

# Relationship between gastro tourism and consumer behavior in food

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## Abstract

*Modern tourism is a discipline that has only recently begun to attract the interest of professionals from several disciplines. Those who set the course for the development of tourism must cope with changes in technology, climatic conditions, an increasing aging, more sophisticated population, more frequent use of health care products and services. Gastronomy has been recognized as an integral part of the tourism product and as a means of differentiating destinations. It plays a key role in building the unique character, identity and authenticity of the destination. The aim of the paper is to analyze, compare and predict consumer demand of statistically monitored categories of meat, its frequency of consumption, to determine the dependence of meat consumption on life expectancy and to outline the possible consequences of this consumer demand on selected demographic indicators. The object of the research are the countries of Slovak and Bangladesh. Secondary sources and primary data obtained from 1300 respondents were used. The sources were processed by several statistical-mathematical methods, namely we used the method of regression and correlation analysis, the method of time series analysis. The results suggest that there is a correlation between life expectancy and consumption of individual meats, which can significantly influence the development of tourism through gastronomic trends.*

**Keywords:** trends; tourism; gastronomy; consumer; shopping behavior; demography;

## 1. Gastro tourism

A global dynamic tourism market, a shift in consumer behavior, an increasing need for exclusivity and individualism in communicating with customers, more experienced, more critical, more sophisticated travelers (Beresecká et al. 2018), increasing international competition are the reasons for seeking new innovative, fancy tourism products Kontis AP., Skoultos S. (2018). Magazine literature suggests that different factors that influence destination choice and can be a significant incentive to determine

participation in tourism are caused by various factors: natural wealth, tourist infrastructure, leisure and recreation, culture, history, art, politics and economics, atmosphere (Beerli and Martin, 2004, Novacka -

integrate these dishes with the culinary menu. Recently, food tourism research has become increasingly large and diverse, providing valuable information for scientists and professionals alike. Anderson et al. (2017) encourages that research in this area should be more oriented towards environmental sustainability, economic sustainability and cultural sustainability. From the economic sustainability point of view, "paying particular attention to geographically distant and high local markets (i.e. the local population of the destination) - the first is important for future growth and the second is essential for local food producers and restaurants to they perceive cultural sustainability through building and developing the culinary heritage of cities. This sustainability can contribute to a stronger local culture that is of interest to both tourists and locals. He sees environmental sustainability as a research potential for tourism scientists as environmental forces are increasingly affecting demand, supply and local cultures. Tommy D. Andersson et al. 2017. Research results in the sketched areas could eliminate the barriers to tourism development, eg. under-utilization of potential, quality of services achieved, etc. (Meszárošová and Levický, 2017) Even for gastronomy, quality foods and beverages are the most important and necessary factor of attractiveness for tourism (Eren, Ramazan. (2019)).

The development of the society presupposes changes in the demographic and socio-economic structure of the population (aging of population and increase of easy working). Food is one of the basic life needs of man. The professional structure in developed industrialized countries corresponds to 62% of the population working lightly with a lower energy requirement of the organism, 26% of the population doing moderate work and only 12% of the population working in the hard-working group. Nutritional value and food safety are essential nutrition requirements for food producers. The most important raw materials of animal origin are meat, milk, eggs and honey. This includes meat: pork, beef, poultry, fish, rabbit, mutton and game. (STECOVA - Cinderella, 2005). Man is at the top of the food chain. Although people differ from each other in terms of needs, they are generally required to consume about 60% of the plant diet, the remaining 40% of food of animal origin, and do not do without meat intake individually at least two to three times a week. Appropriate meat is an integral part of good human nutrition (MIHOLA-VOVSÍKOVÁ, 2018). Increasing the standard of living of the population and other social conditions also cause changes in the population's nutrition. Biologically less valuable foods (starch, carbohydrate) are replaced by more valuable and tastier products, such as meat and meat products, to which our agriculture must also comply (ABERLE - FORREST - GERRARD, 2012). This means in particular the expansion of lean meat production, the increase in production and consumption of sheep, poultry, rabbit and fish meat as well as game (BRYCHTA - KLÍMOVÁ - BULAWOVÁ, 2008). Poultry meat is highly valued for its high biological value, palatability and easy digestibility. Compared to the meat of other animals for slaughter, it contains more protein and less fat. For lower energy value it meets the conditions of rational nutrition. It is rich in minerals and vitamins. Its composition is determined by species, age, sex, type and degree of fattening. (SPITZER - CASTLE, 1985). By game we mean meat and edible parts of furry and feathered game. The use of game is conditioned by hunting the game in an authorized way. The value of game depends on the health and nutritional status and the age of the game caught. This meat comes to the market seasonally according to the hunting plan for each species. Divina belongs to foods with high biological value. It has finer muscle

