

## Sustainable Consumption Scales: Measuring Young Customers' Sustainable Food Consumption Behaviour

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**Abstract:** Changing the sustainable consumption patterns of food are in the focus of sustainable consumption goals. Changing the attitudes, purchasing intentions and purchasing habits are vital for making changes. Young customers have specific awareness, and consumption motivations, therefore specific measurement scales are needed for measuring their sustainable food consumption behaviour. The research objective was to collect and categorise the sustainable consumption measurement scales which are related to sustainable food consumption. The validated measurement scales for sustainable food consumption of young customers are specified to certain areas of food consumption and have cultural specifications. There seems to be a lack of validated measurement scales for eastern European and Hungarian customers. The findings of the research can serve as a basis for further scale development for Hungarian young customers.

**Key Words:** Sustainable Consumption, Food, Young Customers, Measurement Scales

### 1. INTRODUCTION

The United Nations 2030 Agenda for Sustainable Development provides a global blueprint in areas that are of vital importance for all people in the globe and the planet, now and in the near future. In the Agenda, the 17 Sustainable Development Goals (SDGs) are an urgent call for action for all the countries in a global partnership. Developing more sustainable food systems – that deliver food security and nutrition for all and are profitable, have benefits for society and have a positive impact on the environment - is critical to both sustainable development and climate change mitigation.

According to the European Sustainable Consumption and Production Policies – and in The Sustainable Consumption and Production Action Plan - „food production systems compromise the capacity of Earth to produce food in the future. Globally, and in many regions including Europe, food production is exceeding environmental limits or is close to doing so” (EC, 2008).

Producing sustainable food can be a response to address these challenges but what exactly do we mean by 'sustainable' food? As it is defined in the EIPRO (Environmental Impact of Products) report, the impact of 'sustainable' food on the environment and society has been less negative: “the food we produce and consume has a significant impact on the environment through, for example, greenhouse gas emissions, the use of land and water resources, pollution, depletion of phosphorus, and the impact

of chemical products such as herbicides and pesticides.” (EC, 2006). Two strategies are described by Verain et al. (2015):

- a) Choices concerning the means of production (e.g., organic, free-range or Fair-Trade products)
- b) Choices concerning dietary composition and consumption curtailment (reduced quantity) within product categories (e.g., in most European societies, the reduced average consumption of meat, heavily processed foods, and sweetened beverages).

Sustainable food consumption has gained increasing attention and has become a high priority both at a national and international level:

- on the one hand, it is one of the areas of consumption with the highest environmental impact;
- on the other hand, it is an activity that is essential for our daily needs, which determines a person's health and well-being;
- in addition, consumers are becoming better-informed, they are actively seeking information and their decisions are no longer based only on the taste of the food product, but also on whether the ingredients and nutritional value are high-quality and whether the preparation is time-efficient (Osztovcics et al., 2016).

This study aims to explore the potential ways and methods of measuring sustainable food consumption behaviour of Generation Z.

### Generation Z and Sustainability

Members of Generation Z are often referred to as digital natives, as this is the first generation that is unfamiliar with what life was like before the Internet and has little idea of what it means to navigate in a foreign city with a paper road map. They grew up in the digital, media-saturated era, depend heavily on mobile devices, which has brought a whole new quality to our everyday lives (at least those who have access to modern technology). They tend to be entrepreneurial and open to innovations to which they respond and adapt quickly (KPMG, 2018). Members of Generation Z have to face similar problems than other young people have, for instance the quest for identity, trying to find answers to life's greatest questions, compliance, etc., however, the new technical possibilities provide new options in their lives (Törőcsik – Szűcs – Kehl, 2014). It is important to understand the behaviour of this segment because their estimated purchasing power is \$ 143 billion in the US (Kátai, 2021). Generation Z is defined as the first global generation (Homo Globalis), as they are the first generation that shares a similar cultural background, like the same food and fashion, frequent the same places, and they are the first to use words that members of other generations would not use or wouldn't understand (Tari, 2011).

The digital generation's four key buying patterns are as follows:

- They are not brand loyal. The product itself is much more important for Gen Z-s than the brand. These consumers can switch brands easily and fast, in the hope that they can find higher quality.
- They eat, sleep and breath digitally. Generation Z lives in a digital world therefore they have digital expectations when it comes to purchases.
- They do their own research. About 57 % of Generation Z consumers search for information before making purchasing decisions.
- They prefer on-line shopping (Kulcsár – Grotte, 2018).

