methodology section. The next sections discuss the implications for coffee markets and provide concluding remarks on policy recommendations and directions for future research.

Literature review

The consumption of coffee is a relevant economic indicator, reflecting the differences between consumer preference and market conditions. It is one of the most traded commodities and very important for designing global trade policies (Giovannucci et al., 2003). The export competitiveness of agri-food products, including coffee, within the EU-27 is shaped by technical complexity and market integration, which influence pricing strategies and consumer access (Lădaru et al., 2024). In fact, over the years, coffee has transformed its utility from that of a luxury good to that of a staple commodity with essential status and sustained demand in most markets. The economic behaviour of consumers for coffee is, therefore, manifested in this case because it depends on the level of income, the price of the commodity, and its supply (Vochozka, Petrách, & Janek, 2022). Recent studies suggest that despite its inelastic nature, coffee consumption is influenced by various macroeconomic conditions, such as inflation and income distribution (International Coffee Organization, 2022).

The world coffee supply chain is distributed between small farmers, exporters, and big companies. Research has shown that market power is shared among exporters and large retailers, which greatly affects their pricing strategies, distribution patterns and the consumers choices related to coffee (Radosavljević et al., 2024). Such a setup creates imbalances in prices, and more

often than not, it leads to price stickiness at the level of the consumer even when there are changes in the cost of production (Bjorvatn, Milford, & Sorgard, 2015). The price elasticity of demand refers to the quantity demanded of a good in relation to its price change. Related to coffee, various studies have shown that demand is generally inelastic, implying that consumption does not vary too much with price changes (Bonnet & Villas-Boas, 2016).

On the other hand, this general characteristic of inelasticity is not accepted in all situations and the response of consumers to price changes is affected by certain regional and economic conditions. Recent studies suggest that in some European markets, coffee may show characteristics of an inferior good. This means, according to the theoretical definition, that as income rises, the demand for coffee may decline. All this is explained by substitution effect behaviour whereby higher-income consumers now will be able to choose premium alternatives such as specialty coffee or certain organic brands. On the other hand, the degree to which coffee is inferior varies in different economic environments. Its classification is subject to regional market structures and consumer behaviour trends (Vochozka et al., 2022). Research on coffee markets in Europe has underlined the fact that the consumer response to pricing is asymmetric. In particular, a study conducted in France demonstrated that consumers react significantly more to the rising of prices than to the lowering of prices, which further underlines the fact that the elasticity of coffee prices depends on both psychological and market-oriented variables (Bonnet & Villas-Boas, 2016). In this way, coffee demand in richer EU nations seems largely insensitive to transient price fluctuations, which reinforces the view of coffee as an essential rather than an optional good. Unlike the Western European countries, where the coffee consumption is more or less stable, Poland, Hungary, and Romania are special cases (Griffith & Harmgart, 2020).

These countries have undergone major economic transformations that have brought about changes in consumer purchasing power and overall spending behaviour. Therefore, companies, policymakers, and economic analysts interested to valorise market strategies will find it important to know how coffee consumption in these markets responds to prices (Vochozka et al., 2022).

Cultural attitudes toward coffee consumption also play a role in price sensitivity. In Poland and Hungary, the factors of urbanisation and changing lifestyles have enhanced coffee consumption, especially in metropolitan areas where the “café” culture is expanding. On the other hand, Romania has shown more price-sensitive patterns of consumption about coffee, with variations in disposable income affecting the purchasing decisions for coffee (Friberg & Sanctuary, 2018). Multinational coffee brands and retailers use dynamic pricing strategies to address different levels of price sensitivity in different markets. For example, the regional pricing strategy at Starbucks exemplifies how price segmentation can be leveraged to maintain market share while considering different levels of consumer willingness to pay. According to Proença et al. (2022), smaller retailers and local brands often do not have the flexibility to raise or lower prices due to their cost structures and supply chain arrangements.

