

Wellness, health and nutrition from the consumer perspective

Beate Goetzke, Sina Nitzko, Achim Spiller, Göttingen

Summary

The desire for health and well-being is currently highly valued by society. The term "wellness" is frequently used in this context; however, in every-day use it is not clearly defined and may be applied to health-related behaviour in various areas of life. Against this background, we carried out an online survey of 691 consumers in order to investigate which activities are associated with wellness, and which foods are perceived as "wellness foods". In addition, we identified consumer types based on food consumption and wellness orientation.

In the context of wellness, consumers consider taking time for themselves, and spoiling themselves, as important. Fruit and vegetables are the foods that are most strongly associated with wellness. We identified six consumer types – wellness-rejecters, wellness-indifferent, wellness-friends, wellness-functional food buyers, wellness-foodies, and wellness-organic buyers – that differed with regard to their wellness orientation and their consumption of organic and functional food.

Keywords: Organic food, functional food, wellness, consumers, health

Introduction

The desire for health and well-being has become a significant buying motive within the food market, and continues to grow in importance [1]. Consumers are increasingly aware of the different health benefits of various food products [2, 3]. The food industry has picked up on this trend and the proportion of so-called well-

ness products is constantly growing [4].

Experts from BBE Retail (a management consultancy specialized in retail sectors) classify the whole wellness market into the sub-markets food, health protection, beauty and fitness. The strongest growth has been seen in the food market, followed by beauty and fitness [5]. Between 2002 and 2006, the German population increased their expenditure on health food by 23 %. In the same period, the whole consumer-products sector grew by only 5 % [3]. The growth in turnover of wellness-food is above all attributable to the demand for organic and low fat products [1]. In addition, functional food products such as probiotic milk use the promise of added health benefits to promote their products. This

trend towards health, well-being and wellness can be observed not only in Germany, but also internationally [6].

Wellness and health furthermore permeate all areas of life: in the non-food sector there are for example products such as wellness clothes or wellness music. In the food market, there is also wellness water or wellness bread [7]. As the term "wellness" is so flexible and is used in different contexts; it is difficult to precisely define [8]. The haziness of this term allows many producers to advertise their products with it, implying that they promote well-being even if this effect is questionable. This practice generally has no legal consequences, apart from in the food sector. Under the current EU regulation on nutrition and health claims (EU Nr. 1924/2006), it is illegal for producers to use so-called health or nutrition claims unless they have been approved by the European Commission following checking of the claim by EFSA (European Food Safety Authority) [9].

This study defines wellness according to NAHRSTEDT [10]. Wellness therefore includes the promotion of health, the achievement of a state of well-being, and an extended life-span.

In response to the large number of so-called wellness products and the vague definition of the term, the goal of this study is to investigate what understanding consumers have of wellness, and which consumer seg-

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ments can be identified in the context of wellness and the consumption of food products perceived as “healthy”, i. e. organic and functional food. To this end, consumers were surveyed on the topic of wellness and nutrition behaviour.

Methods

Sample and data collection

691 German consumers were surveyed in August 2012. The participants were recruited through an on-line access panel and selected randomly. In order to ensure a nationally representative sample, quotas for gender, age and income were set according to the German population. In total, 350 female (51 %) and 341 male (49 %) respondents completed the survey, with an age range of 14 to 85 years and an average age of 49 years (standard deviation 16 years).

Measures

In order to measure and understand wellness activities, the participants were asked what wellness personally meant to them. For this, 14 statements on wellness motives were presented at random (following [11]), and respondents were asked to score them on a six-point LIKERT scale (from 1 = “not applicable to me at all” to 6 = “highly applicable to me”).

In addition, the participants were asked about typical wellness foods with the open question “*When you think of wellness foods, which come to mind?*”. The subjective frequency of general and product-specific consumption of organic and functional food was also recorded as it is linked to health and healthy lifestyles [12].