fibers with less fat than slaughter animals. (SPITZER - CASTLE, 1985). At the same time, the biological value of fish meat is not only equivalent to the meat of slaughter animals, but in some respects exceeds it. Fish meat contains mainly valuable animal protein, valuable minerals (especially iodine and phosphorus) and fish oil, which has a higher proportion of unsaturated fatty acids. For these characteristics, fish meat, when properly prepared, can be considered as dietary meat. It has 15 to 20% full-value protein and mineral content is significant iodine content. (SPITZER - CASTLE, 1985). The meat of slaughter animals (especially beef and pork) contains various substances and elements important to the human body. First of all, it is a source of valuable proteins - individual amino acids are represented in it in a similar proportion as in the human body. However, daily consumption is not recommended. Frequent intestinal consumption is also considered unhealthy, eg. a liver that contains a lot of cholesterol but also contains high amounts of vitamins and minerals. The 25th of November was declared International and World Meat Free Day and Animal Rights Day. It has been celebrated for thirty-three years, initiated in India in 1986. People's attitude to meat consumption varies, and is mainly related to religion and cultural traditions. This is largely due to latitude - in areas with abundance of vegetables and fruit, less diet of animal origin is consumed than in cold climates. More and more often, however, the (non) consumption of meat is influenced by the individual attitude of man, consumer (Svetlíková, 2019). Every person is a consumer because he is interested in the things he uses, consumes and affects his daily life (HORSKÁ - UBREŽIOVÁ, 2001). A consumer is also a person identifying his / her wishes and needs, making a purchase and disposing of a product during the various stages of the consumer process. They are individuals who buy products that serve the needs of themselves and their families (SOLOMON - BAMOSSO - ASKEGAARD - HOGG, 2006). Man plays the role of the consumer throughout his life, because there are products that surround him and are offered to buy and consume (TUMA, 2007). In a broader sense, we can understand the consumer as the last link in the chain or the last user who creates value from the start of production to the actual distribution, and also as a market economy participant that maximizes its benefit while minimizing its costs (LABSKÁ - TAJTÁKOVÁ – FORET, 2009). We define consumer expressions that can be freely observed in the purchasing and consumption process as consumer behavior. These are all its actions and responses to specific events, which are influenced by a number of stimuli, such as: type of product, attitude and degree of consumer motivation, purchasing situation, influence of opinion leader, resp. fashion etc. Two types of manifestations can be identified in terms of consumer behavior (DARPY - VOLLE 2007)

## **2. Aim and methods**

The aim of the paper is to analyze, compare and predict consumer demand of statistically monitored categories of meat, its frequency of consumption, to determine the dependence of meat consumption on life expectancy and to outline the possible consequences of this consumer demand on selected demographic indicators.

The object of the research are the countries of Slovak and Bangladesh.

Secondary and primary data obtained from the questionnaire survey were used in the paper.

The questionnaire survey was carried out in both printed and electronic form from January to June 2017. Altogether 1300 respondents participated, but due to insufficient completion of parts of the questionnaire

by some respondents, we had to reduce the number of respondents to 931. The questionnaire consisted of two parts. The first part of the questionnaire consisted of 9 questions concerning consumer behavior in the meat and meat products market and the second part consisted of 5 classification questions concerning the respondent. On individual questions concerning consumer behavior in the meat and meat products market, the respondents answered the following questions: 1. You consume meat and meat products with a choice of yes, no, occasionally. 2. How often you consume different types of meat (poultry, beef, pork, game, fish) with the possibility of answering every day, several times a week, once a week, rarely, not at all. Of the respondent's classification questions, they were asked to answer the following questions: gender (female, male), age (under 18, 19-25, 26-35, 36-45, 46-55, 56-65 years and 66 years and more), highest completed education (primary, secondary, university), economic activity (pupil, student; employed; unemployed - unemployed; unemployed - disability, maternity leave, other; pensioner) and net monthly income (up to 500 € 501 - 700 € 701 - 900 € 901 - 1100 € 1101 - 1300 € and 1301 € and more). 254 men (27%) and 677 women (73%) in the age groups up to 18 years of age 56 respondents (6%) participated in the questionnaire survey, 270 respondents (31%) at the age of 19-25, aged 26-35 130 respondents (14%), aged 36-45 121 respondents (13%), aged 46-55 130 respondents (13%), aged 56-65 149 respondents (15%), and aged 66 and more 75 respondents (8%). Of all respondents, 785 respondents (84.32%) consume meat and meat products, 112 respondents (12.03%) occasionally consume and 34 (3.65%) do not consume meat and meat products at all. The highest completed basic education was achieved by 75 respondents (9%), secondary education 475 respondents (52%) and university education 381 (39%). The survey involved 298 pupils, students (35%), 484 employed (51%), 9 unemployed - unemployed (1%), 28 unemployed - invalidity, maternity leave, other (2%), 112 pensioners (11%). For data processing we used basic approaches used in statistical analysis of time series, which will demonstrate how to build a high-quality mathematical-statistical model that serves not only to explain the development of the surveyed quantity, but also to make a qualified prediction of its value in the following periods. We consider the chronological and factual data of the quantitative statistical feature as a time series. The number of data ordered in one row is called the length of time series. In terms of the quality of the prediction, the maximum length of the prediction should not exceed 1/3 of the time series of the analyzed indicator. In the case of graphical analysis, a line graph is used, where the x-axis indicates the units of time.

