

Bio-foods through the prism of generations

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Abstract. One of the main problems faced by marketers in recent years is the study of food needs and their degree of satisfaction in different generations: the baby boomers, generations X, Y and Z. The four generations that make up a significant portion of today's workforce, their incomes and purchasing power pose different questions for marketers, so how to communicate with each of them to make marketing strategy effective. There is a noticeable gap in beliefs, consumer demands and lifestyles among their representatives. There are a number of studies that show and prove that the leading factors influencing the purchase decision process are different across generations. This paper explores and analyses the main factors influencing consumer choice and purchase of bio food products. It seeks to answer the question, which attributes of a bio food product are leading and provoking the implementation of its purchase? The study focuses on the factors that influenced the consumption behavior of the generational sample studied: education, income, price of the product, for whom the product is purchased. Beyond the suggested factors, other factors of a subjective and objective nature, as well as an imposed healthy, lifestyle are applicable over the consumer's influence, behavior and choices of bio-foods.

1 Introduction

Man, as a biological being, is an integral part of the natural environment. The maintenance and development of human life is the result of the continuous processes of exchange of resources (air, water and food) with the environment. The quantity and (mainly) the quality of these resources determine the health status of the individual and the population as a whole, therefore the possibilities for sustainable human reproduction. Problems related to air and water quality have not been solved for decades, despite the signing of a number of international treaties and agreements, the development of environmental protection strategies at international and national level, advances in production technologies and environmental innovations. Along with air and water, food is a vital resource. Therefore, the problems of feeding the population and protecting the natural environment are structural determinants of the environmental strategic policies and programs of all countries. A number of researchers have argued that maintaining biodiversity and ecological balance is essential for human health for the following reasons: diverse food resources are needed to meet humanity's nutritional needs; more of the food sources are needed for the environment's self-protection from climatic and other disasters, which may themselves lead to the disappearance of one or more food sources; the need for an equilibrium of local ecosystems that makes them resilient to the invasive spread of plant and animal species, pathogens and toxins that have adverse effects on human health; the diversity of plant and animal species in nature is a source

of unknown for the moment medical material for the therapeutic capabilities [1].

In recent years, the dynamic processes of market globalization, increased competition in food markets, the accessibility of digital technologies, the internet, artificial intelligence (AI), and the "healthy lifestyle" promoted through aggressive marketing communication messages have influenced and shaped new consumer behavior. The entire marketing instrumentarium was used to position and market specific food products, the consumption of which would fill the term 'healthy lifestyle' with content. The healthy consumer preferences formed the now manifesting new consumer behavior - eco-consumer behavior. Eco-consumption is focused on a narrower product range - bio food. Very often the terms 'eco', 'bio' or 'organic' products are used interchangeably. According to the lexical meaning, 'bio' means deriving from the animal and plant's world. Furthermore, a product to be considered "bio" must contain at least 95% natural ingredients in its mass and have no GMOs in its composition [2].

Various theories and models describing the factors determining consumer behavior are presented in the specialized literature: economic, psychological, marketing models, etc. The models of consumer behavior and the factors that determine it are the basis of the purchase decision-making process. The factors influencing the purchase decision process can be attributed to several groups: demographic, geographical, economic, behavioral and psychographic [3]. Identifying the influence of generational behavioral characteristics of marketers is an important factor for effective planning and profitable business development. It is no coincidence that

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F. Cotler notes: “Companies portfolios mostly consist of fixed products and services, which does not allow them to customize for a specific generation. Ultimately, understanding the collective demographic of the market is a key factor in predicting the direction of marketing” [4].

Contemporary conditions of competitive struggle for consumers necessitate new techniques of market segmentation and the formation of generational cohorts (grouping of generations) who are born and reach maturity within the same span of time. They experience events of common significance, therefore, they also share the same socio-cultural experience and are likely to possess a similar set of values, attitudes and behavioral patterns [4].

