




“Competitiveness characteristics of agri-food products – what does the consumer choose? (Case of Georgia)”

AUTHORS	Nino Talikadze  Eter Kharashvili 
ARTICLE INFO	Nino Talikadze and Eter Kharashvili (2022). Competitiveness characteristics of agri-food products – what does the consumer choose? (Case of Georgia). <i>Innovative Marketing</i> , 18(1), 195-207. doi: 10.21511/im.18(1).2022.16
DOI	http://dx.doi.org/10.21511/im.18(1).2022.16
RELEASED ON	Saturday, 26 March 2022
RECEIVED ON	Monday, 24 January 2022
ACCEPTED ON	Monday, 21 March 2022
LICENSE	 This work is licensed under a Creative Commons Attribution 4.0 International License
JOURNAL	"Innovative Marketing "
ISSN PRINT	1814-2427
ISSN ONLINE	1816-6326
PUBLISHER	LLC “Consulting Publishing Company “Business Perspectives”
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

49



NUMBER OF FIGURES

4



NUMBER OF TABLES

7

© The author(s) 2022. This publication is an open access article.



BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine
www.businessperspectives.org

Received on: 24th of January, 2022
Accepted on: 21st of March, 2022
Published on: 26th of March, 2022

© Nino Talikadze, Eter Kharashvili,
2022

Nino Talikadze, Ph.D. Student,
Faculty of Economics and Business,
Department of Microeconomics, Ivane
Javakhishvili Tbilisi State University,
Georgia. (Corresponding author)

Eter Kharashvili, Ph.D. in Economics,
Professor, Faculty of Economics
and Business, Department of
Microeconomics, Ivane Javakhishvili
Tbilisi State University, Georgia.

Nino Talikadze (Georgia), Eter Kharashvili (Georgia)

COMPETITIVENESS CHARACTERISTICS OF AGRI-FOOD PRODUCTS – WHAT DOES THE CONSUMER CHOOSE? (CASE OF GEORGIA)

Abstract

Nowadays, the top-10 products exported from Georgia are dominated by agri-food products; thus, it is important to increase the competitiveness of locally produced products based on relevant characteristics. The world is changing rapidly, and identifying consumer preferences in such conditions can be vital for an entrepreneur. The purpose of this study is to identify the main characteristics that determine the competitiveness of the agri-food product for Georgian consumers. For this purpose, 1,200 adult individuals from different regions of Georgia who have a stable monthly income were surveyed. The survey was conducted by sending a questionnaire through online channels. The results were processed using data analysis, quantitative research methods. Both simple and complex statistical analysis methods were used: descriptive, frequency, consumer table analysis, analysis of group differences, graphical analysis. As predicted for the majority, 74% of respondents to be exact, quality took the first place. The price comes only in second, and it is chosen by 21% of consumers. With increasing age and income, the importance of quality increases. It was found out that service and packaging are not crucial for consumers in the process of selecting agri-food products. In addition, it should be noted that 42% of respondents are more or less impacted by advertising for agri-food products. Thus, producers need to devote a large portion of their resources to quality improvement, while the state should create a favorable environment for this.

Keywords competitiveness, agri-food products, consumer behavior, purchasing factors, consumer preferences

JEL Classification D11, D12, M31

INTRODUCTION

Georgia is an import dependent country. According to 2020 data, the volume of imports of agri-food products is 3.7 times and more higher than the volume of agri-food product exports (National Statistics Office of Georgia (Geostat), 2020). Georgia's export structure has remained unchanged over the years. Wine, mineral water and nuts are the main export products from local production. The competitiveness of the product in both local and international markets depends on many factors, and the analysis of each is the subject of independent research.

While competitiveness of the highly developed countries is based on technological advantage, the economy of developing countries is based on the resource advantage. So, product competitiveness is one of the main foundations for the development for each sector of the country and, consequently, of the economy as a whole. Each field has its role and contributes to the development of the country, which is related to the efficient and rational use of resources in the field. For a product to



This is an Open Access article,
distributed under the terms of the
[Creative Commons Attribution 4.0
International license](https://creativecommons.org/licenses/by/4.0/), which permits
unrestricted re-use, distribution, and
reproduction in any medium, provided
the original work is properly cited.

Conflict of interest statement:
Author(s) reported no conflict of interest

be acceptable to a buyer, it should have set of certain characteristics. Although scientists have studied the factors of product competitiveness from different angles, there are only a small number of studies that discuss the impact of product characteristics on its competitiveness (Liu et al., 2021).

However, definition of the factors influencing the decision of consumers while purchasing different products is the main task for marketers. Consumer behavior is a complex process based on a variety of different motivating factors. Consequently, its correct understanding determines the success of entrepreneurs.

Applying Maslow's theory in modern conditions is an important tool for managers and marketers; however, the following factors should be considered: (1) modern psychologists believe that a higher level of needs occurs if the previous level of need is already satisfied by 70% (according to Maslow – 100%); and (2) the hierarchy of specific human needs is unique. It varies from person to person and is different for the same person at different periods of life (McLeod, 2007). Competitiveness Pyramid (from the consumer's viewpoint) based on the Maslow theory shows the stages according to which a buyer evaluates a particular product: 1) Price (key factor); 2) Price + quality; 3) Price + quality + additional factors; 4) Innovative leader (uniqueness, novelty); 5) Brand (Dima et al., 2010). But one should not overlook the fact that in the rapidly developing world, human worldview is changing, which reflects consumer behavior and affects consumers' purchasing priorities. Overcoming COVID-19 is a major challenge for the world today. Such crisis situation led to significant changes in consumer behavior.

1. LITERATURE REVIEW

Competitiveness is a dynamically evolving, complex, and multifaceted economic category that is interpreted in many sources in different ways. Depending on the research perspective, competitiveness is also understood at different levels (macro-national, regional level; meso-economic sector and industries level; micro-firms/ farms, products level), till now there is still confusion about the meaning of the word competitiveness and how to measure it (Dung, Hoang, & Dieu, 2020; Dung, Thuy, Dieu, & Thuy, 2020). At the same time, some researchers think that attempts to create one common definition of competitiveness are doomed to failure (Siudek & Zawojka, 2014).