The form of the linear trend function:  $y_j' = b_0 + b_1 \cdot t_j$

The data are drawn from the FAO website, where we use data on meat consumption (beef, game, pork, poultry) in Bangladesh 1961-2013 and in the Slovak Republic 1993-2013. Due to the longer time series in Bangladesh we can predict the development of consumption of individual types of meat up to 17 years, while in the Slovak Republic only for 7 years.

We used the method of regression and correlation analysis to know and mathematically describe the statistical dependence between quantitative statistical traits. Suppose that between the dependent variable  $Y$  and the explanatory (independent) variables  $X_i$   $i = 1, 2, \dots, k$ , the dependence is described by the equation:

$$Y = f(X_1, X_2, \dots, X_k, \theta_0, \theta_1, \theta_2, \dots, \theta_k) + \epsilon$$

which we estimate:

$$y_j' = f(x_{1j}, x_{2j}, \dots, x_{kj}, b_0, b_1, \dots, b_k)$$

where the conditions of the classical linear model are fulfilled and coefficients  $b_0, b_1, \dots, b_k$  are estimates

of unknown parameters  $\beta_0, \beta_1, \dots, \beta_k$ .

Multiple dependence is calculated using the Data Analysis tool in Excel. The output of the regression and correlation analysis consists of three parts: the first part is the output of the correlation analysis, the second part is the output ANOVA, where we test the suitability of the model used, the significance of the correlation coefficient and the determination coefficient. The third part is the output of regression analysis. The first part of the output is the results of the correlation analysis. The value of Multiple R (closer the correlation coefficient) the closer to 1, the stronger the dependence. If the value of the multiple correlation coefficient from 0 - 0.3 is a weak statistical dependence, 0.3 - 0.6 a moderate statistical dependence, 0.6 - 1 a high statistical dependence between the investigated variables. The R Square value (determination coefficient) after multiplication by 100 (%) indicates that to what percentage the chosen regression function explains the variability of the dependent variable, the other part represents unexplained variability, the influence of random factors and other non-specific effects. In the ANOVA section, we test the null hypothesis, which states that the model we chose to explain dependence (in our case a linear model) is not appropriate, the alternative hypothesis claims the opposite. The F test is used to evaluate this claim. Significance F value  $< 0.05$  t. j.  $H_0$  is rejected, which means that the model was chosen correctly.

Bangladesh's regression function has the form  $y' = 14,28 + 20,70x_1 + 10,95x_2 + 0x_3 + 13,54x_4$

The regression function of Slovakia has the form  $y' = 76,93 - 0,23x_1 + 0,74x_2 - 0,04x_3 - 0,02x_4$

The null hypotheses that are tested in this section relate to the significance of the Intercept and regression coefficients ( $b_1, b_2, b_3, b_4$ ), the null hypothesis claiming that the coefficient is insignificant and the alternative hypothesis is its significance. The P-value (P-value) is used to evaluate these statements. If the P-value is  $> 0.05$ , the coefficient is statistically insignificant and if the P-value is  $< 0.05$ , the coefficient is statistically significant (MATEJKOVÁ, E. - PIETRIKOVÁ, M. - POLÁKOVÁ, Z, 2015). The work also used the Human Development Index (HDI), which is a comparative figure of poverty, literacy, education, life expectancy, birth rate and other factors of the world developed by the United Nations. By default, it is used to measure potential social prosperity. HDI includes state data in three basic perspectives on the further potential development of human resources: a long and healthy life measured by life expectancy at birth, knowledge measured by adult literacy (two-thirds of the weight of the data), and the number of enrolled schools weighted value data), a decent standard of living measured by gross domestic product per capita in purchasing power parity in international dollars. Indicator The total fertility rate represents fertility at the replacement level: the average number of children per woman needed for each generation to be accurately replaced without the need for international immigration.