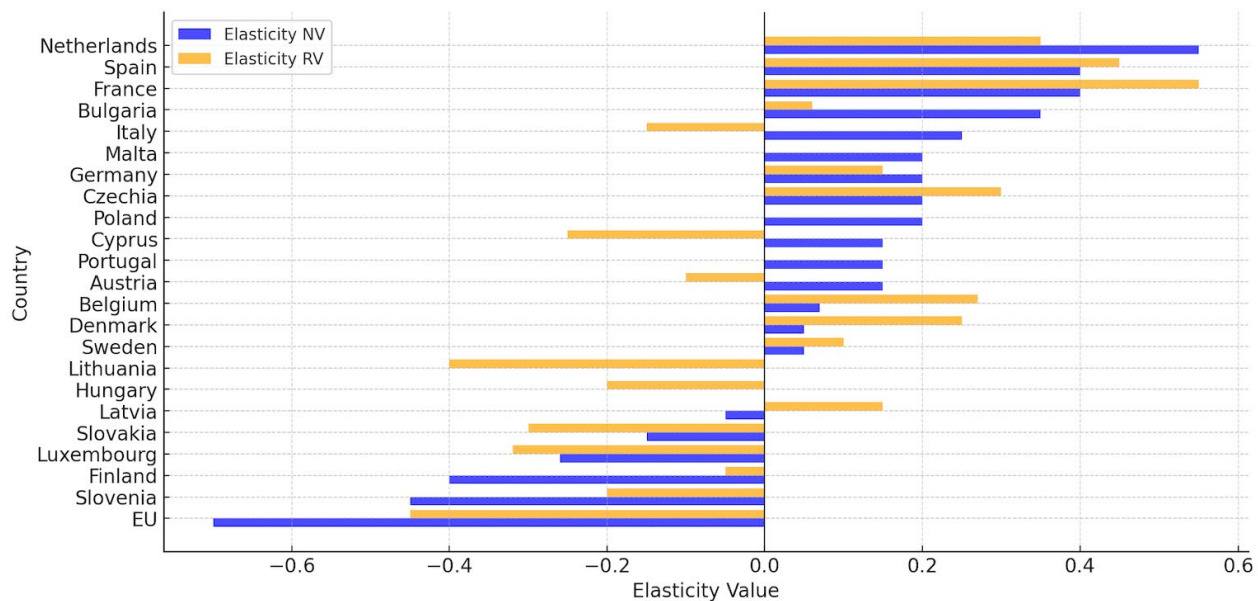
The wealthy consumer segment is increasingly demanding organic and fair-trade coffee. As per research, it has been identified that a considerate factor in the purchasing decision of coffee is quite related to its ethics. However, in developing economies such as Poland, Hungary, and Romania, price remains the primary driver of purchasing decision. The focus on fair-trade or organic coffee products is low because of their pricing cost (Hindsley, McEvoy, & Morgan, 2020).

Recently, studies show that sustainable production and consumption became more relevant and pressing issues in order to reach sustainable development and the patterns for both production and consumption of food have major policy implications, at the world scale, due to the Sustainable Development Goals priorities or at the regional level, with tailored instruments for every sector

(Lădaru & al., 2020). The competitiveness of agri-food sector depends on a set of factors, such as product quality, production efficiency, logistics infrastructure, access to international markets and the ability to adapt to market changes and consumer demands (Lădaru & Petre, 2024).

The results regarding the sensitivity of coffee consumption to price have broad implications for policymakers as well as market players. Demand elasticity can be affected by tax policies, import regulations, and consumer subsidies; the latter three are issues of great interest to politicians. In addition, business enterprises should adjust their pricing strategies according to the observed difference in elasticity across the various economic segments (Vochozka et al., 2022). In this regard, the competitiveness of Romania's agri-food sector is also influenced by evolving EU agricultural policies, which impact price structures and consumer access to imported goods, including coffee (Istudor, 2022). While extensive studies have taken place in Western European coffee markets, research in Central and Eastern Europe is not so extensive. As these economies are becoming increasingly significant, it is important to explore how inflation and income growth shape coffee consumption patterns within them.

Figure no. 1 Price elasticity of coffee demand in EU



Source: Author adaptation according to results presented by Vochozka. et. al., (2022).