The impact of generational differences on marketing strategies for segmentation and positioning has become increasingly significant and relevant in recent years. There are a number of definitions that describe the different generations, but there is still no unified view of the time periods that separate them. In addition no research on the factors that have contributed to their behavioral differentiation. In recent years, there has been a growing divergence in the beliefs and lifestyles of different generations, which in turn has led to a divergence in the satisfaction of food needs. Also in the degree of satisfaction of each generation. This poses challenges for marketers in developing custom approaches and strategies to meet the needs of the different generations that are the subject of the research in this paper: the baby boomers, Generations X, Y and Z, who make up a major part of the workforce at the time of the research. Each of the generations under study has formed in a different socio-cultural environment and shares common life events and collective historical destiny [4].

To promote sales of a product or service, marketers resort to different strategies, focusing on the specific preferences, attitudes and values of each of the four generations under consideration. A number of studies aiming to identify key characteristics of the generations summarize some specificities for each of them. For example, the 'baby boomers' (people born between 1946 and 1964) have high purchasing power and rely on established brands. Generation X (people born between 1965 and 1980) shares a number of similar traits with the baby boomers, such as high spending power, but brands with emotional value for them are starting to slowly invade into their brand choices. Generation Y (people born between 1981 and 1996) is distinguished from the previous two by its more highly educated representatives and rich cultural diversity. They are the ones who feel the need to receive recognition and approval from their peers, as it is with them that the active use of social channels in which they express themselves begins. This also leads to a distinctive feature in their consumer decision path, namely trusting the opinion of their peers when choosing a brand rather than relying on an established one. For them, it is also about the experience rather than the accumulation of possessions and that is why they choose emotional brands. Generation Z (people born between 1997 and 2009), or the first children of the digital world as they are also called, are pragmatists as unlike

Generation X, they are immersed in the flashy images on social media as they think that the shown propaganda is the ideal and the universal norm in behavior and self-representation. And for that reason they are the generation that prefers brands that fit into the current social-media aesthetics and popular influencers' lifestyle and fashion. Today, Generation Z is the largest generation globally, which lifestyle and choices is completely dictated by the internet reality. The grim “trend” followed by the majority is cracked by new tendencies of self or custom aesthetics. Showing completely new behavior in the Gen Z, even tracing remembrance of the Gen X' lifestyle and fashion. Thus closing the ever repeating cycle of generation's infatuation in the previous generation or historic periods with the only difference of the accompanying Gen Z' new “environmental awareness”.

Starting from the different perceptions of the generations, their preferences towards the purchase and consumption of bio food products will be examined. What are the factors that influence their purchasing decision? The factors of education, income, price of the product, for whom the product is bought are examined with particular emphasis and weight to differentiate consumption behavior. Beyond the assumed factors, it is not excluded that other factors of a subjective and objective nature, such as healthy lifestyle, product quality and utility, may also influence consumer choice.

2 Method of research

The study involved 129 participants in an independent online survey-type study (Figure 1):

- Born between 1946 - 1964 (so-called "baby boomers") - 24.03%
- Born between 1965 - 1980 (so-called Generation X) - 13.26%
- Born between 1981 - 1996 (so-called Generation Y) - 34.11%
- Born between 1997 - 2009 (so-called Generation Z) - 18.60%

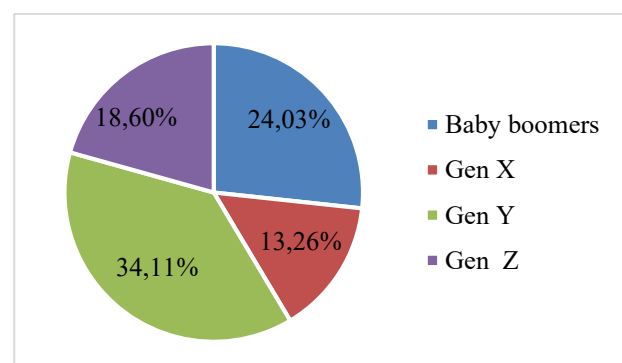


Figure 1. Proportion of the different generations participating in the survey.

In the absence of uniform age ranges for the different generations, the groupings that Philip Kotler used in his studies were taken.

