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CONSUMPTION OF DOMESTIC PRODUCTS, SOME MYTHS AND TRUTHS: IS IT YET A SAFE CHOICE?

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Abstract: Consumption of domestic food products is important for the economy everywhere. Concerns about this activity create implications for (1) growth, (2) farmers' income and (3) the markets functioning. Studies on the consumption of local products in the market of Tirana in Albania in the light of new development dynamics are lacking. The paper's objective is an evaluation of factors such as the age, food safety, education, consumption quantity, income, price preference, family members, status of employment represented by workers and consumers safety knowledge to the consumption of domestic agricultural products in the markets of Tirana, Albania. The results of the statistical model used shows that variables age, consumption quantity, price preference, food safety and social status of interviewers represented by workers affect significantly to very significantly to the consumption of domestic products. Findings appeal for attention on the issue offering possible ways for improvement.

Keywords: Consumption of domestic vegetables, food safety, price preference, workers, Albania.

1. Introduction

Consumption issues in developing countries are very specific and still unexplored. Nowadays the growing influence of technologies or even the consequences of the Covid-19 pandemic have increased research curiosity on the problem of consumption. Among this wide range of issues, the implications for the consumption of domestic products have been and remain a preferential subject among researchers and of particular interest to economies with low access to resources and factors. The consumption of domestic products is an important source (1) of economic growth, (2) income of farmers' producers and (3) the functioning of markets. In the markets of Tirana several times have been evidenced reclaims (photo 1), raising concerns over the consumption of domestic produce and the income of farmers' producers. Given these developments a study on the factors that affect the consumption of domestic products may be of interest, throwing more light in this regard.



Photo 1. Tomato problems in the market of Tirana
Source: agroweb.org.

The consumption of domestic products is influenced by economic and social developments. Overseas labor movements and their effects on factors can affect the consumption of domestic production in several ways. The focus of this paper is an assessment of factors: age, food safety, consumption quantity, income, price preference, number of family members, status of employment and safety knowledge to the consumption of domestic products in the markets of the city of Tirana, Albania. Measurements on the consumption of local food products in the case of Tirana markets are missing. More research in this area can contribute to the identification of problems and respective adjustments, by sensitized also for more attention about its importance from policy practitioners or professionals.

About variables under consideration has a broad support literature. The age effect on domestic consumption and a number of studies reports very similar effects for different age ranges¹. The age composition affect strongly to the domestic consumption². The consumption level of specific foods is influenced by future changes in food safety³. Food safety is emerging as an attribute demanded by consumers⁴. Findings show that the quantity consumption by households

¹ Jones R.V., Fuertes A., Lomas K.J. (2015): The socio-economic, dwelling and appliance related factors affecting electricity consumption in domestic buildings. *Renewable and Sustainable Energy Reviews*, Vol. 43, pp. 901–917.

² McLoughlin F., Duffy A., Conlon M. (2015): A clustering approach to domestic electricity load profile characterization using smart metering data. *Applied energy*, Vol. 141, p. 190–199.

³ Quested T.E., Cook P.E., Gorris L.G.M., Cole M.B. (2010): Trends in technology, trade and consumption likely to impact on microbial food safety. *International Journal of Food Microbiology* Vol. 139, Supplement, p. S29–S42.

⁴ Wang Zh., Yanna M., Gale F. (2008): Chinese consumer demand for food safety attributes in milk products. *Food Policy*, Elsevier, Vol. 33, Issue 1, p. 27–36.

play a significant role in explaining variations in consumption⁵. Household characteristics expressing possession and utilization of consuming affect to overall consumption⁶. Demand for food consumption is a function of capita income⁷. The increase of incomes in developing countries has influenced the increase on the demand for food consumption⁸. Price preference affect to foods consume⁹. Price preferences affect to the food consumption and especially on soft drink case¹⁰. Family size expressed by members hypothesized to influence on food consumption¹¹. Multi-member household model affect to food consumption¹². Workers tend to consume more during time-work to socialize with other colleagues¹³. The labor status impacts the structure of food consumption¹⁴. Food-handling practices and safety knowledge affect to consumption¹⁵. Adolescents' food consumption affected by knowledge safety¹⁶.

2. Objectives and hypotheses

The objective of this paper is to evaluate significance of some variables such as the age, food safety, consumption quantity, income, price preference, family members, consumers' status of workers and safety knowledge to the consumption of domestic vegetable products, illustrating with a case study on consumers preferences to domestic tomatoes in the agri-food markets of Tirana in Albania.

