THE STRATEGY OF INCREASING PRODUCTION COMPETITIVENESS IN FOOD INDUSTRY OF THE REPUBLIC OF SRPSKA BY STIMULATING A NEW PRODUCT DEVELOPMENT

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ABSTRACT

Food processing enterprises could ensure production competitiveness by improving product quality and harmonising it with consumer requirements. The non-communicable diet-related diseases have been increasing rapidly among consumers in the last decade as well as the impact on people's attitudes towards nutritional aspect of the quality of food products and healthier diet. The aim of this paper is to illustrate the methodology for increasing production competitiveness in food industry of the Republic of Srpska, based on consumer-oriented food product development and healthy diet. The structured questionnaire and scientific methods were used in young consumer representatives' research regarding food product development in the target market. Exactly 720 participants were recruited from public educational institutions in the Republic of Srpska. The descriptive statistics and correlation were used for the data analysis. The results indicated positive statistically significant correlation coefficients ($p<0.05$) between consumer interest in new products and: healthy diet preferences; product ingredients; product higher nutritive value (vitamins, minerals, dietary fibres content); fruit, fruit juice and low-energy beverages consumption. Also, knowledge on diet-related diseases was in significant positive correlation with them. The data analysis revealed that an increase in production competitiveness could be assessed through developing food products based on nutritive elements, modelling and consumer interest in new food products with higher nutritive quality.

1. INTRODUCTION

Modern consumer has the opportunity to choose from a wide range of available food products, but it sometime results in overconsumption and other unhealthy eating habits, derived from lack of interest in healthy life. At the same time, market development and growth bring many new opportunities for companies in the field of product innovation, with expected increase in productivity and competitiveness. Innovations are the product of integrated cooperation between qualified entrepreneurs and employees with suppliers and customers (Soegoto & Walewangko, 2019; Voinea et al., 2019).

The food industry is one of the important sectors of the economy of the Republic of Srpska, which can build its strategy on better use of available production capacities and technological resources, through increasing the volume of production and their own development of food products with higher added value, by substituting products from import with domestic or by increasing export. Priorities and strategic goals of industry development should be defined by the development strategy, based on the analysis of real situation and possibilities for increasing the production competitiveness (Vlada Republike Srpske, 2018). The food industry could increase productivity and assess strategic position if it carefully analyses its own needs and financial, intellectual or personal capabilities for investment in new products or processes innovation, with enough flexibility for product markets and customers (Stewart-Knox et al., 2013; Grujić et al., 2013a,b; Lehman et al., 2019; Soegoto & Walewangko, 2019).

The occurrence of non-communicable diet-related diseases has been increasing rapidly among consumers in the last decade as well as the impact on people's attitudes towards the nutritional aspect of the food quality and healthier diet. Contemporary recommendations for nutrition are based on current available scientific evidence and policy-related documents such as national dietary guidelines or food standards regulations. Responsible international and national institutions focus activities on improving health of all people, present and future generations. The emphasis is on innovative and evidence-informed policy and practice, with identified priority areas, which include food quality and supporting healthier diet. Specific guidelines are developed based on the recommendations and they are used for nutrition and health policy created at the international level (Mu et al., 2017; WHO-EU, 2018; Neale & Tapsell, 2019). The recommended form of novelty in nutrition opens new perspectives for the food industry, to use available scientific data for transforming and harmonizing food products composition and content of nutrients with health benefits.

Furthermore, consumers' attitudes towards food are related to satisfying hunger, providing necessary nutrients for the body, improving physical and mental well-being, as well as preventing diet-related diseases. Dietary patterns and lifestyle are very important during childhood and adolescence for growth and development of adults. Adolescence and youth population lifestyles are characterized by a period when individuals define their identities through different associations and consumption practices (Mason et al., 2011; Davison et al., 2015; Richard et al., 2015; Steinhauser et al., 2019). Their behaviour and opinions, as consumers of the future, are complex, but must be analysed and included into marketing research and policy development. It is known that unhealthy eating habits include high intake of sodium, red meat, fats and sugar, and at the same time low intake of healthy foods, such as fruit, vegetables, whole grains, nuts and seeds. Therefore, lifestyle habits often lead to the occurrence of non-communicable diet-related diseases and increase in healthcare costs, and they were identified and reported as problems in previous and modern studies of consumers (WHO-EU, 2018; Mu et al., 2017; Annunziata et al., 2019; Voinea et al., 2019)**.**

Hypotheses and their relation with research design

The aim of this paper is to illustrate the methodology for increasing production competitiveness in food industry of the Republic of Srpska, based on consumer-oriented food product development and healthy diet.

