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ASSESSING THE SUSTAINABLE FOOD CONSUMPTION BEHAVIOURS OF GENERATION Z ACROSS NATIONAL CULTURES

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DEDICATION

To, Gloria, my lovely wife.

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ABSTRACT

This dissertation delves into examining sustainable food consumption behaviours among Generation Z, spanning three distinct national cultures—Ghana, Italy, and Canada. Grounded in a critical realist philosophy, the study addresses five research questions, seeking insights into the motivations, technological influences, cultural dynamics, values, and potential shifts toward sustainability within Gen Z. Also, employing a circular model of the Theory of Planned Behavior (TPB) that challenges the conventional linear perspective, the thesis introduces the concept of reinforcement. The research methodology involved a convergent mixed methods approach. Data was collected from 30 participants for qualitative analysis (10 individuals from each country) and a survey encompassing 928 respondents (344 Ghanaians, 306 Italians, and 278 Canadians). The quantitative analysis employed structural equation modelling, while thematic analysis was applied to the qualitative data. Key findings underscore the positive impact of health motivations and environmental attitudes on sustainable consumption intentions. Additionally, cultural elements and traditional preferences exert a notable influence on behaviours. Although technology facilitates information dissemination, persistent financial and accessibility barriers remain. Country differences are also highlighted in the study. The alignment of values and education emerges as pivotal factors in promoting sustainability, yet affordability issues pose challenges to widespread adoption. In conclusion, the study advocates for a comprehensive sociocultural approach that integrates individual, collective, and structural changes through flexible interventions targeting knowledge enhancement, value congruency, policy modifications, and financial incentives. This innovative approach enhances our theoretical understanding of the intricate drivers influencing Generation Z's sustainable food choices, contributing to convergent mixed methods and cross-cultural research design.

ESTRATTO IN ITALIANO

La tesi esamina i comportamenti di consumo alimentare sostenibile della Generazione Z, prendendo in considerazione tre diversi Paesi: Ghana, Italia e Canada. Basato su una filosofia critico-realista, lo studio affronta cinque domande di ricerca, cercando approfondimenti sulle motivazioni, sulle influenze tecnologiche, sulle dinamiche culturali, sui valori e sui potenziali cambiamenti verso la sostenibilità relativamente al consumo alimentare sostenibile della Gen Z. Utilizzando un modello circolare della Teoria del Comportamento Pianificato (TCP) che sfida la prospettiva lineare convenzionale, la tesi introduce il concetto di rinforzo. La ricerca è stata condotta utilizzando un metodo misto che prevede diverse metodologie di raccolta dati: un'analisi qualitativa con 30 partecipanti (10 persone per ciascuna nazione) e un sondaggio con 928 intervistati (344 ghanesi, 306 italiani e 278 canadesi). Mentre l'analisi tematica è stata utilizzata per i dati qualitativi, l'analisi quantitativa è stata condotta con il modello di equazioni strutturali. I risultati principali sottolineano l'impatto positivo delle motivazioni salutistiche e degli atteggiamenti ambientali sulle intenzioni di consumo sostenibile. Inoltre, elementi culturali come i tabù alimentari e le preferenze tradizionali esercitano una notevole influenza sui comportamenti. Sebbene la tecnologia faciliti la diffusione delle informazioni, permangono persistenti barriere finanziarie e di accessibilità. Nello studio vengono evidenziate altresì le differenze tra Paesi. L'allineamento tra valori personali e istruzione emerge come fattore cruciale nella promozione della sostenibilità, ma i problemi di accessibilità pongono sfide all'adozione diffusa. In conclusione, lo studio sostiene un approccio socioculturale globale che integri cambiamenti individuali, collettivi e strutturali attraverso interventi flessibili mirati al miglioramento della conoscenza, alla congruenza dei valori, alle modifiche politiche e agli incentivi finanziari. Con l'aiuto di un metodo misto convergente e di un disegno di ricerca interculturale, tale metodo innovativo migliora la nostra comprensione teorica dei complicati elementi che influenzano le scelte alimentari sostenibili della Generazione Z.

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CHAPTER ONE

INTRODUCTION

The world is grappling with serious challenges today. One of these challenges is food security and the looming food crisis. The most common definition of food security stems from the 1996 World Food Summit (WFS): "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (WFS, 1996 as cited in Iversen et al., 2023). Iversen (2023) explains that the definition of food security encompasses four prominent dimensions: availability, access, utilisation and stability with two recent additions, agency and sustainability. According to Headey and Hirvonen (2023), there was a brewing food crisis even before the Russia-Ukraine war. As far back as 2007, the global food system began to fail. During that particular period, there was a notable escalation in food prices, primarily attributed to the concurrent increase in oil prices, surging demand for biofuels derived from maize, elevated costs associated with shipping, speculative activities within financial markets, diminished reserves of grain, adverse weather conditions impacting major grain producers, and a series of trade policies characterised by uncertainty, all of which collectively exacerbated the issue at hand.

There are imbalances on the global stage in relation to how much food is available to everyone, even though the data shows that we already grow more than enough to feed the world (Esfandabadi et al., 2022; Weis, 2007). According to the estimates provided by the World Food Programme (WFP, 2023), based on data from 79 countries in which it operates, it is projected that over 345 million individuals will confront significant levels of food insecurity in the year 2023. The current figure represents an increase of over two-fold compared to the previous year. This represents a significant increase of 200 million individuals in comparison to the food-insecure population figures observed prior to the onset of the COVID-19 global pandemic.

There exist also imbalances related to how accessible food is to everyone. For instance, it is projected that a minimum of 129,000 individuals will encounter famine in the countries of Burkina Faso, Mali,

Somalia, and South Sudan (WFP, 2023). Other forms of imbalance are the reduced levels of nutritional intake and absorption, and how long food is available to everyone (Behnassi & El Haiba, 2022). Malnutrition encompasses a range of conditions, including undernutrition (characterised by wasting, stunting, and being underweight), insufficiency of essential vitamins or minerals, excessive weight, obesity, and subsequent noncommunicable diseases associated with dietary factors. According to recent data by the World Health Organisation (WHO), there is a significant global prevalence of overweight or obese adults, with approximately 1.9 billion individuals falling into this category. In contrast, there is a substantial population of underweight adults, estimated to be around 462 million individuals (WHO, 2023a). In the year 2020, it was estimated that there were 149 million children under the age of 5 who experienced stunting, indicating a deficiency in height relative to their age. Additionally, there were an estimated 45 million children who were wasted, indicating a lack of proper nutrition resulting in being too thin for their height. Furthermore, a total of 38.9 million children were classified as overweight or obese (Govender et al., 2021; Khadija et al., 2022; WHO, 2023a).

There are imbalances related to the decision power when people have to make food choices and how resilient the environment is as they consume food (WHO, 2023a). There exists a correlation between individuals with low income and a suboptimal dietary intake due to fewer choices. In contrast to individuals with higher income, those with lower income exhibit a lower consumption of fruits and vegetables, a higher intake of sugar-sweetened beverages, and a diminished overall diet quality (French et al., 2019). When individuals are unable to access healthy alternatives, they may choose food options that have a higher caloric content and lower nutritional value. Individuals residing in low-income communities, as well as certain racial and ethnic populations, frequently encounter limited availability of easily accessible establishments providing reasonably priced, nutritionally superior food options.

Food security issues are commonly associated with the production aspect of the value chain. However, it is important to acknowledge that food consumption also plays a role in exacerbating

these problems. Food consumption affects the climate, human health and even global security. Human willingness to eat exotic foods and shunning local foods result in increased food miles which contribute greatly to the global greenhouse gas emissions. The notion of "food-miles" encompasses the measurement of the distance covered by food items from their production sites to their final destinations of consumption. This concept serves the purpose of assessing the environmental consequences that arise as a result of this transportation, such as energy consumption and emissions (Li et al., 2022). Today, food travels far from different parts of the world to consumers. The state of our health is contingent upon the type of food we select and consume. A nutritious diet plays a crucial role in facilitating optimal growth and development in children, while concurrently mitigating the likelihood of chronic ailments. Reports by the Centers for Disease Control and Prevention (CDC) shows that consuming a nutritious diet is positively associated with increased longevity and a reduced likelihood of developing obesity, cardiovascular disease, type 2 diabetes, and specific forms of cancer among the adult population (CDC, 2023). Humans' attitude towards food consumption does not only affect the climate and people's health but threatens the security of the world at large. This threat stems from acute hunger that can lead to social conflicts.

Sustainable food consumption (SFC) is an academic field that conducts research into and provides recommendations for how food consumption could help rather than harm individuals, communities and the world at large. In this academic sphere is the group of studies that focus on consumer behaviour towards food consumption within which different foci (e.g., research clustered around demography, which acknowledges the difference in consumption based on factors such as age, gender, education and income, around consumer perceptions, attitudes, or choices, etc.) reside. The studies focusing on consumer behaviour towards food consumption seek to unearth consumer characteristics that influence their sustainable food choices relying on several psychological theories. Arguably the most prominent theory applied to the field is the Theory of Planned Behaviour (TPB) (Randall et al., 2024). The TPB (Ajzen, 1988, 1991) is a theoretical framework that builds upon the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980), which remains

a topic of interest within the field of psychology (Sheppard et al., 1988; Ajzen, 2001). Both models can be classified as deliberative processing models, as they suggest that individuals form their attitudes through a thoughtful evaluation of the influencing factors. Based on the theoretical framework, behaviour is believed to be influenced by intentions pertaining to the behaviour itself, as well as by the level of control over one's actual behaviour. This control factor serves to moderate the impact of intentions on subsequent behaviours. While the moderation of intentions is primarily influenced by actual behaviours control, many applications rely on Perceived Behaviour Control (PBC) as a substitute, due to the challenges involved in measuring actual behaviours control. Ajzen (1991), one of the original proponents of the Theory of Planned Behaviour (TPB), advocates for the utilization of Perceived Behavioural Control (PBC) as a proxy.

Background to the study

It is worth acknowledging the difficulty of providing a comprehensive definition of SFC. Reisch, Eberle and Lorek (2013, p. 17) claim that "Overall, agreeing on a positive definition of what constitutes [SFC] remains difficult, a challenge fuelled by inconclusiveness and sometimes even contradiction in the scientific evidence". Despite this difficulty, the definition of Sustainable Food (SF) by the UK Sustainable Development Commission (SDC) (2005; 2009; cited in Reisch et al., 2013, p. 8) seems appropriate. The Commission defines "sustainable food and drink" as

> *"...that which is safe, healthy, and nutritious for consumers in shops, restaurants,*
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> *schools, hospitals, and so forth; it can meet the needs of the less well off at a global*
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> *scale; it provides a viable livelihood for farmers, processors, and retailers whose*
>
> *employees enjoy a safe and hygienic working environment; it respects biophysical*
>
> *and environmental limits in food production and processing, while reducing energy*
>
> *consumption and improving the wider environment; it respects the highest*
>
> *standards of animal health and welfare compatible with the production of*

affordable food for all sectors of society; and it supports rural economies and the diversity of rural culture, in particular by emphasizing local products that minimize food miles".

Adapting this definition of SF, SFC may be defined as

"*the process of buying, using and disposing of food that is safe, healthy, and nutritious for consumers…; that can meet the needs of the less well off at a global scale; that provides a viable livelihood for farmers, processors, and retailers …; that respects biophysical and environmental limits in its production and processing, while reducing energy consumption and improving the wider environment; that respects the highest standards of animal health and welfare, compatible with the production of affordable food for all sectors of society; and that supports rural economies and the diversity of rural culture, in particular by emphasising local products that minimise food miles".*

In simple terms, SFC refers to "a practice where consumers consider the effect of their consumption [purchase usage and disposal] of food products on the environment, as well as natural resources, and not merely consider their needs and wants" (McClements & Grossmann, 2021). Whilst this definition sounds simple and appropriate, it falls short of some vital elements, as it focuses only on the ecological perspective of SFC. Also, like other definitions, it does not touch on the consumption process but emphasises SFC's practices. These practices include the way consumers eat less or avoid over-consumption (Vermeir et al., 2020); reduce meat intake (Hielkema & Lund, 2021); reduce plastic use in food storage and packaging (Walker et al., 2021); choose fair trade food products (Brécard et al., 2012); eat healthy foods (Drewnowski & Fulgoni III, 2020), eat local foods (Arsil, Brindal, et al., 2018), including edible insects in diet (Hwang & Kim, 2021a), eat own grown foods (Church et al., 2015), organic foods (Boobalan et al., 2022), seasonal foods (Vargas et al., 2021) and reduce food waste (Hatab et al., 2022).

The marketing concept of consumption takes a more complex meaning (Belk, 2005) than the practices. Consumption refers to how individuals make decisions on how to spend resources like time, money, and effort on different products and services (Foxall, 2001). It includes what they buy, why, when, where, how often, and how often they use it. Consumption is a person's actions in purchasing and using products and services, including the mental and social processes that precede and follow these actions (Foxall, 2001). Consumption in this dissertation thus refers to the process of purchase, usage and disposal of food (Tandon et al., 2021). This conceptualisation provides the opportunity to consider the purchase or use and the holistic food consumption process. Also, as noted earlier, the study of consumption is incomplete if it ignores the psychological aspects of human behaviour as they buy, use and dispose of products.

Paradoxically, the act of food consumption assumes a distinct process, as elucidated by Allison and Cirona-Singh (2015). Food is an essential requirement for human sustenance, thus rendering its consumption indispensable. The complexity of food consumption arises from its multifaceted nature, encompassing anthropological dimensions (Knorr & Augustin, 2022), sociological implications (Murcott, 2019), contextual factors (Poelman & Steenhuis, 2019), as well as personal and health-related ramifications (Peña et al., 2020). The consumption of food continues to be a fundamental component of human existence, thus presenting a constrained array of options. However, the selection, timing, and rationale behind human dietary choices are influenced by a multitude of factors.

Food choices are different for different demographics. For instance, Verain et al. (2015) found that differentiating various demographics' food choice motives and behaviours towards sustainable food consumption is crucial. In that study, they found significant differences between the demographics regarding their personal and social norms, subjective knowledge, and amount of consumption. Generational cohorts offer a more precise distinction because food consumption often has a strong relationship between societal changes and food (Arenas-Gaitán et al., 2021). Specifically, some

studies (e.g., Ivanova et al., 2019; Kol et al., 2021) have found significant differences among generational cohorts.

Arguably the generational cohort that is most environment-conscious is Generation Z (Gen Z) (Ivanova et al., 2019). Many studies have identified Gen Z as far more aware of sustainable living than prior generations (Djafarova & Foots, 2022). The sustainability awareness of Gen Z is due to their early exposure to healthy lifestyle choices taught in schools and in discussions about the environment on the media. In comparison to earlier generational cohorts, Gen Z members are expected to be more eco-friendly. They demonstrate immense worry about the environment (Shahsavar et al., 2020), prioritise health when making dietary choices (Pocol et al., 2021), and prefer a better quality of life as they are "even more driven towards the self" (Pulevska-Ivanovska et al., 2017, p. 6).

Since the iGeneration (another name for Gen Z) was born in the internet age, the bulk of their purchase decisions depends on information gained from the internet. They mostly form their opinions from their social media networks. Hence the internet is expected to influence their consumption (Djafarova & Bowes, 2021). However, they may be also influenced by family traditions during their childhood, or by national cultures in general. There is a need for further exploration of the different national cultures' influences on the SFC of Generation Z because of the paucity of research in this regard.

National cultures determine which SFC practices people get involved in (Halder et al., 2020). By extension, this also affects the food choices of Gen Z. According to Raheem et al. (2019), edible insect consumption is prominent in Asia and some parts of Africa and Europe. Choosing fair-trade food is also more prevalent in Western countries than in Africa. There are fundamental differences in the SFC of Gen Z in different countries. Hence, although Gen Z have similar characteristics globally due to the influence of the internet on their food consumption (Kılıç et al., 2021), they are also influenced by the nation's prevalent culture. This cultural paradox makes studying the SFC of Gen Z very interesting.

Finally, technology and culture alone may not be able to explain the SFC of Gen Z. SFC, for members of the GenZ, also resonates with their values. According to Vermeir et al. (2020), behaviours are undertaken when they result in supporting their values. That is to say, people do not usually pursue a behaviour that does not end in endorsing or demonstrating values. For instance, consumers must value the environment to be motivated to engage in SFC. Studies have shown that values strengthen or dampen the relationship between attitude and actual behaviour (Vermeir & Verbeke, 2008a). The difference in generation lies in the difference in value orientations. Hence, it is essential to examine the effect of values on the SFC behaviour of Gen Z.

Research Problem and Research Gaps

There is an urgent need to encourage people to engage in SFC today because of its direct effect on the ecosystem (Vermeir et al., 2020) and on people's health. A study in 2019 reported that food systems contributed about 21% to 37% of the overall anthropogenic emissions (Crippa et al., 2021). In 2021, reports from the United Nations Food and Agriculture Organisation (FAO) indicated that the entire food supply chain is now at the top of the list of Greenhouse Gas (GHG) emitters (Tubiello et al., 2021). According to the FAO (as cited in McClements & Grossmann, 2021), irrigated land in developing countries will increase by 34% by 2030. The FAO reports that by 2030, the amount of water used by agriculture will only increase by 14%, undermining the global sustainability agenda of not jeopardising future generations' ability to meet their needs due to ground water depletion and contamination (FAO, 2023b). Livestock production accounts for 14.5% of all human-induced greenhouse gas emissions, with red meat accounting for the majority. Animal-based foods are a wasteful source of nutrition, providing only 18% of calories but occupying 83% of all acreage (Hielkema & Lund, 2021). Fish accounts for 17% of the animal protein intake, and the global consumption of fish and fishery products has increased to more than 20 kg per person. The global consumption of aquatic foods, with the exception of algae, has exhibited a noteworthy upward trend,

growing at an average annual rate of 3.0 percent since the year 1961 (FAO, 2023a). This rate of increase is nearly twice as high as the annual growth rate of the world population. Consequently, the per capita consumption of aquatic foods has surged to 20.2 kg, surpassing the consumption levels observed in the 1960s by more than twofold. In the year 2020, a total of 157 million tonnes, accounting for approximately 89 percent of the overall aquatic animal production, were allocated for direct human consumption. This figure represents a slightly larger quantity compared to the corresponding volume observed in 2018, despite the prevailing influence of the COVID-19 pandemic. In the year 2019, the consumption of aquatic foods accounted for approximately 17 percent of the total animal protein intake. Notably, this figure rose to 23 percent in lower-middle-income nations, while certain regions in Asia and Africa witnessed a significant proportion of over 50 percent (FAO, 2023a).

According to Reisch et al. (2013), food consumption is associated with all these problems; even worse, it will be exacerbated in the future by the expanding world population. Food consumption is critical in determining how sustainable food production will be, as it impacts sustainability's economic, social, and environmental dimensions. In the words of Kumar (2015, p. 6), "…with the advent of globalisation and the challenges international markets present, the need of the hour is for the discipline [marketing] … to be in perfect synchrony with this dynamic landscape and stay updated accordingly. Considering these changes, we must remain cognizant about the dynamics in the marketing environment – that is, look out for the questions that need to be answered and the issues that need to be solved – to empower ourselves with the knowledge we seek".

Consumers play a significant role in transitioning to sustainable food systems (Vittersø & Tangeland, 2015). Sustainable food consumption could result from consumers' conscious or unconscious decisions to purchase sustainable products, to balance consumption and reduce waste, thereby minimising their environmental impact and contributing to the local economy with their socially responsible decisions (Sargant, 2014).

Given the urgency of the food crisis, several studies have been dedicated to investigating SFC. This thesis will analyze them in a literature review section. Whilst this research area has received a good amount of attention, some issues are unclear in the literature. Here are some of the knowledge gaps that this thesis will be approaching:

1. There is a call for further exploration of the factors that drive sustainable food consumption behaviour and choices. According to Qi et al. (2020), there should be a qualitative exploration of the drivers that affect Sustainable Food Consumption behaviour (SFCB). Despite their commitment to ecological preservation and sustainability, a "green gap" exists between consumers' stated environmental concerns and their actual, sustainable consumption. For this reason, many researchers have conducted studies on "green marketing", "green product" qualities, customer demographics, and personality traits to address this gap. Consumers face many non-monetary challenges, including product availability, brand loyalty to non-green alternatives and perceived sacrifice, that hinder them from converting to "greener" products.

2. While the TPB has been considered a linear theory, carefully considering consumer behaviour and psychology may challenge this stance. Despite the widespread acceptance of TPB in consumer behaviour, there are numerous efforts to incorporate external elements to predict customers' behavioural intentions more accurately. Therefore, some studies recommend that future research include other variables to describe individuals' goals in more depth (Hwang & Kim, 2021a). In the case of Gen Z, a "positive" attitude may not automatically lead to behaviour change because of specific circumstances. Some critical factors influencing this relationship for Gen Z are values, culture and technology.

3. There is a paucity of literature on which research has been conducted to examine SFC over the whole consumption cycle (purchase, usage and disposal) (Sheoran & Kumar, 2021). Most studies that applied the TPB have treated behaviour as a unidimensional variable. For instance, Van der Werf, Seabrook and Gilliland (2019) in examining SFC, conceptualised behaviour as

'food wastage behaviour'. Also, Agboola et al. (2018) conceptualised behaviour as 'eating habits'. However, consumption is a process rather than a single activity, and consumers are more than utility maximizers. A more holistic view of behaviour should take a multidimensional view highlighting purchase, usage and waste, recognising the complexity of the human self through the process. By this, other aspects or practices of SFC such as food waste can be captured in the model. Sheoran and Kumar's (2021a) study includes the process but was tested on other variables apart from behaviour in the TPB.

4. Gen Z's attitudes across national cultures need further exploration (Lifintsev et al., 2019). Evans and Jackson (2008) argue that sociological (social and cultural) theories can add invaluable depth and sophistication to understanding consumer behaviour and the complexities underlying the challenges of changing lifestyles, including a shift towards sustainability. According to Hwang & Kim (2021a), additional research would be required in light of diverse cultural backgrounds and geographies. Anecdotal evidence suggests that consumer pro-environmental behaviour varies between countries and cultures. The way we think about the environment, our environmental concerns, and our desire to respond to climate change, for example, are primarily shaped by our cultural heritage. Researchers have shown that people engage in sustainable practices[1] for some reasons, depending on their cultural background. More research is needed as the green divide[2] within and among countries remains unbridged.

Additionally, a study by Sánchez et al. (2021), in which 40 publications focused on the SFC behaviours of the Generation Z cohort were examined, found that the literature primarily focused on individual-level factors such as intention, knowledge, attitudes, lifestyle,

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[1] Sustainable practices refer to what humans do to demonstrate "harmony with the environment" through care for the environment, care for healthy eating and compassion for hungry people (Mebratu, 1998).

[2] Green divide refers to (1) "the difference between the carbon emissions of the rich and poor within a country" and (2) "the growing divide between the polluting elite of rich people and the relatively low responsibility for emission amongst the rest of the population" (Kleine-Rueschkamp et al., 2023).

perceptions, motives, intuitions, imagination, and beliefs. There is little evidence of social and environmental (situational) factors. Hence the need to consider the cultural influences on SFC.