The study hypotheses are:

- H1 — the age of consumers affects to the consumption of domestic tomato;
- H2 — perception on food safety of consumers affects to the consumption of domestic tomato;
- H3 — consumption quantity by consumers affects to the consumption of domestic tomato;
- H4 — income level of consumers affects to the consumption of domestic tomato;
- H5 — price preference of consumers affects to the consumption of domestic tomato;
- H6 — family members of consumers affects to the consumption of domestic tomato;

⁵ Domene E., Saurí D. (2006): Urbanization and water consumption: influencing factors in the metropolitan region of Barcelona. *Urban Studies*, Vol. 43, No. 9, p. 1605–1623.

⁶ Chen S., Li N., Guan J., Xie Y., Sun F., Ni J. (2008): A statistical method to investigate national energy consumption in the residential building sector of China. *Energy and Buildings*, Elsevier, Vol. 40, Issue 4, p. 654–665.

⁷ Springmann M., Mason-D'Croz D., Robinson S., Garnett T., Godfray H.C.J., et al. (2016): Global and regional health effects of future food production under climate change: a modelling study. *Lancet*, Elsevier, Vol. 387, p. 1937–1946.

⁸ Mottaleb K.A., Rahut D.B., Krusemanand G., Erenstein O. (2016): Evolving food consumption patterns of rural and urban households in developing countries: A Bangladesh case. *British Food Journal*, Vol. 120 No. 2, p. 392–408.

⁹ Schnettler B., Ruiz D., Sepu lveda O., Sepu lveda N. (2008): Importance of the country of origin in food consumption in a developing country. *Food Quality and Preference*, Vol. 19, p. 372–382.

¹⁰ Andreyeva T., Long M.W., Brownell K.D. (2010): The impact of food prices on consumption: a systematic review of research on the price elasticity of demand for food. *American Journal of Public Health*, Vol. 100, p. 216–220.

¹¹ Adrian J., Daniel R. (1976): Impact of Socio-economic Factors on Consumption of Selected Food Nutrients in the United States. *American Journal of Agricultural Economics*, Vol. 58, No. 1, p. 31–38.

¹² Pitt M.M., Rosenzweig M.R. (1985): Health and Nutrient Consumption Across and Within Farm Households. *The Review of Economics and Statistics*, Vol. 67, No. 2, p. 212–223.

¹³ Silva C.M., Da Cunha N.B., Mota M.C., Marot L.P., Teixeira K.R.C., Cunha T.M., Crispim C.A. (2020): Effect of consuming a late-night high-protein/moderate-carbohydrate vs. low-protein/high-carbohydrate meal by night workers on their food perceptions later during the day: a randomized crossover study. *Chronobiology International*, Vol. 37, p. 1392–1399.

¹⁴ Regmi A., Dyck J. (2001): Effects of urbanization on global food demand. ERS WRS 01–1. Economic Research Service, United States Department of Agriculture, Washington, D.C.

¹⁵ Redmond E.C., Griffith C.J. (2003): Consumer Food Handling in the Home: A Review of Food Safety Studies. *Journal of Food Protection*, Vol. 66, p. 130–161.

¹⁶ Hillevi C., Prell M.S., Berg C., Jonsson L.M., Lissner L. (2005): A school-based intervention to promote dietary change. *Journal of Adolescent Health*, Vol. 36, Issue 6, p. 529–530.

- H7 — consumers status of workers affects to the consumption of domestic tomato;
- H8 — safety knowledge of consumers affects to the consumption of domestic tomato;

The above variables are measured by an interviewing procedure in the markets of Tirana, Albania and they are: age; food safety; education; consumption quantity; income; price preference; family members; workers; and safety knowledge.

3. Measurement procedure

A questionnaire was used to conduct the study in order to provide a large database in the study area (the agri-food markets of Tirana), by random choice procedures and interviewing face to face (220). The variables are measured by an increasing scales (1–5) according to the respective questions.

Based on data provided has become an overview of preferences for domestic tomato consumption as follows (table 1; figure 1).

Table 1. Preference for domestic tomato consumption

Domestic tomato consumption	Total
1	1
2	22
3	39
4	58
5	99
(blank)	
Grand Total	219

Source: Data processed by authors.

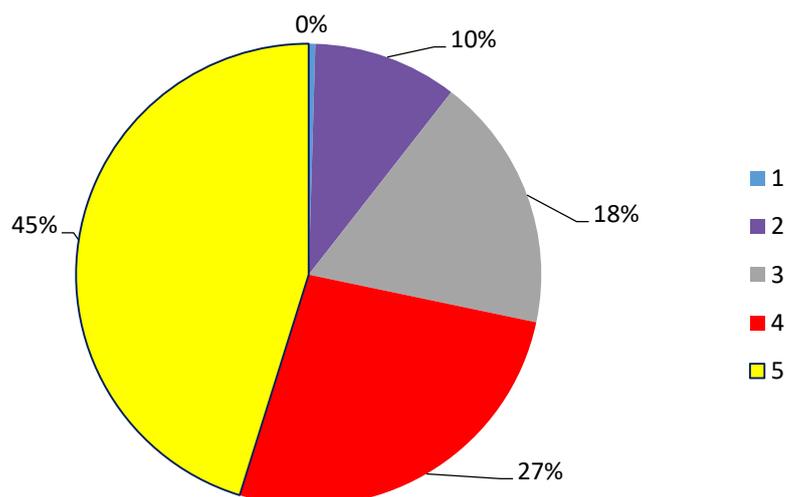


Figure 1. Preference for domestic tomato consumption expressed as a percentage

Source: Data processed by authors.