What does product competitiveness mean and what determines product competitiveness? In the attempt to find answers to these questions, this study has analyzed the opinions of different scientists. For example, Burkynskyi et al. (2019), Nuryakin and Maryati (2020), Bawakyillenuo and Agbelie (2021), and Liu et al. (2021) study the concept of product competitiveness. "Competitiveness assessment concepts cross thresholds specific to each level of the economy" (Nedelcheva, 2021). When studying competitiveness, the one of the tasks of scientists is to determine its criteria and identify

the sources or factors determining its competitiveness. Peneder and Rammer (2018), Tyunyukova et al. (2018), Vargha et al. (2019), Shpak et al. (2019), and Farhikhteh et al. (2020) explore the issues of competitiveness assessment. "Competitiveness assessment determines which economic indicators are a source or which are a result of competitiveness. For example, the trade balance is a source of competitiveness, while price and cost are a result of competitiveness" (Nedelcheva, 2021). The issue of competitiveness of agri-food products is studied directly by the following scientists: Sheldon (2017), Dovgal et al. (2017), Wilson (2018), Shestakovska et al. (2018), Ozerova et al. (2019), Kharaishvili and Natsvlishvili (2019), Altukhov et al. (2019), Savchenko et al. (2019), Maslova et al. (2019), Logodashki (2020), Zakharchenko et al. (2020), Rastorgouev (2020), and Borisov et al. (2021). And competitiveness by country is explained by Reyes and Useche (2019), Senyshyn et al. (2019), Maslova et al. (2019), Pustovoi (2021), and Matkovski et al. (2019, 2022).

Product competitiveness is mostly seen in terms of customer value. The higher the product characteristics and the lower the product price, the higher is the competitiveness (Kharaishvili, 2020). Also, product competitiveness is largely determined by the quality of the product itself or its charac-

teristics and not by external factors (Huang et al., 2019). In other words, “quality is currently an important factor determining competitive advantages of products in the market, the strategic line for increasing its competitiveness is arrangement of efficient system for quality and safety assurance” (Rastorgouev, 2020). However, a recent study in Georgia shows that first of all the price and then the product quality affect consumer demand in Georgia (Todua, 2012).

Georgian researchers agree that it is very important to develop marketing measures and strategies in accordance with international standards and national traditions, in order to increase the competitiveness of the export product. Regarding this issue, multiple papers can be found by Georgian economist Nugzar Todua. In one of his articles, he focuses on the importance of product packaging and in this regard, ways to increase product competitiveness from the perspective of consumers (Todua, 2018).

Thus, it is important to know what affects the competitiveness of the product. Hambrick (2017) and Miller (2017) suggested five dimensions of competitiveness, where innovation is central. In addition to innovation, other important factors that affect product competitiveness include price, cost and brand. Some researchers think that a brand is a key factor in the development of enterprise competitiveness (Desmichel & Kocher, 2020). Facing strong market competition, advantages in price and cost are significant factors for maintaining a leading position in the competitive battle (Liu et al., 2021)¹. However, there might be other factors determining the competitiveness of a product, such as product attractiveness to consumers; the degree of satisfaction of different and sometimes conflicting requirements; the priority of existing requirements, depending on the type of product and its customers and the dynamic nature of competitiveness.

Information about competitiveness is important for enterprises as it helps them to determine their product position in the marketplace (Liu et al., 2021).² Information on competitiveness allows

enterprises to analyze shortcomings of their products in some of the important areas and improve the level of competitiveness by developing an appropriate competitive strategy aimed at achieving higher market share and increasing profits (Liu et al., 2021).³

It is impossible to determine the competitiveness of product using any one parameter as it is the result of the interaction of many factors, and each of them is unique in a particular situation. Competitiveness can only be achieved in case all factors and parameters are effectively combined (Gagnidze, 2012). There is no universal and fully satisfactory explanation of competitiveness. The truth is in each of them to some extent, since the competitiveness is presented as a multifaceted concept, this work has come up with a wide range of definitions.

2. AIMS AND METHODOLOGY

This study aimed to investigate the determinants of competitiveness for agri-food products based on quantitative research, using the example of Georgia, as well as to establish certain patterns that exist for different segments of consumers.

The purpose of the quantitative research was to identify the characteristics that are important for consumers when purchasing the product, and as a result, to determine which characteristic makes the agri-food product more competitive.

According to the methodology of the National Statistics Office of Georgia, based on the standards of the International Labor Organization, an employee is defined as a person aged 15 and over, who worked for at least one hour during the study period (7 days before the survey) to receive remuneration or profit, or was temporarily out of work due to the vacation, illness, technical, economic or other similar reasons (National Statistics Office of Georgia (Geostat), 2020). According to the data of 2021, 1,217.4 thousand people are defined as employed in Georgia (National Statistics Office of Georgia (Geostat), 2021). For the purpose of this

1 Researchers cited the work of Hunold et al. (2020).

2 Researchers cited the work of Chen and Miller (2015).

3 Researchers cited the work of Huang, He and Chen (2019).

paper, 1,200 respondents (employed) were interviewed based on the completing an online questionnaire using Google Forms. Employees from the capital Tbilisi and all regions of Georgia participated in the study. Most of them (33.8%) live in the capital. Results are sorted by age of consumers, and middle-income groups.

Most of the respondents (41.5%) belong to the age category of 18-24 years. The second largest category is the 25-34 age group (27.8%). For the vast majority of respondents (26%), the average monthly income is 501-1000 GEL, which is close to the average monthly nominal salary (1317 GEL) based on the data of the three quarters of 2021 (National Statistics Office of Georgia (Geostat), 2021). 21% of respondents have a monthly income of more than 2001 GEL. However, about 86% of respondents are the main decision makers or shareholders in the process of purchasing products.