5. The effect of technology on the Gen Z food consumption process requires further examination (Lee & Kim, 2021). Since technology offers Gen Z a platform for social interactions, which tends to influence choice, online communication is expected to improve the willingness to engage in SFC.

Research Questions

Based on the research gaps identified, this dissertation seeks to find answers to the following questions:

1. How do Gen Z motivations and attitudes towards SF reflect their intentions and behaviour?

2. How does technology impact Gen Z's food consumption?

3. How does culture affect Gen Z's food choices?

4. How do values help to bridge the gap between attitude and behaviour in Gen Z's SFC?

5. Is there any potential for change toward sustainability in Gen Z's food consumption?

Significance of the study

This study has both theoretical significance and practical contributions. Theoretically, the TPB (Ajzen, 1985) is a linear model moving from the predictors (attitude, perceived behavioural control and social norms) to the mediator (intention) and then to the dependent variable (behaviour). Whilst this model explains the intention-behaviour gap very well (Ajzen, 2011), it does not holistically explain the SFC behaviours of Gen Z, considering the complexities of their day-to-day activities (Djafarova & Bowes, 2021). To improve the TPB's explanatory power, this study intends to empirically test a modified version of the TPB which includes some new variables (values, eWoM, culture and reinforcement of intention) and uses primary data collected from university students. The study seeks to make the TPB a circular theory instead of the linear form.

This contribution to the theory is necessary to improve the explanatory and predictive ability of the model. As Sutton and Staw (1995) noted, a theoretical contribution is not just a collection of references to prior work, conceptual frameworks, and not only a set of constructs and definitions. Instead, a theory integrates, explains, and predicts. Stewart (Stewart, 2019, p. 430) explained that "The integration [of theories] itself produces new insights and suggests new directions for research. This is what strong theoretical and conceptual papers should do".

Practically, given the fact that the world is at a critical juncture, a situation where climate change threatens the very existence of humans, and this is mainly a result of human activities, with the behaviour towards food consumption as a significant contributor. On average, delivering one meal to one person requires 10 kilograms of topsoil, 1.3 litres of diesel, 800 litres of water, 0.3 grams of pesticides, and 3.5 kilograms of CO_2 emissions (FAO, 2022; OECD, 2022; SIWI, 2022). According to the United Nations Environmental Programme (UNEP), about one-third of the food produced globally goes to waste or is lost due to unsustainable food consumption practices (UNEP, 2023 as cited in Hassan et al., 2022). Food consumption threatens human existence because what we eat tends to result in many diseases. The World Health Organisation (WHO) estimates about 200 diseases, including obesity, high blood pressure, strokes, and some cancers, are caused by eating food contaminated with bacteria, viruses, parasites or chemicals (WHO, 2023b)

The study is also relevant for marketers of food, specifically those targeting Gen Z. Consumer behaviour studies' results help marketers know the approach to use when presenting or communicating their products to prospective consumers because they better understand the needs of the consumers (Merlo et al., 2014). The study seeks to unearth the factors that motivate Gen Z to engage in SFC, which provides marketers of, for instance, organic food to better position their products on top of the minds of such consumers. It is general knowledge that Gen Z are the future consumers. Gen Z currently includes about 2.2 billion people, representing 26% of the global population (Statista, 2022). This is a very viable market for food producers and marketers.

Through this study, with proper incentives provided, social marketers and education systems focused on sustainability can design the best campaign approaches and teaching aids for targeting Gen Z with behaviour change to improve their SFC lifestyles. The study will also focus on the Gen Z's SFC behaviour online, which could give social marketers some cues to develop strategies to enhance electronic word-of-mouth (eWoM) about Sustainable Foods (SFs). This would invariably result in Gen Z becoming more aware of SFC and how they could get involved innovatively. Social marketing is needed because people are generally unsure of the relationship between climate change and food choices. Thus, they are unconcerned with the repercussions of their meal selection behaviours (Macdiarmid et al., 2016). The topic of mitigating the consequences of climate change through more sustainable food choices and consumption practices has emerged as a crucial element of environmental protection.

Scope of the Study

This study is not concerned about the practices of SFC but about the process. Hence the psychological processes, consisting of motivation, values and attitudes of GenZ towards SFC are assessed. This study takes a cross-national cultural perspective. Its geographic scope lies within Africa, Europe and North America. In Africa, data is collected from Ghana, in Europe, Italy, and in North America, Canada. The participants of the study are representatives of Generation Z, specifically university students.

Thesis statement

This dissertation studies consumer characteristics and behaviour towards SFC by exploring possible extensions and variations of the widely applied TPB, by examining the influence of values, culture and technology on the food consumption behaviour of Generation Z (Gen Z) across different national contexts. In this study, Gen Z is defined as the generational cohort born between the mid-1990s and early 2000 (Wood, 2013)

Methods

This study applies Critical Realism (CR) (Bhaskar, 2009) philosophy and methods to unearth the influence of values, culture and technology on the SFC behaviours of Gen Z across national cultures. CR holds that reality exists independently of our thoughts about it, and while observation may increase our confidence in what exists, existence itself is not dependent on observation. In CR, reality is stratified into three levels: empirical, actual and real levels. The real domain encompasses the empirical and the actual domains, and in addition includes entities or structures that can activate causal mechanisms that affect other structures (i.e. causal mechanisms); the actual domain includes events and their effects caused by causal mechanisms; and the empirical domain represents actual events-effects that can be observed or experienced by humans (Haigh et al., 2019).

Critical realism presents ontology as real, stratified and emergent (Hastings, 2021). In this study, SFC is viewed as a real phenomenon, so are the motivating factors. The stratified ontology of critical realism provides a foundation from which we can better understand the levels of influence (Archer 2011) that values, culture, and technology have on the SFC behaviours of Gen Z. Bhaskar's modelling of the dynamic relationship between structure and agency in his Transformational Model of Social Activity (TMSA) (Bhaskar, 2008) informed the dynamism and, to some extent, the pluralistic manner in which data for this study was collected (collecting both qualitative and quantitative data in an concurrent manner) and the iterative process of both exploratory and confirmatory analyses. Analysing data with a critical realist thinking, can help to go beyond the figures, and can provide a methodology to adapt the TPB for additional variables.

Epistemologically, applying CR as a research method can be complex because, "Critical realists take a pluralist and pragmatic stance with respect to methodologies and methods that might be drawn on to theorising this complexity - and to the associated use of perspectives and approaches that may be multi-disciplinary, interdisciplinary and transdisciplinary" (Haigh et al., 2019, p. 10). This study hence collected both quantitative and qualitative data. According to the CR approach, the main goal of research and methodology is to explain "tendencies" in observed or experienced phenomena (e.g.,

events, effects, values that can influence the sustainable food choices of GenZ). These explanations focus on entities that can generate events and their properties that enable them. "This is the arduous task of science: the production of the knowledge of those enduring and continually active mechanisms of nature that produce the phenomena of our world" (Bhaskar, 1975, p.47).

Critical realists pursue emancipatory goals. Danermark states that "A critical science often takes its starting point in notions that improvement of society is possible" (Danermark et al., 2019). This emancipatory worldview suggests that when phenomena are investigated, properties and mechanisms can be changed to mitigate harmful effects or enhance beneficial effects. Thus, CR research emphasizes "what to do" to SFC.

The data were collected sequentially, first, a set of qualitative data was collected from 10 Gen Z participants/respondents from Ghana and ten from Italy. This was meant to provide a deeper understanding of the motivating factors that promoted or discouraged SFC amongst Gen Z respondents. After that, quantitative data were collected through online surveys from Gen Z students from the two countries.

The organisation of the study

This dissertation is organised into six chapters. The first chapter offers an introduction to the study by presenting the background of the study, the research problem and questions, significance and limitations of the study. The second chapter presents a review of relevant literature on the concepts (including conceptual frameworks and reviews). Some of the concepts used in the study include SFC, Gen Z, electronic word of mouth (eWoM), values, sustainability and culture. It is essential to explain these concepts because they offer clarity to the readers as to what precisely they are, what their boundaries are, and what they are not. The third chapter presents the theoretical review and hypothesis development. The theories that are used in this study include the TPB (Azjen, 1980), Hofstede's Cultural Dimensions (HCD) (Hofstede, 1983; Hofstede, 1978), Consumer Culture Theory (CCT)

(Arnould & Thompson, 2005a), Social Exchange Theory (SET) (Homans, 1958), and the reinforcement (Conger, 1956; Pavlov, 1927). The chapter discusses the theories adopted and provides details about the concepts used in the research. Also, in the third chapter, there is a discussion on how the hypotheses were developed and the research design.

The fourth chapter further explains the various relationships between the variables. The research methodology comprises the Critical Realism (CR) philosophy underlining the study, the research design, the research approach, sampling and how the data analysis was conducted. The advantage of CR research is that it is an iterative process which starts from an observed social phenomenon and attempts to find valid explanations of this phenomenon by formulating diverse hypotheses and then testing them to find which one best explains the social phenomenon. Thus, it is a process which can lead to the improvement of a theory or even to the development of new theories concerning the SFC of Gen Z. The results of the data analysis and discussions are presented in the fifth chapter. In this chapter, the actual hypothesis testing is conducted. The sixth chapter is the conclusion, where concluding remarks, recommendations and summaries are presented.

CHAPTER 2

REVIEW OF CONCEPTS

Introduction

The previous chapter introduced the thesis by presenting a background to the study, highlighting the theoretical and practical gaps which this study seeks to fill. This chapter reviews the main concepts used in this study. The concepts are reviewed in four sections. First, a review of the broader concept of sustainability, sustainable food practices and sustainable food consumption (SFC). The purpose of the first section is to distinguish between SFC practices and SFC. The second section presents a review of the concept of generation Z. The third section critically examines the concept of value in SFC. The fourth section reviews the literature on the concept of technology and Electronic Word-of-Mouth (eWoM).

Following the example of Bartolini et al. (2019) and Zhang et al. (2019), this review was conducted by analysing peer-reviewed journal articles from two main databases, namely the Web of Science (WoS) by Clarivate Analytics and Scopus, produced by Elsevier. It was essential to consider more than one database, irrespective of a single database's scope of influence and coverage, because it broadens the scope of the study and offers greater reliability. The two databases were considered because they are "the two world-leading and competing databases" (Zhu & Liu, 2020, p. 1). Web of Science is considered the world's most trusted database, an independent global citation database (Analytics, 2017). At the same time, Scopus is claimed to be the largest database of peer-reviewed literature, with books, scientific journals, and conference proceedings as additional resources. Scopus provides an in-depth and comprehensive overview of the world's scientific research output, covering fields such as science, technology, medicine, social sciences, and the arts and humanities (Elsevier, 2021). Both databases are multidisciplinary. Occasionally, some information was retrieved from the websites of the Food and Agriculture Organisation (FAO) of the United Nations (UN), the World

Health Organisation (WHO), Statista and Google scholar. The websites of the FAO, WHO and Statista became useful when recent trends and data were sought.

In a broad sense, concepts can be considered fundamental components of thought (Margolis & Laurence, 2014). These are critically important to carry out thinking functions such as categorising, drawing inferences, remembering, learning, and making judgments. For this reason, concepts are crucial for advancing one's knowledge. A concept may have alternative meanings depending on factors such as context and discipline. They are world representations, but abstract objects and their status as world representations imply that they can distinguish one thing from another (Margolis & Laurence, 2014).

A concept is constituted of two characteristics: meaning and extension. The substance of a concept refers to how it pertains to a specific object, whereas its extension refers to the specific group of issues or items that the concept may be referring to (Mora, 1965 as cited in Salas-Zapata & Ortiz-Muñoz, 2019). As discrete units of meaning, concepts can be considered the building blocks of scientific knowledge and theories. Nevertheless, a concept's meaning is derived from how people use it or from the results of its application to explain the causal relationships between things that exist in the universe (Hjørland, 2009).

As a result, to fully understand a concept, it is necessary to identify its place and role within the broader philosophical frameworks to which it belongs. Therefore, it is necessary to find out how people use a term, the conditions under which it is defined (Hjørland, 2009), its role in theories (when theories exist), the objects it covers (Mora, 1965 as cited in Salas-Zapata & Ortiz-Muñoz, 2019), the system of statements used to explain the concept, the conceptual networks that are built, as well as the interpretations and conclusions that are produced as a result (Foucault, 1997 as cited in Masschelein & Ricken, 2003).

The concept of sustainability

The concept of sustainability dates back to the writings of ancient philosophers such as Plato (Du Pisani, 2006; Van Zon, 2002). According to Du Pisani (2006), although the term 'sustainability' and

'sustainable' only appeared in the English dictionary in the 20th century, their French, German and Dutch renditions have been used for several centuries. Throughout history, concern for the environment and the growing demand for raw materials have been an issue of concern. Some argue that the biblical statement of God that Adam should '*subdue the earth*' was a statement of stewardship and not reckless exploitation (Ahiamadu, 2007). Environmental sustainability has existed throughout the Egyptian, Mesopotamian, Greek, and Roman civilisations. These civilisations discussed concerns about soil fertility loss and degradation (Van Zon, 2002). First-century philosophers and writers such as Strabo, Columella and Pliny the Elder and 5th-century B.C. philosophers such as Plato were not only aware but also recommended sustainability practices to maintain what (Columella (1948) as cited in Du Pisani, 2006) referred to as the 'everlasting youth of the earth'. However, the concept of sustainability has only recently gained mainstream popularity (i.e., during the 1960s as part of the environmental movement and the 1980s as part of the political rhetoric) (Weisskircher et al., 2022). The word 'sustain' is derived from the Latin '*sustenere*', which means to hold up or keep aloft (James, 2018). To sustain in the context of resources and the environment would mean preserving or prolonging resources' productive use. This means, among other things, that physical and other factors should constrain productive resource utilisation.

Many governments, groups and individuals use the concept of sustainability in relation to resources and the environment. Their views on the term appear in government policy statements, international aid agency papers, professional literature, and popular media (Dixon & Fallon, 1989). Indeed, it has entered the development language, partly through the Brundtland Commission (Brundtland, 1985), which employed sustainable development as its central organising principle. The three sustainability pillars of Sustainable Development (SD): economic, ecology and social, and the fact that economic growth has always been a preferred pillar, being included in the 2015 Sustainable Development Goals (SDG) 8, as "sustained, inclusive and sustainable economic growth". Some studies, including Clark, Munn and Conway (1987), Turner (1988), Brown and Dunne (1988), and Pezzey (1989), provide information on the concept's history and contemporary application.

Sustainability is a term generally used to define an objective that, on the surface, appears to be unquestionably good. The concept's popularity stems from the common assumption that we do not want to take one stride forward to take two steps back. On closer view, however, it is discovered that the term is defined so broadly that it is accessible to wildly diverse interpretations, creating misunderstanding (Salas-Zapata & Ortiz-Muñoz, 2019). Sustainability definitions range from fairly strict and precise to more extensive and fuzzy. Even from the term's inception as a global concept, there was much confusion. Pezzey (1989) presents an informative list of definitions of sustainability from 27 different sources. In the classification, "sustainability" appeared as "a bridge-building phrase to bridge the gap between 'developers' and 'environmentalists'. Its enticing simplicity and seemingly obvious meaning have concealed its inherent ambiguity. According to O'Riordan (1999), developers and environmentalists use the concept to defend their planned actions. Developers attempt to capitalise on the ambiguities that give sustainability its staying strength. Similarly, environmentalists exploit sustainability by demanding safeguards and compensatory investments that are not necessarily economically or socially efficient.

According to Gorgitano and Sodano (2014), there are three distinct applications of the concept: (1) as a simple physical concept for a single resource; (2) as a physical concept for a set of resources or an ecosystem; and (3) as a social-physical-economic concept. Earlier definitions explained sustainability within a particular class of biologically renewable resources, such as fisheries and forests, to establish the physical limits to exploitation. The scope of this resource use is confined to specific renewable resources analysed separately; sustainability is utilising no more than the annual natural increase in the resource without depleting the physical store. This is akin to withdrawing interest from a savings account but leaving the principal untouched to generate interest in the future. The rationale underlying the concept Is quite simple. For example, In food consumption, we expect that what we consume does not exceed what we produce for the subsequent period considering the effects of population and other unexpected events such as the Russian-Ukraine war, Covid and other crises. In fisheries, for instance, if natural growth and reproduction outnumber natural death, there is

some annual increase in fish biomass available for harvest. A steady-state physical balance can be attained if the annual harvest equals the annual increase in biomass. The annual harvest quantity can alter over time due to changes in fish population or technology.

It Is Imperative to acknowledge that Individuals hailing from diverse backgrounds, disciplines, nationalities, and professions may perceive and examine sustainability through varying lenses, employing a plethora of distinct methodologies. The term sustainability is subject to varying interpretations among academics and researchers. The study by Aminpour et al. (2019) conclude that variations in the definition of sustainability can be attributed to researchers' epistemological beliefs, which in turn shape their choice of research methods and subsequently impact individuals' perspectives and comprehension.

The term sustainability Is often used to refer to a societal goal. Scholars, academics, and professionals frequently assert that a system is sustainable because it has specific goals (Costanza & Folke, 1997; Le Blanc, 2015; Sachs, 2012) and limits (Meadows et al., 1972). A common element in this scenario is how sustainability is defined in connection to environmental, social, and economic aims, goals, values, or objectives that particular human actions seek to achieve. From this point of view, sustainability is an idealisation of the interaction between nature and society within specific reference systems (Pálsson, 2003; Spash, 2017). In this sense, the reference and the intended goal show the meaning of sustainability. The ideas and activities associated with sustainability are directly tied to such aims, goals, or social expectations. Hence, in reference to food, sustainability may be defined as efforts towards ensuring lasting access to food.

This idea of sustainability is also applied to other renewable resources like fisheries (maximum sustainable yield) (Finley, 2019) and groundwater (maximum sustainable pumping rate) (Elshall et al., 2020). In all of these cases, sustainability is primarily a physical idea to manage a renewable resource stock by regulating the pace of harvest or product flow to allow the stock time to reproduce itself.. Thus, a further extension of the concept has emerged: sustainable development, in which the goal is not a sustained level of a physical stock or physical production from an ecosystem through

time but rather a sustained improvement in societal and individual welfare. Sustainable development was defined in the World Commission on Environment and Development (WCED)'s 1987 Brundtland report ´Our Common Future` as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". The concept of sustainable development encompasses certain limitations, albeit not definitive boundaries, which are dictated by the prevailing technological advancements and social framework in relation to environmental resources. Additionally, these constraints are influenced by the biosphere's capacity to assimilate the impacts of human activities.

The concept of sustainable food

Sustainable food is an emerging concept that has generated various definitions (Reisch et al., 2013). According to Gorgitano and Sodano's (2014) definition, sustainable food should "meet safety, political, and environmental requirements, such as safe, healthy, and nutrient-dense diets for all; viable livelihoods for farmers, processors, and retailers; animal welfare; environmental protection; biodiversity preservation; energy conservation; and minimum waste." Numerous scholars from the fields of ecology and economics have undertaken extensive inquiries into the intricate interplay between sustainability and food. These diligent researchers have not only formulated robust conceptual frameworks but have also undertaken empirical investigations to elucidate the environmental implications of food production. Moreover, they have meticulously scrutinised diverse dietary patterns through the lens of various sustainability metrics, thereby shedding light on the multifaceted dimensions of this critical issue. (Biasini et al., 2021; Curi-Quinto et al., 2022; Grossi et al., 2021).

The 2010 Scientific Symposium on Biodiversity and Sustainable Food was convened by the Food and Agriculture Organization (FAO) to recognise the need to encourage sustainable food consumption. This Symposium was held in preparation for the Rio+20 sustainable development conference. As a result, a consensus definition of Sustainable Food was developed: "Sustainable Foods are those diets with low environmental impacts that contribute to food and nutrition security

and healthy life for present and future generations." This definition is short of the multifacetedness of food. In essence, the concept of sustainable food entails the preservation of biodiversity and ecosystems while also adhering to cultural norms, ensuring accessibility, promoting economic equity, and maintaining affordability. Furthermore, sustainable food should be nutritionally sufficient, safe, and conducive to good health while optimising both natural and human resources. The UK Sustainable Development Commission provided another definition. They define sustainable food as "that which is safe, healthy, and nutritious for consumers in shops, restaurants, schools, hospitals, etc.; can meet the needs of the less well-off on a global scale; provides a viable livelihood for farmers, processors, and retailers whose employees enjoy a safe and hygienic working environment; and respects the environment" (Annunziata & Scarpato, 2014).

The Food and Agriculture Organisation (FAO) asserts that the minimal ecological impact of certain practices plays a pivotal role in fostering food and nutrition security, as well as promoting the well-being of current and future generations, thereby aligning with the principles of sustainability. Sustainable food encompasses the crucial objective of safeguarding and demonstrating reverence for biodiversity and ecosystems. Moreover, they must align with cultural norms, ensuring acceptability and accessibility for all individuals. In addition, sustainable food must exhibit economic equity and affordability while simultaneously meeting the nutritional requirements for optimal health and well-being. Furthermore, they must adhere to stringent safety standards, ensuring the absence of any potential harm, and effectively optimise both natural and human resources.

Whilst the definition of the UK Sustainable Development Commission's definition sounds appropriate, it is worth noting that there is no agreed-upon definition for sustainable food, and what sustainable food consumption entails remains unclear (Goggins, 2018). Sustainable foods have often been defined in relation to their effects on the environment, culture and economy. For instance, several studies have examined the environmental impacts and greenhouse gas emissions associated with various foods (Moult et al., 2018; Parker et al., 2018; Smith et al., 2019) or the nutritional impact and health outcomes of food (Afshin et al., 2019; Elizabeth et al., 2020; Springmann et al., 2018).

Other studies aim to define healthy, sustainable food by combining health and environmental considerations (Lindgren et al., 2018; Ruini et al., 2016). Recent research reveals that healthy diets do not always result in reduced environmental impacts. For example, healthy diets may not be sustainable if they contain excessive amounts of high-impact foods such as vegetables grown using high levels of artificial inputs, fruit and vegetables transported by air freight, or crops that contribute to deforestation or pollution (Derqui et al., 2018). This paradox highlights several key characteristics that determine the sustainability of food, including high environmental integrity (e.g., organic food), equitable contribution to local economies both domestically and internationally (e.g., fairly traded), and support for social inclusion and healthy communities (e.g., fresh local produce). Integrated solutions to food sustainability issues must transcend individualistic viewpoints to establish social infrastructures and systems of provision that support a change toward sustainable consumption throughout society, especially in hospitals, schools, and workplaces (Coote, 2021; Sahakian & Wilhite, 2014). It is therefore important to consider the validity and possible extension of the various concepts that define the consumption of sustainable food such as avoiding over consumption, avoiding fast foods, eating organic foods, reducing meat intake, eating healthy foods, eating seasonal foods, reducing plastic use in food package, eating local foods, choosing fair traded food products, eating own grown foods, reducing food waste, consumption of wholesome food for nutrition, buying from farmer's markets and insects' consumption.