The survey was conducted to highlight trends in the purchasing behavior of the different generational cohorts

when purchasing bio food products and also to confirm or reject the research hypotheses:

- Hypothesis 1: The influence of high level of education and income as factors influencing the purchase choice of bio food products.

- Hypothesis 2: The influence of higher price of bio food products compared to conventional food products on consumer choice and purchase of bio food products.

In order to make the groups homogeneous, the stratified selection method was applied. In this approach, the units are selected after the general population has been pre-districted according to the meanings of a certain attribute - in our case the age ranges in the generations under consideration. This districting is done to improve the precision of the estimates, i.e. to reduce the stochastic error for the same sample size.

Due to the disproportionate selection, an equal number of units were selected from each group. Thus, a number of units was selected from each stratum that was proportional to its volume. The final sample consisted of 100 individuals from the four different generations as follows (Figure 2):

- Those born between 1946 and 1964 (so-called "baby boomers") - 31%
- Born between 1965 - 1980 (so-called Generation X) - 29%
- Born between 1981 - 1996 (so-called Generation Y) - 24%
- Born between 1997 - 2009 (so-called Generation Z) - 16%

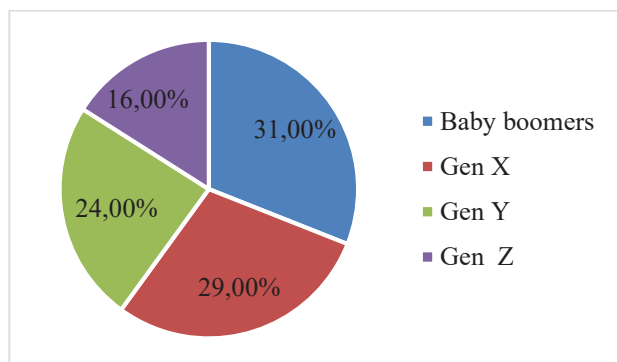


Figure 2. Percentage distribution of representatives of different generations participating in the survey, weighted (score).

The main factors that will be investigated through the sample are: education, income, product price. A Likert scale was used for some of the questions in order to collect more precise and personal information from the respondents, namely different levels of attitude and opinion.

3 Results and discussion

The level of education in the three generations X, Y and Z studied is high (Figure 3). 76% of Generation X have a tertiary degree (bachelor's, master's or higher), followed by Generation Y with 83% and Generation Z with 81%. Only the baby boomers have a high level of education at only 29%.

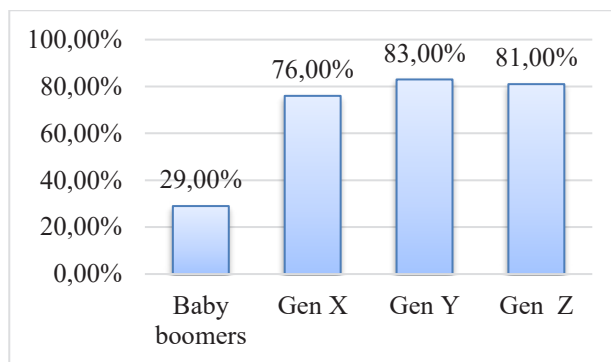


Figure 3. Relative share of each generation with a bachelor's degree or higher.

As a criterion for high income per person is taken the income of 2,500 BGN. The results showed that 39% of baby boomers have an income above 2,500 BGN, Generation X 48%, Generation Y 42% and 38% for Generation Z (see Figure 4).

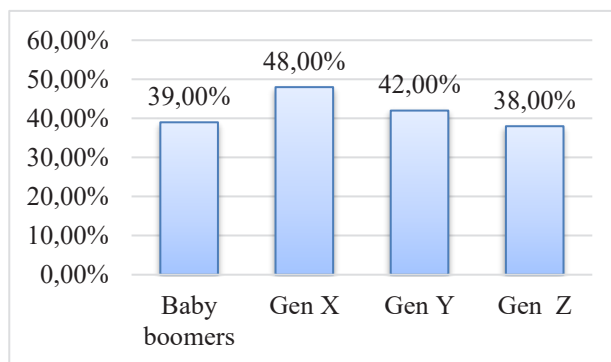


Figure 4. Relative share of representatives of each generation with net monthly income over BGN 2,500.