The questions were mainly about to identify the factors that have a major impact on consumer decision-making when purchasing products, as well as how advertising of agri-food products influences consumer decision-making. At the same time, consumers have assessed the competitiveness of Georgian agri-food products at the national market. The questionnaire included 13 questions: 12 closed and 1 open questions. The type of questions asked is structured. Multivariate, alternative, and scale-based questions are suggested. In particular, nominal and measurement scales are used. Questions 1-3 are identifiable, and 4-13 are classifiers. The number of respondents is representative. The results are processed by the method of statistical analysis, graphing. Summarized data are used to draw conclusions and make recommendations, reliability level – 99%, sampling error – 1%.

3. RESULTS

The customer survey was conducted from December 9 to 17, 2021. A total of 1,200 respondents were interviewed; 75.3% (903) of them were women and 24.8% (297) were men. Most importantly, the results showed that 46.7% of the 1,200 respondents are the main decision-makers when it comes to purchasing agri-food products, 39.2% of them make shared decisions, and only 14.2% are

not the decision-makers at the time of purchase. As a result, the survey is representative. In addition, respondents of all ages were interviewed; the percentages were distributed as follows: 41.5% of the respondents were 18-24 years old, 27.8% were 25-34 years old, 24.3% – 35-54 years old, 5.4% were 55-64 years old, and 1% was 65 years old and over. The distribution of the respondents by their monthly income is as follows: GEL 0-500 – 25.6%, GEL 501-1000 – 26%, GEL 1001-1500 – 17.7%, GEL 1501-2000 – 9.8%, GEL 2001 and over – 20.9%. It would be interesting to discuss the answers in terms of both age and income. However, firstly, the aggregate results of 1200 respondents will be discussed to see the things consumers pay primary attention to, when purchasing agri-food products.

When asked which factors encouraged them to choose one of the two similar products, for the majority of the respondents (73.5%) quality was most important compared to price (21%). The results are presented in Figure 1. It should be noted that the question did not focus on the type of product.

In the following question, when the type of the product was specified and it was indicated that the question referred to agri-food products, and the number of possible answers was also increased, price moved from the second to the third place with 600 votes while quality maintains first position with 800 votes (see Figure 2). In this question, respondents were asked to choose maximum of three answers, as a result of which, the distribution exceeds 100%.

Figure 2 illustrates that the main factors that impact consumers' choice when purchasing agri-food products are quality, personal experience, price, taste characteristics, safety and utility. The following factors are less important to them: recommendations from others, brand, packaging, service, certificates and design.

As in the previous question, consumers could choose maximum three answers out of the given options, in the next question, the survey asked respondents to rate specific factors/characteristics of agri-food products on a scale of 1 to 5 (where 1 is the lowest and 5 is the highest) by their importance. These results also allow mak-

Source: Constructed by the authors based on the data of the survey.

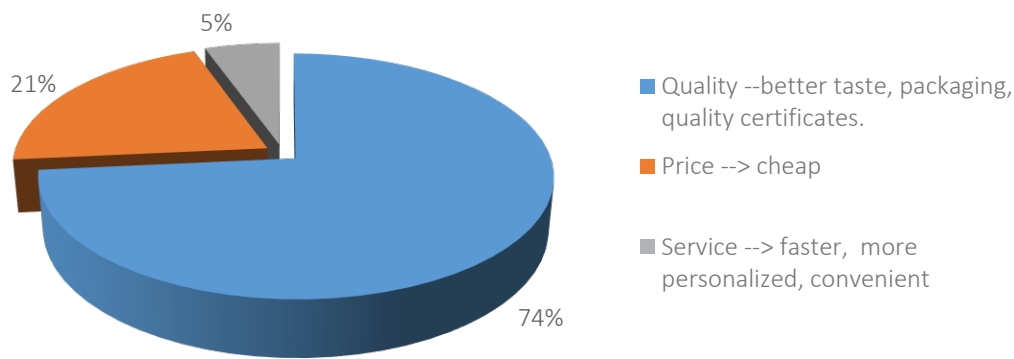


Figure 1. Responses to the question: In general, which of the following factors encourages you to choose one of two similar products?

ing very important conclusions. The results are given in Table 1 and are arranged in descending order.

Table 1 clearly illustrates that quality firmly maintains its position with 5,183 scores (average score 4.3 closest to 5), followed by safety with 5,016 scores (average score 4.2), taste characteristics – 4,949 scores (average score 4.1), personal experience – 4 868 score (average score 4.1), utility – 4 851 score (average score 4.0), and the price moved from the third to the sixth position with 4 321 scores (average score 3.6). Here, again, lower positions with a score below 3.5 are held by factors such as service, brand, and recommendations from others, certificates, packing and design. It is also interesting to note that

actually having various certificates substantiates having the relevant or high quality.

The purpose of this survey was to assess the factors determining the competitiveness of the products from consumers’ point of view, as well as the competitiveness of Georgian agri-food products in the national market. 70.6% of the respondents believe that Georgian agri-food products are characterized by moderate competitiveness (see Figure 3). This is supported by the answer to the following question, Which referred to their choice when buying agri-food products. In particular, the question asked which product, local or imported was dominant in their consumer basket in general, when buying agri-food products. The answers were distributed as follows: In 39% of cases the

Source: Constructed by the authors based on the data of the survey.