Sustainable food consumption practices

Avoiding overconsumption

Negative consumption practices, namely compulsive consumption, addictive consumption, and hyperconsumption, are also observed within the realm of individuals' food consumption behaviours. Overconsumption, a frequently emphasised concern, refers to a condition wherein the intake of food surpasses an individual's physiological needs, often leading to adverse outcomes such as malnutrition, overweight, obesity, and various diseases such as diabetes (Williams, 2022, p. 1). Based

on the latest report from the World Health Organisation (WHO, 2022), it is estimated that there exists a global prevalence of obesity among 650 million adults, 340 million teenagers, and 39 million children. The aforementioned trend continues to exhibit an upsurge. According to projections made by the World Health Organisation (WHO), it is anticipated that by the year 2025, a substantial number of individuals, both adults and children, estimated to be around 167 million, will experience various health conditions as a consequence of their overweight or obese status. Obesity is a prominent outcome resulting from excessive consumption and eating unhealthy food. Obesity exerts a pervasive influence on a multitude of physiological systems within the human body. The aforementioned condition exerts its influence on various physiological systems, namely the reproductive system, joints, liver, kidneys, and heart. A multitude of Noncommunicable Diseases (NCDs), such as type 2 diabetes, cardiovascular disease, hypertension, stroke, various forms of cancer, and mental health disorders, can be attributed to this factor. Moreover, it has been observed that individuals with obesity exhibit a threefold increased likelihood of requiring hospitalisation due to COVID-19, as reported by the World Health Organisation in 2022 (WHO, 2022).

Some studies argue that another effect of overconsumption is economic loss. An estimated $2 trillion (or 2.8% of the global Gross Domestic Product (GDP)) is lost annually to the world economy as a result of illness and death brought on by excessive consumption and obesity. In the UK, for instance, diet-related chronic disease costs the National Health Service (NHS) £6.1 billion annually and costs the economy more than £54.8 billion (3% of GDP) (Balan et al., 2022; Forouzanfar et al., 2016).

Paradoxically, Hoffman et al. (2019), in their paper "Hungry bellies have no ears. How and why hunger inhibits sustainable consumption", argue that hunger rather than the desire for more food leads to unsustainable food consumption practices. Hoffman et al. (2019) posit that food deprivation is known to alter perceptions of qualities (e.g., taste) and preferences (e.g., liking) of food items (Bauer & Reisch, 2019; Espel-Huynh et al., 2018; Pool et al., 2016). Hunger also promotes intuitive

consumption (Bacon & Aphramor, 2011; Tylka, 2006) and dependence on physiological demands (Hoefling & Strack, 2010; Manippa et al., 2023) while decreasing self-control (Otterbring et al., 2023) Hoffman et al. (2019) proposed that hunger modifies implicit food associations, such that the hungrier people are, the less they care about the sustainability associated with such items. Given that food scarcity is associated with essential human values, Hoffman and colleagues hypothesise that hunger influences automatically activated associations regarding food sustainability. When consumers are satisfied, they implicitly respect the sustainable elements of food consumption, so that the product causes no harm to the individual, others, or the environment.

Eating organic foods

Most studies on eco-friendly food selections mainly focused on organic food products (Annunziata & Scarpato, 2014; Azzurra et al., 2019). Remarkably, the European Union has embarked on a robust organic food system with labels on products to distinguish them from others. European policymakers mainly promote organic agriculture and food consumption to improve food system's sustainability (Aschemann-Witzel & Zielke, 2017; Rojík et al., 2022). The new EU Regulation on organic production recognises that

> "*organic production is an overall system of farm management and food production that combines best environmental and climate action practices, a high level of biodiversity, the preservation of natural resources, and the application of high animal welfare standards and high production standards in line with a growing number of consumers' demand for products produced using natural substances and processes. Thus, organic production serves a dual role in society: on the one hand, it responds to consumer demand for organic products, and on the other, it produces publicly available goods that contribute to environmental preservation, animal welfare, and rural development*" (Regulation (EU) No. 2018/848) (IFOAM, 2019, p. 848; H. Schmidt, 2019).

The European Union (EU) agricultural production system comprises specialised techniques, including cultural, biological, and mechanical processes of production, processing, storage, distribution, and marketing, as well as environmental protection (IFOAM, 2019). According to Reganold and Wachter (2016), crop rotation and diversification, soil development through applying natural fertilisers (animals and plants), and pest management without synthetic pesticides are essential to organic agriculture. Thus, organic agriculture can be defined as a productive system that aspires to sustain the health of soils, ecosystems, and people through coexistence with the natural system while avoiding pollution and environmental damage; permaculture is desirable from a practical standpoint (Feil et al., 2020). Compared to conventional food production, organic produce reduces the environmental impact of business processes and goods, which contributes to sustainability in food production (Nirushan, 2017). Prior research described the organic food system from a production standpoint (Niggli, 2015). However, the consolidation of an organic food system is contingent on people adopting these food products into their diets (Feil et al., 2020). Comparing the increase of organic food consumption and production through time reveals evidence of the relationship between the evolution of consumption and production over time.

However, the sustainability of organic foods is still controversial in the scientific literature, particularly regarding the environmental superiority of organic agriculture compared to well-managed conventional agriculture. Indeed, the distinctions between organic and conventional foods depend on several unique parameters (production techniques, cost of production, food type, and environmental indicators) and must be analysed case by case (Clark & Tilman, 2017; Kushwah et al., 2019). In addition, the distance between the location of production and consumption is relevant to the study of environmental impacts (Pedersen et al., 2018). Nevertheless, numerous research on organic agriculture indicate that organic practices are less detrimental to the environment, promote social well-being, and result in economic resilience (e.g., Apaolaza et al., 2018; Ismael & Ploeger, 2020; Pedersen et al., 2018). Notably, numerous studies indicate the advantages of organic farming in terms of economic and social sustainability (e.g., Scalvedi & Saba, 2018; Thøgersen, 2010) and highlight

the health advantages of organic food (e.g., Forman et al., 2012; Mie et al., 2017). Other research on the expansion of the organic food sector has addressed the diversification of consumers on the assumption that there are different factors underlying organic purchasing behaviour. These factors are strongly related to consumer involvement in organic products, confidence and motivation, sustainability concerns, sociodemographic and lifestyle variables (Liobikienė & Bernatonienė, 2017) and the role of experience (Aertsens et al., 2009). The future of organic produce is contingent on customers' motivations and actions to become "organic consumers," as well as their impression of organic food as distinct from conventional foods and more sustainable (Feil et al., 2020).

Reducing meat intake

Literature reveals a variety of motives for individuals to choose a vegan diet, including ethical considerations, environmental concerns, religious views, cultural challenges, health-related factors, and even aversion to meat (Vestergren & Uysal, 2022). Recent research reveals that animal-related motives (89.7%), personal well-being and/or health motives (69.3%), and environment-related motives (46.9%) are the three most important drivers of vegan food selection, as opposed to a single motivation acting in isolation (He et al., 2020; Janssen et al., 2016). The presence of animal-related motivations within the veganism movement is not unexpected, as veganism is rooted in the ethical principle of promoting compassionate consumption. By refraining from consuming products that involve the use of animals in any stage of production, vegans strive to mitigate the suffering experienced by animals (He et al., 2020). Many embrace veganism for the purported health benefits. Several studies, including clinical research, have demonstrated the nutritional advantages of a plant-based diet (Williams & Patel, 2017). According to the Healthy Eating Index (HEI) -2010 and Mediterranean Diet Score (MDS), the vegan diet has the highest nutritional quality across various dietary plans (while the omnivorous diet has the lowest).

Veganism is enjoying a significant spike in popularity among the general population, having become more mainstream over the previous 15 years, with a more considerable percentage of people adhering

to plant-based diets than ever before (Heiss et al., 2017). Regarding environmental impact, the vegan diet offers a distinct benefit over the omnivorous diet, which leaves a substantially larger carbon, water, and ecological footprint on average (Judge & Wilson, 2015). Animal agriculture accounts for around 18% of global greenhouse gas emissions, more than the whole transportation industry. Approximately 77% of the world's agricultural area is currently devoted to animal production, contributing to biodiversity loss, soil degradation, air pollution, and water pollution (Poore & Nemecek, 2018). Considering Germany's complete food supply chain, animal-based foods account for 72% of the nutrition sector's greenhouse gas emissions, while plant-based foods account for only 28% (von Koerber et al., 2017). However, roughly a third of all ingested foods are animal-based. Moreover, the average water consumption of plant-based foods is significantly less than that of animal-based foods (litre/kg product), e.g. 15,415 for beef, 5,988 for pork, 5,060 for cheese, 3,265 for eggs, 1,827 for wheat, 822 for apples, 282 for potatoes, and 214 for tomatoes) (von Koerber et al., 2017). Plant-based diets require far less land than animal-based foods since the conversion of plant products into animal products is frequently inefficient. The preference for plant-based foods allows for a less intense (and thus more ecological) production. The adoption of a plant-based diet, specifically a vegan diet, which prioritises the consumption of fruits, vegetables, legumes, and cereals, aligns with global recommendations and dietary standards. This dietary shift is advocated to enhance environmental sustainability (Green et al., 2010; Niederle & Schubert, 2020).

Eating seasonal foods

Wallnoefer et al. (2021) identified two main streams of definitions of seasonal foods, global and local definition. In the global definition, seasonal foods are those that are cultivated or produced during the natural growing season of the country in which they are grown (Brooks et al., 2011). This definition applies to both domestic and international seasonal foods. In contrast, the local definition relates local production to local consumption, defining seasonal foods as those produced and consumed in the same climatic zone without high energy use for climate modification, such as cold storage, heated

greenhouses (Foster et al., 2014) and transportation (Smith & MacKinnon, 2009). The consumer-oriented local definition of seasonal food considers the energy used for climate modification and incorporates a perspective that is more likely to provide environmental benefits. The environmental advantages of consuming seasonal foods have been widely acknowledged. However, it is important to consider the findings of Brooks et al. (2011), who highlight that the substandard manufacturing practices associated with seasonal products can potentially lead to more substantial environmental consequences compared to nonseasonal production methods.

Spence (2021) conducted a review which focused on the variables that contribute to seasonal variations in food consumption. It was found that while it is true that nutritional needs vary somewhat throughout the year, other factors such as environmental (for example, consider changes in temperature and/or humidity), physiological/perceptual (for example, threshold changes), and psychological (for example, the desire to start the New Year off healthy) also come into play. When considered collectively, it would seem that cultural/ritual factors and the impact of increasingly sophisticated data-driven marketing may be more significant than nutritional, environmental, or physiological factors in explaining why many consumers choose to eat different foods at different times of the year, despite the growing availability of foods on a year-round basis in the increasingly globalised food marketplace in many developing countries.

Eating local foods

Admittedly, the stream of research on local food consumption has presented us with very varied opinions about what the term 'local' really means. According to experts, consumers' perceptions of local food production vary widely. For instance, "local" production refers to a national definition in the United States. In contrast, McEachern et al. (2010) suggest that the most acceptable definition of local is within a 50-mile radius of where the items are grown and marketed. In Canada, local food is defined as food produced and sold within a region or adjacent region (Charlebois et al., 2022). Local

food in Indonesia is defined as food produced and sold within a region ranging from a regency to a province (Sidiq et al., 2022).

That notwithstanding, a consensus appears to have been reached regarding the underlying factors that drive consumers to opt for locally sourced-food products. Consumer ethnocentrism is widely regarded as the primary determinant influencing consumers' preference for local foods. Consumer ethnocentrism refers to the tendency of consumers to choose locally-produced food over imported one. Alshammari and Williams (2018) also considered consumer ethnocentrism a significant factor influencing consumer behaviour. This aspect significantly affects customers' negative evaluations of food not produced in their locality. There have been attempts to understand the effect of consumer ethnocentrism and how it influences the buyer's attitude and purpose in purchasing foreign items. In contradiction, consumer ethnocentrism greatly impacts their views but has little effect on the desire to purchase foreign items. Significantly moderating the association between consumer ethnocentrism and purchase intention is cultural similarity. This shows that cultural resemblance is essential for ethnocentric customers in evaluating foreign products (Alshammari & Williams, 2018). Indeed, country of origin or perhaps community of origin is an influencing factor when consumers make food choices. This is also because food has a cultural representation.

Since the 1960s, public awareness of concerns relating to local food has been widespread. When local food is the focal point, consumers ask questions such as: Where does my food originate? What distance has it travelled? Who created it? Consumers understand that a closer relationship between production and consumption offers hope for advancing sustainability and social fairness (Čajić et al., 2022).

Choice of fair-trade food products

Fair prices contribute to the producers' means of subsistence and establish new jobs in rural areas. In the Fair-Trade system, both child labour and forced labour are prohibited. The scheme provides local farmers with education and promotes social projects. For instance, infrastructure is stimulated by the

construction of schools and hospitals. In addition, Fair Trade provides workers with social insurance and supports the formation of labour unions. Typically, fair trade includes environmental standards such as reducing chemical usage in production, reforestation, and safe drinking water. Approximately two-thirds of fair trade items are certified organic, which minimises the environmental effect compared to traditional production (Berry & Romero, 2021). Enhanced health and safety procedures established per fair trade rules decrease exposure to potentially hazardous pesticides in low-income nations. The trade of Fair-Trade food and food items exhibits a positive correlation with the financial gains experienced by farmers and food producers situated in economically disadvantaged nations. The necessity for local farmers to have pricing that is both reasonable and consistent in order to adequately cover their expenses is evident. The enhancement of planning security is a direct result of the Fair-Trade system, which is facilitated by the presence of long-term guaranteed purchases and prepayments. The implementation of measures aimed at reducing intermediate commerce has been found to have a positive impact on financial outcomes for producers, leading to increased profitability (von Koerber et al., 2017). The necessity for farmers in high-income countries to receive prices that adequately compensate for their expenses is exemplified by the challenges faced due to the downward trend in milk prices observed in Europe. The global consolidation of agriculture, processing, and retailing into the control of large corporations poses a significant obstacle for Small and Medium-sized Enterprises (SMEs) (Goodman, 2004). These SMEs find it challenging to compete with the competitive pricing strategies employed by these conglomerates. (Goodman, 2004).

Moreover, higher incomes enable farmers to spend more on food and education, which can enhance their nutritional and health status. Education is required in high-income nations to explain the higher prices of fair-trade products and to foster a greater sense of responsibility. For instance, the price difference between regular and fair-trade coffee is minimal (Wilson, 2010).

Due to the rise in socially-conscious consumers, the food sector has begun to pay more attention to the burgeoning trend of fair-trade food production.

Eating own-grown foods

Growing food for one's self and one's family is a huge global activity, but it has not received enough scholarly attention, especially in wealthy nations. One instructive study in the area was by Church et al. (2015) which examined three areas of particular concern using data from the European Quality of Life Survey (EQLS), including the prevalence of home gardening and how it has changed over time, the contexts of the individual and household where growth occurs, and whether those who do so are happier than those who do not. The findings indicated a significant rise in European home food production between 2003 and 2007. This growth is primarily linked to poorer households and, presumably, financially hard times. But in the United Kingdom, elderly middle-class households are mostly linked to the rise in home gardening. Whether by chance or not, individuals who grew their own food were happier than those who did not. This was the case throughout Europe. The article concluded that gentrification assertions about homegrown food may be premature. Despite evidence to the contrary from the UK, the main driving force in Europe seems to be economic: to minimise family expenses while assuring a supply of fresh food.

The advantages of own-food production for health and well-being can be divided into three groups: (a) advantages related to the activity of food production; (b) advantages related to the product of the activity; and (c) externality advantages that are not directly related to either the activity or the product. Growing food requires physical activity, which enhances the health of most individuals, especially the elderly (Wakefield et al., 2007). Food growing on allotments has been shown to help older or vulnerable people maintain their independence (Church et al., 2015). These benefits include identity affirmation, self-fulfilment, mutual support, food safety, better tasting and higher-quality food (Kortright & Wakefield, 2011).

According to the United Nations, more than half of the world's population lives in urban regions, and it is anticipated that by 2050, more than two-thirds of the global population will reside in urban areas (Madaleno, 2000). Urban agriculture has the potential to contribute to the strategic organisation and administration of a sustainable urban food system, thereby yielding positive outcomes for local

economies, the environment, social equity, and the preservation of cultural heritage (Nugent, 2000). According to Tornaghi (2014, p. 551), "urban agriculture is a broad term which describes food cultivation and animal husbandry on urban and peri-urban land". Environmental threats resulting from food production (Sala et al., 2017) push towns to implement sustainable methods. Effective urban agriculture depends on locally-based food planning, and its execution exposes how the relationships between urban and rural places can be managed to achieve the SDGs. The proximity of food production to consumers is essential for developing resilient, healthy, and environmentally sustainable food systems (Van Berkum et al., 2018). Globally, urban gardens are expanding. According to some studies, 25% to 30% of urban residents worldwide engage in agriculture (Orsini et al., 2013).

Reducing food waste

Aschemann-Witzel, Giménez and Ares (2019) emphasise the pivotal role of consumer motivation, management skills, and trade-offs in influencing patterns of food waste. These investigations underscore the intricate interplay of psychological and behavioral factors that contribute to the wasteful disposal of food items. Additionally, Aschemann-Witzel, et al.'s (2019) findings suggest a correlation between affluence levels and an increase in avoidable food waste, highlighting the socio-economic dimensions that further complicate the issue. The incentive to avoid waste is relatively high in Germany, for instance (Eurobarometer, 2014), due in part to public education on the subject (Schanes et al., 2018; Secondi et al., 2015).

In recent years, achieving the Sustainable Development Goals (SDGs) and the 1.5C goal of the Paris Agreement has dominated research and policymaking. In this context, reducing or eliminating food waste, i.e. raw or cooked food materials discarded before, during, or after food preparation (Hatab et al., 2022), has received considerable attention as an effective means of achieving these sustainability goals in both developed and developing nations. The premise is that food waste exacerbates unsustainability issues posed by natural-resource degradation, climatic and environmental changes,

population increase and accompanying demographic changes that contemporary food systems face and that will accelerate over the next few decades (Lemaire & Limbourg, 2019). Particularly in developing nations, and notably in Sub-Saharan African (SSA) countries, food security and environmental change are intertwined with food waste's relationship to sustainability (Shukla et al., 2019).

According to a study by the World Wildlife Fund (WWF) and Tesco (WWF_UK, 2021), 2.5 billion tonnes of food are wasted annually around the globe. That is 40% of all human food production. Every year, almost 5.8 trillion meals are wasted, whilst over 29% of the world's population, or 2.3 billion people, are moderately or severely food insecure. Unfortunately, everyone routinely or unintentionally wastes food (Benyamina et al., 2018). The diversity of options and the limited rationality of humans in decision-making (Callaway et al., 2022) have profound effects on food-wasting habits, awareness education or campaigns, and food donations (Mondéjar-Jiménez et al., 2016). Research findings indicate that the multifaceted dimensions encompassing environmental, technical, social, economic, and political factors have been observed to exert a substantial influence on the generation of food waste in the context of daily activities. (Pearson et al., 2013). Von Kameke and Fischer (2018) define food waste in accordance with German law and European regulations on food law (The European Parliament and the Council of the European Union: Directive 2008/98/EC; The European Parliament and the Council of the European Union: Regulation No 178/2002), and the proposals for a framework to define food waste from the EU-funded project Food Use for Social Innovation by Optimising Waste Prevention Strategies. Thus, the term 'food waste' refers to "all consumable ingredients and products that have been discarded. Not utilised for human consumption", although this definition is subject to many criticisms, such as the exclusion of pre-harvest losses (e.g., Schneider, 2013). In accordance with the European waste hierarchy (Directive 2008/98/EC), this suggests that the emphasis should be placed on preventing food waste rather than treating it efficiently. Therefore, as recommended by other studies, food diverted to material uses or energy recovery will be considered waste if it was intended for human consumption. The majority of food

waste created in private households is avoidable or at least somewhat avoidable (Kranert et al., 2012). Consumer behaviour towards food waste has been a persistent global issue for many years (Billore et al., 2021).

Wholesome nutrition

Wholesome nutrition is a concept of sustainable nutrition created in the 1980s at the Institute of Nutritional Sciences of the University of Giessen (von Koerber et al., 2017). A wholesome diet consists primarily of plants. Vegetables and fruits, whole grains, potatoes, legumes, and dairy products are the primary food groups. Indigenous cold-pressed plant oils, nuts, oleaginous seeds, and fruits are also essential but should be eaten in moderation. Small amounts of meat, fish, and eggs can be ingested if desired. This notion encompasses four essential facets: ecological, economic, social, and health-related (von Koerber et al., 2017). Since the 1980s, health has been incorporated as the fourth dimension of sustainable development, as nutrition, among other factors, has an extensive influence on human health.

Sustainable nutrition considers all phases of the food supply chain (von Koerber & Hohler, 2013), including input production, agricultural production, food processing, distribution, meal preparation, and waste management. Humanity is currently confronted with tremendous global challenges in nutrition, which are significantly impacted by dietary practices. Examples include energy supply and the long-term increase in energy prices, climate change, poverty and world hunger, water shortages, soil degradation, biodiversity loss, challenges associated with animal breeding and feeding, and economic and financial crises (Koerber, 2015).

According to Koerber (2017), the concept of wholesome or sustainable nutrition is an umbrella term that looked at the quality aspect of all the sustainable food consumption practices over the past forty years. Wholesome nutrition can therefore be summed up in the following seven principles: A preference for plant-based foods, regional and seasonal products, organic foods, minimally processed foods, fair trade products, resource-conserving housekeeping, and enjoyable eating habits.

Buying from Farmers' Market (FM)

A stream of research has focused on consumer behaviour in buying from the farmers directly (e.g.,Bavorova et al., 2016; Garner, 2015; Hrubá & Sadílek, 2022). Farmers' Markets (FMs) refer to markets in which producers sell agricultural products directly to customers via a unified marketing channel (Ragland & Tropp, 2009).

The research stream often focuses on the behavioural characteristics of consumers who prefer to buy directly from the farm in terms of what motivates them. At two FMs in Germany, Bavorova, Unay-Gailhard, and Lehberger (2016) studied the factors influencing consumer behaviour. They discovered that various factors significantly impact consumers' purchasing decisions at the two direct marketing outlets (farms). At both farms, customers were more appreciative of the foods' freshness and intended to support local farmers. The likelihood that consumers will frequent farmers' markets positively correlated with their intention to support local producers. Additionally, consumers' perceptions of the cost of the products, trust in food producers, perceptions of the safety of the food, and perceptions of the accessibility of farm shops all significantly impacted how frequently they purchased from farms or farm shops.