### 3. Results

Country Slovakia, Slovak Republic is a national state in Central Europe. The total land area is 49 035 km<sup>2</sup>, water is 931 km<sup>2</sup> (1.9%), with a population of 5 457 873 (estimated 2019), a population density of 111.30 / km<sup>2</sup>, a GDP / inhabitant of \$ 35 130, with a high index human development. Slovakia has developed agriculture, which uses 19 350 km<sup>2</sup> of agricultural land (39.5% of the country's surface). The country's economy is divided into sectors: agriculture, industry, transport, trade, services and tourism. Agriculture in the country is of declining importance. The livestock production is gradually decreasing the number of

livestock. The numbers of pigs and cattle are decreasing most significantly. Sheep farming is consistently low. The most numerous are poultry. Fishing is of local importance and is mainly carried out on local rivers and reservoirs. In the pre-reform period, the total consumption of food products in the Slovak Republic was characterized by high calorie intake and insufficient nutritional value of consumed food. This was also influenced by incorrect dietary recommendations of "competent", such as. consuming at least one egg a day or claiming that "bananas are low-vitamin snacks". At the beginning of the post-1989 economic transformation as a result of price liberalization, there was a sharp rise in food prices (as well as other goods), which led to a decline in the purchasing power of the population. This has caused a change in the consumer behavior of the population. The consumption of meat products decreased significantly - from 84 kg per person in 1989 to 66 kg per person in 1997, which represents a decrease of approximately 22%. In addition to reducing the amount of food consumed, substitution of more expensive, higher quality, especially meat products, has also been replaced by lower quality and cheaper ones. As a result, the relatively unfavorable structure of food consumption has so far deteriorated.

State in South Asia Bangladesh respectively The People's Republic of Bangladesh is located off the coast of the Gulf of Bengal, with a total area of 143 998 km<sup>2</sup>, a population of 163 187 000, a population density of 1 106 / km<sup>2</sup>. Per capita gross domestic product at purchasing power parity per year is \$ 4,207 (US dollar), with a medium human development index 0,579. Several rivers flow through the country. In economic terms, the country is one of the poorest countries in the world. It is tested by frequent floods, natural disasters. The livestock production is oriented to the breeding of cattle, buffaloes, poultry. The location of the country predetermines another component of economic activity and that is fishing.

Table 1. Development of meat consumption in the compared countries

<b>Bangladesh</b>	year	consumption	change	<b>Slovakia</b>	year	consumption	change
beef	1961	2,35	-	beef	1961	-	-
game	1961	0,06	-	game	1961	-	-
pork	1961	0	-	pork	1961	-	-
poultry	1961	0,37	-	poultry	1961	-	-
beef	1993	1,28	54,47%	beef	1993	17,01	-
game	1993	0,08	133,33%	game	1993	1,78	-
pork	1993	0	0,00%	pork	1993	46,75	-
poultry	1993	0,92	248,65%	poultry	1993	6,86	-
beef	2013	1,28	100%	beef	2013	5,19	30,51%
game	2013	0,1	125%	game	2013	1,62	91,01%
pork	2013	0	0%	pork	2013	31,78	67,98%
poultry	2013	1,4	152%	poultry	2013	15,13	220,55%

Source: FAO, own processing

Between 2013 and 1993 in Slovakia, beef consumption decreased by 69.49%, wild game 8.99% and pork consumption by 32.02%. Poultry consumption increased by 120.55%.

The results show that in Bangladesh the consumption of beef decreased by 45.53% in 1993 compared to 1961. Game consumption increased by 33.33% and poultry consumption by 148.65% in the period under review. There was no change in beef consumption between 2013 and 1993. Conversely, game consumption increased by 25% and poultry consumption by 52% in the period under review.

In the next part we made predictions of meat consumption development in Bangladesh up to 2030 and in Slovakia after 2020 (Figures 1 and 2). In Slovakia, we also expect beef consumption to decline from 2.747 kg / person / 2014 to - 0.357 kg / person / 2020 t. j. 87% decrease. Increase in game consumption from 1,894 kg / person / 2014 to 2,228 kg / person / 2020 t. j. an increase of 17.61%. Pork consumption decreased from 30,117 kg / person / 2014 to 25,428 kg / person / 2020 t. j. a decrease of 15.57% and an increase in poultry consumption from 19.933 kg / person / 2014 to 23.260 kg / person / 2020 t. j. an increase of 16.69%.