Literature has shown that success of new food products depends on the quality of development strategy, as well as on flexibility in organization and realization of all activities. Also, communication with consumers must be included and different tests could be used for collecting data regarding importance of quality characteristics of new food products (Grujić & Grujčić, 2016; 2017; Grujić & Odžaković, 2017). Information placed on product labels are important for identification of food product and its quality characteristics. They allow consumers to compare available packed products and search for some new, depending on life style, individual preferences for food products or their ingredients. Literature also revealed that the preference for healthy diet could be related to frequent consumption of fresh fruit, fruit juices and some *light* products (Stewart-Knox et al., 2013; Grujić & Grujčić, 2016; 2017; WHO-EU, 2018; Soegoto & Walewangko, 2019). Informed consumer expresses interest in food products enriched with selected nutrients and proven health benefits. The inadequate nutrition can affect health, and individual health status can impact diet and consumer purchase intentions (Annunziata et al., 2019 Steinhauser et al., 2019).

Considering all mentioned, planed research with consumers in the target market included the analysis of their perception and relationship between variable

specific for a new food product development, and consumer interest in the selected parameters of food quality and healthy diet indicated in selected questions (marked with Qx symbols). Therefore, five main and six additional hypotheses have been formulated, focusing on the fields of interest for the research, as shown in the following text.

There is a relationship between consumer preference for new food products (Q1) and:

H1: interest in product composition available on labels (Q2);

H2: habit to compare labelled quality data of similar food products before chosing (Q3);

H3: preference for healthy diet (Q4); $H3_a$: their intention to consume fresh fruit every day (Q5); $H3_b$: to consume fruit juice (Q6); $H3_c$: to consume light products and beverages produced without added sugar (Q7); $H3_d$: intention to buy food products enriched with vitamins and minerals (Q8); $H3_e$: enriched with dietary fibres (Q9);

H4: intention to consume food products with improved nutritive content, even if they have diminished sensory quality (Q10);

H5: knowledge that inadequate nutrition can affect health (Q11); $H5_a$: individual health status impact diet (Q12).

A simple correlation analysis could be applied to examine whether there is a quantitative agreement between the variations of the observed phenomena and if any, the Pearson Correlation Coefficient (r) is used to measure the intensity of the relationship between the observed variables (Lovrić et al., 2006, p. 353). The planned research should enable identification of consumers' habits and preferences regarding food quality and nutrition, as useful parameters of new food products and increasing production competitiveness in the target market.

2. MATERIALS AND METHODS

2.1. Research Design

A scientific approach was used to collect and analyse data with aim to illustrate the methodology for developing new products and increasing production competitiveness in the food industry of the Republic of Srpska. Data related to the consumers' preferences for food quality, its ingredients and nutrition could be useful elements for development of new products with higher nutritive quality, based on a healthy diet.

2.2. Methodology

Characteristics of participants

The target market could be a source of innovative ideas and opportunity for development. The research was conducted with 720 individuals (16-25 years old), from public secondary and higher educational institutions in 5 towns (Banja Luka, Prijedor, Bjeljina, Zvornik, Istočno Sarajevo) in Republic of Srpska (Bosnia and Herzegovina) as the target market (Table 1). They were recruited based on individual interest in participation in the research.

Table 1. Demographic characteristics of respondents (N=720)

Demographic variable	Options	Average age ±SD*	Frequency (n)	Frequency (%)
Gender	Female	19.5±2.73	430	59.7
	Male	18.5±2.80	290	40.3
Female age	under 18	16.5±0.58	147	34.2
	18-20	19.4±0.87	94	21.9
	older than 21	22.0±1.63	189	43.9
Male age	under 18	16.4±0.67	155	53.4
	18-20	19.0±0.98	55	19.0
	older than 21	22.5±1.62	80	27.6

*SD- standard deviation
Source: Prepared by authors based on research data.

Young adults are identified as the target group of consumers with formed individual eating habits, and potential users of new food products in future time. The printed questionnaires, used as a research tool, were distributed in educational institutions for direct self-reporting data interesting for the investigation. The research questionnaires had two sections. The first contained questions about respondents' demographic variables, such as gender, age and education level, while the main research data, regarding food product quality and preferences, were in the second section.