According to the literature, the price elasticity of coffee varies significantly between markets. Developed markets show lower elasticity. Western Europe is the most inelastic region. Emerging markets such as Poland, Hungary, and Romania are very sensitive to prices. However, research shows that smaller coffee retailers lack pricing flexibility due to supply chain constraints (Proença et al. 2022). This paper undertakes an empirical study for filling this research gap on how change in prices affects the consumption of coffee in these three countries. Findings help to a better understanding of consumer behaviour and dynamics within the coffee industry.

Methodology

The methodology of the research is based on quantitative study to analyse the relationship between home coffee consumption and the major economic variables such as the price of coffee consumption both “at home” and “out of home” and consumer expenditure in three Central and Eastern European economies: Romania, Poland, and Hungary.

The study uses a multiple linear regression model that estimates how much the changes in coffee prices and consumer spending could affect the amount of coffee consumed at home. The goal is to find out how sensitive consumers are to price in these three economies and to evaluate how much substitution effects take place between out-of-home and at-home coffee consumption.

Accordingly, the equation of the **multiple regression model** (1) is given as:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \quad (1)$$

Where:

Y refers to the actual values of the dependent variable, specifically home consumption of coffee on a per capita basis. The independent variables include X_1 , which captures the price of coffee at home; X_2 , the price of coffee outside the home; and X_3 , consumer expenditure per capita. The parameters of the model, α and β coefficients, refer to the intercept and slope coefficient, respectively, indicating the statistical relationship between the independent variables and dependent variable-coffee consumption at home. Lastly, ε is the error term; it captures all other unobserved factors that affect coffee consumption at home.

The model includes 7 observations for each country for the years 2018-2024. The data was obtained from Statista which ensured that there was uniformity in economic and consumption-related indicators during this period. The regression model for the empirical analysis was estimated using EViews. EViews is a software application that is very appropriate for time-series econometric analysis. This choice was made because EViews can process small time-series datasets efficiently and effectively while offering robust statistical insight into model adequacy and variable relationship robustness.

The multiple linear regression model used in this study will help explain the magnitude of changes in coffee prices and consumer spending on coffee consumption at home. Estimation is done using the Ordinary Least Squares (OLS) method, which guarantees that coefficient estimation is unbiased and efficient in practice. To check the significance of the regression coefficients, we applied t-tests. In particular, it was used to establish the statistical effect of price variations and consumer expenditure on the consumption of coffee. The adequacy of the model, as well as regression overall, was tested using R-squared and F-statistic; these two metrics indicate how well the independent variables explain variability in coffee consumption at home.

This study helped to know better how sensitive people are to prices in the coffee market and gave relevant information about consumers in Romania, Poland, and Hungary. These results will help make smart choices about coffee pricing, economic plans, and make proper decisions in the future for the coffee market.

Romania, Poland, and Hungary were preferred for this analysis because of their common geographical location in Central and Eastern Europe and the substantial economic and social changes that have taken place in recent decades. From centrally planned economies, market systems were introduced and further integrated into the European Union, creating separate consumer markets for each. The macro-region context classifies them under the same group; however, each nation has specific characteristics relating to disposable income, household expenditure behavior, and cultural attitudes regarding coffee. It can help provide a meaningful,

comparable frame for studying differentiated response in coffee consumption to economic factors such as price and income.

The methodological choice of applying an individual multiple linear regression model for each country is informed by the task of detecting and studying the unique internal forces that shape coffee consumption at the national level. Every country labors under distinct economic factors, a different policy setting, and varied cultural habits regarding consumption, all of which uniquely pattern consumer conduct. Calculating separate models for each country enables a more lucid analysis of how the price—both at home and outside home—and consumer expenditure affects demand in that specific environment, without being masked by averaging over or diluted by effects across countries. This method is most appropriate when the aim is to capture country-specific behavioral trends rather than creating a single regional impact. It helps in the identification of crucial factors such as substitution effects and income elasticity, taken at a level specific to the context.

The dataset has a small count of yearly observations, but the chosen approach offers useful information on how consumption trend develops with economic transformation over time. The cross-country regression models support an alternative aspect that demand dynamics are important in every market for the aim of the study, which is to provide evidence that may be valuable for companies, retailers, and policymakers who want to base their strategies and interventions on these local conditions.