Several studies highlighted the sensitivity and commitment of young generations to sustainability. The following are examples of these:

According to a survey conducted by Epson in 26 countries around the world studying more than 4,000 employees and business decision-makers, sustainability is a key question for the respondents that are members of Generation Z and were born after 1997, followed by "Generation Y" or Millennials who were born between 1981 and 1996. The sustainability criteria are the least important for Generation X.

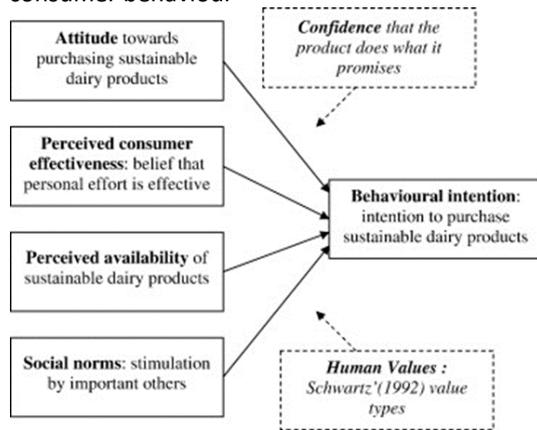
According to recent research findings, compared to baby boomers, Generation Z consumers care more about the so-called 'sustainability credentials' of food and beverage products, and find vegetarian and vegan products more desirable. PR company Ingredient Communications (2020) surveyed 1,000 adults in the US and UK. One third (34%) of the respondents aged 18-25 said they consider it 'very important' that a product is made in a sustainable way, compared with 18% of those (over age 65).

According to a Forrester study, in the U.S., around 50% of young people aged 18-23 checks the real position and actions of companies concerning their social and environmental responsibility. Generation Z is described in the report as a "truth barometer" that can quickly judge the credibility of a brand. About 54% of the teenagers in the group says that they have stopped using certain brands due to the company's unacceptable ethics (Kátai, 2021).

Knowledge and awareness of sustainable labelling and product attributes is essential in achieving a more sustainable consumption level, but young customers mostly focus on the environmental dimension of sustainable consumption and do not pay close attention to the social dimensions (Haron et. al, 2005; Kaiser et. al., 2003; Kovacs et. al, 2016).

Marketing has a vital role in raising awareness and the promotion of sustainable consumption through sharing information and using trademarks and product labelling (Quoquab and Mohammad, 2016). In the marketing literature the most often used theoretical base is the Theory of Planned Behaviour (TPB), where we assume that the buyer collects information and consciously chooses between alternatives. The key factors affecting planned consumer behaviour are attitude, perceived consumer effectiveness, perceived availability, and social norms (see Figure 1).

Figure 1. Conceptual framework of planned consumer behaviour



Source: based on Ajzen, 1985; Schwartz, 1992; Jager, 2000; Vermeir and Verbeke, 2008

The theory of planned behaviour has proven to provide a framework for conceptualising, measuring and empirically identifying factors that determine behaviour, behavioural intention, and attitudes towards sustainable products.

The role of consumer confidence is high (Vermeir and Verbeke, 2008), consumers who differ in confidence will consider different determinants to guide their behavioural intention. The findings of this research indicate that the consideration of social norms differed between high and low confident consumers, while no differences were found for attitudes, PCE and perceived availability

of sustainable products. Consumers, who are less confident about the sustainable character of the products, take their personal attitudes, perceived availability and PCE beliefs into account when deciding to purchase sustainable products. In the Hungarian context, confidence and peer influence are crucial in boosting the attractiveness of sustainable food products in case of young customers (Kovács, 2020).

In their study on young consumer segments committed to sustainability, and considering the measurement opportunities, Verain et al. (2012) emphasised that in addition to demographic characteristics, lifestyle and behaviour are also important in the study and segmentation of sustainable consumption. The authors recommended to include personality traits in further studies.

**Sustainable consumption measurement scales related to young customers**

Knowledge of the Generation Z criteria that forms the basis of the development of measurement scales is necessary in order to develop measurement scales that are adapted to the decision-making habits of the younger generations. Concerning the measurement scales, the most significant Generation Z criteria are summarised in Table 1.