Respondents were classified based on gender (male and female) and age, without possibility for changes. Data were analysed regarding the total observed young population and representatives of female and male consumers. The descriptive statistics included means and standard deviations (SD) of average age, frequencies (n; %) within each group of respondents (Table 1). Some data are missing in one questionnaire, so they were omitted in one part of the correlation analysis.

Procedure and questionnaire design

In order to determine whether there is consumer interest in new food products in the target market, a questionnaire was developed based on the literature review, with precisely formulated questions related to consumer's individual behaviour at the time of purchase.

The questionnaire was used to obtain consumers' personal data and answers (Yes/No) to 12 questions grouped based on the stated hypotheses and similarities, as follows: consumer preference for new food products (Q1) and interest in product composition as labelled data (Q2) and their use in food choice (Q3); preference for healthy diet (Q4) and specific food (Q5-7); individual knowledge on nutrition and health relationship (Q8-12), as shown in Table 2. The respondents took about 10 minutes to complete the questionnaire.

Table 2. Questions related to consumer interest in food products and healthy diet

Question (Qx)	Yes/No Questions
Q1	Do you like tasting new food products?
Q2	Do you read labelled information about ingredients used for product manufacturing?
Q3	When choosing between similar food products, do you compare labelled data?
Q4	Do you like healthy diet?
Q5	Do you eat fruit every day?
Q6	Do you like drinking fruit juice (*apple, orange, cherry, etc.*)?
Q7	Do you like drinking *light* products and beverages produced without sugar?
Q8	Do you purchase products enriched with vitamins and minerals?
Q9	Do you purchase products enriched with dietary fibres (*integral cookie*)?
Q10	Would you like to buy a product that is not particularly attractive, but has improved nutritive content?
Q11	Can inadequate nutrition affect health?
Q12	Do you need a special diet because of health problems?

Source: Authors

Data analysis

The results of the research were grouped and analysed using descriptive statistics and correlation tests (Pearson's correlation coefficient r) with the aim to test the relationship between variables, the respondents' attitudes towards certain terms included in questions. The research could be characterized as quantitative. All analyses were performed using Statistical software *3BStat* Gold Edition, Version 1.01 (Lovrić et al., 2006). Statistically significant values were considered those of p below 0.05.

3. RESULTS AND DISCUSSIONS

Companies need a relatively large market, acceptable product quality, customers and a supportive network for sustainable development, also to be able to use all resources in a satisfactory way, to have professional organization and motivation to succeed. The target market should be the source of information for innovative ideas and opportunity for development (Norrman & Bager-Sjögren, 2010; Grujić & Grujčić, 2016; 2017). Economic success in a competitive environment is possible if the product quality is improved by modifying food formulations or processing to satisfy identified consumers' requirements and preferences. Sometimes innovation can be relatively inexpensive and it could be achieved without the need to purchase new technological equipment, when knowledge and experience are used (Grujić, S. & Grujić, R., 2012; Rabidas & Bowen, 2019).

Target market and product category interesting for consumers were defined at the beginning of the planned research. Producer's ability to identify and transform consumers' expectations of the product quality characteristics are important for consumer-oriented product development, considering that nature of modern purchasing intentions is changing together with lifestyle. This would be more difficult part of the work, as consumers do not directly say what kind of product or its quality they expect. That is why consumer interest in new food products and healthy nutrition were investigated using precisely formulated questions, related to their individual behaviour and food preferences, as a tool. The research data could confirm or reject the idea of specified category of new food product development. So, the survey of consumers' habits was conducted in the target market of the Republic of Srpska and summary of analysed *Yes* answers to questions was given, distributed between respondents grouped based on gender, and shown in Table 3.