Thus, the hypothesis that a high level of education and income would lead to the choice of a bio product can be said to be refuted, since only 25.8% of respondents from the "baby boomer" generation who have a bachelor's degree or higher and a net monthly income of more than BGN 2,500 buy or would rather buy bio food product, for generation X the percentage is 27.6%, for generation Y - 20.83%, for generation Z - 25% (see Figure 5).

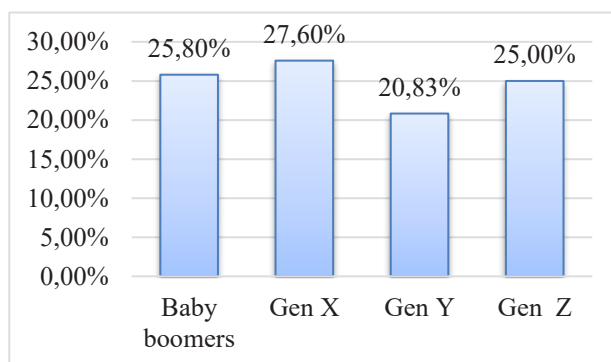


Figure 5. Relative share of members of each generation with a bachelor's degree or higher and a net monthly income of more than BGN 2 501 who would buy a bio food product.

The conclusion that can be drawn that the price strategy (regarding Gen X, Z and “baby boomers”) will be efficient if increases the sales thru promotions and prices for the amount depletion and others.

Representatives of the different generations who responded to the survey gave similar responses that bio food products are more expensive than those not labeled as such (Figure 6): baby boomers - 100% (77% - Yes, 23% - Rather Yes), X - 89% (72% - Yes, 17% - Rather Yes), Y - 100% (83% - Yes, 17% - Rather Yes), Z - 100% (Yes).

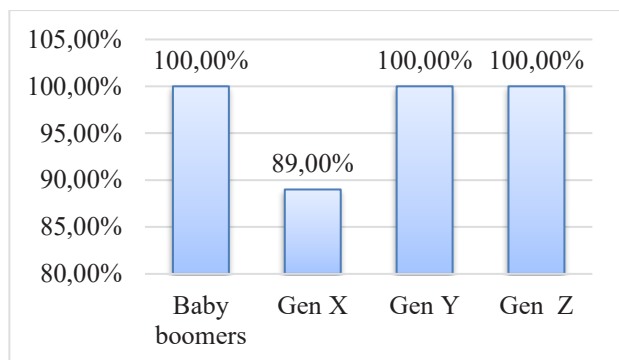


Figure 6. Relative share of members of each generation who believe that bio food products are more expensive than those not labelled as such.

The results of the study support the assumption that the higher price of bio food purchases is an important factor in the purchase decision. In three of the four generations considered, higher price was found to be a determinant of purchase. Figure 7 shows that 58.06% (Yes + Rather Yes) of the baby boomers were influenced by the price of bio food. With X at 55.17% (Yes + Rather Yes), Generation Z most definitely proves hypothesis #2 with 81.25% (Yes + Rather Yes). Generation Y remains rather neutral and rejects hypothesis 2 with 37.50% (Yes + Rather Yes).

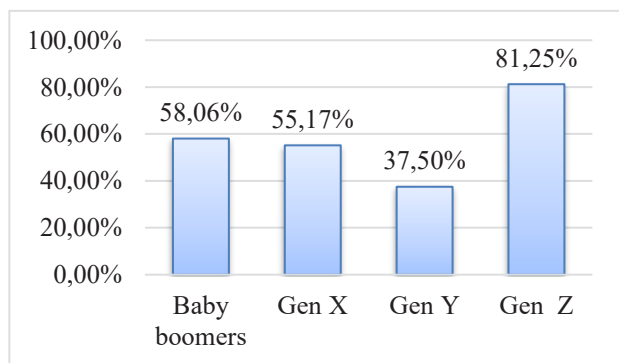


Figure 7. Relative share of each generation for whom the higher price of bio food products is a factor in their purchasing decision

The conclusion that can be drawn under hypothesis 2 is that by designing the marketing strategy that targets the baby boomers, X and Z, the pricing strategy would be workable and would lead to an increase in sales by

implementing various techniques such as promotions, price to sell out, etc.