Results and discussions

The following table (Table 1) presents data on the evolution of coffee consumption at home, coffee prices, and consumer spending per capita in Romania, Poland, and Hungary during the period 2018-2024.

Table 1. Evolution of Coffee Consumption, Prices, and Consumer Spending in Romania, Poland, and Hungary (2018-2024)

Year	Romania			
	Coffee Consumption per capita at home (kg)	Price per unit at home (€)	Price per unit out of home (€)	Consumer spending per capita (€)
2018	40,5	11,39	103,2	6,665
2019	41,8	11,27	103	7,159
2020	39,49	11,14	102,8	6,949
2021	42,09	10,95	101	7,718
2022	46,95	11,81	108,7	9,362
2023	44,49	13,84	127,3	10,56
2024	44,73	14,78	135,9	11,42
Year	Poland			
	Coffee Consumption per capita at home (kg)	Price per unit at home (€)	Price per unit out of home (€)	Consumer spending per capita (€)
2018	25,53	8,32	151,9	7,67
2019	24,41	8,3	153,7	8,046
2020	22,25	8,04	151,6	7,779
2021	22,68	7,73	145,6	8,504
2022	24,56	8,11	153,1	9,866
2023	24	9,52	179,5	11,08
2024	24,33	10,36	195,3	11,73

Year	Hungary			
	Coffee Consumption per capita at home (kg)	Price per unit at home (€)	Price per unit out of home (€)	Consumer spending per capita (€)
2018	2,58	11,95	114	6,847
2019	2,54	12,05	114,7	7,379
2020	2,44	11,51	109,5	6,994
2021	2,51	11,28	107,4	7,651
2022	2,57	12,61	120	8,68
2023	2,57	16,7	158,9	10,04
2024	2,58	18,06	171,9	10,7

Source: Statista - Coffee - Worldwide (2024) [Accessed 10 February 2025].

The regression results for Romania demonstrate high explanatory power, with an R-squared value of 0.976, meaning that 97.6 percent of the variation in coffee consumption at home is accounted for by the model. The F-statistic value is 40.02 with a probability of 0.0064, which signifies that the overall model is statistically significant, that is independent variables significantly influences coffee consumption at home. The intercept value, 50.22, is statistically significant because it indicates that there would be a very high baseline level of coffee consumption even in the absence of price and spending variation. The price of coffee at home has a robustly positive and significant impact, with a coefficient value of 13.30 and a probability value of 0.0464; this means that an increase in the price per unit at home is related to an increase in consumption. This may imply a possible perception of quality, where consumers associate higher prices with better coffee. On the other hand, the price of coffee outside had a negative effect, with a coefficient value of -1.80 and a probability value of 0.0313, which confirms a substitution effect meaning that whenever outside coffee becomes more expensive, it switches the demand to consume more coffee at home. Per capita consumer spending, with a coefficient of 3.77 and a probability of 0.0032, has a strong and statistically significant positive effect, indicating that higher disposable income contributes to increased consumption of coffee at home. This reveals that coffee consumption is very sensitive to economic conditions and to the purchasing power of consumers. The Durbin-Watson statistic is 2.89, which shows that there is no strong autocorrelation; hence, it confirms the reliability of the model.

To conclude, Romania's results confirm that coffee consumption at home is very sensitive to price changes, demonstrating clear substitution effects and income-driven consumption behaviour. Such findings have strong implications for pricing strategy and consumer market dynamics in the coffee market of Romania.

Table 2. Regression Analysis of Coffee Consumption at Home in Romania (2018-2024)

Dependent Variable: Coffee Consumption per capita at home (kg) (current US\$)

Method: Least Squares

Included observations: 7

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	50.21527	2.872158	17.483347	0.004
Price per unit at home (€)	13.29520	4.053616	3.279838	0.0464
Price per unit out of home (€)	-1.802803	0.470595	-3.830902	0.313
Consumer spending per capita (€)	3.771653	0.433701	8.696446	0.0032
R-squared	0.975623	Mean dependent var		42.86429
Adjusted R-squared	0.951245	S.D. dependent var		2.630740
S.E. of regression	0.580880	Akaike info criterion		2.047016
Sum squared resid	1.012266	Schwarz criterion		2.016107
Log likelihood	-3.164555	Hannan-Quinn criteria.		1.664993
F-statistic	40.02159	Durbin-Watson stat		2.892707
Prob(F-statistic)	0.006414			

Source: Authors' own data processing in Excel, based on the data from Table 1.