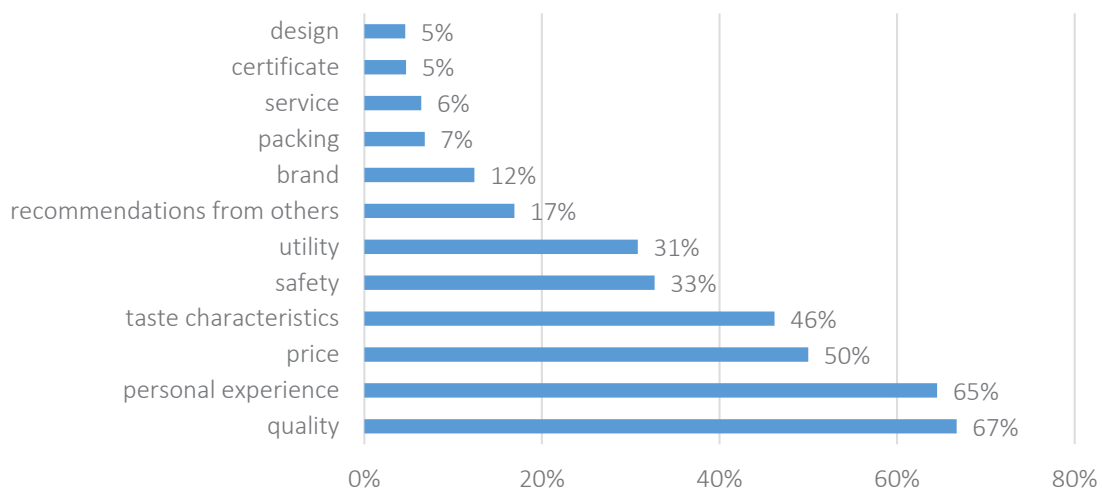


Figure 2. Responses to the question: Which of the following factors determines your choice when purchasing agri-food products? Choose maximum three answers

Source: Constructed by the authors based on the data of the survey.

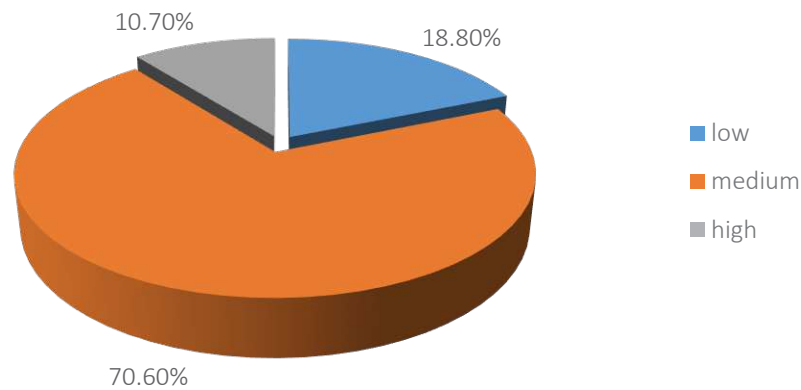


Figure 3. Responses to the question: How would you assess the competitiveness of Georgian agri-food products in the local market?

Table 1. Results of the factor assessment by consumers

Source: Constructed by the authors based on the data of the survey.

Rank	Characteristics	Total score	Average score
1	Quality	5183	4.3
2	Safety	5016	4.2
3	Taste characteristics	4949	4.1
4	Personal experience	4868	4.1
5	Utility	4851	4.0
6	Price	4321	3.6
7	Service	3874	3.2
8	Brand	3615	3.0
9	Recommendations from others	3531	2.9
10	Certificates	3464	2.9
11	Packing	3391	2.8
12	Design	3381	2.8

local food was dominant, in 26.2% of cases imported products prevailed, while for 34.8% results were evenly distributed.

Figure 3 shows that only 10.7% of consumers consider that Georgian agri-food products have high competitiveness.

This study tried to investigate whether advertising of agri-food products influenced consumers. Given that, the respondents were asked to rate the degree of influence with scores: 1 – low, 5 – high (see Figure 4).

Thus, as Figure 4 reveals that advertising has more or less influence (neutral importance) on consumers' choices and, on average, it is assessed with 3.1 points/scores. This can be one of the hints for manufacturers that they should not put much effort into advertising and put product quality first. Another hint for producers might

be the answer to the question referring where consumers mainly buy agri-food products. The results have revealed that local district shops are ranked 1st with 27.8%, which are followed by grocery markets (20.5%), supermarkets and similar shopping places are ranked 3rd and Carrefour takes fourth position (18.5%). Therefore, agri-food producers should focus on the trade objects, taking into consideration the first three positions in the ranking (taking the location of the entrepreneurs into consideration).

The next step in the analysis of the survey was to exclude the answers of the 170 respondents who were not the main decision makers from the results and to discuss the answers in terms of age.

Table 2 shows some very interesting relationships/correlations. The older the respondent, the higher the share of quality as the most important fac-

Source: Constructed by the authors based on the data of the survey.

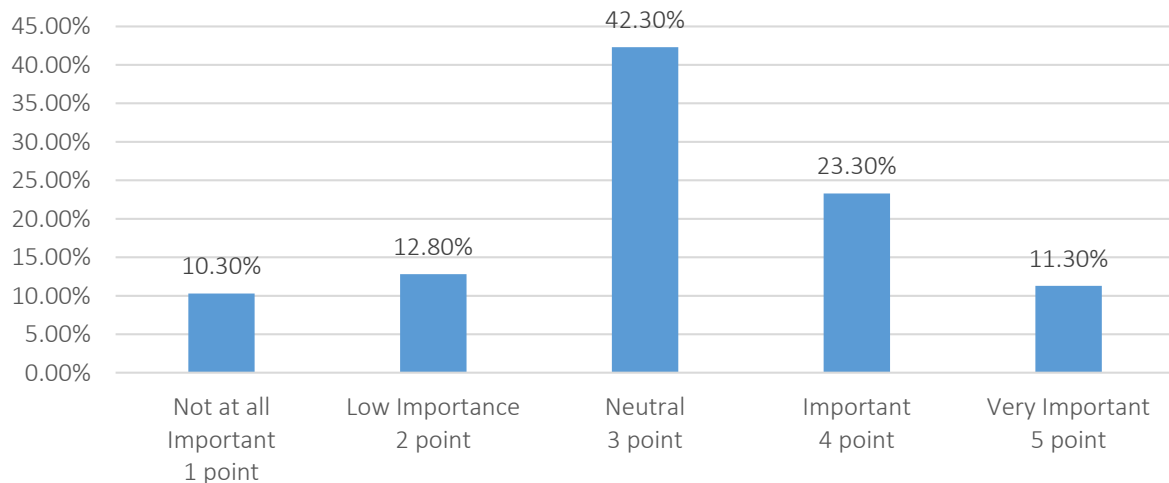


Figure 4. Responses to the question: Does advertising on agri-food products influence your choice? Does it push you for a purchase?