All four generational groups were asked to answer the question "Is the 'bio' label important and does it influence food choices?" (Figure 8) For the baby boomers, the 'bio' label influenced 29%, 59% for X, 54% for Y, and 38% for Z.

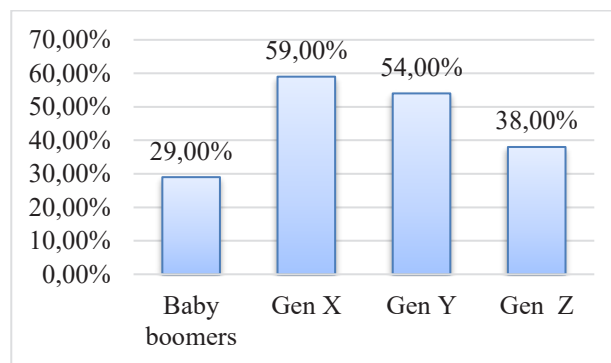


Figure 8. Relative share of each generation for whom the 'bio' label on food products is important.

The results showed that generations X and Y would be influenced by the labelling of a food product as 'bio', so companies can undertake advertising campaigns that promote in more detail the fact that bio products have all the attributes and properties to support a healthy lifestyle for the consumer. As it has become clear Generation X is also influenced by the price of the product, so the combination of a promotional price and a communication campaign would be a great opportunity for companies in the bio food market to increase their market share with this generation.

Whether the purchase decision influenced the consumer by who it was intended for is also a subject of research across generations (Figure 9). 19.35% of the Baby Boomer generation were influenced by who the product was for, 37.93% for X and 43.75% for Z. Generation Y is the most influenced by who the bio food product is for at 70.83%.

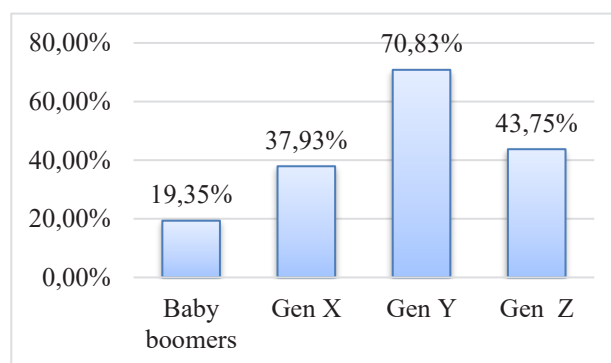


Figure 9. Relative share of members of different generations whose decision to buy a bio food product depends on who they are buying for.

Marketers here have a base from which to launch a more in-depth study of Generation Y and therefore which are the key groups for which Generation Y would prefer to purchase a bio food product over one that is not labeled

"bio." Based on the results they will be able to design their marketing strategy. If, for example, children are the factor that would change their purchasing decision, companies in the sector could target the production of bio food products for children.

Beyond the hypothetical factors in the choice of bio food that we have discussed above, we have not ruled out the possibility that other factors of a subjective and objective nature, such as healthy lifestyles, product quality and utility, may influence consumer choice, which we have again considered through the lens of different generations.

Of the total number of baby boomer respondents, 41.94%, who believe that bio food products are healthier and better quality than food products that are not labeled as such, 29.03% would buy a bio food product. In generation X - the total number is 68.97% and 55.17% would buy, in generation Y - 79.17% of which 50% would buy. Unlike the other generations, who can be said to be more likely to think that bio food products are healthier and of better quality, in Generation Z only 18.75% think so, and 12.5% of them would buy a product (see Figure 10 and Figure 11).