Analysis

Alongside the descriptive analysis of the data, a multivariate analysis was also carried out in two successive

Cluster analysis: This multivariate analysis divides people into groups that are as homogeneous as possible (based on their answering behaviour), therefore providing the greatest difference between the groups.

Factor analysis: A multivariate analysis to determine the independent parameters (factors) from a large number of individual variables, whereby the factors are formed from the variables. The factor analysis serves to detect latent structures behind the variables and to reduce the number of variables.

Factor value: The factor value represents the degree to which a factor applies to a person. A positive value shows a strong relevance of the factor for the person, and a negative value shows a weak relevance.

Cronbachs Alpha (CRA): CRA is a measure for the internal consistency of a scale. It evaluates whether multiple single variables are reliable enough to be combined into a factor. This procedure serves to describe a latent structure. Factors are considered acceptable from a value of 0.6 upwards.

Factor loading: The factor loading reveals whether a factor is correlated with the variable. The greater the loading, the greater the importance of this variable for the factor.

Kaiser-Meyer-Olkin value: A quality criterion which can be used to evaluate whether the sample is suitable for a factor analysis. Samples are considered suitable from a value of 0.6 upwards.

Overview 1: Statistics glossary

stages. First, an explorative factor analysis was performed for each of the consumption and wellness variable sets to detect latent structures behind them, and in order to reduce the number of variables. The factor loadings were used to interpret the content of the factors, and the Kaiser-Meyer-Olkin value (KMO) and the Cronbachs-Alpha value (CRA) were consulted as quality criteria for the factor analysis.

Second, a cluster analysis to define the consumer groups was carried out. The cluster calculation was performed by combining three algorithms: single linkage, Ward, and k-means. The statistical terms used in the description of the analysis are defined in ♦ Overview 1.

All statistical analyses were performed using IBM SPSS 20. The open question about wellness foods was analysed using the QDA (Qualitative Data Analysis) software MAXQDA.

Results

The understanding of wellness in general

Concerning the personal importance of the individual wellness aspects, “having time for oneself” and “treating/spoiling oneself” received the most positive responses from the survey participants (♦ Figure 1).

“Being spiritually stimulated” and “training the body and keeping fit”, on the other hand, had the lowest personal relevance in the context of wellness.

Wellness food from the consumer sample’s perspective

The analysis of the answers to the question of which foods come to mind when respondents think of wellness food show that these are mainly fruit (84 mentions), vegetables and salad (54 mentions), as well as milk products (33 mentions) ▶

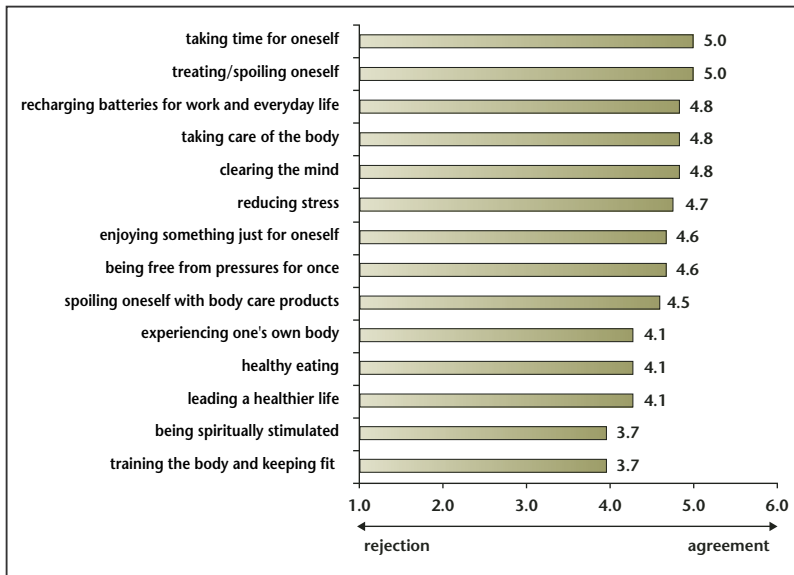


Fig. 1: The meaning of wellness from the consumer's perspective
 Question: "What does wellness mean to you personally?", answer scale from 1 = "not applicable to me at all" to 6 = "highly applicable to me"