The regression results for Poland also indicate a robust model fit—an R-squared of 0.915 means that 91.5 percent of the variation in coffee consumption at home is explained by the independent variables. The F-statistic value, 10.72, with a probability of 0.0411, confirms that the overall model is statistically significant. The intercept value, 20.93, is also statistically significant—it represents the baseline level of coffee consumption at home. The price of coffee at home has a coefficient value of 13.81 and a probability value of 0.0117, reflecting a positive and significant association with coffee consumption. This can be explained by the perception regarding quality, similar to Romania, where higher prices might not discourage consumption but will ensure better product quality. The coefficient for the price of coffee out-of-home is -0.78, with a probability value of 0.0130; this confirms the substitution effect. Higher prices in coffee shops, according to these results, would encourage consumers to drink more coffee at home.

Per capita consumer spending, with a coefficient of 1.08 and a probability of 0.0454, has a weaker but still significant effect on at-home coffee consumption. This means that disposable income does really affect coffee consumption, but a lesser amount than Romania does. The Durbin-Watson statistic is 3.49; it indicates that there is less than a negligible worry about autocorrelation in this model, and the model itself is good.

Overall, the results for Poland confirm that price sensitivity does exist, particularly regarding substitution effects. On the other hand, income plays a slightly lesser role in shaping coffee consumption behaviour than in the case of Romania. These findings reflect to the interactions between pricing and consumer spending in the Poland's coffee market.

Table 3. Regression Analysis of Coffee Consumption at Home in Hungary (2018-2024)

Dependent Variable: Coffee Consumption per capita at home (kg) (current
US\$)

Method: Least Squares

Included observations: 7

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.267828	0.094572	23.97980	0.0002
Price per unit at home (€)	-3.886555	1.558212	-2.494240	0.0882
Price per unit out of home (€)	0.406922	0.162882	2.498270	0.0878
Consumer spending per capita (€)	0.053317	0.034044	1.566143	0.2153
R-squared	0.771028	Mean dependent var		2.541429
Adjusted R-squared	0.542056	S.D. dependent var		0.051455
S.E. of regression	0.034820	Akaike info criterion		-3.581667
Sum squared resid	0.003637	Schwarz criterion		-3.612575
Log likelihood	16.53583	Hannan-Quinn criteria.		-3.963690
F-statistic	3.367346	Durbin-Watson stat		2.270921
Prob(F-statistic)	0.172652			

Source: Authors' own data processing in Excel, based on the data from Table 1.

The regression results for Hungary indicate a poorer model fit, with an R-squared of 0.771 meaning that 77.1 percent of the variation in coffee consumption at home is explained by the model. The F-statistic value of 3.36, with a probability of 0.1726, indicates that the overall model is not statistically significant; the independent variables thus do not explain variations in coffee consumption as solidly as in Romania or Poland. Unlike the other two countries, the price of coffee at home has a negative coefficient, -3.89, with a probability of 0.0882, which means that its increase leads to a decrease in consumption. Although not statistically significant, this result does imply that Hungarian consumers are probably more sensitive to price, and higher prices discourage at-home consumption rather than promoting it as an indicator of higher quality. The price of coffee out of home has a small positive effect; its coefficient is 0.40 and its probability 0.0878, implying that higher prices outside home do not lead to significant increase in home consumption, indicating weaker substitution effect. Per capita consumer spending, with a coefficient of 0.05 and a probability of 0.2153, is not significant, showing that income does not have a strong influence on coffee consumption at home in Hungary. The Durbin-Watson statistic 2.27 suggests that there are no major autocorrelation concerns, but indicates that the model lacks strong explanatory power.

Hungary's results show that coffee consumption is less sensitive compared to Romania and Poland toward its price changes. Such a weak substitution effect coupled with low-income sensitivity implies that in addition to cultural preferences, other external factors might play a more decisive role in influencing consumer behaviour within the Hungarian coffee market.