Table 2. Results to the question: In general, which of the following factors encourages you to choose one of two similar products? Seen in terms of age

Source: Constructed by the authors based on the data of the survey.

Factors	18-24years old	25-34years old	35-54years old	55-64years old	65 years old and over
Price	25.7%	24.8%	10.6%	17.2%	8.3%
Service	4.0%	5.8%	8.2%	4.7%	0.0%
Quality	70.4%	69.4%	81.2%	78.1%	91.7%

tor when choosing a product, and the lower the share of price, that is, it is not a determining factor in making a choice. In general, the tendency that quality is a major factor in purchasing is observed for all age groups. However, the share of price is the highest (almost 26%) for the 18-24 age group. This is probably determined by the fact that the average monthly salary of 45% of the given age group is only 0-500 GEL.

Table 3 shows that personal experience, quality and price (price holds only the third position in this list) are the main factors when purchasing agri-food products in the age categories of 18-24 years old, 25-34 years old, and 35-54 years old. The results point to changes in the age groups of 55-64 years old and 65 years old and over when price is no longer the main determinant and in one case it is replaced by taste characteristics and in another one by utility.

Table 3. Results to the question: Which of the following factors determines your choice when purchasing agri-food products? Choose maximum three answers. Seen in terms of age

Source: Constructed by the authors based on the data of the survey.

Factors	18-24 years old	25-34 years old	35-54 years old	55-64 years old	65 years old and over
Price	61%	51%	39%	31%	25%
Quality	67%	64%	64%	77%	83%
Utility	30%	30%	34%	28%	67%
Safety	33%	31%	35%	28%	17%
Taste characteristics	52%	47%	37%	39%	25%
Certificates	5%	5%	5%	2%	0%
Packing	11%	7%	3%	3%	8%
Personal experience	69%	64%	61%	73%	75%
Recommendations from others	20%	16%	12%	9%	0%
Service	7%	8%	6%	2%	0%
Design	8%	4%	1%	0%	0%
Brand	15%	12%	10%	13%	0%

Table 4. Results to the question: Please, rate the following factors according to their importance in choosing agri-food products with scores (1 – the lowest, 5 – the highest). Seen in terms of age (average score)

Source: Constructed by the authors based on the data of the survey.

Factors	18-24 years old	25-34 years old	35-54 years old	55-64 years old	65 years old and over
Price	3.6	3.6	3.5	3.7	2.9
Quality	4.2	4.4	4.4	4.4	4.0
Utility	3.9	4.2	4.1	4.2	4.0
Safety	4.1	4.2	4.2	4.4	4.0
Taste characteristics	4.1	4.2	4.1	4.2	3.9
Certificates	2.8	3.0	3.0	3.1	3.1
Packing	2.8	2.9	2.8	3.0	2.8
Personal experience	4.0	4.2	4.0	4.1	3.9
Recommendations from others	2.9	3.1	2.9	2.8	2.6
Service	3.2	3.3	3.2	3.4	2.9
Design	2.8	2.8	2.8	3.1	2.6
Brand	3.0	3.0	3.1	3.3	3.1

Table 4 shows that quality is ranked 1st for all age groups, while 2nd and 3rd positions are alternately taken by safety, utility, taste characteristics and, of course, personal experience. Certificate and brand emerge and take third place only for the age-group of 65 years old and over. It should be noted here that the first and second positions for this category were shared equally by many factors due to a small sample (only 12 respondents in total in this category).

Returning to the question posed at the beginning of this study, it is now possible to discuss answers in terms of revenue.

In this case, too, 170 people who did not make the main decision, when buying agri-food products, are excluded.

Table 5 shows a very interesting relationship. When selecting a product, the higher the individual's income, the higher the share of quality in responses, while the price decreases, and in other words, when the income is solid, price is not a crucial factor when selecting an agri-food product. However, the general trend that quality is a ma-

ior factor in purchasing is evident for all income groups. Considering the price, it has the highest share (almost 33%) for individuals with a monthly income of 0 to 500 GEL, and the lowest – about 8% – for individuals with an income of GEL 2001 and over. Consequently, almost 85% of people in the same category pay special attention to quality.

Table 6 shows that the main factors in the monthly income category of 0-500 GEL, 501-1000 GEL, 1001-1500 GEL, 1501-2000 GEL, when buying agri-food products are: quality, personal experience and price (again, the price takes only the third position in this list). And already changes can be seen in the category of “monthly income of GEL 2001 and over”, when price is no longer the main determining factor, and it is replaced by taste characteristics. Interestingly, the product brand received the highest response in the given revenue category, at around 17%. However, the results indicate that the more a person's income is, the greater is the importance of the brand in his choice.

According to Table 7, quality takes the first place for all income groups, while the second and third

Table 5. Results to the question: In general, which of the following factors encourages you to choose one of two similar products? Seen in terms of revenue

Source: Constructed by the authors based on the data of the survey.

Factors	0-500 GEL	501-1000 GEL	1001-1500 GEL	1501-2000 GEL	2001 GEL and over
Price	32.8%	22.6%	22.3%	11.7%	8.3%
Service	4.3%	4.7%	5.7%	7.8%	7.0%
Quality	62.9%	72.0%	72.6%	80.6%	84.6%

Table 6. Results to the question: Which of the following factors determines your choice when purchasing agri-food products? Choose maximum three answers. Seen in terms of revenue

Source: Constructed by the authors based on the data of the survey.