FMs are believed to have a growing ability to re-specialise and re-socialise food (Hallett, 2012) by bringing consumers closer to their food source and interacting with a vendor directly involved in the manufacturing process. Moreover, it is important to note that FMs represent not only a potential for the valorisation of rural areas (e.g., by preserving rural communities and employment in remote areas) (Murdoch, 2000) but also a source of new opportunities for peri-urban agriculture, which is threatened by urban sprawl in many countries (Jaeger et al., 2010; Lityński, 2021). FMs contribute to societal sustainability (Brundtland, 1987) in multiple ways. FMs actively contribute to reconnecting people with common values and interests surrounding food (O'Kane & Wijaya, 2015), such as preserving typical goods and local knowledge, practices, and traditions, by facilitating direct communication between the actors.

A significant attribute of FMs is their capability to foster interaction between farmers and consumers, allowing consumers to rediscover the value of food. If correctly delivered, this embedded knowledge could induce buyers to ascribe a premium price to products offered at FMs (Marsden et al., 2000). Enhanced information, such as better traceability communicated to consumers, can also help to eliminate knowledge asymmetry and reestablish trust relationships along the supply chain (Meyer et al., 2012; Zagata & Lostak, 2012). Trust becomes crucial in generating new client loyalty, influencing future purchasing decisions and sustaining a steady consumer flow. Regarding environmental sustainability, FMs contribute by lowering the use of non-renewable fossil fuels (Coley et al., 2009; Pretty et al., 2005) or by safeguarding traditional plant types and animal breeds through the valorisation of typical traditional products. Therefore, environmental consciousness motivates customers to purchase their food from FMs, as it may instil in them a sense of co-responsibility toward sustainable agriculture management. Numerous authors (e.g., Darby et al., 2008; Feldmann & Hamm, 2015) have discovered that individuals are prepared to pay a premium for locally produced food. Consumers are greatly demanding more quality food. Food quality depends on the geographical distance (i.e., transportation distance between production and consumption, known as food miles) and the number of intermediaries between the producer and consumer (Parker, 2005). Hence there is a need to focus on the proximity of consumers to the farms where food is harvested.

Edible insects consumption

An extensive analysis of insect intake by humans worldwide was provided in '*Edible Insects: Future Prospects for Food and Feed Security*' issued by the Food and Agriculture Organization (FAO) of the United Nations in 2013, and it made a case for edible insects as a potential future food source. Since the publication of this ground-breaking study, media and consumer interest in edible insects has grown. Climate change, starvation, food insecurity, and environmental degradation brought on by agro-industrial production are just a few of the urgent environmental and human health problems that the introduction of edible insects can address. This is because insects are high in protein, have a

low carbon footprint and are easy to cultivate (Wade & Hoelle, 2020). Valued at approximately 954.44 million USD in 2022, the edible insect market value is predicted to reach 1.18 billion USD in 2023 (Statista, 2022).

According to Hwang and Kim (2021b), academics and industry experts have developed various mitigation techniques to mitigate the livestock sector's environmental impact. A new strategy is required to promote sustainability and food security simultaneously. Practitioners have proposed replacing cattle with eco-friendly, nutrient-dense alternatives such as plant-based goods (Hwang & Kim, 2021b). Among these alternatives, edible insects stand out due to their high nutritional value and lower environmental impact than typical beef, hog, and poultry production (Caparros Megido et al., 2016; Han et al., 2017). Consequently, understanding the motivating elements underlying behavioural intentions toward an edible insect restaurant is necessary for its increased market penetration. This ultimately contributes to a rise in consumers' sustainable consumption practices.

Insects have been consumed as food for ages (Raheem et al., 2019). Even though eating insects is frowned upon in many parts of the world, over 2,000 species of insects are edible and have been ingested by many ethnic groups (Ghosh et al., 2017). It has been established that edible insects have a higher nutritional content and provides more cost-effective options. However, a green factor is the most important consideration when incorporating edible insects into humans' regular diet. In light of the numerous advantages of edible insects and the necessity mentioned above for environmentally friendly food sources in modern times, many restaurants include edible insects as part of their product innovations and greenness (Hwang & Kim, 2021b). The extant body of literature encompasses investigations that explore the utilisation of edible insects as a novel alimentary resource, the level of receptivity exhibited by consumers towards this practice, and the various obstacles encountered in the process of insect consumption (Caparros Megido et al., 2016; Liu et al., 2020).

The concept of sustainable consumption

Sustainable consumption generally consists of a number of behaviours and deeds designed to increase the consumer products' life cycle's compatibility with the environment, reduced non-renewable

consumption use, and long-term preservation of those resources (Calisti et al., 2019). It has also been described as geared towards goals such as reducing waste and pollution, reducing the length of the product distribution chain, and educating consumers about good purchasing habits (Ji et al., 2014). For the consumer, all of this necessitates a rethinking of consumption practices, including increasing the share of fresh and seasonal products, seeking out local products rather than exotic ones, improving nutrition and gastronomic knowledge, changing established dietary schemes, and generally having greater environmental awareness of purchasing decisions (do Paco et al., 2019; Park & Lin, 2020; Simeone & Scarpato, 2020).

According to Evans (2011), the objective of sustainable consumption is to lower the resource intensity of production-consumption systems, i.e., to consume fewer resources. It dates back to the 1992 Rio Earth Summit, where environmental implications of industrialised nations' consumption patterns were highlighted. This was quickly followed by declaring "changing unsustainable patterns of consumption and production" as a strategic objective at the 2002 World Summit on Sustainable Development in Johannesburg (Evans, 2011). "Sustainable Consumption and Production (SCP)" was identified as one of its three overall objectives, and a 10-year framework of programmes (10YFP) for achieving SCP objectives was devised. The SCP implementation plan separated explicitly between sustainable production and sustainable consumption, with the latter being more related to the obligations of consuming subjects, subdivided into "consumer attitude," "consumer behaviour," and "consumer choice"(Choudhary et al., 2019; Evans et al., 2017).

The concept of sustainable food consumption

The Sustainable Development Goals specifically, goal 12, also seek to promote sustainable consumption practices within food systems. Organic and local food, for instance, fall under this category because they use fewer resources during the production phase, e.g., no artificial consumption or pesticide input in organic production systems and fewer food miles in local food consumption. They are also more nutritious and healthier (Cena & Calder, 2020). The focus of sustainable food consumption extends beyond production types to include food waste reduction (Morone et al., 2019).

Another perspective of SFC is Environmentally Sustainable Food Consumption (ESFC) (Wojciechowska-Solis et al., 2022). ESFC is the use of food products "that respond to basic needs and bring a better quality of life while minimising the use of natural resources, toxic materials, and emissions of waste and pollutants over the product's life cycle so as not to jeopardise the needs of future generations" (Wojciechowska-Solis et al., 2022). This definition was derived from the Brundtland commission's definition of sustainable development. That notwithstanding, Wojciechowska-Solis et al.'s (2022) definition is limited to only one aspect of the broad spectrum of sustainability. Sustainable food consumption is linked to the expansion of responsible and ethical consumption. Another perspective of SFC is ethical consumption which is the activity of purchasing goods based on moral and personal convictions and societal considerations (Carrington et al., 2016; Denisova, 2021). Thus, customers can influence the demand for food from a given area of origin, manufactured using a specific production method or supplied by producers who voluntarily consider sustainable development requirements, i.e., geographical indications, local brands, or organic farming standards. This brings in a social and intrinsic perspective, another aspect of SFC.

However, Hosta and Zabkar (2016), in their paper, make a number of recommendations for how to conduct more comprehensive research on ethical and sustainable consumer behaviour, including broadening the range of the studied issues (from environmental to social) and recognising that not all consumers make decisions solely out of self-interest. Chen (2020) defines SFC as the purchase of organic food (OF), local foods, seasonal foods, fresh/raw or unprocessed foods; the consumption of less meat; vegetarianism; the consumption of vegan foods; and the purchase of products with minimal or no packaging. Hosta and Zabkar (2016) addressed the various dimensions of ethics and sustainability of consumer behaviour, distinguished between the two, and looked at several ethical consuming techniques. Their conclusion suggests that ethical consumption is not enough to accommodate the many aspects of SFC. It is clear that the definitions of SFC have been provided based on the practice in view, namely; avoiding over consumption, avoiding fast foods, eating organic foods, reducing meat intake, eating healthy foods, eating seasonal foods, reducing plastic use in food

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package, eating local foods, choosing fair traded food products, eating own grown foods, reducing food waste, choosing wholesome nutrition, buying from farmer's markets or insects consumption.

The concept of Generation Z

Generational cohorts

Generational cohorts are individuals born within a given time frame and location who encountered identical life-altering events during their adolescence, i.e., between the ages of 17 and 23 (Curtis et al., 2019). Cohorts and generations are distinct entities, as the former pertains to groups of individuals who share common experiences and characteristics, while the latter is primarily delineated by temporal boundaries, typically spanning a duration of 20 to 25 years (Singh & Singh, 2016). Even though experts largely agree on the existence of generational cohorts and give in-depth analyses of cohort features (Dimock, 2019; Ting et al., 2018; Weeks & Schaffert, 2019), there is a substantial dispute over the period and name of each generational cohort, particularly after the Baby Boomer generation (McCrindle & Wolfinger, 2009; Wey Smola & Sutton, 2002).

Chaney, Touzani, and Ben Slimane (2017) note that generational cohorts are currently utilised in consumer marketing and are seen as a novel kind of market segmentation because cohorts possess unique marketing effects over their lifetime. Additionally, Eastman and Liu (2012) posit that the use of generational cohorts as a segmentation variable is more effective than gender, income, and education. Likewise, Schewe and Meredith (2004) assert that generational cohorts are advantageous for designing communication campaigns. Overall, generational cohort marketing has been acknowledged as a highly effective strategy due to the consistent behaviour of cohorts (Dietz, 2003) and is well supported by the work of many other scholars (e.g., Agrawal, 2022; Eastman et al., 2013; Legg et al., 2022; Ting et al., 2018). Academics conclude that each generational cohort differs in terms of behaviour. For instance, Kupperschmidt (2000) identified common behavioural tendencies among members of the same cohort. While the generational cohort theory was initially employed in only four nations, namely the United States, Canada, England, and Australia, it has been rapidly

embraced in other nations as well (Kamenidou et al., 2018; Oppermann, 1995), mostly due to its significance in consumer marketing. As noted earlier, despite the mixed perceptions of the generalisation of generational cohorts, generation Z seems to have a universal event that characterises them globally (i.e., the internet).

Generation Z

According to Wood (2013), generation Z (Gen Z) refers to those individuals born between the mid-1990s and mid-2000s. Specifically, most studies place the age range for Gen Z between 1995 and 2012 (Barhate & Dirani, 2021). Approximately one-quarter of all people on the planet are in the Gen Z age bracket. Data indicates that Gen Z is the largest cohort alive, with 2 billion members worldwide. Data from the United States shows that Gen Z is the most ethnically diverse cohort (Vuleta, 2023).

Members of Generation Z are also known as Post-Millennials (Dimock, 2019), Generation Next (Taylor, 2005), and Centennials (Sharma, 2019), and they are primarily the children of Gen X and the younger siblings of Millennials (Wood, 2013). Also, Gen Z is the first generation to have spent the majority of their life watching on-demand television entertainment. According to Vitelar (2019), the influence of media incentives and usage is determined by one's generation rather than one's chronological age.

Characteristics of Generation Z

Generation Z is defined by four primary characteristics: a concentration on innovations, an obsession for convenience, an underlying yearning for security, and a propensity for escapism.

The GlobalWebIndex survey indicates that 98% of Generation Z globally own smartphones. Data on social trends and technology for Generation Z in North America shows that 96% of this age group owns a phone. While 99% of Gen Z in the Middle East and Africa own smartphones, just 52% of Gen Zs think that the smartphone is the most significant device for them to access the internet (GWI, 2023).

Although Gen Z's interests are many, one of their odder traits is that they immensely like reviewing products. This makes them feel secure. 43% of Gen Z are willing to participate in a product evaluation, and another 42% are eager to play an online game as part of a campaign. This indicates that they are more motivated than any other generation to express their viewpoints and create compelling conversions around brand ties (Vuleta, 2023).

According to Schlossberg (2016), generation Z is even more frugal than millennials, but differently. Compared to millennials (Codini et al., 2018), Gen Zs have higher aspirations (Bonera et al., 2020). Retailers typically focus on generation Z rather than millennials because they are a "barometer" for consumer trends. According to Priporas, Stylos, and Fotiadis (2017), Generation Z will provide the most significant challenge to marketing as a result of the fact that individuals of this generation behave differently than customers and place a greater emphasis on innovation. According to Ozkan and Solmaz (2015), generation Z is more contemporary; understanding what they want and utilising cell phones is the most significant element of their lives.

According to a 2014 poll, Generation Z members describe themselves as being tough, kind, open-minded, tech-savvy, and responsible (Iorgulescu, 2016). They have more access to information and are more rational in their decisions than any other generational cohort has ever been at their age (Koulopoulos & Keldsen, 2016). They are the students for whom our traditional educational system is ill-equipped to teach or deal with due to poor quality (Thangavel et al., 2021). They are also regarded as the most challenging consumer demographic to market to due to their propensity for conducting extensive research and engaging in comparison shopping before making a purchase choice. As a result, sellers and marketing experts may find it advantageous to investigate the buying preferences of this generational cohort. And because this generation is suspicious of popular companies and their value propositions, gaining their allegiance is difficult, particularly for established businesses (Gutfreund, 2016). This scepticism makes Gen Z doubt companies that claim that they are green. For instance, Organic food producers.

Gen Zs have experienced unique stimuli during their childhood or early adulthood, such as uncertain economic times with the Global Financial Crisis of 2008, followed by economic and social renewal, periods of terrorism and climate change, growing diversity, the spread of globally recognised brands, the acceleration of communication in social media, mobile and smart technologies (Hidvégi & Kelemen-Erdos, 2016).

Generation Z is also known as Generation C (connected, communicative, content-centric, computerised, community-oriented, clicking) (Kirchmayer & Fratričová, 2020), 'Crystal Children,' 'Internet Generation,' and 'Next Generation' in terms of information technology. The generation is made up of customers who, compared to their predecessors, are the most technologically educated, mobile, and internet-connected people of all ages (Gao et al., 2022; Kurnaz & Duman, 2021). In contrast to previous generations, those born during this time witnessed a new industrial revolution known as Industry 4.0. Consumer needs changed dramatically due to digitalisation in manufacturing processes and services. Thanks to breakthrough technology, it became possible to adapt to these changes more quickly and efficiently, allowing services or goods to become customised. The inclination of consumers to acquire knowledge and experiment with novel experiences, coupled with the influential reach of social media platforms, has emerged as a pivotal determinant in shaping consumer choices (Kurnaz & Duman, 2021). Members of Generation Z, who are also part of the Industry 4.0 and 5.0 eras, are socially and technologically informed individuals who are particularly interested in creative and long-term change. They are more likely to obtain more knowledge than previous generations since they prefer textual communication over oral communication (Andoni et al., 2019; White, 2017). They are proficient users of technological tools such as the internet, smartphones, and social media since they were exposed to them at an early age. They have had easy access to whatever information they requested on the internet since they were little. Based on extant research, it has been observed that individuals belonging to Generation Z exhibit a notable dependence on social networking platforms as a means of establishing connections. Additionally, this cohort demonstrates a substantial susceptibility to the impact of celebrities, who prioritise the

attainment of peer validation (Childers & Boatwright, 2021). New technologies have the potential to improve not just individual and group connectedness and communication, but also the popularity of electronic word-of-mouth communication (e-WOM) (Kaufmann & Panni, 2017).

The members of Generation Z have shown remarkable adaptability to the digital and online world. They spend much of their time in a liminal space where their online and offline lives combine, allowing them to try new ways of being themselves, relating to others, and communicating. In the digital realm, members of Generation Z are treated like adults by marketers because they are presumed to have the knowledge, skills, and resources necessary to make informed purchasing decisions. Since members of Generation Z are involved in determining the future of digital media, this generation is less likely to be negatively impacted by it (Iorgulescu, 2016).

Members of Generation Z are referred to be "digital integrators" (McCrindle & Wolfinger, 2009) or "digital natives" (Sidorcuka & Chesnovicka, 2017; Smith, 2019) for being technically proficient, highly connected, and smoothly integrating technology into practically every aspect of their life. They prefer to watch a video describing a problem rather than read an essay on the subject because they are visually engaged (Hidvégi & Kelemen-Erdos, 2016). Although technology is deeply embedded in their lives and many of their social contacts take place online (Kirchmayer & Fratričová, 2020), they prefer honest in-person communication with managers (Hanaty, 2022). Generation Z are also more worried about privacy and safety than Generation Y and are drawn to more private social networks (Priporas et al., 2017; Wood, 2013). According to McCrindle and Wolfinger (2009), Generation Z is the world's most financially equipped, technologically saturated, internationally connected, and formally educated generation. They are also referred to as realists, materialists, and pragmatists (Pangestu & Karnadi, 2020; Sladek & Grabinger, 2014). They are projected to achieve higher levels of technical education than prior generations, with a preference for learner-adaptive, engagement-focused, and interactive learning environments (McCrindle & Wolfinger, 2009). Even though Generation Z members are frequently described as multitaskers in popular practitioner literature, recent research shows that, when compared to Generation Y, they are less likely to agree

that multitasking is a good thing and less likely to want to work in a fast-paced environment (Kirchmayer & Fratričová, 2020).

As a result of technological breakthroughs, they are now the most internationally connected and mobile people on the planet (Thangavel et al., 2021). They are concerned about equality and demand variety (Loveland, 2017).

Consumer behaviour of generation Z and Sustainability

Young people are a fascinating customer category to research. Age or cohorts have been studied by a variety of scholars from the start of ecological and green marketing (e.g., Anderson Jr & Cunningham, 1972; Ansar, 2013; Awad, 2011; Boztepe, 2012; Govender & Govender, 2016; Gupta & Abbas, 2013; Singhal & Malik, 2018; Straughan & Roberts, 1999). Most research demonstrates that younger people are more environmentally conscious than older people. Persons who grew up during a time when environmental concerns were a major cause of worry on some level are more likely to be sensitive to ecological issues now than people who did not.

The literature on the relationship between cohorts and green attitudes and behaviours is mixed. Some studies have found no significant association between generational cohorts and environmental sensitivity or behaviour (Kinnear et al., 1974; Roberts & Bacon, 1997). However, other studies have found that age is negatively associated with environmental sensitivity and behaviour (Tognacci et al., 1972; Van Liere & Dunlap, 1981). Some studies have also found a positive correlation between age and environmental sensitivity or behaviour (Buttel, 1979; Samdahl & Robertson, 1989). These positive associations could be attributed to factors such as the formation of conservation attitudes during the "depression era" (Samdahl & Robertson, 1989) or an increase in social and environmental awareness in older individuals (Roberts, 1996). Overall, more research is needed to fully understand the relationship between age and sustainable food consumption behaviours of Generation Z.

Sustainable food consumption of generation Z

A previous study has found that younger, better-educated people have a better understanding of sustainability issues (Barone et al., 2019) and that increasing educational attainment is consistently linked to sustainable food choices (Sánchez et al., 2021). Friends, family, and information resources such as documentary films, books, and university courses have been demonstrated to influence this group's sustainable food choices (Happonen, 2016). As a result, university students, primarily young adults, have shown that they are more ecologically concerned than other groups and are also prepared to change their eating habits (Fernández-Manzanal et al., 2007). Interestingly, one study in the United States found that university students believe that locally grown and sustainable foods are essential to superior diet quality, including increased fruit and vegetable consumption (Pelletier et al., 2013a). Furthermore, a small intervention research in the United States found that after taking a course on sustainable food and food production, university students consumed less high-fat dairy, high-fat meat, and confectionery foods (Hekler et al., 2010). Because most university students are young adults in the midst of a critical developmental period during which lifetime dietary patterns are formed, students who prioritise sustainable foods consumption may have better long-term health results (Pelletier et al., 2013a).

 A study by Torres (2020) found that university students who identified as 'dedicated consumers' of sustainable food placed a high value on all aspects of sustainability, including organic food status, whereas other students preferred just sustainable foods from local and small-family farm systems. While young adults have a growing desire and drive to act more sustainably, it is crucial to remember that university students' experiences vary, and the fundamental demographic and educational features of university students who value sustainable food choices are unknown. According to an Australian study, most undergraduate nutrition and dietetics students said that sustainable meals were essential to them (Burkhart et al., 2020). A survey of Italian university students found no variations in views toward sustainable meals based on the subject in which they were enrolled. Still, other factors like social status and income levels influenced their perceptions (Annunziata & Vecchio, 2013).

Moreover, young consumers are particularly attuned to social and environmental issues, including climate change. As agents of change, they possess the capacity to shape broader societal attitudes and behaviors. The interconnectedness of social networks and the influence of peer interactions make this demographic especially receptive to adopting and championing sustainable practices. Harnessing the collective power of young consumers in promoting environmentally conscious food consumption can have ripple effects, contributing to a broader cultural shift towards more sustainable and climate-friendly lifestyles (Stanes et al., 2015)

University Students' Behaviours towards Purchasing Sustainable Foods

A recent systematic review has identified a limited number of studies that have examined sustainable food behaviours and purchasing patterns among university student populations globally. The research revealed that the predominant practice adopted by this cohort to attain sustainable food consumption was the consumption of seasonal and locally sourced food items. The observed proportions of students who consumed sustainable meals exhibited variability across multiple studies (Sánchez et al., 2021).

According to a survey conducted of Gen Z university students, the high cost of food on campus and the expense of sustainability initiatives are the biggest barriers preventing students from purchasing sustainable food (Bertrand et al., 2021). However, one study has found that university students, most of whom are Gen Z with a positive attitude toward sustainable agriculture, were significantly more likely to purchase locally grown sustainable foods (Pelletier et al., 2013b). International research has revealed many more complex factors influencing sustainable food purchases, including that students report having little time to cook and prepare food and that junk foods are easier to obtain. Furthermore, it was found that even when students live overseas, they are influenced by their cultural backgrounds and they prefer to consume local foods (O'Sullivan & Amirabdollahian, 2016). Many universities in Australia and around the world are establishing sustainable purchasing rules and

procurement targets in food services to enhance health and reduce the negative environmental impact of food on campus, in line with a growing commitment to the UN SDGs.

Generation Z Attitude - Behaviour Gap

The prevailing discourse surrounding the attitudes of Generation Z people has portrayed them as exhibiting a proclivity towards sustainability (Dabija et al., 2019). Consumer research has demonstrated that perceptions and intentions do not necessarily convert into actual purchasing; similarly, consumption behaviours when it comes to choosing sustainable food. In contrast, some studies have found a correlation between positive attitudes and reported sustainable food purchase behaviours. Other researchers have found an attitude–behaviour gap in purchasing sustainable foods (Schäufele & Janssen, 2021; Vermeir & Verbeke, 2006; Yamoah & Acquaye, 2019). According to Nguyen et al. (2019), consumers' shift from intention to action has been demonstrated to be influenced by the availability of sustainable food options and the perceived effectiveness of individual activities.