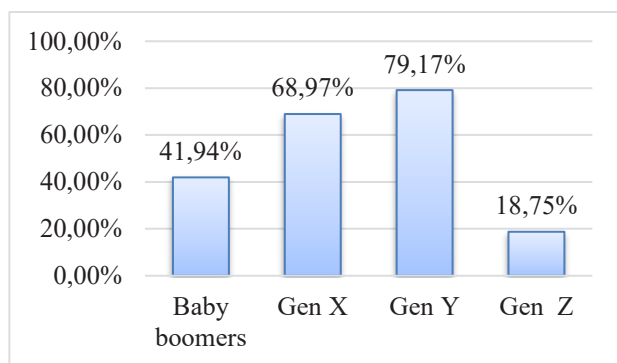


Figure 10. Relative share of the surveyed generations who believe that bio food products are healthier and better quality than traditional food products.

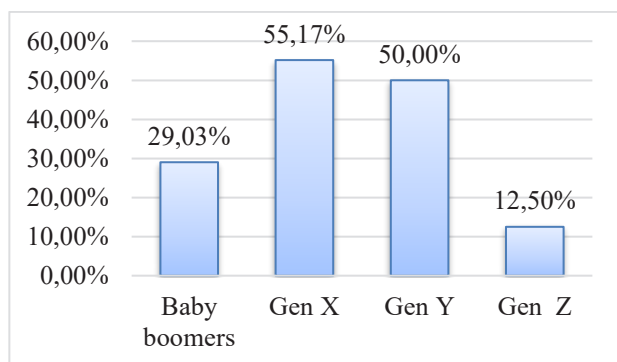


Figure 11. Relative share of members of each generation who believe that bio food products are healthier and better quality than conventional food products that are not labelled as such and who would buy a bio food product.

The result in the generations of baby boomers, X and Y can be taken into account by marketers and combined with some of the previous ones to help build a proper marketing strategy.

Other factors of subjective and objective nature that stood out as influencing current and potential consumers of bio foods across generations were "Recommendation from a friend" and "Following nutrition-related trends". Baby boomers are most influenced by healthy eating related trends at 68%. For Generation X, this is also a leading factor - 75%. For Y and Z, "Recommendation from a friend" is the top recommendation. 62% and 50% respectively. Generation Y's result also proves one of the definitions that differentiates this generation, namely that a distinguishing feature for them in the consumer decision-making pathway is precisely trusting the opinion of their peers when choosing a brand (see Figure 12).

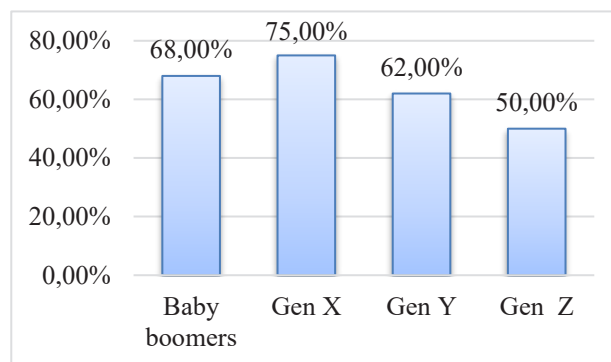


Figure 12. Relative share of the surveyed generations for whom subjective and objective factors ("Recommendation from a friend" and "Following nutrition trends") influence the purchase decision.

4 Conclusion

The large and varied competitive supply of the food market, as well as the lack of external trade restrictions and barriers within the single European market, pose a number of challenges for marketing planning and management. In addition, account must be taken of dynamic changes in consumer needs, tastes and attitudes, which are the market's demand side. The market for bio food products is evolving and the price of bio food products is now approaching that of conventional food products, which are not labelled as such. This is another factor that may influence companies in the sector to increase their market share at the expense of those companies whose production portfolio does not include bio food. Trends in the development of bio markets indicate that price will not be a determining factor in consumer choice of bio food. In order to be competitive and market-adequate, companies producing bio food products need to use new approaches to market segmentation, in order to take into account generational specificities when conducting market research.

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