Factors	0-500 GEL	501-1000 GEL	1001-1500 GEL	1501-2000 GEL	2001 GEL and over
Price	60.3%	51.8%	49.7%	43.7%	39.5%
Quality	65.5%	67.5%	68.4%	58.3%	67.1%
Utility	31.9%	31.8%	32.1%	35.0%	29.4%
Safety	39.2%	32.8%	32.1%	27.2%	28.5%
Taste characteristics	45.3%	45.3%	46.1%	42.7%	46.1%
Certificates	3.4%	2.9%	4.7%	7.8%	6.6%
Packing	8.2%	5.8%	5.2%	5.8%	9.6%
Personal experience	65.9%	65.0%	61.1%	72.8%	66.2%
Recommendations from others	19.8%	11.3%	15.5%	21.4%	16.2%
Service	5.6%	4.4%	5.7%	9.7%	9.2%
Design	6.9%	4.7%	4.1%	1.9%	2.6%
Brand	8.2%	9.9%	14.0%	15.5%	17.1%

places are alternately shared by safety and taste characteristics. However, in some income categories, features such as personal experience and utility are added. Packaging received the lowest average rating in terms of monthly income from 0 to 500 GEL, design received the lowest average rating in terms of monthly income from 501 to 1000 GEL, the lowest average rating in terms of monthly income from 1001 to 1500 GEL received certificates and design. Design received the lowest average rating in terms of monthly income from 1501 to 2000 GEL, design received the lowest average rating in terms of monthly income of GEL 2001 and above, as well as design and packaging. Consequently, it is worthwhile noting that in the case of agri-food products, the design has less influence on the consumer's choice, which is understandable, followed by packaging and finally certifications.

Unlike previous studies in Georgia, in which the main factors influencing consumer decision were firstly the price and then the quality, today the world is battling the COVID-19 pandemic, and at the same time the demand for organic products is growing, so, the status quo has changed. Based on the above discussion, there is evidence to suggest that quality, along with other factors such as safety, taste characteristics and personal experience are the main determinants of competitiveness. Manufacturers need to accept this new situation and focus their efforts on improving the quality and utility of their products. It is important for agri-food producers to understand how to win the hearts of consumers, both locally and internationally. Personal experience is also one of the main crucial factors when purchasing a product. It can be said that Georgian consumers are quite

Table 7. Results to the question: Please, rate the following factors according to their importance in choosing agri-food products with scores (1 – the lowest, 5 – the highest). Seen in terms of revenue (average score)

Source: Constructed by the authors based on the data of the survey.

Factors	0-500 GEL	501-1000 GEL	1001-1500 GEL	1501-2000 GEL	2001 GEL and over
Price	3.6	3.6	3.9	3.6	3.4
Quality	4.1	4.3	4.4	4.4	4.5
Utility	3.9	4.1	4.2	4.0	4.0
Safety	4.0	4.2	4.3	4.2	4.2
Taste characteristics	3.9	4.1	4.2	4.2	4.3
Certificates	2.8	3.0	3.0	3.1	2.8
Packing	2.7	2.9	3.1	3.0	2.7
Personal experience	3.8	4.1	4.2	4.1	4.1
Recommendations from others	2.8	2.9	3.1	3.1	3.0
Service	3.1	3.2	3.3	3.3	3.3
Design	2.8	2.8	3.0	2.9	2.7
Brand	2.8	3.1	3.2	3.3	3.0

dependent to the usual product. That is why it is necessary to develop new marketing approaches to create an unforgettable first impression to gain a loyal customer.

As a rule, agro-food products do not require special packaging, but in order to be sold and easily transferred to the trade network, it is packaged in different containers. This is especially common for exported products. Thus, packaging may not be the main determinant for the consumer to purchase, however, it does not lose its importance for the manufacturers.

The supportive environment is necessary to increase the competitiveness of agri-food products in Georgia. For example, increasing the availability of new technologies, developing

and popularizing them, training new specialists in the field of agri-food product expertise and quality control. The state can act as a mediator in this regard, assisting entrepreneurs in implementing the necessary resources or projects. The state must correctly prioritize and accordingly allocate resources for the development of product sectors with potentially high competitiveness.

It is true that there are public and private laboratories in Georgia, which are an integral part of the country's food safety system, but their number is small and unevenly distributed throughout the country. So, to respond to the current challenges, the government should promote establishment and expansion of quality centers in line with international standards.

CONCLUSION

The aim of the study was to identify the key factors that correctly determine the competitiveness of agri-food products seen by consumers in different areas, for example, age and income. Research has shown that in general, quality is the main factor for choosing one of two similar products. Similarly, consumers' choice in purchasing agri-food products is largely determined by its quality and subsequent personal experience. So, the Georgian consumer is in the transition stage of the 2nd and 3rd levels of competitiveness Pyramid. According to this study, the last positions are held by design and packaging. Interestingly, advertising on agri-food products has more or less impact on consumers.

The analysis of customer responses categorized by age groups revealed an interesting result. In particular, as the age of a buyer increases, quality plays a major role in the decision to purchase an agri-food product. Consequently, price dependence decreases. In the age categories of 55-64 years old and 65 years old and over, the price is replaced by taste characteristics and utility. When the answers were grouped based on average monthly income, similar results were received, with the increase in income, quality becomes the main factor to purchase the product. Price becomes relatively crucial for low-income respondents.

Consumers evaluate Georgian agro-food products as having average competitiveness. Thus, it is important for manufacturers to focus on improving the quality of their products. However, competitiveness cannot be achieved at the product level unless certain preconditions are created at the state level to ensure it.

The conducted research will give an opportunity to the interested persons to introduce the peculiarities of product competitiveness in the agro-food market of Georgia and help them to determine the right production strategy. Thus, the study contains few limitations that need to be addressed in future research. The limitations are as follows: the sample size was limited to 1,200 respondents. In the future, a larger number of consumers may be included in the study. The online survey method was the only method used, which should be further combined with field and experimental investigations.

AUTHOR CONTRIBUTIONS

Conceptualization: Nino Talikadze, Eter Kharashvili.
 Data curation: Nino Talikadze.
 Formal analysis: Nino Talikadze.
 Funding acquisition: Nino Talikadze, Eter Kharashvili.
 Investigation: Nino Talikadze.
 Methodology: Nino Talikadze.
 Project administration: Nino Talikadze.
 Resources: Nino Talikadze.
 Software: Nino Talikadze.
 Supervision: Nino Talikadze, Eter Kharashvili.
 Validation: Nino Talikadze.
 Visualization: Nino Talikadze.
 Writing – original draft: Nino Talikadze.
 Writing – review & editing: Nino Talikadze, Eter Kharashvili.

