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CONSUMPTION OF IMPORTED VEGETABLES: A SOCIO– ECONOMIC OBSERVATION ON DEMAND FACTORS

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Abstract: The increasing speed of change and social effects as a result of new technologies and the spread of information represent a phenomenon that everywhere has modified the functioning of the economy and consumption. A study on the impact of socio–economic factors on decisions on the consumption of imported vegetables by the citizens of Tirana in the context of these new dynamics is a topics of research interest. Agarwala et al. (1972), argue impact of socio–economic factors to the consumption. The paper’s objective is a measurement impact of socio–economic factors such as age, food safety, purchasing quantity, income, price preference, number of family members and status of employment represented by workers to the consumption of imported agricultural products in the markets of Tirana, Albania. The results of the statistical linear model used shows that variables age, price preference and purchasing quantity not affects to the consumption of imported vegetables, while income, food safety, the employment status represented by the workers and the number of family members are influential factors. Findings show an interaction of socio–economic phenomena to consumption.

Keywords: Consumption, income, price preference, workers, imported vegetables, Albania.

1. Introduction

The dynamics of developments during the last 2 decades in Albania has caused transformative infrastructural, economic and social developments. However, rapid urban migration from rural and sub-urban areas in recent years has been replaced by youth emigration and most qualified abroad, expanding the heterogeneity of challenges and bringing under a status-quo sustainable development. Moreover, the increasing speed of change and the social effects as a result of new technologies and the spread of information have shown an impact everywhere and especially on production and consumption. These dynamics have rapidly modified the functioning of the economy and markets by prompting new ideas and formulations for adaptation. The job mobility and human capital or the rapid expansion of e-commerce (also from the Covid-19 pandemic), e-payments, e-services, etc. and the functioning of markets are part of the contemporary debate, which has stimulated research interest everywhere on the impact of socio-economic changes on consumption factors generally.

Increasing the speed of change specifically requires attention in the case of the functioning of food markets, given the importance for production, consumption and the need for adequate-fast responses. In the food markets of the city of Tirana in recent years have been discussions on food safety and sales domestic products. This situation has increased the general disadvantages of domestic products, leading to a declining perception of consumers. The discussion on identifying the influential factors in the structure of consumers demand in the conditions of major socio-economic changes is of key importance to recognize the consumption trends of imported products, adjustments and possible adaptations in food markets of Tirana and lessons also for domestic production. The measurement of factors such as age, food safety and income, purchasing quantity, price preferences, family members and employment status to the consumption of imported products may help for a wider understanding.

While a comprehensive sensitization on sustainable consumption is more important for the sustainability of the economic system and the well-functioning of markets; an overview of the factors influencing the consumption of imported food products may be a more call for policy practitioners. Moreover, considering the new socio-economic dynamics and the speed of change as a result of increased mobility and the spread of information on an assessment of the above factors may be useful for (1) market actors, including domestic producers, (2) food market monitoring institutions, and also serving as an information manual for (3) the consumer protection associations. Such a studies on the consumption of imported vegetables in markets of Tirana and the impact of changes in socio-economic factors such as age, food safety, income, purchasing quantity, price preferences, number of family members, and employment status are missing and may be a topics of interest.

Many researchers see socio-economic factors and their possible changes in interaction with changes in consumption. The consumer parameters are strongly influenced by socio-economic factors¹. The age significantly affect the decision to consume². An older family member usually consumes less than does a young family member³. Food safety in developing countries is facing a particularly transformative period due to the link with increased demand for food and consumption⁴. Food consumption in European countries is affected by exposure to hazardous

¹ Agarwala R., Drinkwater J. (1972): Consumption Functions with Shifting Parameters Due to Socio-Economic Factors. *Review of Economics and Statistics*, Vol. 54, p. 89–96.

² Moon W., Florkowski W.J., Beuchat L.R., Resurreccion A.V., Paraskova P., Jordan J., Chinnan M.S. (2003): Identifying Factors Affecting Consumption of Peanut Tahina in Bulgaria. *Journal of International Food and Agribusiness Marketing*, Vol. 13, Issue 2–3, p. 111–127.

³ Fan L.X., Liu G.B., Wang F., Geissen V., Ritsema C.J. (2013): Factors affecting domestic water consumption in rural households upon access to improved water supply: insights from the Wei River basin, China. *Plos One* 8, e71977.