Comparison based on percentages of Yes answers to specified questions, for all respondents included in the research (N=719), revealed that majority of participants (more than 80%) possessed knowledge that inadequate nutrition affects health (Q11), showed interest in healthy diet (Q4), preference to taste new food products (Q1) and to purchase products enriched with vitamins and minerals (Q8). Less interest, in descending order (Table 3), were revealed for reading labelled information regarding ingredients of packed food products, but just about half of respondents compare them with other similar products (Q2-3). The consumers' preference for healthy diet and food products selected as indicators of healthy eating were acceptable (50-80% affirmative answers), as respondents expressed intention to consume fruit juice (Q6), fresh fruit every day (Q5) and food products with improved nutritive content, even if they have diminished

sensory quality (Q10). Interest in food products enriched with dietary fibres (Q9) and light products and beverages produced without added sugar (Q7) was confirmed by ~50% of respondents. The need to improve the quality of nutrition of modern consumers of the future was taken into account, when the research plan was made. Finding that individual health status impact diet (Q12) of almost 20% of respondents included in the research, deeper investigation and identification of its reasons are necessary in near future. Also, some differences in answers of groups based on consumers' gender were revealed (Table 3). Identification of consumers' choice criteria used during evaluation and selection of the best available food products, were a tool for collecting ideas or interesting food attributes of new or renewed food product modelling.

Producer should use all available knowledge, resources, row materials and processing methods, within the legally prescribed framework, in order to offer food product with new, higher and expected level of quality, compared to the available classic. It could be said that it is indirect modelling of product attributes, using ingredients for food product with selected quality characteristics, in accordance with the nutrient based recommendations. Then success can be expected in the form of increased productivity and competitiveness.

Table 3. Summary of analysed *Yes* answers to questions for all respondents (N=719) and respondents grouped based on gender (n_M=290 Male, n_F =429 Female)

Question (Q_x)	*Yes* answers All respondents (N=719)		*Yes* answers Male (N=290)		*Yes* answers Female (N=429)	
	n_{Qx} [a]	% [b]	n_{MQx} [a]	% [b]	n_{FQx} [a]	% [b]
Q1	597	83.03	233	80.34	364	84.85
Q2	521	72.46	191	65.86	330	76.92
Q3	296	41.17	136	46.90	160	37.30
Q4	617	85.81	251	86.55	366	85.31
Q5	480	66.76	199	68.62	281	65.50
Q6	485	67.45	190	65.52	295	68.76
Q7	351	48.82	144	49.66	207	48.25
Q8	588	81.78	229	78.97	359	83.68
Q9	362	50.35	116	40.00	246	57.34
Q10	444	61.75	166	57.24	278	64.80
Q11	689	95.83	273	94.14	416	96.97
Q12	137	19.05	56	19.31	81	18.88

[a] Number of *Yes* answers (n_{Qx}) to each individual question (x = 1–12).
[b] % of *Yes* answers to each individual question (x = 1–12) calculated based on possible number of *Yes* answers.
Source: Authors' calculation based on research data

3.1. Consumer interest in a new food product

Growing incidences of health-related diseases indicated the need to prevent them, especially among younger consumers. The analysis of the real situation in the target market and the possibility for an increase in the production competitiveness, should start with the identification of consumers' preferences for selected food products and their ingredients, related to the healthy diet.

Food products should offer positive nutritional characteristics or health benefit regarding contained nutrients, to attract modern consumers' attention (Grujić & Grujčić, 2016; 2017; Annunziata et al., 2019; Steinhauser et al., 2019). That is the reason why the frequency of positive answers to selected questions was analysed and correlated, while each statement was treated as variable. In order to investigate the existence of correlation between independent variable specified for the new food product development in the target market (x) and the consumer interest in selected parameters of food quality and healthy diet, as dependent variable (y), Pearson's correlation coefficient (r) was calculated and formulated hypotheses were tested (Table 4).

Among contributing factors of obesity development, specific lifestyle and consumption of energy-rich food products could be singled out as important (Hotchkiss & Trius, 2016; Mu et al., 2017). Dietary Reference Values is the term used in nutrition that indicates complete set of nutrient reference values for the amount of nutrient, which must be consumed on a regular basis, to maintain health of an individual (or population). They provide the scientific bases on which nutrition recommendations are built, used in diet assessment and diet planning, for the population or at the individual level. They also serve as the basis for setting reference values in food products labelling and establishing food based dietary guidelines (European Food Safety Authority - EFSA, 2017; Voinea et al., 2019).

Food industry could identify opportunities for consumer-oriented food product development in recommended forms of nutrition. Also, respondents' intentions to look for a new food product and buy it, if it satisfies their individual expectations, should be investigated. An experiment was designed with the intention to collect relevant data from the target market.