REFERENCES

- Altukhov, A. I., Drokin, V. V., & Zhuravlev, A. S. (2019). Increasing competitiveness the agro-food complex is impossible without its rational territorial organization. IOP conference series: earth and environmental science. *IOP Publishing*, 274(1).
- Bawakyillenuo, S., & Agbelie, I. S. (2021). Environmental Consciousness of Entrepreneurs in Ghana: How Do Entrepreneur Types, Demographic Characteristics and Product Competitiveness Count? *Sustainability*, 13(16), 9139. <https://doi.org/10.3390/su13169139>
- Borisov, P., Stoeva, T., & Dirimanova, V. (2021). Methodology for Assessing The Competitiveness of Agricultural Enterprises. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*.
- Burkynskiy, B., Alyokhin, A., Brutman, A., Sokolovska, Z., & Khumarova, N. (2019). Competitiveness and Related Concepts: A Logical Approach to Definition. *Economic Studies*, 4, 18-44.
- Charykova, O. G., Salnikova, E. V., Pashuta, A. O., & Chernysheva, I. I. (2020). Assessment of Competitiveness of Agricultural Products in the Global Market. *International Conference on Policies and Economics Measures for Agricultural Development (AgroDevEco)* (pp. 60-64). Atlantis Press. <http://dx.doi.org/10.2991/aebmr.k.200729.012>
- Chen, M. J., & Miller, D. (2015). Reconceptualizing Competitive Dynamics: A Multidimensional Framework. *Strategic Management Journal*, 758-775. <https://doi.org/10.1002/smj.2245>
- Desmichel, P., & Kocher, B. (2020). Luxury Single- versus Multi-Brand Stores: The Effect of Consumers' Hedonic Goals on Brand Comparisons. *Journal of Retailing*, 203-209. <https://doi.org/10.1016/j.jretai.2019.09.002>
- Dima, I. C., Man, M., & Kot, S. (2010). Use of Abraham Maslow's motivation theory for setting consumers' satisfaction-non-satisfaction. *Polish Journal of Management Studies*, 2, 132-138. <https://ideas.repec.org/a/pcz/journal/v2y2010i2p132-138.html>
- Dovgal, O. V., Kravchenko, M. V., Demchuk, N. I., Odnoshevnaya, O. A., Novikov, O. Y., Andrusiv, U. Y., & Popadynets, I. R. (2017). Methods of competitiveness assessment of agricultural enterprise in eastern Europe. *Regional Science Inquiry*, IX(2), 231-242. <https://ideas.repec.org/a/hrs/journal/vixy2017i2p231-242.html>
- Dung, B. V., Hoang, T. T., & Dieu, A. (2020). Concepts of Competitiveness and Agricultural Competitiveness. *Indian Journal of Applied Economics and Business*, 2(2), 95-108.
- Dung, B. V., Thuy, V. H., Dieu, A. H., & Thuy, L. G. (2020). Concepts of Agri-Competitiveness in Theoretical and Imperical Researchs. *Journal of Development Research*, 4(1). <https://doi.org/10.28926/jdr.v4i1.101>
- Farhikhteh, S., Kazemi, A., Shahin, A., & Shafiee, M. M. (2020). How competitiveness factors propel SMEs to achieve competitive advantage? *Competitiveness Review: An International Business Journal*. <https://doi.org/10.1108/CR-12-2018-0090>
- Gagnidze, I. (2012). *Country Competitiveness and Clusters: History and Modernity*. Tbilisi: Universali.
- Hambrick, D. C. (2017). High Profit Strategies in Mature Capital Goods Industries: A Contingency Approach. *Academy of Management Journal*, 26(4). <https://doi.org/10.2307/255916>