The data provided demonstrate a high level of preference for domestic tomato consumption.

The significance of the above variables was estimated through a linear statistical model (table 2).

Table 2. The significance of variables estimated by linear statistical model.
Dependent variable: Domestic tomato consumption

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>	
const	3.32331	0.556243	5.975	<0.0001	***
Age	0.156119	0.0728627	2.143	0.0333	**
Food safety	0.261480	0.0691132	3.783	0.0002	***
Education	-0.0103515	0.0702200	-0.1474	0.8829	
Consumption quantity	-0.267051	0.121277	-2.202	0.0288	**
Income	-0.0345530	0.0524571	-0.6587	0.5108	
Price preference	-0.267442	0.130385	-2.051	0.0415	**
Family members	0.0952773	0.102214	0.9321	0.3524	
Workers	0.166792	0.0880628	1.894	0.0596	*
Safety knowledge	-0.0702652	0.0701805	-1.001	0.3179	

Statistics based on the weighted data:

Sum squared resid	563.1550	S.E. of regression	1.649411
R-squared	0.143085	Adjusted R-squared	0.105828
F(9, 207)	3.840469	P-value(F)	0.000163
Log-likelihood	-411.3815	Akaike criterion	842.7630
Schwarz criterion	876.5620	Hannan-Quinn	856.4164

Statistics based on the original data:

Mean dependent var	4.050691	S.D. dependent var	1.037363
Sum squared resid	210.3963	S.E. of regression	1.008170

Source: Data processed by authors.

4. Conclusions and discussions

Paper provides an overview on discussions about the problems of consumption of domestic products, by referring a case study of the vegetable consumption in the city of Tirana. Variables income, family members, safety knowledge and education do not effect on the domestic vegetable consumption. Individuals, regardless of income, family size, education, etc., tend consumption of the domestic products. A number of complex factors with interdisciplinary scope interact on the consumption of domestic products. Consumption of domestic products is a myth and very popular in every country. This can be explained by the fact that consumer choice is not based much on the process of critical thinking and rational behavior and here interact also other factors, such as ethnocentrism and feelings of patriotism. Consumers' ethnocentrism and patriotism are stronger determinants of domestic consumption than rational considerations (the cognitive mechanism)¹⁷.

Age, consumption quantity, price preference impact and very significantly (table 2) to the domestic vegetable consumption. The increase in consumption quantity affects the decrease in the consumption of domestic products. Consumers may find of interest products of other origin, or even other competing vegetables (except tomatoes) and this trend deserves further attention. With age, individuals tend to consume more domestic production and this is an important finding for consumption in the markets of Tirana, given the new demographic dynamics. Price preference is an influential factor to consumption. One of the characteristics of domestic production is its presence in the markets throughout the year and this is related not only to the production of the

¹⁷ Vida I., Reardon J. (2008): Domestic consumption: rational, affective or normative choice? Journal of Consumer Marketing, Vol. 25, No. 1, p. 34-44.

field but also to the fact that a dominant part of the annual supply is provided by greenhouses where the country has known advantages. Considering the size of the offer of domestic production from greenhouses, high prices during the cold seasons, but also strong price amplitudes during the year, adjustments in agri-food markets and fair prices are necessary to stimulate the consumption of domestic products.

Food safety and social status of interviewers represented by workers are also very influential factors to the consumption of domestic products. We explained that the consumption of domestic production is popular regardless of social status. Workers are driven by nationalist consumer tendencies and increasing their market presence increases the tendencies for increasing consumption. Food safety impact significantly for increasing of consumption. Eating is a behavior, this implies an interaction and food safety in some cases appears as a factor and attribute. Food safety and food concerns in the century XXI are exclusivities of scientific expertise. Along with other reclaims of domestic production in the market, the vivipary phenomenon e.g. (photo 1) a very rare phenomenon does not have to be so frequent and unaddressed. The range of factors that can affect this problem is very wide, including environmental factors, etc. up to the genetic problems of the varieties used, etc., etc. This is not a myth: this is a truth that requires solutions from the responsible institutions.

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