Further studies regarding Gen Z college students indicate that numerous obstacles stop them from purchasing environmentally friendly products. In their study with respondents from various consumer groups in the Czech Republic, Cincera et al. (2014) discovered that a lack of trust in the notion of sustainable consumption and the personal history of consumers significantly impacted consumer decision-making. Specifically, only mothers and students from the pool of respondents voiced clear support for sustainable shopping behaviour. A previous study across universities in Europe, North America, and Australia identified the perceived higher cost of sustainable food, along with a lack of knowledge, time, and availability, as universal hurdles limiting students from adopting more sustainable eating habits (Brodie, 2020; Ede et al., 2011). Recent research in Italy (Alagarsamy et al., 2021) revealed that food accessibility and certifications are the most influential elements in college students' food selections. Deliens et al. (2014) found that individual variables, social networks, the physical environment, and the microenvironment influenced the eating habits of Belgian Gen Z university students. In addition, university factors such as residence, student societies, and university

lifestyles influenced their eating habits. In Belgium, De Groeve and Bleys (2017) investigated whether business students were willing to support implementing six Less Meat Initiatives (LMIs) at the student restaurant. They discovered that student support was very restricted, and that greater concern for the environment correlates with more incredible support for all LMIs.

In a study conducted in Malaysia, Ahamad and Ariffin (2018) found that Gen Z university students have a modest degree of sustainable consumption attitudes and behaviours but a high level of sustainable consumption knowledge. Similarly, a previous study among young adults in Belgium indicated that poorly perceived availability of sustainable items explained why purchase intent remained low despite positive opinions and knowledge (Vermeir & Verbeke, 2008a). Additionally, a study in Italy revealed that visibility and comprehension of sustainability-labelled items among young adults are currently relatively low (Annunziata et al., 2019). Furthermore, Vantamay (2018), applying the theory of planned behaviour (TPB) as a theoretical framework, evaluated the sustainable consumption behaviour of Thai undergraduate students. His findings suggested that attitudes, subjective norms, and perceived behavioural control may jointly influence sustainable consumer behaviour.

Some studies have sought to segment university students based on their SFC behaviour. A study conducted in Italy with 500 university students (Sanchez-Sabate & Sabaté, 2019) identified three distinct consumer types: the conscientious food consumer, the potentially sustainable food consumer, and the careless food consumer. The categorization of these segments was established through the examination of individuals' dispositions towards sustainable food practices, encompassing factors such as the preference for organic produce, adherence to animal-friendly approaches, support for fair-trade initiatives, prioritisation of locally sourced products, and recognition of the significance of worker rights. The conscientious food consumption and potentially sustainable food consumer segments exhibited a higher level of interest and awareness pertaining to food sustainability concerns in comparison to the second cluster, namely the inattentive food consumer group. Nevertheless, it is important to note that there exist disparities between these two segments, as the potentially sustainable

food consumer sector consistently exhibited lower Mean Factor Scores compared to the responsible food consumer segment across various instances.

On the other hand, the potentially sustainable food consumer cluster has found it challenging to locate and acquire sustainable food products. Despite their sensitivity to food sustainability issues, they did not engage in sustainable behaviour. They are rural individuals whose families have an average household income. Lastly, the inattentive food consumer cluster (Annunziata & Vecchio, 2013) was comprised of younger students (18–24 years old) from non-urban areas who came from households with an average family income. Aprile and Mariani (2015), in their study of Gen Z undergraduate students' attitudes toward sustainable labels on food products in Naples (South of Italy), identified four distinct groups: students oriented toward sustainability labels, kind-hearted students, power seekers, and environmentalists.

Using an eye-tracking experiment, in-depth interviews, and the A/B testing method, Fiala et al. (2016) investigated the Gen Z approach to local food in general (apple juice, cream, gherkins, flour, a children's snacks (Hamánek, mead, paprika, and yoghurt) as well as the effect of its labelling (an eco-label, a local-label, or a bio-label). The sample included 121 individuals (63 in the reference group A and 58 in the control group B). Participants were asked to rank their disposition toward products bearing a Regional Food label. The results demonstrated that the label's appearance did not increase the participant's interest in the product's brand.

Lastly, Beretzky and Jámbor (2018) investigated the eating habits of Gen Z university students and discovered that most students reported leading a somewhat healthy lifestyle. They reported eating fruits or vegetables at least once per day, eating fast food once or twice weekly, and purchasing groceries from supermarkets rather than local markets. This study by Činčera et al. (2014) revealed that Gen Z university students did not exhibit uniform SFC behaviour as a group. They identified two student segments based on SFC behaviour, social norms, and ethical behaviour, namely "The under-consideration students" and "The negatively positioned students", revealing that no segment encompassed a lifestyle of SFC. Still, the first and more significant segment is more positively

predisposed towards it and is therefore willing to consider it in the future. Based on their behaviour, these two divisions may need marketers to approach each group differently from a marketing perspective. For instance, marketing managers must target consumers who are considering or have just started making families.

The fourth and fifth objectives of the study focused on differences in generational cohort behaviour regarding organic food consumption, specifically on attitudes, economic crisis effects, and purchasing patterns. The ANOVA results demonstrated differences between generational cohorts and organic food consumption, with Generation Z showing the least favourable attitude. The sixth objective of the study related to policymaker activities and marketing communication strategies to promote sustainable food consumption (SFC) and Organic Food Consumption (OFC).

Generation Z and National Culture

Generation Z's attitudes and behaviours towards sustainable food consumption vary greatly depending on the consumers' cultural background (Garai-Fodor & Popovics, 2022). Western cultures tend to prioritise the environmental impact of their food choices, while non-Western cultures tend to prioritise the health benefits and the importance of sharing meals with others. Latin American cultures tend to prioritise the importance of traditional dietary practices, while North American cultures tend to prioritise the convenience and affordability of their food choices. These cross-cultural differences in Generation Z's sustainable food consumption highlight the importance of understanding different cultures' unique perspectives and experiences when addressing sustainability issues (Van Vugt et al., 2014). It also suggests that sustainable food consumption should not be a one-size-fits-all approach but should consider different communities' cultural backgrounds and experiences.

Sustainable food consumption values

Values

This study examines human values from a psycho-sociological perspective, heeding the warnings by earlier scholars on the need for a multidisciplinary approach to defining values. For instance, Sherif (1936) posits that "Philosophers, psychologists and sociologists...have had a tendency to build up their own concepts, giving little or no attention to what their colleagues in other fields have been doing on the same problem. If the concept of value with which they are dealing reveals anything in common, a convergence combining philosophy, sociology and psychology may be fruitful in the development of a general theory of value".

The concept of values has a dramatic history in the sociology literature. Spates (1983), for instance, presented a history of values in the 19th century and argued that the main accomplishment of Parsons' (1949) book, "*The Structure of social action*", was to present a paradigm shift in the meaning of values as they were getting introduced in the sociology. Kolb (1957) also argued that the meaning of values was changing. The majority of early social scientists, influenced by philosophy, discussed the concept of "values" in a manner consistent with its Latin derivation *valare,* which means to be worth (Spates, 1983). In his seminal work, The Wealth of Nations (Smith, 1863, first published in 1776), economist Adam Smith expounded on the concept of labour as the definitive and authentic measure for ascertaining value. Marx (1848, as cited in Spates, 1983) formulated his labour theory of value in a similar manner. In *Principles of social science*, Carey (1859, p. 158) defined values as "the measure of the resistance to be overcome in obtaining those commodities or things required for our purposes." With the potential exception of economics, values had become an explicit focus of practically all social science disciplines by the 1960s (Hechter, 1993). Prior to the 1990s, there was a scarcity of multidisciplinary research material on values, despite their prominent significance in explanatory theories within the social and behavioural sciences (Hechter et al., 1993). The definition of values that has had the most sway was provided by Kluckhohn (1951, p. 395) "A value is a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable, which influences the selection from available modes, means, and ends of action." Due to its emphasis on

the possibility for both action and reward, as well as the fact that it applied to both individuals and groups, this term was significant throughout that behaviourist era. Also, according to Kluckhohn (1951), their definition of value has emotive (desirable), cognitive (conception), and conative (selection) parts. This definition, hence, seems to fit into philosophy, psychology and sociology.

According to Lesthaeghe & Moors (2000), Kluckhohn adopts a functionalist, deterministic perspective, where values are seen as cultural imperatives that compel people to perform particular acts. Rokeach (1973) presents another widely used concept of values: According to Rokeach (1973, p. 5), values are "persistent beliefs that a particular mode of behaviour is personally or socially preferable to an opposite or converse mode of behaviour or end-state of existence." Rokeach placed more emphasis on values, while Kluckhohn placed more emphasis on utilitarian action.

The majority of definitions of values share five characteristics, according to Schwartz & Bilsky (1987, p. 551): "(a) concepts or beliefs, (b) about desirable end states or behaviours, (c) that transcend specific situations, (d) guide selection or evaluation of behaviour and events, and (e) are ordered by relative importance". According to Schwartz (1992), values are mental representations of three basic human needs: physiologically based organism needs, social interactional needs for interpersonal coordination, and social, institutional needs for collective welfare and survival.

According to Marini (2000, p. 2828), values are "evaluative beliefs that synthesise affective and cognitive elements to orient people to the world in which they live." Ideologies influence values as well as being partially produced from them (Alvesson, 1991). Values are frequently viewed as immobile mental constructs, with little consideration given to how they influence behaviour.

Literature suggests that the concept of value is fluid and difficult to define. Rohan (2000) posits that the field of values theory and research has been plagued by a widespread issue of definitional inconsistency. Rohan presents a concise overview of theories and studies pertaining to values, highlighting key points. Additionally, Rohan examines five specific dimensions of the values construct that could account for the observed inconsistency and subsequent absence of integration. According to Rohan (2000), modern psychology views "value" primarily as a noun or as a

quantifiable characteristic of people. The process of valuing (using value as a verb) receives less attention. The active aspect of valuing is easier to accommodate in sociological theory, particularly pragmatic philosophy. However, in terms of empirical research, little is known about how values function within and between relationships. Hechter (1993) explained that values are the personal beliefs held by individuals, which serve as motivating factors that influence their behaviour in various ways. This makes the concept even more subjective as the definition of value by Hechter presents value as dependent on the individual. Hechter (1993) further claimed that values function as a framework for regulating human conduct, thereby emphasising the objectivity of values. In general, individuals tend to internalise the values that are instilled in them during their upbringing. Individuals often hold the belief that these values are morally correct due to their alignment with the cultural norms of their specific society. The last statement also explains an interesting dimension of values. In the last context, values are seen as an objective socially construed phenomenon. This is consistent with Lee et al. (2019, p. 3), who claims that "Values are desirable life-goals that transcend situations and reflect what is important to people in their lives". According to Hechter, the study of values is hindered by four obstacles. Firstly, values are not directly observable. Secondly, existing theories provide limited guidance in comprehending the influence of values on behaviour. Thirdly, behavioural explanations lack persuasiveness due to the unknown process by which values are formed. Lastly, there are challenging issues associated with the measurement of values. While certain concerns have been addressed adequately in recent empirical and theoretical studies, this compilation of obstacles serves as a valuable initial reference. Hitlin and Paliavin (2004) further added two reasons why studying values can be difficult, claiming that values are frequently confused with other social psychological phenomena and values exhibit historical and cultural diversity in their substance. According to Schwartz (1992), it is imperative for sociologists to refrain from reifying historically contingent phenomena by regarding them as enduring human traits.

According to Ploszczyniec (2021), the question of whether values are objective or not depends on the definition of objectivity that is assigned to the concept. Table 2.1 below provides some popular definitions of values in the literature.

Table 2.1 below summarises a few selected definitions of values

Source	Definition
Kluckhohn (1951 p. 395)	"a value is a conception...of the desirable."
Rokeach (1973 p. 5)	"an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable."
Schwartz (1994 p. 21)	"desirable trans-situational goals...that serve as guiding principles."
Feather (1996 p. 222)	"beliefs about desirable or undesirable ways of behaving...or otherwise of general goals."
Thomson et al., (2003)	"the individual's core beliefs, morals and ideals."
Oyserman (2015)	"internalized cognitive structures that guide choices based on basic principles of right and wrong, priorities, and meaning-making."
Ferreira, Simões, Ferreira, Santos (2020)	"values are stable and comprehensive qualities of behaving, described by the subject in augmented rules that establish a positive reinforcing function for his/her own described behavior."
Curtis (1998)	"values are indicators of what is held in esteem and guide actions and judgments across situations and time."
Rezsohazy (2001)	"Values are a system of beliefs that guide behavior and shape social life."

Multidisciplinary approach to values

Despite the need for disciplinary convergence, it is worth noting that the concept of values is multifaceted and sometimes depends on the context in which it is discussed. For instance, Kim et al. (2010) define value in healthcare as the health outcomes achieved per dollar spent. Ravald and Grönroos (1996) conceptualised value in relationship marketing as providing superior value to customers in relationship marketing, taking into account the customer's need for quality improvements and willingness to pay for it. Lapierre (1997, 2000) also explored the dynamic nature of value in business-to-business professional services, with value exchange comprising a set of quality and relational criteria and value in use referring to financial, social, operational, and strategic performance. This explains that that concept is multidimensional in nature, central to various fields of study and a theoretical concept and mode of analysis that offers a rubric for critical transdisciplinary inquiry (Eiss & Pedersen, 2002). One thing that seems most obvious is the significance of values in social life: values greatly impact moral judgements, self-control, and social and political decisions. Politicians convey the values they uphold, while educators work to instil values in their students. Travellers are frequently surprised by the values of other cultures, and it makes communication much simpler when people share values.

Food Consumption values and Sustainable Food Consumption

As explained in the previous section, the concept of values is multi-faceted. This relates to food consumption as well, and the concept has been defined subjectively and mostly based on the context within which an author explains it. This fluidity exists not only from the authors but also from the field of study (Brosch & Sander, 2015). Within the study of food consumption, values have been studied based on the aspect of food consumption considered. Food consumption values are influenced by a variety of factors, including the nutritional needs of the body, activity, cultural values, and personal preferences. Thomé (2021) found that emotional value is the only significant measurement for the consumption of healthy, unhealthy, and hybrid foods, while social value is significant for

healthy food consumption, and conditional value is significant for the consumption of hybrid and unhealthy foods. Lusk and Briggeman (2009) found that safety, nutrition, taste, and price were among the most important food values to consumers, while fairness, tradition, and origin were among the least important. Karamustafa Ülker and Kiliçhan (2021) found that cultural values affect food consumption parameters, with a tendency for low food consumption spending in countries with greater power distance and high food consumption spending in countries with individualistic cultural values.

In a study by Thomé, Cappellesso and Pinho (2021), food consumption values were first clustered into healthy, unhealthy and hybrid. They examined the relationship between values and food consumption by examining five value sets and concluded that "(1) emotional value is the only significant measurement for the consumption of the three food dimensions; (2) social value is a significant measurement for healthy food consumption; (3) conditional value is significant for the consumption of hybrid and unhealthy foods; (4) epistemic value has significance in the consumption of hybrid foods; (5) functional value is denied for all dimensions". Essentially, these five types of values come to play when consumers make food choices.

Bonera et al. (2023) reveal crucial insights into the values and motivations driving ethical purchase decisions within Generation Z. Notably, the study identifies "functional" and "social" reasons as primary motivations for the purchase of ethical products. This implies that young consumers within Generation Z are not only driven by the perceived functionality of sustainable products but also by the social impact these products may have. This finding aligns with the broader literature on the importance of values and social responsibility in shaping consumer choices.

The concept of electronic word-of-mouth

Technology and SFC

According to Fuentes et al. (2021), new digital food platforms are frequently introduced with the promise that they will also promote more sustainable food consumption. Examples include digitally enabled meal box services (e.g., hello fresh), food sharing apps (e.g., Olio), digitally enabled local food markets (e.g., Reko-rings), and digital platforms that attempt to reduce food waste by reselling meals (e.g., Too Good To Go). All of these initiatives are geared toward the creation of novel food acquisition methods. Although these digital platforms are designed to promote new sustainable food consumption practices, as past studies have shown, promoting sustainable food consumption is complex (Fuentes et al., 2021; Verain et al., 2012). Modifying daily habits and routines related to food consumption presents a particularly formidable task. Food shopping, for example, is often interconnected with a range of other daily activities, including employment, childcare, and social engagements, in addition to cooking and eating (Dyen et al., 2018). While research indicates that digital platforms are becoming increasingly integrated into consumers' everyday behaviours and routines (Elms et al., 2016), their success cannot be assumed. Many of these digital food platforms' attempts to alter the ordinary food consumption of customers need to be revised.

A growing body of research (e.g., Ahn, 2021; Heidenstrøm & Hebrok, 2022; Samsioe & Fuentes, 2022) analyses how digital gadgets facilitate sustainable or ethical consumption patterns. Some studies have examined how QR codes can promote sustainable purchases in-store (Atkinson, 2013; Leonidou & Skarmeas, 2017; Stocchi et al., 2021), how blogs and vlogs function as key intermediaries (Joosse & Brydges, 2018; Williams et al., 2008; Xu et al., 2021), translating complex sustainability issues into practical advice on how to consume sustainably (Joosse & Brydges, 2018), the potential of online communities in promoting sustainable consumption, and demonstrating how these online spaces facilitate the dissemination of SFC related information (Rokka & Moisander, 2009). Critically, others have claimed that these gadgets merely help to produce neoliberal consumers

and are hence incapable of being truly revolutionary (Kozinets et al., 2021; Kuehn, 2017). Critics and proponents of the digitization of sustainable consumption tend to presume that these technologies will be successful in promoting more sustainable forms of consumption so long as consumers embrace them. The performativity of contemporary digital devices is rarely empirically investigated because it is taken for granted.

To understand the digitization of SFC and the role that digital intermediaries can play, we must consider how and under what conditions these digital platforms shape consumption, as well as how and why they fail to do so in other instances. Few studies addressing the subject of digital failure indicate that digital devices intended to promote and enable new sustainable patterns of consumption are frequently incompatible with customers' everyday behaviours (Fuentes et al., 2021). This is sometimes owing to the immutability of digital devices, which makes it difficult for apps to be "integrated" into consumers' complex daily lives and evolving routines. However, failure might also result from consumers' inability to recognise the digital tool's utility for their consumption projects (Samsioe & Fuentes, 2022).

Using a pragmatic field trial of the Karma app – a food waste reduction app – and a shopping-as-practice method, Fuentes et al. (2021) analysed the socio-material complexities that led to the failure of this sustainable consumption app. They demonstrated from their analysis that app bugs, practice mismatches, and practice competition make the promotion of a new style of sustainable food purchasing difficult or impossible in some instances. It was found that this digital food platform promotes and enables a new style of sustainable food shopping that is incompatible with the existing dietary behaviours and daily routines of the consumers in the study.

As noted in the previous section, members of the Gen Z, who are the subjects of this study, are the most technology-savvy generational cohort. They fashioned their lives around technology (Agrawal, 2022). They prefer to engage in online conversations about virtually all life topics. These online conversations are sometimes about the food they eat. Word-of-mouth communication is a very

important topic in marketing because it is considered one of the most persuasive forms of communication (De Bruyn & Lilien, 2008).

Electronic Word-of-Mouth

Electronic or online word-of-mouth (eWOM) communication is any kind of feedback, whether positive or negative, shared by current, prospective, or previous customers about a service or an organisation (Hennig-Thurau et al., 2004a). Hennig-Thurau et al. (2004a) further explained that any statement made by a potential, actual, or past consumer regarding a product or company that is made available to a large number of people and institutions over the Internet is considered to be an example of eWOM. It is important to note that eWOM conversations are not limited to any one location or medium. Weblogs (e.g., xanga.com), discussion forums (e.g., zapak.com), review websites (e.g., Epinions.com), e-bulletin board systems (e.g., newsgroups and e-bulletin boards), and social networking sites (e.g., facebook.com and threads) all provide consumers with a platform to share their thoughts on products and services (Cheung & Lee, 2008). The proliferation of online social networks has exponentially increased the power of word-of-mouth communication.

Many scholars have provided definitions for eWOM. For instance, Litvin, Goldsmith and Pan (2008, p. 462) define eWoM as "all informal communications directed at consumers through Internet-based technology related to the usage or characteristics of particular goods and services, or their sellers. This includes communication between producers and consumers as well as those between consumers themselves—both integral parts of the Word of Mouth (WOM) flow, and both distinctly differentiated from communications through mass media". In a similar vein, the term "word-of-mouth" (WOM), according to Jalilvand, Esfahani and Samiei (2011) refers to the process by which consumers can inform one another about their positive and negative experiences with various products, companies, and services. One overarching inquiry needs to be addressed: there is a rationale behind why customers share WOM. This issue becomes even more complex when it comes to SFC. Consumers have varied reasons why they share (give and receive) information about their consumption of sustainable foods.

Generally, consumers use produced electronic word of mouth (eWoM) on numerous online channels (online forums, blogs, emails, virtual networks, etc.) to determine if they should continue to patronise the kind of food or not. As suggested by Leonhardt, Pezzuti and Namkoong (2020), consumers trust the user reviews on the websites' social shopping networks, which results in their desire to purchase. The socially recommended user is stimulated, and therefore they will make a buying decision.

E-mail, IM, homepages, Blogs, Listservs, forums, online communities, newsgroups, chat rooms, hate sites, review sites, and social networking sites are all avenues where eWoM can be disseminated and discussed (Goldsmith, 2008). Because of the higher level of uncertainty associated with making an internet purchase, recommendations from friends and family are more influential than ever. It is natural for some people to want to know what others' experiences have been like before committing to online shopping.

Subjective norms, like social influence or word-of-mouth recommendations, can have a significant impact on an individual's attitude and conduct, as postulated by the theory of reasoned action (Fishbein & Ajzen, 1977). Previous studies have shown that consumers' self-confidence can be boosted by information from external sources (such as online consumer evaluations) while forming an attitude toward an object and that this attitude can then influence the consumer's subsequent actions (Fazio & Zanna, 1981).

When compared to conventional WOM communication, eWoM has some similarities, but it also differs in several key respects. According to Cheung and Thadani (2010), the distinctiveness of eWoM is due in part to these features. First, the reach and speed of eWoM communications far exceed those of more conventional forms of word-of-mouth marketing. Similar to word-of-mouth, synchronous information sharing occurs within small groups of people (Li & Hitt, 2008; Zhang et al., 2012). In contrast, eWoM conversations typically feature asynchronous, two-way exchanges of information. Information can be shared more easily between communicators thanks to the widespread usage of electronic technologies, including online discussion forums, electronic bulletin boards, newsgroups, blogs, review sites, and social networking sites (Cheung & Thadani, 2010; Goldsmith,

2008). Second, whereas conventional WOM is fleeting and difficult to preserve, eWoM communications are enduring and convenient. The vast majority of online content consists of text, and as such, can be saved and made accessible for an infinite amount of time (Al-Bourini et al., 2021; Babić Rosario et al., 2020). Third, eWoM is more quantifiable than conventional word-of-mouth (Al-Bourini et al., 2021; D.-H. Park & Kim, 2008; Sari & Yulianti, 2019; Zhang et al., 2021). EWOM transmissions are more easily detectable due to their presentation format, volume, and endurance. Internet-based word-of-mouth is much more abundant than that received through more conventional offline channels (Torlak et al., 2014). Lastly, the credibility of the communicator and the message is known to the receiver in traditional WOM because the information comes from a sender already known to the recipient. However, the electronic nature of eWoM renders it largely impractical for the recipient to verify the veracity of the sender and the message. However, this is not always true for all the forms of eWoM. For instance, on some social media platforms such as WhatsApp, the sender is often known or identified by the contact credentials.