(♦ Figure 2). In addition, tea (32), (mineral) water (31) and organic products (29) also have a strong connection with wellness. Cereals, muesli and muesli bars (26 mentions), juice (26), probiotic milk products (20) and light products (17) are also perceived as wellness food. Furthermore, respondents also mentioned (although much less frequently) chocolate (8 mentions), aloe vera products (6), wellness drinks, wine and poultry meat (4 mentions

each), soft drinks, dietary supplements, smoothies and juice spritzers (3 each), as well as occasionally diet products and fish/shellfish (2 each), ginseng, herbs, apple vinegar and red meat (1 each).

Wellness and nutrition behaviour: consumer segmentation

On the one hand, cluster-forming variables were the factor organic consumption (CRA 1.0) and func-



Fig. 2: Foods that are connected associated with wellness.
 Question: "When you think of wellness foods, which come to mind?"

tional food consumption (CRA 0.9). Both were determined through an explorative factor analysis of consumption items which had a KMO of 0.9. In total, the organic consumption factor contained eleven consumption categories (e. g. "organic fruit"), and the functional food consumption factor contained eight items (e. g. "probiotic milk products").

On the other hand, an explorative factor analysis was also performed on the wellness motives from ♦ Figure 1 (KMO = 1.0), which then underwent a cluster analysis. The factors of active (CRA = 0.9) and passive (CRA = 0.9) understanding of wellness were established. "Treating/spoiling oneself" and "taking time for oneself" count among the nine statements for the factor "passive understanding of wellness". Contrasting to this is the factor "active understanding of wellness" which includes statements such as "leading a healthier life" and "training the body and keeping fit".

The cluster analysis was carried out using the two consumption factors and the two wellness factors. 197 cases were then excluded from further analysis based on an analysis of outliers and the removal of cases with missing values. The cluster analysis therefore is based on a sample of 494 persons. The optimal solution was found with six clusters. Six consumer segments were identified which were characterized as wellness-rejecters, wellness-indifferent, wellness-friends, wellness-functional food buyers, wellness-foodies and wellness-organic buyers (♦ Table 1).

In comparison to the other groups, the "wellness-rejecters" show the most negative values for active and passive understanding of wellness, as well as low levels of organic and functional food consumption. This segment is characterized by the

Cluster				Organic food consumption ^a	Functional-food consumption ^a	Passive understanding of wellness ^b	Active understanding of wellness ^b
	n	%		***	***	***	***
Wellness rejecter	37	7	mean SD	-0.3 0.9	-0.7 0.5	-2.7 0.5	-1.9 0.6
Wellness indifferent	122	25	mean SD	-0.7 0.5	-0.7 0.4	-0.1 0.6	-0.7 0.6
Wellness friends	110	22	mean SD	-0.6 0.5	-0.3 0.6	0.7 0.4	0.8 0.5
Wellness functional food buyers	87	18	mean SD	-0.1 0.6	0.8 0.5	-0.1 0.6	-0.3 0.5
Wellness foodies	59	12	mean SD	1.4 0.8	1.8 0.8	0.5 0.5	0.9 0.6
Wellness organic buyers	79	16	mean SD	1.0 0.7	-0.4 0.5	0.3 0.5	0.3 0.6
total	494	100	mean SD	0.0 1.0	0.0 1.0	0.0 1.0	0.0 1.0

Tab. 1: Consumer segments based on the wellness definition and the consumption behaviour of the survey participants

Mean = mean average, e. g. Cluster a: $F_{a1}+F_{a2}+F_{a3}+...+F_{an}/N_a$ where F = factor value and N = total sample of cluster a. A negative value shows a weak relevance of the factor to the person, a positive value shows a strong relevance. SD = standard deviation