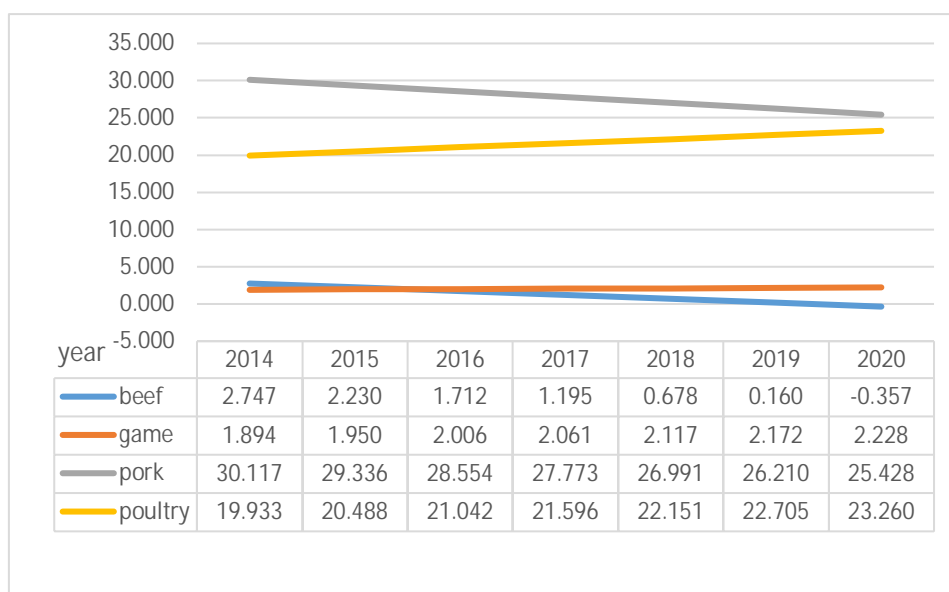


Figure 1. Development of meat consumption in kg / person / year in Slovakia  
 Source: own processing

The questionnaire survey examined how often respondents consume different types of meat. The interviewees had a choice of five types of meat: poultry, beef, pork, game and fish, and express which kind of meat they eat most often. The results of the survey clearly show that respondents consume the most poultry meat - several times a week. The average consumption of poultry meat for all respondents also showed this frequency (Table 2). On average, pork is consumed once a week. Beef and fish are consumed on average once a month. These types of meat have a significantly higher price than others, which is likely to be reflected in the infrequent consumption, despite the health benefits of these types of meat. Similarly, respondents rarely consume game.



Table 2. Frequency of meat consumption

Meat category	Average consumption	Most common consumption
poultry	several times a week	several times a week
beef	once a month	rarely
pork	once a week	once a week
game	rarely	rarely
fish	once a month	once a month

Source: own processing

In Bangladesh, we expect a slight decrease in beef consumption from 1.0013 kg / person / 2014 to 0.6253 kg / person / 2030 t. j. by 37.55%. For game consumption we expect a slight increase from 0.0925 kg / person / 2014 to 0.0957 kg / person / 2030 t. j. 3.46%. For poultry consumption, we expect the consumption of this meat to increase from 1.2602 kg / person / 2014 to 1.4874 kg / person / 2030 t. j. by 18.03%.

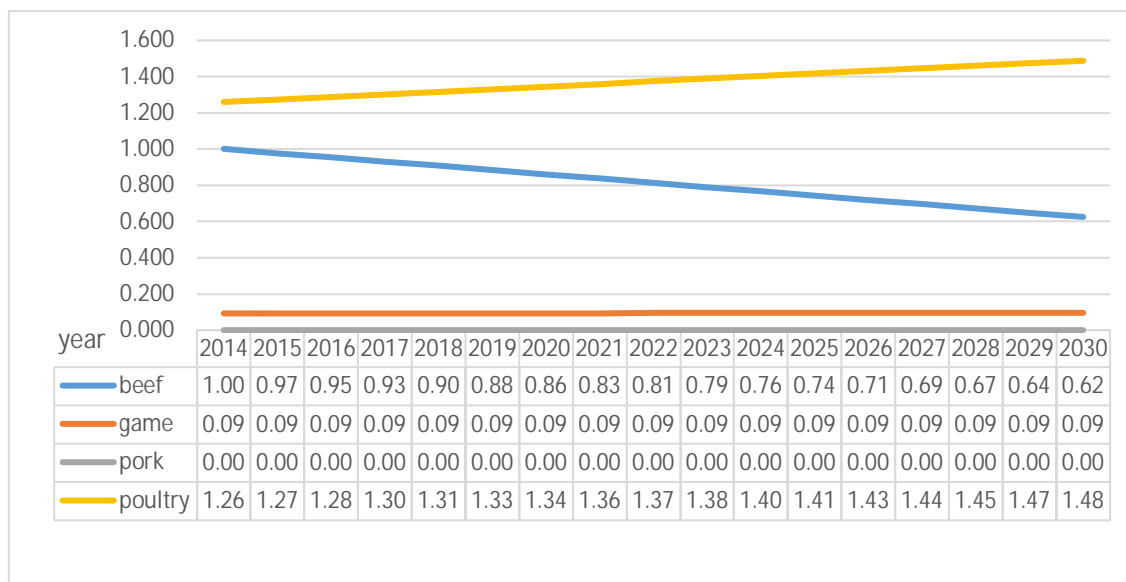


Figure 2. Development of meat consumption in kg / person / year in Bangladesh

Source: own processing

In the following part of the article, the tables (Table 3 and Table 4) show calculation methods by regression and correlation analysis in the countries of the Slovak Republic and Bangladesh.