EWoM giving

To understand the motivations for eWoM, it is important to examine the motivation for WoM in general. This is because, according to Hennig-Thurau, Gwinner, Walsh and Gremler (2004a), consumer motives that have been recognised in various studies as relevant for conventional WOM can be expected to be relevant for eWoM as well, given the conceptual proximity between eWOM and classic WoM communication.

Several scholars propose that word-of-mouth (WoM) communication mostly occurs in response to a breach of consumers' consumption-related expectations (e.g., Anderson, 1998). Acknowledging that WoM may be positive or negative, the motivations for positive and negative WOM communication may be distinct (Vázquez-Casielles et al., 2013).

Dichter (1966) posited that product involvement, self-involvement, other-involvement, and message involvement are the four most important motivators of effective WoM communication. According to Dichter (1966), customers have strong feelings about the product, that pressure is built up in wanting

to do something about it. To be relieved from the tension caused by the consumption process, they tend to recommend the product to others. Also, when the product satisfies certain emotional needs for the consumer in a convenient way, they tend to recommend it. WoM helps consumers to satisfy the desire to give others the information for making appropriate decisions about their purchases. Finally, Dicher (1966) suggests that WoM may be stimulated by the advertising or public relations communications that concern the product or brand. A major flaw of Dichter's work is the lack of knowledge about the evolution of his typology, despite the intuitive plausibility and significance of his work.

That notwithstanding, recent studies have also investigated the issue of involvement as an antecedent of WoM (e.g., Chih et al., 2013; Kurnaz & Duman, 2021; X. Liu et al., 2022). According to Chih, Wang, Hsu, Huang (2013), studies of word-of-mouth (WOM) have looked into several types of involvement—from product to self-involvement to other types of involvement—among WoM givers as a means of understanding their motivations for sharing favourable feedback. The qualities of both WOM receivers and WOM givers that impact WOM usage have been identified by researchers. Cheung and Thadani (2012), found that when consumers put more of their own personal energy (physical, emotional, and cognitive) into an online shopping experience, they are more likely to talk positively about it to others. Contextual elements in a specific environment are additionally significant factors influencing the degree of user engagement resulting in eWoM.

Engel, Blackwell, and Miniard (1993) revised Dichter's typology by renaming the categories and introducing a new motivation (i.e., dissonance reduction) for articulating only negative WoM communication. According to Engel et al (1993), consumers engage in WoM because of the three reasons provided by Dichter (1966) and what they call dissonance reduction. Dissonance reduction refers to the cognitive doubts following a major purchase. For consumers to be confident about their purchase, they tend to speak to people about the product. In any case, the consumer feels less loss. This addition is very important because it draws attention to the tendency of WoM to reinforce repurchase, which will be discussed further in this thesis.

Sundaram, Mitra and Webster (1998), by conducting 390 critical-incident interviews, were able to identify eight reasons for consumer WOM communication, several of which align with categories proposed by Dichter (1966) and Engel et al. (1993). Altruism, product involvement, self-improvement, and corporate support are the four identified motives that explain positive WOM communication, while the other four motives explain negative WOM interaction (i.e., altruism, anxiety reduction, vengeance, and advice seeking).

EWoM receiving

The field of social psychology has paid a lot of attention to interpersonal communication. This line of research has repeatedly shown that people's decisions are influenced by the people around them. In the consumer literature, the significance of interpersonal impact through word of mouth has been widely acknowledged (Brown et al., 2005; Hennig-Thurau et al., 2004a; Laczniak et al., 2001; Richins, 1983).

In much the same vein, consumers tend to rely more on word-of-mouth messages and reviews of products available online to make a decision of whether to engage in a similar consumption or not. This form of word-of-mouth communication is prevalent among Gen Z's members, who tend to create their world and communities around technology (Agrawal, 2022).

It is imperative to additionally scrutinise the determinants that contribute to consumers' reception of word-of-mouth (WoM). In order to provide a more comprehensive understanding, one could rephrase the inquiry as follows: "Why do individuals tend to place greater emphasis on the perspectives of their peers as opposed to organisations or alternative sources of information?" The potential solution to this inquiry might be attributed to the concept of trust. Individuals often place trust in others due to the belief that they will receive accurate information, thereby alleviating the burden of extensively researching a specific matter. As Levi (1996, p. 7) posits, "trust is measurable by low personal investments in information monitoring, and sanctioning where there are, *Ceretis Paribus*, risks of failure to perform by the trusted with consequent high cost to the truster". This stems from the mistrust of corporate communications in the forms of advertising and public relations. This is often due to

persuasive knowledge (Friestad & Wright, 1994), which helps people to cope with the persuasive attempts of marketers and corporations. Consumers are aware of the efforts made by companies to convince them to buy their products. Some consumers are even aware of how marketers learn about human behaviour to design more convincing communications, which reduces their freedom of choice. Consumers who are aware of the goals and methods used by advertisers to convince them, as well as those who have developed their own views and strategies to counteract these efforts, are said to have "persuasion knowledge" (Campbell & Kirmani, 2000; Eisend & Tarrahi, 2022; Friestad & Wright, 1994). When consumers are well-versed in the art of persuasion, they are better able to recognise, assess, and even counteract advertisements that aim to influence their beliefs or behaviour. Friestad and Wright (1994) presented the Persuasion Knowledge Model and the notion of persuasion knowledge, which details how individuals acquire and employ this information to resist influence. There are two parts to the activation of persuasion knowledge: the cognitive (or conceptual) and the emotional (or behavioural) (Boerman et al., 2017).

Another important dimension is the affective dimension, which takes into account how an advertisement or marketing communication makes consumers feel. Most people's attitudes against advertising may be summed up by the words "scepticism," "distrust," and "dislike," all of which can then be translated into specific actions and strategies (Luo et al., 2020; Yu, 2020). In essence, consumers' resistance to persuasion intent is bolstered by the activation of persuasion knowledge, lowering the efficacy of persuasion messages from advertising and marketing and having an effect on consumers' purchases.

This is perhaps why opinion leaders tend to be very influential when it comes to WoM. Opinion leaders are crucial word-of-mouth actors. Leaders in a given field of expertise regularly engage with mainstream media and are relied upon by those seeking guidance on a wide range of topics (Jalilvand et al., 2011). Other important precursors of WoM influence have been found by researchers, and these include source expertise (e.g., Lim & Chung, 2014; Martin & Lueg, 2013), tie strength (e.g., Voyer & Ranaweera, 2015; Wirtz & Chew, 2002), demographic similarity (e.g., De Bruyn & Lilien, 2004,

2008; Jalilvand et al., 2011), and perceptual affinity (De Bruyn & Lilien, 2008). These four characteristics make opinion leaders' WoM weightier.

Chapter conclusion

This chapter examined the main concepts used in the thesis. Concept clarification and definition are important because of the multiple meanings they possess. The concept of value, for instance, is a complicated one and requires some degree of operationalization. The next chapter of the study delves into the theoretical foundations and emphasizes the necessity of theoretical integration. Also, the hypotheses and the conceptual framework will be presented.

CHAPTER THREE

THEORETICAL REVIEW

Introduction

A theory may be defined as an empirically verifiable explanation of phenomena that predicts behaviour (Nold, 1978). A broader explanation provided by Beauchamp (1982) relies on the definition of theory by Rose (1953) and Kerlinger (1973), describing a theory as an aggregation of components and as a process. According to Rose (1953, p. 52), "A theory may be defined as an integrated body of definitions, assumptions, and general propositions covering a given subject matter from which a comprehensive and consistent set of specific and testable hypotheses can be deduced logically". In agreement to this definition, Kerlinger (1973, p. 9) also defined a theory as "a set of interrelated constructs (concepts), definitions, and propositions that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting the phenomenon". The point of convergence of the definitions by Rose (1953) and Kerlinger (1973) lies in their view of theory as a package of concepts, variables and propositions. Kerlinger (1973), however, adds that there should be a relationship that can be drawn between the concepts. This first characteristic of a theory introduces an approach of reductionism in the development of theories in social science. Secondly, this focus is also on the logical demonstration of these concepts. Theory must provide a logical explanation (Beauchamp, 1982) and possess a high sense of generality (Weick, 1995). Finally, the ability of theory to predict a phenomenon is considered paramount in the scope of theories (Jonassen et al., 1997).

The discourse surrounding the nature of theory saw a resurgence in the early 1990s, as Sutton and Staw (1995) elucidated the concept by means of negation, delineating what theory does not encompass. After reviewing several publications, Sutton and Staw concluded that references, data, variables, diagrams, and hypotheses are not theory. They argued that these are aspects of and do not represent a theory, so they cannot replace a theory. Hence, these aspects cannot be presented as theories. An understanding of what a theory is is helpful in the development of strong theories (Sutton

& Staw, 1995). These aspects can, however, not be discounted in the process of theorisation (Weick, 1995). Weick posits that Sutton and Staw neglected this important understanding in their paper, stating that "most theories approximate rather than realise the conditions necessary for a strong theory". Indeed, the aspects of a paper such as those discussed by Sutton and Staw possess in themselves a high degree of abstractness and generality.

Based on the consensus, it is imperative to subject the existing theories in a certain academic discipline to thorough scrutiny, necessitating a comprehensive examination of these theories within the field of study. The importance of theoretical reviews cannot be overemphasised. "All disciplines require the development of strong theories that explain and predict important phenomena and also empirical research that tests the theories" (Hunt, 2011, p. 157). Hunt (2011) further argued that purely conceptual/theoretical publications are important for theory development and have a higher impact than empirical ones.

This section, therefore, discusses the "theories" that have been applied to the phenomenon of SFC. These theories belong to many fields of inquiry in social sciences, economics, philosophy, sociology, marketing, and psychology. Out of these fields, the Generational Cohort Theory (GCT), the Theory of Planned Behaviour, Social Exchange Theory, Hofstede's Cultuiral Dimensions and the Consumer Culture theory. Effort is also made to distinguish key theories and explain how the theories have been applied. Finally, an attempt is made to integrate theories that will explain the SFC behaviour of Gen Z across cultures. Theories explaining Gen Z, SFC, Values, Culture and eWoM are therefore explicated below.

Generational Cohort Theory (The Age-Generation argument)

According to Charney et al. (2017), there is a need to distinguish between two closely related but sometimes misunderstood terms: age and generation. As a foundation for marketing decisions, age has traditionally come to mind first. Age, along with other demographic criteria such as gender, marital status, employment, and family size, is frequently used by brand and product managers to segment the market. This is a clear and unavoidable viewpoint. It is clear since human morphology,

preferences, attitudes, perceptions, and lifestyles vary dramatically during one's life, resulting in considerable shifts in purchasing habits. Marketing experts may then notice that certain behaviours correspond to certain age groups and utilise this correlation to segment, target, and position their products. The relationship between age and marketing strategy is inherently interconnected since age influences various aspects of customers' physical, psychological, social, and cultural attributes, shaping their engagement with products and brands, which is heavily contingent upon their age. Due to these characteristics, age has been increasingly recognised as a significant segmentation parameter by professionals and scholars in the field of marketing. Numerous enterprises focus their marketing efforts on a specific age demographic, while others, possessing ample resources or employing a more varied strategy, might tailor their marketing mix to cater to distinct age groups.

In the early stages, the utilisation of chronological age as a segmentation element was scrutinised by several marketing specialists despite its apparent significance and self-evident nature. According to Fitzgerald-Bone (1991), the segmentation of mature markets is not much influenced by age, as indicated by an extensive analysis of empirical data on the subject. According to Mueller-Heumann (1992), the age concept is deemed as "obsolete" and "very unsophisticated", leading to the prediction of its eventual full phase-out. Similarly, Fennell (1982) presented a counterargument to the notion that individuals within the same age cohort would exhibit uniform purchasing behaviour for a given product iteration. According to these scholars, demographic characteristics such as age may not effectively address consumer demand. Straughan and Roberts (1999) concur with the notion that the age criterion may not be as advantageous as it initially seemed. Marketers are encouraged to use a more refined approach to segmentation, incorporating psychographic factors into their analysis. Considering these limitations, it is imperative to re-evaluate age segmentation and include novel concepts in marketing endeavours. The call for a change in perspective aligns with the current context characterised by the swift ageing of populations and demographic transition. This phenomenon can be regarded as a generational disruption with significant political, social, and economic implications.

One method to move beyond age-based segmentation, which is sometimes critiqued for being unidimensional, is to position it inside a broader theoretical framework, which has come to be known as the Generational Cohort Theory. This sociological theory suggests that people who go through the same historical, social, cultural, political, and economic events throughout their adolescent years – especially between the ages of 17 and 23 – share essential attitudes and behaviours that they will carry with them throughout their lives (Biggs & Haapala, 2021; Mannheim, 1928). These events might include painful incidents like wars, major alterations in the distribution of resources, knowledge of heroic personalities such as Martin Luther King, or experiences like Woodstock that symbolise an ideology (Sessa et al., 2007a). They may have also encountered independence, Covid 19, technology, etc. Events that emerge during a person's formative rather than later years are incredibly crucial. Therefore, individuals born during a certain epoch and so corresponding to the same cohort, will typically share specific preferences and cognitive styles. Furthermore, these effects are believed to endure throughout time (Jurkiewicz et al., 1998). Ryder (1985, p. 845) defined a cohort as "the aggregate of individuals (with some population definition) who experienced the same event within the same time interval."

The principal alternative to generational cohort theory is the thought that values, attitudes, beliefs, and inclinations are essentially a consequence of age and maturity rather than belonging to a generation. Generational cohort theory diverges from this perspective, suggesting that changes over generations are predominantly a product of social events rather than of biological processes (Sessa et al., 2007a). Individuals must be exposed to large societal changes when still young in order to develop a common generational awareness or collective memory (Schuman & Scott, 1989). Turner (1998) proposes a broader cultural definition of generation by drawing on Bourdieu's idea of habitus (1977). According to Turner (1998, p. 302), individuals who develop a shared set of habits and lifestyles through time tend to exhibit comparable psychographic and behavioural traits. Consequently, a particular cohort acquires strategic entry to shared resources while concurrently preserving its cultural

distinctiveness through the exclusion of others from accessing these resources (Eyerman & Turner, 1998).

The exact point at which one generation ends and the next begins has been debated (see: Strauss & Howe, 1991; Zwanka & Buff, 2021). In particular, how generations are distinguished from one another is dependent on the historical events that researchers consider to be the most significant. Hence, the precise delineation should also vary across nations and civilisations. This is due to the fact that different places are subjected to a variety of occurrences.

D'Amato and Herzfeldt (2008), for instance, distinguished between four separate generations of people who were born in Europe between the years 1946 and 1971. To be more specific, Early Boomers are people whose birthdays fall between 1946 and 1951. The birthrate in the region had just a minuscule increase throughout this generation, which contributed almost little to the overall total. The Late Boomer generation consists of people who were born between 1952 and 1959 and was distinguished by a more consistent rate of birthrate increase during this period. People born between the years 1960 and 1970 are considered to be members of the early X generation. This generation was the first to be extensively influenced by the global community and was distinguished by a rise in the birthrate in Western Europe but not in Eastern Europe. Last but not least, the Late X generation was described as people who were born between 1971 and 1980, and it was distinguished from the early X generation by an increase in birth rate in Eastern Europe but not in Western Europe.

The dates that Americans use to categorise their generations are somewhat different from the dates that Europeans use. People who were born in the United States between the years 1909 and 1933 are commonly referred to as "WWIIers" (e.g., Sessa et al., 2007a). The Great Depression and then Franklin Delano Roosevelt each had a significant impact on the attitudes and principles that guided these individuals. People who were born in the United States between 1934 and 1945 are frequently referred to as Swingers or Silents. These people reached adulthood during a time of economic expansion, and because the population was lower during that time, there was less competition for jobs and fewer barriers to advancement into management positions. They had a propensity for being

sensible, devoted, diligent, and compliant (Sessa et al., 2007a). Kupperschmidt (2000) uses the phrase "traditionalists" to refer to both WWIIers and Swingers, and he does it in a way that relates to the term.

In addition, several academics, such as Smola and Sutton (2002; Strauss & Howe, 1991), describe Baby Boomers as people who were born between 1946 and 1964, despite the fact that some earlier dates are often given (see Sessa et al., 2007a). Some historical events, such as the Vietnam War and the Civil Rights Movement, Watergate, the Space Race, the Sexual Revolution, and Woodstock, all played a role in shaping the preferences and perspectives of the individuals. They developed a sense of autonomy, in which they attempted to take charge of their own destinies and rebelled against established authorities (Howe, 2002), and they also developed an entitlement complex, in which they anticipated receiving benefits in the future (Wey Smola & Sutton, 2002). Despite this, they value working together, having positive attitudes, setting high goals, and working hard (Howe, 2002).

According to another definition offered by researchers, members of Generation X in the United States were those who were born between 1964 and 1980 (Wey Smola & Sutton, 2002). Their perspectives were drastically shifted as a result of the influence of Music Television (MTV), Acquired Immune Deficiency Syndrome (AIDS), international rivalry, and the fall of communism. They were brought up in a setting that featured some instability and shifts, both in terms of their monetary circumstances and the composition of their families. The traditional ways became less important as a result of the proliferation of diversity. Enclaves of a smaller size are constructed to offer some degree of stability (Karp et al., 1999). The growing insecurity of their parents' employment led to a decline in their parents' desire and diligence, which in turn inspired their children to develop a pessimistic outlook (Kupperschmidt, 2000).

Academics characterise members of Generation Y as having been born roughly between the years 1980 and maybe 1999. The term "net generation" is used to refer to these particular people on occasion (e.g., Macpherson, 2000). However, several researchers have come to different conclusions

regarding the exact dates. Terrorism and the availability of information around the clock have had a tremendous impact on the opinions of these particular individuals (Sessa et al., 2007a).

Limitations of Generational Theory

According to Young (2009), there are two key factors to keep in mind while attempting to define a generation: first, that it is malleable, and second, that it is dependent on an individual's reflection. Brosdahl and Carpenter (2012) argued that while the theory provides a useful framework for categorising generations based on age, it falls short in its ability to elucidate psychological constructs like motivation. The task of ascertaining the dimensions and behaviours of an entire group is complicated by the varying timeframes utilised by scholars to define a generation. The duration of these dates can vary from a minimum of seven to a maximum of twenty years.

The matter is further compounded by the ambiguous usage of the term "cohort," which is occasionally employed interchangeably with "generation." Still, in other instances, it is utilised to delineate a more restricted group based on birth dates (Markert, 2004). According to Alwin and McCammon (2003), the cohort effect is unable to determine if a variation in a cohort is the result of experience or maturity. The generational theory does not take into account alternative, more contemporary interpretations like the maturational theory (Sessa et al., 2007b). According to Campbell, Twenge, and Campbell (2017), the body of research pertaining to generational differences has expanded significantly.

However, there is uncertainty about the use of the construct of "generation." Their study investigated generational boundaries or cut-offs by utilising a substantial, nationally representative sample of high school seniors. The study assessed the attitudes and work values of these individuals over a period of time. In contrast to those belonging to the Baby Boomer and Generation X cohorts at equivalent stages in their lives, Millennials had a decreased propensity to support social values, such as fostering interpersonal relationships in the workplace, while displaying an increased inclination towards endorsing leisure values, such as prioritising vacation time. In the context of professional environments, individuals belonging to the Millennial generation had a lower inclination compared to Generation X individuals in terms of desiring ownership of their own firm or seeking

employment inside a large corporation. Importantly, although there were observable variations in mean levels over generations, distinct boundaries between generations were not evident. On the contrary, the observed patterns exhibited a more gradual and linear trajectory, indicating that the notion of generations could be more appropriately understood as an ambiguous or fuzzy social construct. Codrington (2008) stated that there is a complication to the theory, stating that it is more applicable to wealthy populations. The highest-achieving schools are being looked at for research on generations. Codrington (2008) claims that one of the most frequently asked questions is whether or not it can be applied globally. Although research carried out in Europe and North America may not be applicable to circumstances outside of America, as some scholars have suggested, the use of generational theory that is based in the United States has become an increasingly common practice in countries outside of the United States (Bussin & Van Rooy, 2014). According to Jonck, Van der Walt, and Sobayeni (2017), it appears that the length of time elapsed between generations varies significantly from country to country. In most cases, the passing of an important event in the nation or region under consideration marks the beginning and end of a generation (Bush & Codrington, 2008). According to the Western perspective on generational differences, which is usually acknowledged by most countries, millennials are millennials wherever they are in the world, i.e. regardless of their own historical background. This view is generally accepted by most countries (Schwartz et al., 2010). On the other hand, this generalisation is rarely contested or investigated (Macky et al., 2008). It has been stated that one cannot draw the generalisation that people from other cultures around the world act in the same way that most Americans do (Kanchanapibul et al., 2014). The ability to compare cohort groups residing in various geographic regions may be hindered as a result of the possibility that certain events will only have a significant impact on particular subgroups within a cohort (Cadiz et al., 2015). It is also crucial to find a deeper knowledge of the generational distinctions that exist in any community and how these differences are shaped by the political, socioeconomic, and cultural events that may have had a transformational effect on a population's culture. Given the criticism that other parts of the world have not been influenced by the events on

which the commonly used generational cohort theory is based, several researchers have called for culture-specific classifications for the purpose of studying generational cohorts (Chawla et al., 2017). This essentially means that they are calling for alternative frameworks that create distinct generational cohorts within contexts that are not the United States.

However, it is recommended that marketing professionals alter their approach by focusing on strategic analysis at the generational level rather than the individual level. Previous study has found that there are more generational effects rather than age influences in relation to coffee intake (Rentz & Reynolds, 1991) and the development of musical preferences (Holbrook & Schindler, 1996). According to Eastman and Liu (2012), the correlation between generation and status consumption is solely influenced by generational factors and remains unaffected by other demographic variables, including gender, wealth, and education. Organisations seeking to implement a generational marketing strategy ought to undertake the task of identifying distinct generational cohorts and subsequently segmenting them.

The theory of planned behaviour

The Theory of Planned Behaviour (TPB) is an extension of Fishbein and Ajzen's theory of reasoned action (TRA)(Ajzen & Fishbein, 1975). Theoretically, both TRA and TPB look at the elements that influence people's explicit behaviour and are widely used to examine the link between attitudes and behaviour (Leone et al., 1999; N. Sharma et al., 2020). Furthermore, both theories were widely operationalised since they were straightforward, easy to use, and relevant to a large range of behavioural events. However, the premise of the TRA became too limiting owing to the clause of perceived control; thus Ajzen and Fishben (1977) created TPB by adding one more component to the model, namely, the perceived behavioural control (N. Sharma et al., 2020). TBP outperforms the TRA in terms of explaining customer intention and behaviour for ethical products, according to several empirical findings (L. M. Hassan et al., 2016). The theory of planned behaviour lays forth frameworks for explaining and determining what influences actual behaviour. According to the theory of reasoned

action, the individual's intention to engage in a certain behaviour is formed by his or her attitude toward the behaviour combined with the subjective norm (individual's beliefs about what significant others think they should do and how important their opinions are to them).