Table 1: Criteria for establishing measurement scales concerning Generation Z

Obtaining information	Availability	Decision-making	Purchasing	Expression of opinion
require easy and quick access to information	they are available almost 24 hours a day,	make an informed and considered decision,	Interactivity and involvement are a basic expectation on their part,	they are open to share their views,
information is a basic requirement, but it is expected for free,	they require companies to appear on different platforms,	they often rely on opinions available on different sites,	experience and pleasure are paramount for them,	critical thinkers, criticize easily,
they like attractive capable, real-time solutions,	they are characterized by high activity on social media sites.	due to the easy access to different media, they are highly selective, they do internet surfing, or clicking around.	they require on-line solutions,	are willing to share and pass on information
they accept authentic things and people.			provocative, extreme, spectacular, show-like presentation help to win them over.	

Source: own compilation based on KPMG, 2018 and Törőcsik, 2014

Sustainable consumption among young consumers has become a key priority on the research agenda in such different fields, including marketing. Progress in this field has been hampered by a lack of wide range research instruments capable of measuring consumption behaviours that are reliable and valid

in more generations in terms of their sustainability impacts.

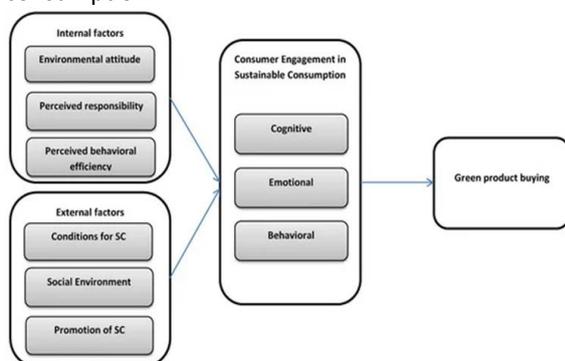
Valid instruments are required to measure sustainable behaviour on more segments of young customers. The pre-behavioural factors attitudes

are measured in the scale of Biasutti and Fratte (2017), concerns the scale of Frances and Davis (2015) and intentions (Kovacs, 2020). There are scales related to conspicuous consumption (Acikalin et al. 2009) and ethical consumption scale of Bucic et al. (2012).

The measurement scale of (Geiger et al., 2018) measures sustainable consumption in adults based on the cube model of SCB. The cube model provides an integrative conceptual framework comprising the three dimensions of SCB and extended by a fourth impact dimension. In this model, SCB occurs in different consumption areas (food, housing, mobility, clothing etc.), phases (acquisition, usage, and disposal of consumer goods) and impacts on different sustainability dimensions (ecological and socio-economic). The SCB cube offers a comprehensive framework for the operationalization of SCB and the selection of high-impact behaviours to sustainable consumption.

The scale of Fisher et al. (2017) YCSCB scale of sustainable food consumption, 17 items concerning the acquisition, usage, and disposal of food were administered. That scale is valid and reliable measurement scale to assess young consumers' sustainable consumption behaviour in the area of food and clothing. Pilgrimiené et al. 2020 scale contains two groups of factors, internal and external, each comprising three determinants (environmental attitude, perceived responsibility and perceived behavioural efficiency; and conditions for sustainable consumption, social environment and promotion of sustainable consumption) were identified as having direct positive impact on consumer engagement in sustainable consumption, which in turn had a positive impact on green product buying.

Figure 2. Internal and external motivational factors related to consumer engagement in sustainable consumption



Source: Pilgrimiené et al. 2020

In former Hungarian studies, the validated scales considered five dimensions (Kovacs et al., 2016),

and the revised version considered seven dimensions (Kovacs, 2020): trust in authorities' measurements, health consciousness, purchasing local products, environmentally responsible production, buying from local producers, brand consciousness, acquiring information.

The major gaps between the attitude, the intention and the actual purchase makes the measurement difficult (Azzurra, et al 2019; Carrington, et al, 2010), and there is a high potential for distortion due to the need to meeting societal expectations when designing the questionnaires (Kovács et al. 2016). Only a few scales are explicitly validated on young customers, and as the awareness of different sustainable consumption areas are changing, the scale development and validation has a high relevance.

## Summary

It would be important to measure sustainable consumption in studies related to attitudes, buying intention and buying habits. If measuring scales could be developed, consumer segments that are open to sustainability would become identifiable, and the changes over time would become traceable as well. It's not easy to measure sustainable consumption because adopting sustainable consumption scales are based on the different awareness and information background of young consumers. Moreover, younger generations take part in the decision-making on food purchasing only to some extent.

The criteria of Generation Z in sustainable consumption were examined in the areas of Acquisition of Information, Availability, Decision, Purchase and Expression of Opinions. We found that there are distinctive features in all areas along which we would like to measure sustainable consumer behaviour in additional studies. Further studies are needed to design scales, and to extend these findings by employing larger, international samples.

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