Significance: *** $p \leq 0.00$; ** $p \leq 0.01$; * $p \leq 0.05$

^aFactor value, based on the scale for factor-forming items: 1 = "never/I don't eat this", 2 = "seldom", 3 = "sometimes", 4 = "often", 5 = "very often", 6 = "regularly/(almost) always"

^bFactor value, based on the scale for factor-forming items: 1 = "I completely disagree" to 6 = "I completely agree"

largest proportion of men (73 %) and the highest average age (45 years).

The "wellness-indifferent" show similar characteristics, but do not have such a strong rejection of wellness. Their passive understanding of wellness is neither strong nor particularly weak. The major motivations are "treating/spoiling oneself", "taking time for oneself" and "enjoying something just for oneself". The gender ratio is balanced.

The third consumer segment of the "wellness-friends" has the highest values of all segments for the passive wellness motives, in particular for "treating/spoiling oneself", "clearing the mind", "recharging batteries for work and everyday life" and "taking care of the body". 65 % of people in this segment are female.

In the "wellness-functional food buyers" cluster, the consumption of

functional food was greater than that of organic products. Of these products, in particular low-fat food was important, but also sugar-free chewing gum and probiotic milk products. This group is the youngest, with an average age of 37 years. More than a third (38 %) has one, two or three children.

Of all groups, the "wellness-foodies" show the highest consumption of functional and organic food. They prefer to buy probiotic milk products, low-sugar products and organic eggs and vegetables. They have the highest values for the active wellness motives "healthy eating", "being spiritually stimulated" and "training the body and keeping fit". The cluster has a balanced sex ratio, and contains the highest proportion of people working in the field of "health, social work and fitness" (14 %). Due to their high affinity to

wellness-food, this cluster is termed wellness-foodies. Foodie describes "a category of people that love good food, and want to learn about good food. It is understood as being about loving food more than the average person" [13, S. 55].

The cluster "wellness-organic buyers" has alongside the wellness-foodies the greatest consumption of organic food and tends to reject functional food. "Wellness-organic buyers" show the highest values for consumption of organic food in general and of organic eggs. In addition, the consumption of organic fruit and vegetables plays an important role. The most important wellness motive is "taking time for oneself". This cluster has the highest proportion of women (61 %) as well as of two-person households (51.3 %). It also has the highest proportion of childless people (86 %).

The identified clusters and their relationships with well(ness) food consumption and wellness activities are summarized in ♦ Figure 3.

Discussion and conclusions

Despite the large number of wellness food products on the market, it is still not clear how exactly wellness should be defined. According to the associations of the consumers in this study, fruit and vegetables/salad are the food products that are most clearly linked to wellness. This can be explained among other things in that public campaigns promote the health benefits of fruit and vegetables (e. g. the “five-a-day” campaign [14]). Milk products are well known as a source of calcium and are therefore perceived as healthy by consumers [15].

Tea is also strongly associated with “wellness”. It has been shown that the consumption of tea reduces the risk of various types of cancer and has positive effects on vascular and

mental functioning. It also contains substances that can promote well-being [16].

Mineral water is also perceived as a wellness product. The health benefits of water are, for example, proclaimed by the German Nutrition Association. Driven by the general health trend, but also by marketing, water has in recent years been turned from an everyday drink into a type of lifestyle product [17].

Interestingly, organic products are also associated with wellness. Other studies have also shown that the consumption of organic food is associated with health [18], despite the fact that to date no direct positive influence on health has been proven [19].