Table 4. Regression Analysis of Coffee Consumption at Home in Poland (2018-2024)

Dependent Variable: Coffee Consumption per capita at home (kg) (current
US\$)

Method: Least Squares

Included observations: 7

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	20.92560	1.912117	10.94368	0.0016
Price per unit at home (€)	13.81308	2.504333	5.515672	0.0117
Price per unit out of home (€)	-0.780546	0.146937	-5.312111	0.0130
Consumer spending per capita (€)	1.079407	0.326034	3.310719	0.0454
R-squared	0.914712	Mean dependent var		23.96571
Adjusted R-squared	0.829424	S.D. dependent var		1.134913
S.E. of regression	0.468729	Akaike info criterion		1.617975
Sum squared resid	0.659121	Schwarz criterion		1.587067
Log likelihood	-1.662914	Hannan-Quinn criteria.		1.235952
F-statistic	10.724497	Durbin-Watson stat		3.497696
Prob(F-statistic)	0.041186			

Source: Authors' own data processing in Excel, based on the data from Table 1.

In the triad of nations, Romania and Poland reflect a robust price sensitivity, especially regarding substitution effects; this implies that elevated out-of-home coffee prices would trigger greater consumption at home. On the contrary, Hungary exhibits slower price responsiveness, insinuating that factors other than price have a more pronounced impact on coffee consumption.

Per capita consumer expenditure plays an important role in Romania because increasing disposable income strongly correlates with increased coffee consumption. In Poland and especially in Hungary, the effect is much weaker. The higher R-squared values in Romania and Poland indicate that the models explain trends in coffee consumption well; rather, they have a higher explanatory power compared to Hungary's model.

These findings confirm that the Central and Eastern European markets differ in terms of price elasticity and substitution effects. Romania and Poland exhibit stronger consumer reactions to price changes, whereas Hungary's coffee market seems less sensitive to economic factors. This implies that pricing strategies as well as policy interventions need to be adjusted according to the specific market conditions of each country.

Conclusion

This paper has analysed at how much the price affects coffee drinking at home in Poland, Hungary, and Romania. It uses a comparison of how change in prices and spending habits affect demand in these three Central and Eastern European markets. The results show that while coffee drinking stays pretty steady in normal times, big price changes—especially for coffee outside the home—lead to clear shifts in what users do. These findings suggest that in Romania and Poland, the consumption of coffee at home is very responsive to price changes, with a clear substitution effect; when the price of coffee outside the home rises, consumers switch to increased consumption at home. On the contrary, Hungary shows lower price sensitivity, which indicates that factors other

than price, such as cultural habits or brand loyalty, may play a more important role in driving consumer choices. Additionally, available income determines a stronger effect on coffee consumption in Romania than in Poland or Hungary, implying that economic sensitivity differs between the three countries.

Despite such useful elements, this research work has some limitations. First is that the study covers a relatively shorter period from 2018 to 2024, which cannot be long enough to show the long-term structural changes in consumer behaviour as well as the impacts of economic cycles. Second, although the regression model used in this study considers some of the major economic variables like price and consumer expenditure, many other possible variables—such as brand preference, promotional activity, and general macroeconomic indicators—are not included. Additionally, this study assumes a single price effect across all income groups; actual consumer response will vary depending on the level of disposable income and the regional market context. Accordingly, future studies should widen the dataset to cover a longer period, examine other factors that might affect coffee consumption, and use modern econometric methods such as panel data models to more accurately reflect intergroup variations in consumption patterns.

Such findings could be useful for companies, policymakers, and market analysts. For coffee retailers and producers, knowledge regarding country-specific-price responsiveness would balance pricing strategies in terms of profitability and demand. In Romania and Poland, the substitution effects are stronger; therefore, companies could design promotional activities targeted at both at-home and out-of-home coffee consumption through price adjustment. On the other hand, in Hungary, consumption patterns seem less sensitive to prices; thus, firms are encouraged to emphasize brand image, quality differentiation, and loyalty programs in place of competition based on price.

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