Table 3. Regression and correlation analysis - Slovakia

SUMMARY OUTPUT -  
Slovakia

<b>Multiple R</b>	<b>0,94782</b>
<b>R Square</b>	<b>0,898363</b>
Adjusted R Square	0,872954
Error Standard	0,458255
Observations	21

ANOVA

Regression	4	29,6985	7,424626	35,35574	<b>9,32E-08</b>
Residual	16	3,359964	0,209998		
Total	20	33,05847			

Intercept	<b>76,93555</b>	1,6132	47,69126	<b>1,12</b>	73,51572	80,35538	73,51572	80,35538
Beef	<b>-0,23491</b>	0,066901	-3,51124	<b>0,002894</b>	-0,37673	-0,09308	-0,37673	-0,09308
game	<b>0,744979</b>	0,184856	4,030046	<b>0,000969</b>	0,353102	1,136857	0,353102	1,136857
pork	<b>-0,04531</b>	0,029122	-1,55579	<b>0,00139314</b>	-0,10704	0,016428	-0,10704	0,016428
poultry	<b>-0,02182</b>	0,042907	-0,50853	<b>0,00618023</b>	-0,11278	0,06914	-0,11278	0,06914

Source: own processing

The Multiple R value for Slovakia is 0.94. The closer the value is to 1, the stronger the dependence is. In our example, this is a high degree of dependence of the relationship between life expectancy and consumption of different types of meat. The value of R Square is the value of the determination coefficient; it is a value of 0.89. This value, after multiplying by 100 (%), indicates that the chosen regression function explains the variability of sales to approximately 89%, the other part represents unexplained variability, influence of random factors and other non-specific effects. In the ANOVA section, we test the null hypothesis, which states that the model we chose to explain dependence (in our case a linear model) is not appropriate, the alternative hypothesis claims the opposite. The F test is used to evaluate this claim. Significance F = 0.0000000932 < 0.05 H<sub>0</sub> is rejected, which means that the model was chosen correctly.

The regression function has the form  $y' = 76,93 - 0,23x_1 + 0,74x_2 - 0,04x_3 - 0,02x_4$

The locating constant is statistically insignificant. This means that with zero consumption of individual types of meat, we cannot expect an increase in life expectancy. The P-value for the regression coefficient b<sub>1</sub> (beef consumption in kg / person / year) is 0.00289 < 0.05, confirming the significance of this coefficient. Its fair value is -0.23, which means that with an increase in beef consumption of 1 kg, we can expect a decrease in life expectancy of 0.23 years. The P-value for the regression coefficient b<sub>2</sub> (game consumption

in kg / person / year) is 0.000969 <0.05, confirming the significance of this coefficient. Its real value is 0.74, which means that with an increase in game consumption of 1 kg, we can expect an increase in life expectancy of 0.74 years. The P-value for the regression coefficient  $b_3$  (pork consumption in kg / person / year) is 0.0013 <0.05, which confirms the significance of this coefficient. Its real value is -0.04, which means that with an increase in consumption of pork by 1 kg, we can expect a decrease in life expectancy of 0.04 years. The P-value for the regression coefficient  $b_4$  (poultry meat consumption in kg / person / year) is 0.00618 <0.05, which confirms the significance of this coefficient. Its real value is -0.02, which means that if the consumption of poultry meat is increased by 1 kg, we can expect the average life expectancy to decrease by 0.02 years. Based on the results obtained, we tried to point out the consequences of consumer demand by developing demographic indicators, namely the overall fertility rate and life expectancy (Figure 3, 4).