3.2. Consumer interest in new food product composition

Food label on packed food products offer different information regarding quality, used ingredients, nutritive composition and fortification with vitamins, minerals and dietary fibres, as well as other useful data (Stewart-Knox et al., 2013; Grujić & Grujčić, 2016; 2017; Annunziata et al., 2019). The correlation between the

answers should indicate the interrelation of certain terms covered by the questions, as respondents' attitudes towards them. First part of the research tested hypotheses (H1) and results suggested that the level of correlation between consumers' preference for new food products (Q1) as dependent variables and the use of labelled information about food product ingredients (Q2) were highly positive and statistically significant (r=0.9182), the same as the consumers' habits to compare labelled quality data between similar products, before choosing food (Q3) (r=0.817), where hypotheses H2 was tested, as an additional indicator of respondents' interest in product composition. Results are shown in Table 4.

Our results indicated high interest in information labelled on food, also suggesting that consumers pay attention to information labelled on new products **(**Table 3), the findings similar to the results of other research (Grujić et al., 2013a,b; Hung et al., 2019; Rabidas & Bowen, 2019).

Obtained results suggesting that correlation between consumers' preference for new food products (Q1) and interest in product composition were positive and significantly high (p<0.01), supported hypotheses H1 and H2, and also confirmed the possibility for development of new food products, based on modeling the quantity and types of ingredients to achieve higher, added value, as a way of increasing production competitiveness in food industry.

3.3. Consumer interest in a new food product and healthy diet

Quality characteristics of the selected product should be the key elements in consumer-oriented food product modelling and preparing for the target market supply. The recommendations for a healthy diet are based on intake of individual nutrients, covering water, fats, carbohydrates and dietary fibre, protein, energy, 14 vitamins and 15 minerals, which are translated simply into food based recommendations intended for the whole population. The nutrient based dietary advice indicates different foods, categories of food and their products contribution in an overall diet that help consumers to maintain good health through optimal nutrition (Bruschi et al., 2015; Davison et al., 2015; EFSA, 2017; Lehman et al., 2019).

Existence of relationship between consumers' preference for new food products (Q1) and preference for healthy diet (Q4) tested hypothesis H3, and results indicated very high statistically significant positive correlation (r=0.945, p<0.01) (Table 4).

Table 4. The correlation coefficient (r) and significance of relationship between selected variables (number of *Yes* answers to individual questions for all respondents, N=719)

Tested hypothesis	Questions (Q_x) used as dependent variable	Questions (Q_x) used as independent variable and correlation coefficient (r)			
		Q1	Q10	Q11	Q12
H1	Q2	0.9182**	0.9707**	0.9745**	0.5881*
H2	Q3	0.8170**	0.7341**	0.8552**	0.6764*
H3	Q4	0.9450**	0.9378**	0.9922**	0.6925*
$H3_a$	Q5	0.9541**	0.8544**	0.9510**	0.8111**
$H3_b$	Q6	0.9701**	0.9121**	0.9802**	0.7747**
$H3_c$	Q7	0.9326**	0.7242**	0.8645**	0.8862**
$H3_d$	Q8	0.9761**	0.9155**	0.9907**	0.7377**
$H3_e$	Q9	0.8189**	0.9395**	0.8788**	0.4546
H4	Q10	0.8518**			
H5	Q11	0.9614**			
$H5_a$	Q12	0.8278**			

Statistically significant correlation: * $p < 0.05$, **$p<0.01$
Source: Authors' calculation based on research data

The food product's quality parameters are related to the the type of ingredients and processing methods. Also, nutrition knowledge and personal health motivation positively influence food products purchase decision (Grujić & Grujčić, 2016; 2017; Neale and Tapsell, 2019; Steinhauser et al., 2019). Consumers' preferences for some products, recommended for healthy diet were investigated using additional hypothesis $H3_{a-e}$ and revealed very high significant positive correlation ($p<0.01$) between consumers' preferences for new food products (Q1) as independent variables and: ($H3_a$) their intention to consume fresh fruit every day (Q5) (r=0.9541), ($H3_b$) fruit juice (Q6) (r=0.9701); ($H3_c$) *light* products and beverages produced without added sugar (Q7) (r=0.9326); ($H3_d$) intention to buy, and interest in food products enriched with vitamins and minerals (Q8) (r=0.9761), the same as ($H3_e$) for enriched with dietary fibres (Q9) (r=0.8189), as presented in Table 4.