15. Huang, H., He, Y., & Chen, J. (2019). Competitive strategies and quality to counter parallel importation in global market. *Omega*, 86, 173-197. <https://doi.org/10.1016/j.omega.2018.07.009>
16. Hunold, M., Kesler, R., & Laitenberger, U. (2020). Rankings of Online Travel Agents, Channel Pricing, and Consumer Protection. *Marketing Science*, 39(1). <https://doi.org/10.1287/mksc.2019.1167>
17. Kharashvili, E. (2020). Methodological Features of Determining the Level of Competitiveness in the Agri-Food Sector of Georgia. *Globalization & Business*, 43-49.
18. Kharashvili, E., & Natsvlshvili, I. (2019). Markets of Georgian Agro-Food Products and Export Stimulating Economic Policy. *Globalization & Business*, 44-53.
19. Liu, Z., Qin, C. X., & Zhang, Y. J. (2021). Mining product competitiveness by fusing multisource online information. *Decision Support Systems*, 143, 113477. <https://doi.org/10.1016/j.dss.2020.113477>
20. Logodashki, N. (2020). Competitiveness and Competitive Strategies in Wine Production. *Economics and Management*, 17(2), 72-83.
21. Maslova, V., Chekalin, V., & Avdeev, M. (2019). Competitiveness of agri-food products of Russia in current conditions. *OP Conference Series: Earth and Environmental Science*, 274(1), 012053. IOP Publishing.
22. Maslova, V., Zaruk, N., Fuchs, C., & Avdeev, M. (2019). Competitiveness of agricultural products in the Eurasian Economic Union. *Agriculture*, 9(3), 61. <https://doi.org/10.3390/agriculture9030061>
23. Matkovski, B., Kalaš, B., Zekić, S., & Jeremić, M. (2019). Agri-food competitiveness in South East Europe. *Outlook on Agriculture*, 48(4), 326-335. <https://doi.org/10.1177%2F0030727019854770>
24. Matkovski, B., Zekić, S., Đokić, D., Jurjević, Ž., & Đurić, I. (2022). Export competitiveness of agri-food sector during the EU integration process: Evidence from the Western Balkans. *Foods*, 11(1), 10. <https://doi.org/10.3390/foods11010010>
25. McLeod, S. (2007). *Maslow's Hierarchy of Needs*. Retrieved from <https://www.simplypsychology.org/maslow.html>
26. Miller, D. (2017). Relating Porter's Business Strategies to Environment and Structure: Analysis and Performance Implications. *Academy of Management Journal*, 31(2). <https://doi.org/10.2307/256549>
27. National Statistics Office of Georgia (Geostat). (2020). *External Trade Portal*. Retrieved from <http://ex-trade.geostat.ge/en>
28. National Statistics Office of Georgia (Geostat). (2020). *Labor Force Survey*. Retrieved from <https://www.geostat.ge/media/39910/%E1%83%A1%E1%83%90%E1%83%9B%E1%83%A3%E1%83%A8%E1%83%90%E1%83%9D-%E1%83%AB%E1%83%90%E1%83%9A%E1%83%98%E1%83%A1-%E1%83%92%E1%83%90%E1%83%9B%E1%83%9D%E1%83%99%E1%83%95%E1%83%9A%E1%83%94%E1%83%95%E1%83%90.pdf>
29. National Statistics Office of Georgia (Geostat). (2021). *Employment and Unemployment*. Retrieved from <https://www.geostat.ge/en/modules/categories/683/Employment-Unemployment>
30. National Statistics Office of Georgia (Geostat). (2021a). *Wages*. Retrieved from <https://www.geostat.ge/en/modules/categories/39/wages>
31. Nedelcheva, Y. (2021). Competitiveness assessment concepts. *Revista Inclusiones*, 49(51), 49-61.
32. Nuryakin, N., & Maryati, T. (2020). Green product competitiveness and green product success. Why and how does mediating affect green innovation performance? *Entrepreneurship and Sustainability Issues*, 7(4), 3061. [http://dx.doi.org/10.9770/jesi.2020.7.4\(33\)](http://dx.doi.org/10.9770/jesi.2020.7.4(33))
33. Ozerova, M. G., Sharopatova, A. V., & Olentsova, J. A. (2019). Improving the competitiveness of agricultural products as a basis for solving import replacement issues. *IOP Conference Series: Earth and Environmental Science*, 315(2). IOP Publishing.
34. Peneder, M., & Rammer, C. (2018). *Measuring Competitiveness*. Wien: Österreichisches Institut für Wirtschaftsforschung.
35. Pustovoit, O. (2021). Institutional changes and dynamics of product competitiveness in Ukraine. *Three Seas Economic Journal*, 2(4), 49-55.
36. Rastorgouev, P. (2020). Methodological bases for assessing competitiveness of agri-food products according to quality Parameters. *Proceedings of the National Academy of Sciences of Belarus. Agrarian Series*, 58(2), 164, 164-175. <http://dx.doi.org/10.29235/1817-7204-2020-58-2-164-175>
37. Reyes, G. E., & Useche, A. J. (2019). Competitiveness, economic growth and human development in Latin American and Caribbean countries 2006-2015: A performance and correlation analysis. *Competitiveness Review*, 29(2), 139-159.
38. Savchenko, T., Basiurkina, N., Rodina, O., & Kwilinski, A. (2019). Improvement of the assessment methods of product competitiveness of the specialized poultry enterprises. *Management Theory and Studies for Rural Business and Infrastructure Development*, 41(1), 43-61. <http://dx.doi.org/10.15544/mts.2019.05>
39. Senyshyn, O., Kundyskyj, O., & Klepanchuk, O. (2019). An index analysis for the assessment of the competitiveness of food products in Ukraine. *Journal of Competitiveness*, 11(2), 130. <https://doi.org/10.7441/joc.2019.02.09>
40. Sheldon, I. M. (2017). The Competitiveness of Agricultural Product and Input Markets: A

- Review and Synthesis of Recent Research. *Journal of Agricultural and Applied Economics*, 49(1), 1-44. <https://doi.org/10.1017/aae.2016.29>
41. Shestakovska, T., Durglishvili, N., & Kushnir, S. (2018). Competitiveness of the agrarian business in the context of maintenance of leadership positions on the market. *International Conference on Social, Economic and Academic Leadership (ICSEAL)* (pp. 177-184).
 42. Shpak, N., Seliuchenko, N., Kharchuk, V., Kosar, N., & Sroka, W. (2019). Evaluation of Product Competitiveness: A Case Study Analysis. *Organizacija*, 52(2). <http://dx.doi.org/10.2478/orga-2019-0008>
 43. Siudek, T., & Zawajska, A. (2014). Competitiveness in the economic concepts, theories and empirical research. *Acta Scientiarum Polonorum. Oeconomia*, 13(1).
 44. Todua, N. (2012). marketing marketing of the agro-food market and its development trends in Georgia. *Priorities of the Sustainable Development of Agriculture, I International Scientific-Practical Conference* (pp. 198-202). Tbilisi University Publishing House.
 45. Todua, N. (2018). Impact of food Labeling on Consumers Buying Decision (Georgian Case). *International Journal of Innovative Technologies in Economy*, 1, 38-43.
 46. Tyunyukova, E., Ruban, V., & Burovtsev, V. (2018). Modern approaches to product competitiveness evaluation for companies of various industries. *MATEC Web Conf., X International Scientific and Technical Conference "Polytransport Systems"*.
 47. Vargha, B. T., Németh, E., & Pályi, K. Á. (2019). What Do Competitiveness Rankings Show Us?: Substantiation and Informativeness of the World Economic Forum's Competitiveness Ranking. *Public Finance Quarterly*, 64(3), 350-368.
 48. Wilson, S. (2018). Assessing export competitiveness of food manufacturers in SIDS. *Competitiveness Review*, 28(4), 408-432. <https://doi.org/10.1108/CR-07-2016-0038>
 49. Zakharchenko, O., Aliexsiechuk, O., Kliuchnyk, A. V., Shyriaieva, N. Y., & Kudlai, I. V. (2020). State support of agricultural producers as a factor in increasing the competitiveness of the agricultural sector. *Entrepreneurship and Sustainability Issues*, 8(1), 687. [http://doi.org/10.9770/jesi.2020.8.1\(47\)](http://doi.org/10.9770/jesi.2020.8.1(47))