Table 4. Regression and correlation analysis - Bangladesh

SUMMARY OUTPUT - Bangladesh								
Multiple R	<b>0,973253</b>							
R Square	<b>0,947221</b>							
Adjusted R Square	0,934026							
Standard Error	0,87131							
Observations	21							
ANOVA								
Regression	4	218,0002	54,50005	71,78788	<b>5,16E-10</b>			
Residual	16	12,14691	0,759182					
Total	20	230,1471						
Intercept	<b>14,28425</b>	12,11425	1,179128	<b>0,255585</b>	-11,3968	39,96532	-11,3968	39,96532
hovädzina	<b>20,70783</b>	10,50279	1,971651	<b>0,0066195</b>	-1,55709	42,97274	-1,55709	42,97274
divina	<b>10,95904</b>	59,59799	1,838826	<b>0,0084575</b>	-16,7517	235,9325	-16,7517	235,9325
	<b>0</b>	0	65535		0	0	0	0
hydina	<b>13,54042</b>	2,298297	5,891502	<b>0,0053257</b>	8,668247	18,41259	8,668247	18,41259

Source: own processing

The Multiple R value for Bangladesh is 0.97. The closer the value is to 1, the stronger the dependence is. In our example, this is a high degree of dependence of the relationship between life expectancy and consumption of different types of meat. The R Square value is the determination coefficient value, it is 0.94. This value, after multiplying by 100 (%), indicates that the chosen regression function explains the variability of sales to approximately 94%, the other part represents unexplained variability, the influence

of random factors and other non-specific effects. In the ANOVA section, we test the null hypothesis, which states that the model we chose to explain dependence (in our case a linear model) is not appropriate, the alternative hypothesis claims the opposite. The F test is used to evaluate this claim. Significance  $F = 0.0000516 < 0.05$ .  $H_0$  is rejected, which means that the model was chosen correctly.

The regression function has the form  $y' = 14,28 + 20,70x_1 + 10,95x_2 + 0x_3 + 13,54x_4$

The locating constant is statistically insignificant. This means that with zero consumption of individual types of meat, we cannot expect an increase in life expectancy. The P-value for the regression coefficient  $b_1$  (beef consumption in kg / person / year) is  $0.00662 < 0.05$ , which confirms the significance of this coefficient. Its real value is 20.70, which means that with an increase in beef consumption of 1 kg, we can expect an increase in life expectancy of 20 years. The P-value for the regression coefficient  $b_2$  (game consumption in kg / person / year) is  $0.00845 < 0.05$ , confirming the significance of this coefficient. Its real value is 10.95, which means that with an increase in game consumption of 1 kg, we can expect an increase in life expectancy of 10 years. The P-value for the regression coefficient  $b_3$  (pork consumption in kg / person / year) is zero, confirming that they do not consume pork in the country at all. The P-value for the regression coefficient  $b_4$  (poultry meat consumption in kg / person / year) is  $0.005326 < 0.05$ , confirming the significance of this coefficient. Its real value is 13.54, which means that if we increase the consumption of poultry meat by 1 kg, we can expect an increase in life expectancy of 13 years.

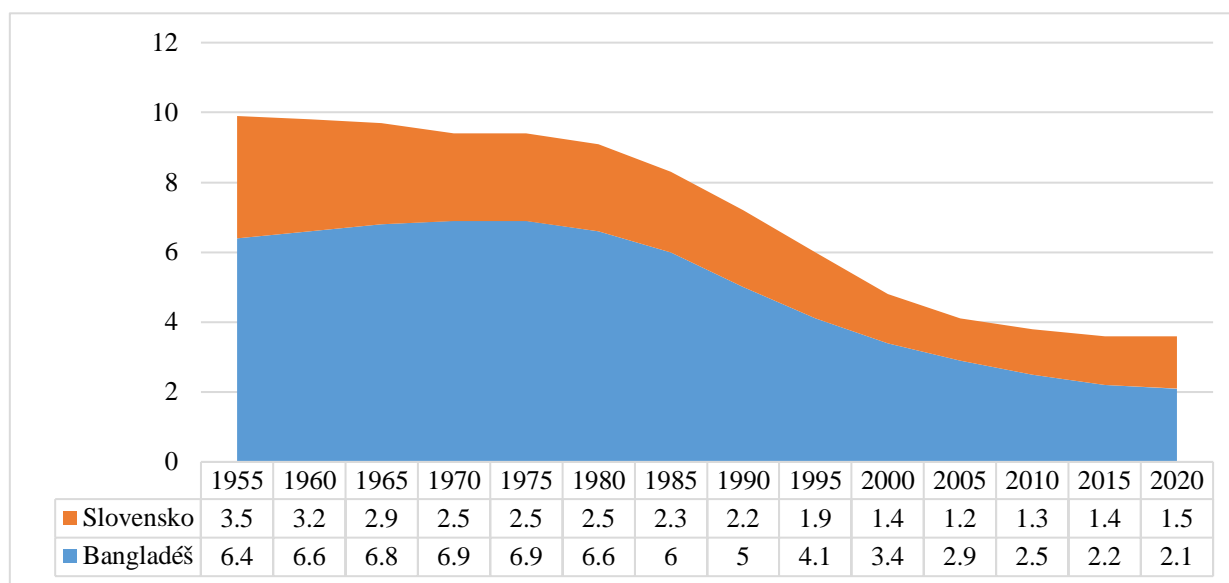


Figure 3. Development of total fertility rate in the compared countries

Source: processed according to data available at: <https://www.worldometers.info/demographics/bangladesh-demographics/>

The 1.5 and 2.1 values in 2020 confirm the decline in the indigenous population. In the Slovak Republic, an increase of 7% between 2015 and 2020 in Bangladesh decreased by 5% between 2015 and 2020. In the Slovak Republic, the indicator declines by 58% (1955 and 2020) in the period under review, and 68% in the Republic of Bangladesh.