Food product with adequate nutritive, functional and technological quality, have little chance to succeed in the market without acceptable sensory quality (Munoz, 2002; Grujić, S. & Grujić, R., 2012). It is known that nutritive content improving sometimes diminish product sensory quality, but some consumers tolerate it and purchase the food, to satisfy individual nutritive needs (Stewart-Knox et al., 2013; Voinea et al., 2019). Also, different modern methods could draw consum-

ers' attention to new healthy food products, and change their habits or negative relationship between healthiness and tastiness (Hung et al., 2019)

Tested Hypothesis H4 indicated high statistically significant positive correlation ($p<0.01$) between consumers' preference for new food products (Q1) and intention to consume food products with improved nutritive content (Q10), even if they have diminished sensory quality ($r=0.8518$) (Table 4). The results provide evidence to support hypothesis H3 and H3$_{a-e}$, and identified consumers' preferences represent useful information for innovative ideas and base for consumer-oriented healthy food product development and increasing production competitiveness in food industry of the Republic of Srpska.

3.4. Consumer interest in new food products, nutrition and health relationship

The consumers' behaviour based on unhealthy diets is usually connected with excessive consumption of energy, saturated fat, sugar and salt. On the other side, nutrient intake recommendations are opening new perspectives for the food industry to introduce novelty in product range and technical aspect of controlled food product nutritive value (Beauge, 2012; Stewart-Knox et al., 2013; Neale & Tapsell, 2019). Based on mentioned opposite statements regarding eating habits, presented research also aimed to determine consumers' knowledge about nutrition and health relationship and individual health status, as a part of planned new food product composition modelling. That is why hypothesis H5 was tested and revealed very high statistically significant positive correlation ($p<0.01$) between consumers' preference for new food products (Q1) as independent variables and (Q11) knowledge that inadequate nutrition can affect health ($r=0.9614$); the same as with (Q12) individual health status impact on diet ($r=0.8278$), tested with additional hypotheses H5$_a$ (Table 4).

The objective of the presented research determined relationship between the use of symbols of food quality and their possible impact on new product purchasing and consumption, taking into account respondents' individual differences in available data and food preferences. Results confirmed that consumers usually compare available products quality characteristics, to make the best choice in the light of their preferences regarding better nutrition. On the other side, each producer should identify the quality characteristics and use them for a new product development, especially if it is prepared in line with nutrient based recommendations for a healthy diet.

3.5. Consumer interest in food product quality and healthy diet

Consumers have formed personal values related to sensory quality characteristics, the nature of food, and special concerns about the influence of food they eat on their health (Steinhauser et al., 2019). New food product success and competitiveness depend on its quality achieved through transforming identified customers' preferences or requirements into the product design, costs of development and production (Grujić, S. & Grujić, R., 2012; Neale & Tapsell, 2019). Methodology for identifying habits and consumer preferences in the target market, presented in this paper, could be a useful model for a new product development or improvement of quality of the existing food product based on satisfying consumer requirements.

Food nutritive fortification is considered as the most appropriate preventive approach against diseases (Annunziata et al., 2019; Steinhauser et al., 2019). The improvements of consumers' nutrition require engagement and action in different fields and food producers may contribute by improving the structure, quality availability and attractiveness of domestic food products from their range. Quality characteristics of a new product should offer some important benefits to consumers, compared to other available products. That is why they were asked carefully selected questions. It is necessary to point out the worrying fact that a relatively large number of respondents included in the research (Table 3) confirmed the individual need for a special diet because of health problems (Q12), and because of that, it was used as independent variables in correlation analysis.

Additional correlation analyses were done to support innovation-oriented activities in the field of research. Recommended balanced and varied diet should include enough vegetables, fruits and whole grains, but at the same time, food should be nutritious and tasty. Affirmative answers to selected questions, regarding consumer interest in food products that have improved nutritive content, even if they have diminished attractiveness and sensory quality (Q10); presented knowledge regarding nutrition and health interconnection (Q11); and individual health status impact on diet (Q12), were used as independent variables in additional analysis to examine the existence of their possible relationship with consumer interest in certain products that healthy diet recommends, as well as the Pearson Correlation Coefficient (r) to measure the intensity of the relationship between the observed variables (Table 4).