⁴ Wongprawmas R., Canavari M. (2017): Consumers' willingness-to-pay for food safety labels in an emerging market: The case of fresh produce in Thailand. *Food Policy*, Elsevier, Vol. 69, p. 25–34.

chemicals present in seasonal foods and food safety⁵. Purchases food quantity affect to consumption⁶. Agricultural economists generally agree that economic development which also implies the higher purchases quantity stimulate the expansion of consumption⁷. Income variable accounted for most of the variability in consumption⁸. By Friedman, when a consumer unit experiences an increment of income this component is added to its assets in the form of consumption⁹. Paul Samuelson emphasizes that the economic theory of consumer's behaviour it is largely built up on the notion of "revealed preference" based on costs and preferential price of goods.¹⁰ Price preferences broadcasted to consumers through new technologies such as mobile app affect to consumption¹¹. Changes in family members consumption habits its related with family decision-making in consumption¹². In the center of shopping theory is analysis of consumption and idea that everyone and every day obtain goods also for other people as a driving force behind our responsibilities to provide others and within a family often it is used as an example of everyday moral practice¹³. By Keynes' in its General Theory, the consumption is related to the level of employment¹⁴. While the implications of changes in consumption patterns are complex, the case studies show that the consumption as a socio-economic phenomenon can be understood as a performance of consumer identity rather than a 'mere' worker¹⁵.

2. Objectives and hypotheses

The objective of the paper is to provide an assessment of some factors of economic-social nature such as the age, food safety, purchasing quantity, income, price preference, family members and the status of employment represented by workers to the consumption of imported agri-products in the in the agri-food markets of the city of Tirana.

The study hypotheses are:

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

⁵ Merten C., Ferrari P., Bakker M., Boss A., Hearty A., Leclercq C., Lindtner O., Tlustos C., Verger P., Volatier J-L., Arcella D. (2011): Methodological characteristics of the national dietary surveys carried out in the European Union as included in the European Food Safety Authority (EFSA) Comprehensive European Food Consumption Database. Food Additives and Contaminants. Part A; 28 (8): 975–95.

⁶ Crockett R.A., King S.E., Marteau T.M., Prevost A.T., Bignardi G., Roberts N.W., Stubbs B., Hollands G.J., Jebb S.A. (2018): Nutritional labelling for healthier food or non-alcoholic drink purchasing and consumption. Cochrane Database of Systematic Reviews (2).

⁷ York R., Gossard M.H. (2004): Cross-national meat and fish consumption: exploring the effects of modernization and ecological context. Ecological Economics, Elsevier, Vol. 48, p. 293–302.

⁸ Ferber R. (1973): Consumer Economics, a Survey. American Economic Association. Journal of Economic Literature. Vol. 11, No. 4 (December), p. 1303–1342.

⁹ Friedman M. (1959): The demand for money: Some theoretical and empirical results. National Bureau of Economic research, INC. Journal of Political Economy, Vol. 67, No 4, chapter pages in book p. 1–29.

¹⁰ Samuelson P.A. (1948): *Economica*. Consumption Theory in Terms of Revealed Preference. New Series, Vol. 15, No. 60 (November), p. 243–253.

¹¹ Wang B., Hu B., Qiu Ch., Chu P., Gadh R. (2015): EV Charging Algorithm Implementation with User Price Preference. IEEE Innovative Smart Grid Technologies Conference, February, p. 1–5.

¹² Grønhøj A. (2006): Communication about consumption: A family process perspective on “green” consumer practices. Journal of Consumer Behaviour, Vol. 5, p. 491–503.

¹³ Hall S.M. (2011): Exploring the ‘ethical everyday’: An ethnography of the ethics of family consumption. Geoforum, Elsevier, Vol. 42, p. 627–637.

¹⁴ Keynes J.M. (1936): *The general theory of employment, interest and money*. London, Macmillan Co.

¹⁵ Elias J., Ferguson L. (2010): Production, employment and consumption. Shepherd L.J. (ed.) *Gender Matters in Global Politics: A Feminist Introduction to International Relations*. London: Routledge.

- H6 — family status of consumers by members affects to the imported tomato consumption;
- H7 — consumers employment represented by status of workers affects to the imported tomato consumption;

The above variables are measured through interviewing in Tirana food markets during the period October 2019 – January 2020 and they are:

- Age;
- Food safety
- Purchasing quantity
- Income
- Price preference
- Family members
- Workers

3. Measurement procedure

A questionnaire was construct to provide a broad database and after testing in a focus group with some adjustments it was used in the study area (the agricultural–food markets in the municipality of Tirana), by interviewing consumers (220) by random choice procedures. The variables are measured by scales (1–5) and interviewed consumers have been responded to the respective questions.

Based on data provided a statistical model is used to test the above variables. The significance of the variables is presented in the following table (table 1).