In reviewing the literature on the determinants of sustainable consumer behaviour, Vantamay (2018) discovered that all related studies suggested that variables from the theory of reasoned action and the theory of planned behaviour are interestingly able to be good determinants for sustainable consumption behaviour.

In applying the TPB to consumption behaviour, Nguyen et al. (2016) describe it as a theory that is diverse and complicated. The TPB suggests that, along with subjective norms, attitudes and perceived behavioural control shape intentions, which predict behaviour" (White et al., 2019). The TPB is a well-researched model that has been shown to be useful in predicting and explaining actions across a range of areas, including individuals' green buying patterns (Han & Stoel, 2016; Thi Tuyet Mai, 2019). TPB allows for a comprehensive grasp of consumer attitudes, subjective norms, and perceived behavioural control factors, all of which indicate a desire to engage in the SFC (Matharu et al., 2021). TPB has also been used in studies on a variety of other environmental behaviours in Western countries, such as the travel mode choice (Donald et al., 2014; Nordfjærn et al., 2014), household recycling (Ioannou et al., 2013; Strydom, 2018; Tonglet et al., 2004), the purchase of energy-saving light bulbs (Chen, 2016; Macovei, 2015), the use of unbleached paper (Harland et al., 1999), water use (Chatterjee & Barbhuiya, 2021; Chaudhary et al., 2017; Lynne et al., 1995), meat consumption (D'Souza, 2022; Sherwani et al., 2018), and food (Ajzen, 2015; Al-Swidi et al., 2014a; Vermeir & Verbeke, 2008b).

Attitudes

In the TPB, attitudes, according to Chou et al. (2012), refer to sentiments of delight or dissatisfaction with a certain conduct. The concept of attitude can be described as one's favourable or negative assessment of a particular behaviour (Nguyen & Nguyen, 2021), or as an individual's subjective appraisal, either positive or negative, of the performance of a specific behaviour, as proposed by

Ajzen and Fishbein in 1980. Attitude is a construct that arises from the combination of Behavioural Beliefs (BB) and Outcome Evaluations (OE). The concept of behavioural belief pertains to an individual's belief regarding the potential outcomes of participating in a specific behaviour. On the other hand, outcome evaluation refers to the accompanying assessment, whether positive or negative, of the anticipated consequences of the behaviour (Ajzen, 1991).

Subjective Norms

A subjective norm is the perceived social pressure that urges one to engage in a certain behaviour (Ajzen & Fishbein, 1975). Subjective norms act when customers engage in specific behaviours as a result of the impact of family members or friends who are important to them. That is to say, the norm will be evaluated in relation to a reference group when anticipating a behaviour. Pepper, Jackson and Uzzell (2011) intimate that social norms should be considered as a multidimensional variable that is measured by injunctive norms (socially shared rules of conduct) and descriptive norms (rules of behaviour that are not socially shared), as proposed by Cialdini, Kallgren and Reno (1991). Subjective norms correspond to an individual's opinion of the social desirability of performing a particular activity (Sheoran & Kumar, 2021a). This concept has the advantage of taking into consideration the effect that other people have on someone's behaviour (Vantamay, 2018).

Perceived Behavioural Control

Perceived behavioural control, on the other hand, is linked to the impression of internal and external restrictions when performing an action. It may be defined as an individual's perception of how difficult it is to adopt a certain behaviour (Fishbein & Ajzen, 1977). It refers to how confident an individual is in his or her ability to overcome barriers or take advantage of facilitators while doing a task (Ajzen, 1991). Perceived behavioural control, according to the theory of planned behaviour, is the outcome of previous experience and anticipated challenges that affect a person's perceived ease or difficulty in performing a behaviour (Vantamay, 2018).

Behavioural Intention

The behavioural intention construct is at the heart of the TPB model, and it serves as a potent predictor of behaviour (Ajzen, 2011). The TPB argues that intention is an excellent predictor of behaviour (Ajzen, 2015; Dezdar, 2017). It has been perceived that a positive attitude combined with compelling subjective norms and a strong sense of behavioural control results in a person's superior behavioural intention (Matharu et al., 2021). Pagiaslis and Krontalis (2014) warned that including behavioural intentions in a model of green consumer behaviour should be critically examined, whether using a normative or rational choice framework because previous research (see e.g., Bamberg, 2003; De Groot & Steg, 2007) has shown that environmental concern and knowledge can influence beliefs and attitudes toward behaviour but not the behavioural intention. According to the theory of planned behaviour, behavioural intention is the most direct psychological component influencing people's actual behaviour. This indicates that the more worried citizens are about environmental concerns, the simpler it will be for them to develop positive environmental consciousness, and the more probable that they will raise their green consumption in their everyday life (Wang et al., 2021). Green product buyers, according to Park and Ha (2012), have more favourable cognitive (potential benefit and desired outcome) and affective (well-being of others) attitudes, stronger social pressure (beneficial behaviour for society) and personal (moral) obligation, and greater intention to recycle than non-green product buyers, based on a US sample. This justifies the use of behavioural intention as a cause of behaviour.

Application of the TPB

Rajadurai (2018) adopted the TPB since it provides insight into discovering the elements that might motivate customers to buy green products. In a cross-cultural research, Choi and Geistfeld (2004) proposed that the TPB may be adjusted by including cultural values such as social and psychological characteristics. Furthermore, the TPB may be used to study environmental attitudes as a unifying framework (F. G. Kaiser et al., 2005). Robinson and Smith (2002) have found that attitudes, perceived behavioural control, and subjective norms all influence purchase intent for sustainable items

separately. In different sustainable behaviour situations, such as electricity and gas use, the TPB has been validated (Shalender & Sharma, 2021).

Extensions of the TPB

Kim et al. (2013) discovered that adding expected regret to the TPB model improves the prediction value of environmentally friendly behaviour by combining the TPB model into an emotion-related framework. The original TPB model (with variables attitude toward behaviour, subjective norm, and perceived behavioural control) combined with an emotion-related framework (i.e. expected regret) works as a direct determinant of environmentally friendly behavioural intention, according to their integrated model. Researchers have proposed TPB with value-belief-norm and goal-directed models (Batool et al., 2023; F. G. Kaiser et al., 2005; Perugini & Bagozzi, 2001). For example, Han (2015) explored the direct and indirect variables of environmentally friendly intention by including TPB in the value-belief-norm framework. Han (2015) perceived that a positive attitude toward behaviour, a sense of duty to conduct pro-environmental acts, and a sense of behavioural control have considerable positive and direct effects on eco-friendly behavioural intention when these two theories are combined.

TPB has also been updated to include a goal-directed model (Han & Yoon, 2015). Positive and negative predicted emotions, subjective norms, and perceived control behaviour were found as indirect variables of consumer intention in well-developed nations. Although earlier research has demonstrated the value of integrating ideas, the findings have varied based on circumstances and nations (Chen et al., 2019; Trang & Doanh, 2019). As a result, it is critical to look at the impact of attributions on the generalizability of past findings, as well as probable variances in connections between variables connected to customers' Socially Responsible haviour. By expanding the TPB model, Kwon and Ahn (2020) study investigated the impacts of predicted emotions, attitudes, subjective norms, and perceived behavioural control on desire and behavioural intention.

The TPB model was expanded with the Lifestyle of Health and Sustainability (LOHAS) construct in a study by Matharu et al (2021). Consumers globally, even in emerging economies are increasingly

preferring a healthy lifestyle and eco-friendly products. Hence, the study considered an introduction of lifestyle which is a key predictor of behaviour. Other applications of the theory have been done; for instance, Tarkiaimen and Sundqvist (2005) and Mullan, Wong and Kothe (2013), applied the theory of planned behaviour to the study of consumption behaviour on organic and safe food (Lin & Roberts, 2020; Milton & Mullan, 2012; Mullan et al., 2013); Kim and Chung (2011) applied the theory to the study of consumption behaviour towards organic cosmetics; and Kalafatis and Pollard (1999) compared the intention and behaviour of English and Greek consumers on purchasing environmentally friendly products.

The extended theory of planned behaviour is one of the most recently used theories in SFC. Paul, Modi, and Patel (2016) claim that the Extended Theory of Planned Behaviour (ETPB) integrates environmental concern, a key variable in the green marketing literature, with the goal of achieving triple bottom line (TBL) results. Paul et al. (2016) intended to validate TPB and its extended version (mediating role of TPB variables), as well as the TRA, to predict Indian customers' green product purchasing intention. In green marketing contexts, the empirical results of Structural Equation Modelling (SEM) demonstrate that extended TPB has greater predictability than the TPB or the TRA. Purchase intention is substantially predicted by consumer attitude and perceived behavioural control, but not by a subjective norm. TPB appears to moderate the connection between environmental concern and green product purchase intention, according to Paul et al. (2016). An extra construct in the new model makes a significant contribution to better understanding the creation of green product purchasing intentions and has the intention to become a long-term mainstream variable.

Limitations of the TPB

The TPB has faced significant criticism. The inquiry into the equilibrium between parsimony and validity has raised concerns regarding the adequacy of a theory encompassing all volitional behaviour that relies solely on four explanatory concepts (Sniehotta et al., 2014). The theory has faced criticism due to its narrow emphasis on rational reasoning, disregarding the impact of unconscious influences on behaviour (Sheeran et al., 2013) and the significance of emotions beyond anticipated affective

outcomes (Conner et al., 2013; Godin et al., 2013). Furthermore, the TPB's static explanatory framework fails to provide a comprehensive understanding of the observed impacts of behaviour on cognitions and subsequent behaviour, as highlighted by McEachan et al. (2011) and Sutton (1994). Sutton (1994) concludes that despite the intention of social cognition models such as the TPB to forecast behaviour, they fail to account for a significant portion of the variability in behaviour.

There have been additional inquiries regarding the potential for empirical falsification of the hypotheses derived from the model, as well as the possibility that these hypotheses may essentially consist of common-sense statements that are not subject to falsification (Conner et al., 2013; Earp & Trafimow, 2015; Evans, 1997; Godin et al., 2013; Heylen & Nachtegael, 2013; Phillips, 1973). Undoubtedly, if we consider the findings within the framework of ceteris paribus conditions, the proposition that individuals are inclined to engage in behaviours they find less enjoyable, perceive themselves as incapable of performing, or have no intention of doing appears highly improbable. Such a proposition would not only raise doubts about the credibility of the data but also question the fundamental tenets of the underlying theory. According to Ogden's (2003) research, it was observed that researchers who encountered results contradicting the assumptions of the TPB, such as null correlations between variables that were expected to have a strong relationship, seldom questioned the validity of the theory itself. Instead, they explored alternative explanations, such as potential issues with the operationalization of their study measures.

The Theory of Planned Behaviour (TPB) is commonly conceptualised as a linear model wherein the predictors, namely attitude, perceived behavioural control, and social norms, are posited to influence the mediator, intention, which subsequently impacts the dependent variable, behaviour. Although the model effectively elucidates the phenomenon of the intention-behaviour gap, it is important to acknowledge the intricate nature of the daily engagements of Gen Z individuals (Djafarova & Bowes, 2021).

Theories of electronic word-of-mouth (EWoM) exchanges

The two predominant theories utilized in explaining (eWoM) are the Social Exchange Theory (SET) and the Social Network Theory (SNT). This subsection provides an explanation of both theories, with a focus on the use of the SET in the present study. The SET is favoured due to its comprehensive explanation of how customers engage in utility exchange, encompassing various aspects such as communication (Yuen et al., 2023). The propensity for communication exchanges aligns most well with the behaviours exhibited by individuals belonging to Gen Z.

The Social Exchange Theory (SET)

The rising phenomena of eWoM have attracted scholarly attention to re-assess existing theoretical insights. Recent studies of eWoM have applied the Social Exchange Theory (SET) (Kelley, 1959) as a basis for explaining and predicting its effects in consumption (see: Alnoor et al., 2022; Chen et al., 2023; Chu et al., 2022; Huy et al., 2022; Tóth et al., 2022).

Social exchange is a voluntary exchange of resources among two or more actors according to (Homans, 1958). A social exchange relationship is based on the principle of reciprocity (Bagozzi, 1995), which presupposes that if one exchange partner does anything advantageous to another, there is an obligation to reciprocate the action (Cropanzano et al., 2017). This reciprocation may include physical capital, such as money exchange, or may be of a socio-emotional type, such as love, confidence, dedication or loyalty exchange (Aselage & Eisenberger, 2003). There can also be interactions between humans over the internet (e.g., online shops) (Steinhoff et al., 2019).

Lévi-Strauss (1969) categorised social-exchange relationships into two broad groups in his work on SET. The first is a restricted exchange, which is a direct interaction or exchange (may be tangible or intangible) between two actors. For instance, an actor (e.g., sustainable food provider or sustainable food itself) gives resources (e.g., sustainable food which helps the health of the individual) to a second actor (e.g., a consumer), who then 'returns favour' by providing back resources (e.g., trust, commitment, and loyalty) to the initial actor. The second form of transaction is generalized, involving explicit reciprocity between three or more actors. In this case, an actor (e.g. sustainable

food provider or sustainable food itself) provides a second actor (e.g. consumer) with some kind of value (e.g., health or prestige), and receives a reciprocated that is a 'good faith' action by extending resources to a third actor (e.g. another consumer) by offering information (word-of-mouth reviews). By this, value is enhanced for the many parties involved (Paparoidamis et al., 2019).

Previous studies have identified numerous influences contributing to successful social exchange relationships. For example, when supervisors are positive or cooperative towards their workers and/or when they demonstrate transformational leadership activities, reciprocated social interactions, in the form of corporate citizenship activities and engagement, have been shown to grow among workers (Clark et al., 2017; Omar et al., 2009). In online services, this suggests that the exchange situation is enhanced by certain factors that serve as bases for the exchange. Such factors include as seen in the work of, Cropanzano and Mitchel (2005), commitment, satisfaction, trust and loyalty. There must be a sacrifice of resources from both sides of the spectrum.

The notion of a two-sided interaction is reflected in social exchange theory, which is an influential theoretical framework for analysing reciprocal or resource-exchanging behaviours (Karalis Noel et al., 2022). In bilateral partnerships, reciprocal laws in social exchange theory state that good activities on one side will result in a positive reaction on the other side (Cropanzano & Mitchell, 2005). Furthermore, according to social exchange theory, two primary resources, social resources (e.g. social influence) and economic resources exchanged in one relationship can produce a close interpersonal relationship, which can determine collaborative and favourable behaviours (Cropanzano et al., 2017; Cropanzano & Mitchell, 2005).

Social Network Theory

Another theory that looks more specifically at the issue of eWoM is the Social Network Theory.

Lea, Yu, Maguluru, & Nicholas (2006, p. 121) define a social network as "a set of people, organisations, or other social entities, connected by a set of socially meaningful relationships such as friendship, co-working or information exchange, and interactions to better achieve desired outcomes,

by sharing expertise, resources, and information". People engage in social networks for a wide range of psychological, economic, emotional and social extents, and the benefits of their engagement have to do with their attitudes, behaviours, and thought (Granovetter, 1983). Lea et al. (2006) further explain that the phenomenon of social networking represents a continuous revolution in which the individuals comprising the audience actively engage as participants. A social network can be conceptualized as a structure whereby individuals interact directly or indirectly. As an illustration, individual A has a direct relationship with individual C and can build indirect relationships with individuals D, E, and F through their connection with individual C.

In contrast, individual B possesses five direct connections with other individuals, leading to a greater number of indirect links inside their social network. Both direct and indirect interactions contribute to the promotion of social integration, allowing participants to engage with their peers through social network ties. The size and diversification of social networks can exhibit variability (Garton et al., 1997). Small, homogenous networks are a distinguishing feature of conventional work groups and village communities, as they effectively facilitate the preservation of current resources. Larger social networks demonstrate a greater degree of diversity in the social traits of their members and a higher level of intricacy in the structure of these networks. In conventional social networks, the individuals involved primarily consist of individuals within proximity, such as friends, family members, neighbours, colleagues, or members of local communities. The governance of these networks is predominantly localised, with interactions primarily taking place among individuals who reside in the same geographical area. The services provided by these networks are designed to enhance the social and economic aspects of the local community (Lea et al., 2006).

Traditional social networks typically have a limited number of members and tend to have a certain degree of similarity among their members and network structure. Additionally, these networks may be restricted by the availability of physical meeting times for their members and often operate in isolation from other networks. According to Kimball and Rheingold (2000), the progression of technology has led to the development of online social networks, which are facilitated by computer

networks. These networks have emerged from both the interpersonal interactions of individuals and the technological infrastructure that enables their connection. The advent of digital technology has revolutionised the way in which individuals engage with one another. Previously, interpersonal exchanges that occurred in person have now transitioned to the online realm, facilitated by a combination of web conferencing, real-time collaboration tools, instant messaging platforms, shared virtual workspaces, and interactive whiteboards. These interactions are made possible through the utilization of internet-based protocols, such as Hypertext Transfer Protocol (HTTP). Online social networks transcend the physical limitations inherent in traditional social networks, facilitating and augmenting the advantages associated with such networks in terms of temporal and spatial dimensions. Moreover, they expedite and internationalize the underlying processes.

According to Kim, Kandampully, and Bilgiham (2018), this network approach is based on two assumptions: "(1) social networks play a significant role in determining individual attributes and actions (e.g., by exposure to information and ideas), and (2) the network of relationships in which the individuals are embedded is more important in explaining behavior than are the intrinsic attributes of the individuals themselves".

With its focus on SFC and connections between various social actors, the perspective of the social network helps scholars study a person's attitudes and activities within a larger network of relationships such as social media or the internet. The use of a network framework is therefore, an effective method for obtaining an in-depth understanding of customer experiences through eWoM contact and their effect on customer decisions.

It must however be noted that there are ethical concerns with exchanges online which speaks to the axiological rectitude of the theory.

Theories of Culture and Consumption

Two major theories that explain how culture influences consumption are Hofstede's Cultural Dimensions (HCD) and the Consumer Culture Theory (CCT). The two theories are explained in this subsection.

Hofstede's Cultural Dimensions

The Cultural Dimensions Theory, formulated by Geert Hofstede, a prominent Dutch social psychologist throughout the 1970s and 1980s, is a substantial conceptual framework for examining and comprehending cultural distinctions among nations (Hofstede, 1980). This theory posits five dimensions that can be employed to analyse and differentiate diverse cultures: Power Distance, Individualism versus Collectivism, Masculinity versus Femininity, Uncertainty Avoidance, Long-Term versus Short-Term Orientation, and Indulgence versus Restraint (Hofstede, 1980).

The Power-Distance Index

The concept of power distance index pertains to the degree to which those occupying lower positions within an organisation or institution, such as a family unit, acknowledge and anticipate the existence of unequal distribution of power. While all civilisations exhibit a certain level of inequality, Hofstede observes varying degrees of equality throughout different societies. Individuals residing in communities characterised by a significant power distance exhibit a propensity to embrace hierarchical structures wherein individuals are assigned specific positions within a ranking system, without requiring explicit reason. In contrast, cultures characterised by low power distance strive to achieve a more equitable power allocation. The implication of this observation is that many cultures tend to support and anticipate relationships that exhibit characteristics of consultation, democracy, or egalitarianism. In nations characterised by low power distance index values, there exists a greater degree of parity between parents and children, wherein parents are more inclined to accommodate instances where youngsters engage in argumentation or express dissent against authority figures. In workplaces characterised by a low power distance index, there is a higher likelihood for employers and managers to solicit feedback from employees. In fact, individuals at lower positions within the hierarchy anticipate being asked for their advice (Hofstede, 1980). In nations characterised by a significant power distance, it is common for parents to hold the expectation that their children will comply with their authority without engaging in questioning or challenging their guidance. Individuals who have higher social positions may frequently encounter overt demonstrations of

subordination and deference from those in lower positions. In relation to food consumption, young people in low power distance societies tend to be more expressive and independent-minded. They tend to make food consumption decisions more freely.

Collectivism and Individualism

Individualism and collectivism are two contrasting concepts that pertain to the incorporation of individuals within social groups. Individualistic societies prioritise personal success and individual liberties, placing emphasis on the well-being of oneself and one's immediate family. The self-image of an individual within this particular category is commonly referred to as the first-person pronoun "I". In contrast, collectivist cultures prioritise the objectives and welfare of the collective, wherein an individual's self-concept aligns more closely with a communal identity denoted as "We." Individuals from collectivist societies tend to place greater emphasis on interpersonal relationships and loyalty compared to individuals from individualistic ones. Individuals often have a tendency to be associated with a smaller number of groups, however their sense of identity is primarily shaped by their affiliation with these groups. Hofstede (1980) posits that communication tends to exhibit a greater degree of directness in individualistic society, while in collectivistic societies, it tends to be more indirect. In collective societies, food consumption is expected to be mainly influenced by social approval and interactions. The process of food consumption becomes more relational.

Uncertainty Avoidance Index

The factor of uncertainty avoidance in Hofstede's cultural dimensions pertains to the level of tolerance that a society exhibits towards uncertainty and ambiguity. This component pertains to the degree to which individuals in a given community endeavour to manage their feelings of worry by reducing uncertainty. Uncertainty avoidance, as conceptualised by Hofstede (1980), pertains to the extent to which a culture perceives change as a source of threat. A high index of uncertainty avoidance signifies a diminished capacity to tolerate uncertainty, ambiguity, and engaging in risk-taking behaviour. Both the organisations and individuals within these societies endeavour to mitigate uncertainty by implementing rigorous rules, laws, and similar measures. Individuals among these

cultural groups also exhibit a higher propensity for emotional expression. On the other hand, individuals residing in cultures characterised by low uncertainty avoidance have a greater willingness to embrace and adapt to unstructured circumstances or dynamic settings, while striving to minimise the presence of regulations. This implies that individuals belonging to these cultural groups exhibit a higher propensity for embracing and accommodating change. The concept of the unknown is generally embraced with greater openness, potentially leading to a relaxation of rigid rules and restrictions. For instance, in a cultural context characterised by low uncertainty avoidance, a student may exhibit greater receptiveness towards a teacher's admission of not knowing the answer to a question, as compared to a cultural context characterised by high uncertainty avoidance (Hofstede, 1980).