Individual interest in information and food product characteristics embedded in the questions were identified for the observed population (N=719 respondents), using affirmative answers. Consumers' intention to buy some food product with improved nutritive content, regardless of its particular attractiveness (Q10) (Ta-

ble 3) had high statistically significant positive correlation (p<0.01) with selected representative parameters, included in offered questions: individual interest in labelled information (Q2); comparing labelled information before choosing the best product (Q3); preference for healthy diet (Q4); intention to consume fresh fruit every day (Q5), fruit juice (Q6) and light products and beverages produced without added sugar (Q7); interest in food products enriched with vitamins and minerals (Q8) and dietary fibres (Q9) (Table 4). The analysis revealed different aspects of consumers' attitudes towards the nutritive quality of a food product and indicated that criteria for healthy food choice were positively related to the healthy food habits.

Similar results and a high statistically significant positive correlation showed the analysis of the relationship between previously mentioned dependent variables, the indicators of healthy food choice, and knowledge about inadequate nutrition that affects health (Q11), used as independent variable, the same as when correlated with independent variable (Q12) which indicated the need for special diet because of health problems, except for (Q9) interest in food products enriched with dietary fibres (r=0.4546, p>0.05). Results are presented in Table 4.

The consumers' nutrition knowledge and health motivation have impact on the attention paid to nutritive quality of a food product during the purchase (Bruschi et al., 2015; Steinhauser et al., 2019; Voinea et al., 2019). Introducing controlled nutrient profile as a technical aspect of innovations in food production, as well as changing its composition in the direction towards recommended healthy products could impact consumers' eating preferences (Grujić et al., 2013a,b; Davison et al., 2015; Lehman et al., 2019).

4. CONCLUSIONS

According to the defined aim, this paper illustrated the methodology for increasing production competitiveness in food industry of the Republic of Srpska, based on the consumer-oriented food product development and healthy diet.

The results of the research provide information, important and useful for the food industry, about consumers' preferences and perception of food products. Selected factors, positively correlated with new product purchasing intention and consumers' choice of healthy food, are identified. Promising and important are findings that majority of respondents, included in the research, read and use data indicated on food labels and consider data regarding food composition and nutritive value, in an effort to improve personal nutritional status.

Based on the results, it could be concluded that increasing production competitiveness in the food industry of the Republic of Srpska could be assessed by developing food products which have quality harmonised with recommendations for healthy nutrition, based on nutritive element modelling and produced for consumers interested in the new food products with higher nutritive quality. Identified consumer interest in the quality of individual nutrition is opening new perspectives for improving the structure of domestic products offered in the market. Also, the results confirmed that target market could be used as a source of information for innovative ideas and opportunity for development.

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СТРАТЕГИЈА ПОВЕЋАЊА КОНКУРЕНТНОСТИ ПРОИЗВОДЊЕ У ПРЕХРАМБЕНОЈ ИНДУСТРИЈИ РЕПУБЛИКЕ СРПСКЕ СТИМУЛИСАЊЕМ РАЗВОЈА НОВИХ ПРОИЗВОДА

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САЖЕТАК

Привредни субјекти у прехрамбеној индустрији могу осигурати конкурентност производње повећањем квалитета производа, усаглашеног са захтјевима потрошача. У посљедњој деценији евидентирано је нагло ширење незаразних обољења људи повезаних са исхраном и пораст интересовања потрошача за нутритивни аспект квалитета прехрамбених производа и правилну исхрану. Циљ овог рада био је да се илуструје методологија за повећање конкурентности производње у прехрамбеној индустрији Републике Српске, базирана на развоју производа усаглашеног са потребама потрошача и принципима правилне исхране. За истраживања са представницима младих потрошача, која се односе на развој прехрамбеног производа на

циљном тржишту, кориштен је структурирани упитник и научне методе. У истраживање је укључено 720 испитаника из јавних образовних установа у Републици Српској. За анализу података кориштена је дескриптивна статистика и корелација. Резултати су показали позитивне статистички значајне коефицијенте корелације (п<0.05) између интересовања потрошача за нове производе и: настојања да се правилно хране; састојака производа; производа веће нутритивне вриједности (садржај витамина, минерала, дијеталних влакана); конзумирања воћа, воћних сокова и нискоенергетских пића. Установљена је такође њихова статистички значајна позитивна корелација са знањем о болестима повезаним са исхраном. Анализом података установљено је да се повећање конкурентности производње може постићи развојем прехрамбених производа, базираном на моделовању нутритивних елемената и интересу потрошача за нове прехрамбене производе већег нутритивног квалитета.

Кључне ријечи: *прехрамбена индустрија, конкурентност производње, развој нових производа, правилна исхрана.*