Table 1. The significance of variables by linear statistical model
Dependent variable: Imported tomato consumption

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>	
Const.	3.02574	0.491042	6.162	<0.0001	***
Age	0.0120255	0.0805529	0.1493	0.8815	
Food safety	-0.303696	0.0703898	-4.314	<0.0001	***
Purchasing quantity	0.0248435	0.144965	0.1714	0.8641	
Income	0.356025	0.0661212	5.384	<0.0001	***
Price preference	0.0864303	0.146091	0.5916	0.5547	
Family members	0.218037	0.118485	1.840	0.0671	*
Workers	-0.428818	0.0938001	-4.572	<0.0001	***

Statistics based on the weighted data:

Sum squared resid	539.4949	S.E. of regression	1.599015
R-squared	0.298210	Adjusted R-squared	0.274928
F(7, 211)	12.80854	P-value(F)	1.10e-13
Log-likelihood	-409.4685	Akaike criterion	834.9371
Schwarz criterion	862.0497	Hannan-Quinn	845.8871

Source: Data processed by authors.

4. Conclusions and discussions

The paper provides an analytical overview with focus on food consumption of imported vegetables and the socio-economic factors that affects to consumption, according to consumers perception in the markets of agricultural–food products in the city of Tirana, Albania.

The age, price preference and purchasing quantity, are factors which do not have an impact on the consumption of imported tomatoes. Imported tomatoes have a high presence in the markets mainly during the cold seasons. During the spring–summer season it competes from domestic tomato produced in the field, which has precedence due to price. Imported tomatoes have a stable and competitive offer during the autumn–winter season and compared to large fluctuations in domestic production prices during the seasons it fluctuates very little in price. The stabilized price affects the stabilized demand in the market and this may explain why the quantity of purchases (approximately a constant) does not affect consumption. In the categories that prefer this product there seems to be a consensus between consumers without the influence of age and preferential price to consume imported tomatoes, proving that this product has a reputation. The number of family members is an influential factor in consumption and this is related to the pattern of family consumption and the fact that vegetables represent a useful food diet in Albanian families. Higher consumption of vegetables affected by lifestyle, making that people who live together in families tend more to the consumption of vegetables than others and this goes hand in hand with the way it is hypothesized. While families with a higher number of members or cohabiting individuals affect the consumption rates of imported tomatoes, age, price preference and purchasing quantity are factors that do not affect.

The food safety and employment status represented by workers have a high impact and are negatively related to consumption. With increasing food safety the trends are to reduce the consumption of imported tomatoes. We pointed out that imported tomatoes are generally characterized by a stable price and this goes along with a stable performance in terms of production standards, commercial appearance and food safety in the market. Increasing perception on food safety means increasing information and civic awareness on safe food and this is generally accompanied by an increase in the critical mentality of citizens and eventually increasing skepticism. Surveys among EU countries highlight the critical approach and the degree of distrust in the products of daily food consumption despite the high standards of food safety. The fact that the increase in perception on food safety of imported products has a very significant impact on the decline in their consumption may be related to consumer confidence in more competitive alternatives such as domestic production, for example. It is a well–known the fact that imported tomatoes produced in greenhouses have a high content of heavy metals (Cd, etc.) and this finding deserves more attention. The employment status represented by consumers employed as workers has a very significant impact on consumption: with the increase of consumer–workers, also increases the possibilities to reduce the consumption of imported tomatoes in the markets of Tirana. Moreover, the consumption of imported products seems to correspond to the social status of consumers. Among workers, the consumption of imported vegetables may be an impossible myth, influenced by economic factors of income and food diets inaccessible to them and/or cultural factors related to the use of imported vegetables on annual basis. Consumption inequality affects sustainable consumption, social cohesion and sustainable development. The development of an employment oriented towards university work and industrial activities with high returns, is a priority argument for sustainable production and consumption.

Income has a very significant and positive impact on consumption. In fact the income variable is very important to consumption and this goes hand in hand with the way it is hypothesized. The literature broadly supports the impact of income factor on consumption in developing countries. Moreover, for the same increase in the level of income between the high–income countries (HIC) the low–income and the middle–income countries (LIC, MIC), the differences in consumption follows respectively different trends. This affects to the daily turnovers and especially consumption and demand for food. The level of income in the countries with the lowest incomes deprives many groups–categories of basic means of consumption. In lower income countries (LIC, MIC) to provide basic food items need on average 3/5 to 4/5 of working days realized during 1 month and in this context income represents a critical factor for food

consumption. The impact of the income to consumption represents a finding that is supported by previous studies conducted in Albania.

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