The analysis of wellness activities shows that having time for activities that promote recuperation and regaining strength are, for the survey respondents, the most relevant with regard to the term “wellness”. Other studies also show among other

things that relaxation and meditation rituals work at both physiological and (neuro-)biological levels and can prevent negative effects of stress and promote regeneration [20]. Closely related to this is the aspect of treating oneself with body care products. Empirical studies have shown that the use of body care products contributes to health and well-being [21]. A further activity seen as being related to wellness is “freeing your head” and relieving stress. High and maintained levels of stress are a source of health problems and are detrimental to well-being. Techniques for reducing stress are therefore a fundamental element of many health promotion programs [22].

Sporting activities and spiritual stimulation were the least frequently chosen items, and healthy lifestyles and eating more healthily were considered less important for wellness, even though empirical studies have shown that a healthy lifestyle and in particular healthy eating contribute to well-being [22].

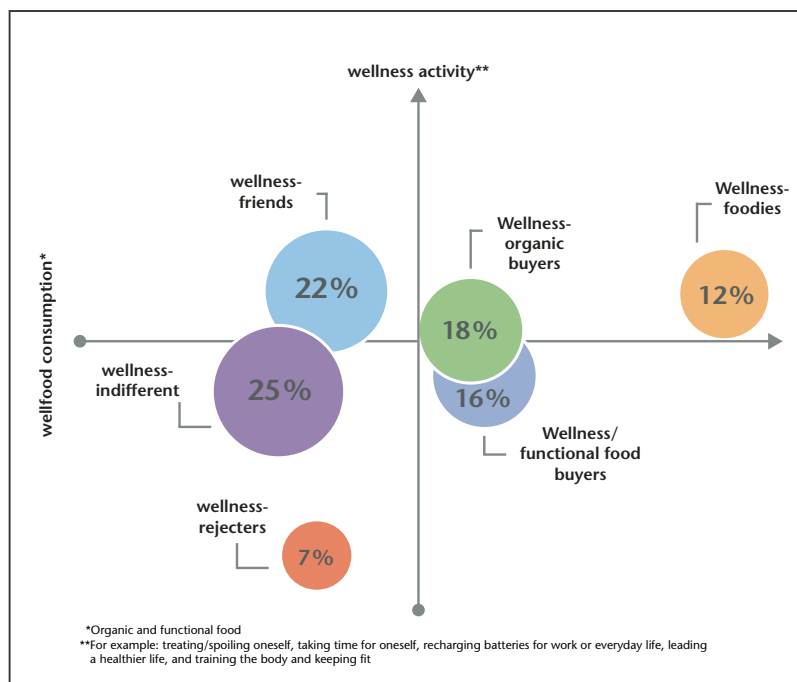


Fig. 3: Summary of the clusters and their relationship with wellfood consumption and wellness activities

A clear connection between wellness orientation and food consumption was found for three of the six identified consumer groups: wellness-functional food buyers, wellness-organic buyers and wellness-foodies. The wellness-functional food buyers have a greater preference for passive wellness activities than the other groups and buy more functional than organic food. The opposite is true of the wellness-organic buyers who avoid functional food. The wellness-foodies are characterized by a strong health orientation and a healthy lifestyle. They value active and passive wellness and consume both organic and functional food products. This cluster demonstrates that organic and functional food consumption is not always mutually exclusive, but rather there is an overlap as has been shown by GOETZKE und SPILLER [12].

In summary, it can be said that wellness-organic buyers are a segment that is relevant for both the wellness and the organic sector. However, the most interesting target group for health-related marketing are the wellness-foodies. They consume organic and functional food products, enjoy both active and passive wellness activities, and practice a correspondingly health-oriented lifestyle.

Dr. Beate Goetzke
Dr. Sina Nitzko
Prof. Dr. Achim Spiller

Georg-August University of Göttingen
 Department of Agricultural Economics
 and Rural Development
 Chair of Marketing for Food and
 Agricultural Products
 Platz der Göttinger Sieben 5
 37073 Göttingen
 E-Mail: bgoetzke@uni-goettingen.de

Conflict of Interest

The authors declare no conflict of interest according to the guidelines of the International Committee of Medical Journal Editors.

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