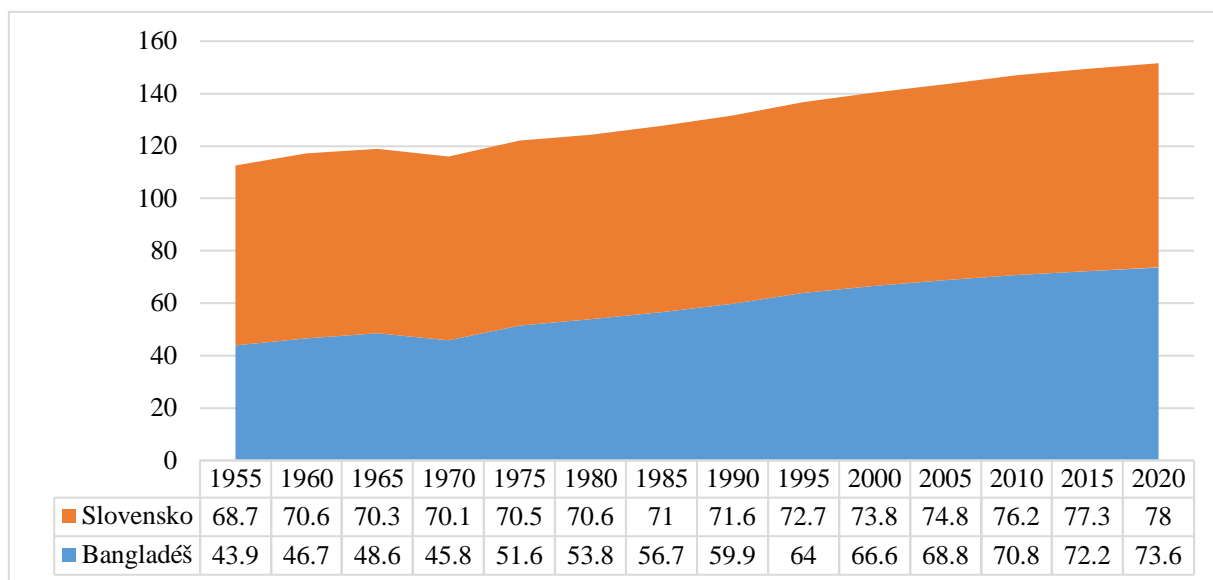


Figure 4. Development of life expectancy

Source: processed according to data available at: <https://www.worldometers.info/demographics/slovakia-demographics/>

The values of 78.0 and 73.6 in 2020 confirm the growth of the indigenous population. In the Slovak Republic by 0.9% between 2015 and 2020 in Bangladesh by 1.9% between 2015 and 2020. In the Slovak Republic, the indicator increases by 13% in the period under review (1955 and 2020), in the Republic of Bangladesh by 67%.

#### 4. Conclusion

The aim of the paper was to analyze, compare and predict the consumer demand of statistically monitored categories of meat, its frequency of consumption, to find out the dependence of meat consumption on life expectancy and to outline possible consequences of this consumer demand on selected demographic indicators. The object of the investigation were the countries of Slovak and Bangladesh.

Secondary and primary data obtained from the questionnaire survey were used in the paper. The sources were processed by several statistical-mathematical methods, namely we used the method of regression and correlation analysis, the method of time series analysis. The results suggest that there is a correlation between life expectancy and consumption of individual meats, which can significantly influence the development of tourism through gastronomic trends. Finding intersections among tourism trends, meeting tourists' expectations through unrepeatable experiences, sophisticated tourists, gastronomy, food quality, consumer behavior in the consumption of meat of animal origin, and its impact on demographic indicators is not easy. It is important to realize that the tourism product needs to be designed in such a way that it is of increasing value for tourists. The tourists are willing and able to pay for the otherness of the tourism product. The results show that the structure of meat consumption has a significant impact on the life span of the population. It is only a matter of time before producers of gastronomy-oriented products, culinary tourism are aware of this fact and are able to sell it through marketing activities. The article has certain limits, whether in selecting indicators when examining demographic potential, selecting or comparing the

countries surveyed. It is limited in scope, but provides incentives for further primary research.

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