Femininity and Masculinity

The dimension of femininity against masculinity, which is alternatively referred to as gender role differentiation, constitutes one of Hofstede's six dimensions of national culture. This component examines the extent to which a society places importance on conventional gender roles associated with masculinity and femininity. According to Hofstede's research conducted in 1980, a society characterised as masculine places high importance on traits such as assertiveness, boldness, strength, and competition. Conversely, a feminine society prioritises values such as cooperation, nurturing, and the overall quality of life. A higher score on the femininity scale signifies a greater significance placed on conventional feminine gender roles within a given community, whereas a lower score shows diminished importance attributed to these duties. For instance, a nation characterised by a high femininity score is expected to possess more favourable maternity leave legislation and more accessible childcare services. In contrast, it may be inferred that nations characterised by lower femininity scores are more inclined to exhibit a greater representation of women in positions of leadership and a higher prevalence of female-driven entrepreneurial endeavours (Hofstede, 1980).

Short-term and Long-term Orientation

The dimension of long-term and short-term orientation pertains to the extent to which cultures promote the postponement of immediate fulfilment in favour of fulfilling the material, social, and emotional requirements of their constituents (Hofstede, 1980). Societies characterised by long-term orientations exhibit a tendency to prioritise future-oriented goals, so deferring immediate success in favour of achieving long-term success. These societies place significant emphasis on characteristics such as persistence, perseverance, thriftiness, saving, long-term growth, and the ability to adapt. In contrast, a culture characterised by short-term orientation exhibits a tendency to prioritise immediate outcomes and gratification, with a higher emphasis on the present rather than the future. The ultimate outcome of this phenomenon is a prioritisation of expeditious outcomes and reverence for established customs. The values of a society with a short-term orientation are interconnected with historical and contemporary contexts and can lead to excessive expenditure, frequently as a reaction to societal or environmental influences (Hofstede, 1980). It is expected that a long-term-oriented culture would encourage SFC more than a short-term-oriented culture, or perhaps, the motivation for engaging in SFC would be different.

Restraint and Indulgence

The dimension of constraint and indulgence examines the degree and inclination of a community to satisfy its wishes. This dimension might be understood as a quantification of societal tendencies towards impulse regulation and desire management. Elevated levels of indulgence are indicative of a societal framework that permits relatively unrestrained pleasure and fosters a heightened sense of enjoyment of life. In the context of societal dynamics, restraint can be seen as the inclination of a community to inhibit the immediate fulfilment of desires and instead govern them by means of established social conventions. In an affluent culture, individuals may exhibit a propensity to allocate greater financial resources towards indulgent goods and services, while also experiencing heightened autonomy in their pursuit of leisurely pursuits. According to Hofstede (2011), individuals residing in

a culture characterised by restraint tend to exhibit a greater propensity for saving money and prioritising practical necessities.

Criticisms of the Hofstede's Cultural Dimensions

Although Hofstede's theory has played a significant role in elucidating general patterns and inclinations in cultural behaviour, it has not been exempted from scrutiny and critique. One of the main criticisms towards the theory revolves around its limited capacity to encompass the ever-changing and fluid character of culture effectively. McSweeney (2002) and other scholars claim that culture is a dynamic and mutable construct, rather than a static and unchanging entity. The evolution and adaptation of cultures have been influenced by several factors such as cultural shifts, globalization, technological breakthroughs, and heightened cross-cultural exchanges. Hofstede's theory, formulated on the basis of evidence gathered during the 1960s and 1970s, may not comprehensively account for the dynamic transformations that have transpired in subsequent years.

Another aspect of critique pertains to the underlying assumption of enduring stability within national cultures across temporal dimensions. Although Hofstede's dimensions provide valuable insights into certain cultural trends, it is crucial to acknowledge that cultures are subject to transformation as a result of diverse variables, including economic advancements, social dynamics, political fluctuations, technological innovation and global influences. The assertion that national cultures exhibit a high degree of stability may oversimplify the intricate dynamics of cultural transformation and adjustment (Dimitrov, 2018).

Furthermore, it is worth noting that Hofstede's theory frequently employs broad generalizations when characterizing national cultures, thereby disregarding the substantial internal variations that exist within a given country (Fang, 2003). Nations may encompass a multitude of subcultures, ethnic groups, and geographical disparities, each characterized by distinct cultural attributes. Consequently,

relying solely on national-level analysis may yield less precise insights into individual behavior and relationships.

Notwithstanding these concerns, it is imperative to acknowledge that Hofstede's theory continues to hold significance as a beneficial instrument for fostering consciousness regarding cultural disparities and serving as an initial reference for facilitating cross-cultural comprehension (Courtright et al., 2011). Although the theory may not comprehensively encompass the complexities of cultural dynamics and transformations, it still provides a structure that can stimulate dialogues and can encourage individuals and institutions to exhibit heightened cultural awareness when engaging in global contacts. Nevertheless, in order to acquire a more thorough and current comprehension of cultural subtleties, academics and professionals frequently supplement Hofstede's dimensions with additional ideas and methodologies that highlight the dynamic and intricate nature of cultural exchanges within our continually evolving global context (Dimitrov, 2018).

Consumer Culture Theory

One of the criticisms of the Hofstede's cultural dimensions is what motivated the introduction of the Consumer Culture Theory (CCT) which has been widely applied in understanding consumers. The CCT was developed by Arnould and Thompson in 2005 to encompass the "flurry of research addressing the social, experiential, symbolic, and ideological components of consumption" (Arnould & Thompson, 2005a, p. 868). Arnold and Thomson further explain that consumer culture "denotes a social arrangement in which the relations between lived culture and social resources, and between meaningful ways of life and the symbolic and material resources on which they depend, are mediated through markets" (2005a, p. 869). Hence, it is imperative to understand consumption phenomena solely within the framework of their integration into the sociocultural milieu in which they are situated.

Moreover, it is essential to examine these phenomena in conjunction with the complete cycle of consumption, encompassing the stages of acquisition, possession, consumption, and disposal. The objective of the CCT is to develop theoretical frameworks that explain the underlying dynamics

behind these cycles of consumption, as well as the social logics involved, at many levels of analysis, including the micro, meso, and macro levels. Contexts are not seen to be ultimate goals, but rather they are recognized as being just as significant as the domain in which consuming phenomena occur, as genuine and lived encounters (Askegaard, 2015).

Consumer culture, in CCT, refers to what customers do and believe rather than to a personality trait. Similarly, "being a consumer" is an identity that is inextricably linked to market capitalism, the dominant global economic system, and the two adapt and change in lockstep. Within the broader socio-historical frame of globalisation and market capitalism, CCT investigates the "heterogeneous distribution of meanings and the diversity of overlapping cultural groupings that exist" (Arnould & Thompson, 2005a, p. 869). The processes of fragmentation, plurality, fluidity, and the intermingling (or hybridization) of consumer traditions and ways of life are further highlighted by Arnould and Thompson (2005a).

Also, consumer culture is viewed through the lens of CCT as a dynamic network of material, economic, symbolic, and social links or connections. According to Thompson and Kumar (2021), consumer culture is a socio-economic structure in which markets mediate the linkages between lived experiences, that is, between meaningful ways of living and the symbolic and material resources on which they rely, either directly or indirectly.

However, CCT research emphasises the purpose of 'understanding' consuming phenomena in their cultural context, much like biologists study fish in a different way than fishermen. CCT, in other words, adopts a biologist's interpretive approach rather than a fisherman's predictive perspective. Consumer researchers, for example, use a phenomenological method to "explain experience as it develops in some context(s)" (Thompson et al., 1989, p. 135), acknowledging that sociocultural and historical settings always inform consumer experiences. Interpretive claims are anchored in real-world consumer narratives and observation in situ in the standard CCT technique pioneered in the Consumer Behavior Odyssey (Belk, 1987), which tries to systematically disclose the layers of cultural meaning that inspire and frame consumer behaviour. The authors then compare their innovative

theoretical discoveries to existing frameworks and provide alternative perspectives on the world that sometimes coincide with existing interpretive frames and sometimes extend or question them.

The CCT serves as a good foundation to explaining SFC. For instance, one of the major aspects of the CCT is about how consumers create identities. The concept of identity pertains to the manner in which consumers perceive their own selves through the act of eating a particular product. Consumers endeavour to construct a specific perception of themselves by means of the food they consume. The act of consuming sustainable food and engaging in sustainable food consumption practices can imbue consumers with a sense of dignity and pride. The literature on identity has different views of the construct (Oyserman, 2007). Oyeserman (2009) tries to unify the diverse views by claiming that identity can be formed outside of the conscious awareness of the person, and that identities are sensitive to situational factors. Oyserman (2007) defines identity as "any category label to which a consumer self-associates that is amenable to a clear picture of what the person in the category looks like, thinks, feels and does". Individuality and social ties (Alnoor et al., 2022) are major reasons why people acquire possessions. People acquire, use, and even dispose off products often to satisfy their craving for uniqueness and differentiation; same applies to food. Also, people want to feel belonging to a group. The feeling of belongingness also leads consumers to discuss their SFC behaviours with others. Consumers' want to satisfy their social needs make them patronise some kinds of food (Jerome, 2013). Extending this to national cultures, people from countries that are very individualistic like the United States of America are very likely to consume food to project their individualistic lifestyles whereas people from Africa and some Asian countries will patronise products that will portray the symbol of belongingness.

Theoretical convergence and integration

The literature posits that the integration of theories is an important challenge across diverse disciplines, such as psychology, management, and information systems. In his work, Gigerenzer (2017) presents a theoretical framework for integrating phenomena and theoretical concepts, which

he refers to as a two-step theory integration program. Gigerenzer (2017) explains that Popper's falsification testing theory and the development of unified theories are two common routes toward theory development. However, a third and complementary route is integrating already existing theories. Gigerenzer (2017) proposes a two-step theory integration program to provide a systematic framework. The first step is the integration of phenomena, that is, the study of how apparently disparate robust observations are theoretically connected and not just empirically correlated. The second step is the integration of theoretical concepts, that is, the study of how apparently different explanatory concepts are linked. Links between phenomena or concepts include identity, nesting, and functional equivalence. Functional equivalence means that two or more psychologically distinct theoretical concepts can be shown to imply the same behavioural pattern by vicarious functioning. For instance, the TPB, SET, CCT, and the Pavlonian theory of reinforcement interplay to explain the SFC behaviour of Gen Z. The 2-step program requires formalisation and close attention to operational and conceptual definitions. It should not be seen as an algorithm that can be automatically applied but as a heuristic method requiring creativity for building a network between theories.

Scherer (2022) projects the value of theoretical integration and even warns that a constructionist approach to theory development might not meet the requirements of Gigerenzer (2017). Scherer (2022) explains that the extent to which this constructivist theory (in the study of emotions), which places some reliance on the brain as an agent, meets the rigorous theoretical framework demanded by Gigerenzer (2017) for the development and empirical testing of relevant hypotheses is not readily apparent. Scherer (2022) bemoans just as Reisenzein (2019), the theoretical fragmentation in the area of psychology. As Sutton and Staw (1995) observed, a theoretical contribution is not just a collection of references to prior work, nor a collection of conceptual frameworks, and not a set of definitions and constructs. Rather, a theory integrates, explains, and predicts. Stewart (2019, p. 430) explained that "The integration [of theories] itself produces new insights and suggests new directions for research. This is what strong theoretical and conceptual papers should do". Mayer and Sparrowe's (2013) also recommended theoretical integration as a means to advance theory development in

management research. In Mayer and Sparrowe's (2013) editorial, they explored various methodologies for integrating theories within the realm of management research. These methodologies encompass the incorporation of two distinct theoretical views to comprehensively address a singular occurrence and the application of one theory to the domain of another theory.

According to Mayer and Sparrowe (2013, p. 917) "One way to integrate theories involves taking two perspectives that speak to the same phenomena but from different vantage points". To operationalize the integration of two theories, it is imperative to establish a shared dependent variable within this method. The theories do not necessarily require complete overlap in their respective realms of applicability; nonetheless, it is necessary for them to exhibit a certain degree of overlap in order to make particular predictions within a given context. One instance of scholarly research is the study conducted by Mayer and Salomon (2006) on subcontracting. Their study combined aspects of the Resource-Based View (RBV), which emphasises the significance of capabilities and resources in the decision-making process of subcontracting, with Transaction Cost Economics (TCE), which focuses on the influence of exchange hazards as a determinant of the same decision.

In the proposals by Gigerenzer (2017), Scherer (2022), Reisenzein (2019), Mayer and Sparrowe (2013) and Mayer and Salomon (2006) to integrate theories, there should be some kind of convergence of the concepts of the theories in explaining a phenomenon. As explained in the previous chapter, examining Gen Z is a complicated task because a number of social and personal factors influence Gen Z's behaviours. Hence the need for theoretical integration. Following the method proposed by Gigerenzer (2017), the relationships among the concepts in the theories explained in previous paragraphs must be demonstrated. The next couple of paragraphs seek to explain this as it relates to the SFC of Gen Z.

In the study of SFC, there are precedents to the integration of theories. For instance, to explain variables affecting SFC, Anuar, Omar, Ahmed, Saputra, and Yaakop's (2020) study blended the Value-Attitude-Behavior (VAB) model with the Theory of Reasoned Action (TRA)(Ajzen, 1980). Values, attitudes, social influence, purchasing intention, and behaviour are the four aspects of TRA,

whereas values, influence, attitudes and behaviours are aspects of the VAB model. Perceived values influence consumer attitudes and behaviour. The VAB model introduced the concept of values in the integration of theories. According to the model, values exist in a hierarchical order. This is in agreement with Ihemezie, Nawrath, Strauß, Stringer, & Dallimer (2021) who also argue that values shape attitudes and behaviours. Values (religiosity, self-transcendence, conservation, and self-enhancement) would impact attitudes and behaviours, according to the VAB model. Other variables such as environmental awareness and environmental affect, values (religiosity), and peer influence are included in this study as crucial elements that might influence SFC.

The concept of electronic Word of Mouth (eWoM) has become increasingly prominent in the modern era of technology, serving as a powerful tool for sharing information and engaging in social interactions. The aforementioned mode of communication encompasses the exchange of viewpoints, personal encounters, and suggestions over diverse digital platforms, consequently serving as a crucial component inside the present-day consumer environment. Significantly, eWoM arises as a strategic approach for improving the gap between attitudes and behaviors, which is a topic that the TPB aims to address. The TPB proposes that an individual's inclination to partake in a specific conduct is shaped by their attitude, subjective norms, and perceived behavioural control. The significance of eWoM is significant in this context since it influences individuals' attitudes and perceptions by providing them with firsthand reports. EWoM also promotes a sense of communal endorsement and helps to establish certain behaviors as normal. As a result, eWoM functions as a medium for the integration of external viewpoints and personal beliefs, enabling the synchronization of individuals' intentions and behaviors as envisioned by the TPB.

Moreover, the concept of social exchange, which is inherent in the eWoM communication, is deeply rooted in the realm of consumer culture and has become an essential component of modern consumer behaviour. The phenomenon of consumption culture extends beyond simple economic transactions and covers a broader range of social dynamics, such as collective values, norms, and identities (reference?). Within this particular framework, eWoM functions as a platform where the complicated

dynamics of consumer experiences, views, and preferences intersect, amalgamating into a multifaceted network of interactions that form the foundation of contemporary consuming behaviours. The proliferation of eWoM highlights the interconnectedness of consumer socialisation, information exchange, and collective identity development. This combination serves to strengthen the significance of eWoM in fostering a mutually beneficial connection between the individual and the community, ultimately influencing consumer buying choices, product evaluations, and brand devotion. The integration of eWoM into consumption culture highlights its diverse impact on modern consumer behavior, encompassing not only transactional elements but also the wider sociocultural context that affects consumption behaviours.

To summarise, this study draws on several theoretical frameworks, namely the Theory of Planned Behaviour (TPB), Social Exchange Theory (SET), Consumer Culture Theory (CCT), and Pavlovian theory of learning (reinforcement). The integration of various theories and their corresponding concepts serves to elucidate the underlying factors influencing the sustainable food consumption behaviours exhibited by individuals belonging to Generation Z. The Theory of Planned Behaviour (TPB) encompasses the factors of attitudes, subjective norms, and perceived behavioural control, which collectively influence individuals' intentions and subsequent behaviour. The social exchange theory provides an explanation for the manner in which Generation Z engages in the process of giving and receiving eWoM from their peers. The concept of eWoM, as advocated by the social exchange theory, can be categorised as a component of subjective norms. This is due to its ability to generate social influences that shape individuals' intentions towards their behaviour. Therefore, the social exchange theory and the theory of planned behaviour exhibit a complex and intriguing interconnection.

The consumer culture theory encompasses various dimensions, two of which hold particular relevance to this study: (1) consumer identity projects and (2) marketplace cultures. The consumer identity project elucidates the process by which consumers establish their identities through

consumption. Similarly, the concept of marketplace cultures elucidates how consumers shape markets through their interactions and behaviours. Both concepts are interconnected in some way with the eWoM theory and the theory of planned behaviour (TPB). As individuals cultivate their personal identities, they manifest these identities through their interactions, both in virtual and physical realms. Prevailing social norms also influence these interactions. Therefore, the integration of consumer culture theory, social exchange theory, and the theory of planned behaviour is employed to elucidate the behavioural patterns exhibited by individuals belonging to Generation Z. The Pavlovian theory of learning elucidates the concept of reinforcement, which posits that behaviour is strengthened through the process of learning. This further illustrates the application of two theoretical frameworks, namely the TPB and the Pavlovian theory of reinforcement, in elucidating the SFC phenomenon among members of Generation Z. The diagram provided below visually represents the theoretical integration being discussed.

Integrated theoretical framework

Theory of planned Behaviour	Social Exchange Theory	Consumer Culture Theory	Reinforcement

Values

Connection through a set of socially meaningful relationships

Consumer Identity project

Reinforcement of behaviour

Attitude

Social Norms

Reinforcement of Values

Perceived Behavioral Control

Marketplace Culture

Behaviour

Purchase
Usage
Disposal
Communication

Figure 3.1 Integrated theoretical framework

Hypothesis Development

Food consumption values and attitude towards SFC and intention to engage in SFC behaviours

The TPB and the Norm Activation Model (NAM) are often used to explain the influence of values on attitudes and behaviours. According to TPB, attitudes, subjective norms, and perceived behavioural control shape an individual's intention to engage in a behaviour. NAM posits that values drive individuals to adopt attitudes aligned with these values, subsequently impacting their behaviors. Values are widely acknowledged as a potential factor that can influence the determinants of individuals' behavioural intentions regarding sustainable food. Human values can be defined as enduring beliefs concerning the desirability of specific behaviours and ways of life, either on a personal or societal level (Baker et al., 2004; Braithwaite & Law, 1985; Harris, 2010; Pepper et al., 2009; Rokeach, 1967). For instance, certain individuals may place significant importance on a comfortable standard of living, embracing a materialistic way of life, whereas others prioritize environmental concerns and embrace a non-materialistic lifestyle. A significant number of individuals reside in relatively stable environments, resulting in the establishment of relatively stable values. The attitudes and behaviour related to sustainability, such as recycling (McCarthy & Shrum, 1994)(Han et al., 2019; Thøgersen & Ölander, 2002), and green purchase behaviour (Chan, 2001; Kumar, 2021; Lobo & Greenland, 2017), are influenced by values. The role of values in consumer decision-making processes, such as the selection of sustainable products and brands, has been highlighted by Shwartz et al. (2001).

Multiple studies have established a connection between sustainable or ethical conduct and individual values (Lobo & Greenland, 2017; Marcus & Roy, 2019). Thøgersen and Ölander (2002) posited that the establishment of a causal link between certain values, such as universalism, and the adoption of a sustainable consumption pattern suggests that the promotion of appropriate values through socialisation and national institutions can effectively contribute to the attainment of the ultimate objective of sustainable consumption in the long term.

Wheeler et al. (2005) posited that an individual's values, which refer to their enduring preference for specific opportunities, play a crucial role in shaping their choices and decision-making criteria. Thogersen and Grunert-Beckmann (1997) contended that in order to comprehend environment-related behaviours, it is imperative to consider the role of values. However, they assert that the significance of values may be undervalued if essential mediating constructs such as attitudes, norms, and perceived behavioural control are not taken into account. The objective of this study is to build upon prior research by investigating the factors that individuals who exhibit high levels of various values consider when making decisions to either purchase or abstain from purchasing sustainable products.

Dreezens, Martijn, Tenbult, Kok and De Vries (2005) examined how values affect perceptions about Genetically Modified (GM) and organic foods. The research demonstrated that power and universalism influenced people's judgements of various food categories. The findings showed that these principles influenced attitudes' centrality, commitment, and ambivalence. This suggests that an individual's underlying values can affect their sustainable food consumption and food production decisions. Goldsmith (1995) examined how societal norms affect people's opinions of snack, convenience, and cooking foods. The study found a strong link between societal ideals and individual attitudes, which influenced food purchase habits. The association between values, attitudes, and buying behaviour emphasises the need of understanding how cultural ideals affect food preferences. Adamczyk, Goryńska-Goldmann, and Gazdecki (2015) examined how values, attitudes, and ethnocentric beliefs affected dietary choices. The study found that family, health, and fitness strongly influenced consumer choices. The study also found a positive correlation between ethnocentric views and value systems. Values, attitudes, and ethnocentrism are linked, suggesting that culture and values can affect food sustainability views. These findings notwithstanding, many studies have found a weak relationship between values and sustainable food choice (e.g., Brunsø et al., 2004; Chryssohoidis & Krystallis, 2005; De Boer et al., 2007; Goldsmith et al., 1995). Paradoxically, a cross-sectional study by Syah and Yuliati (2017) investigated the influence of values and attitudes on healthy food selection

among 288 students of Bogor Agricultural University in Indonesia. It found that attitude had a positive and significant effect on the choice of healthy foods, while values had no significant effect. This disparity in the literature must be a result of the broad nature of values.

This study, therefore, hypothesises that:

> *H1: Food consumption values (consisting of social, prestige, health, epistemic, and economic values) have a positive effect on Gen Z attitude towards sustainable food consumption*

> *H2: Food consumption values have a positive effect on the intention to consume sustainable food*

Attitude towards SF and intention to consume SF

The influence of attitude on customer behavior is a pivotal aspect that necessitates careful consideration. Moreover, it is widely acknowledged that attitude plays a significant role in shaping individuals' motives and intention to participate in the consumption of sustainable or environmentally friendly food products. A considerable body of scholarly research has established a clear and positive correlation between individuals' attitudes and their intentions to partake in the consumption of sustainably produced food (Alam et al., 2020). The study conducted by Eagly and Chaiken (2005) elucidated that attitudes can be understood through the lens of individuals' behavioural beliefs, which encompass their perceptions of the consequences or outcomes of a particular behavior, as well as their evaluation of these outcomes. In essence, during the process of deliberating whether or not to partake in a particular behavior, individuals commonly assess the benefits and drawbacks. The individual's positive or negative disposition is dependent upon their evaluation of the results. Likewise, individuals may perceive the act of patronizing an establishment that serves insects as a socially conscientious behavior, contributing to the reduction of environmental harm and the advancement of a sustainable food consumption system. These cognitive beliefs and assessments of outcomes are expected to influence one's intention positively. Attitude was defined by Hwang and Kim (2021a) as

"the extent to which a person has a favourable or unfavourable opinion or assessment of the behaviour in issue" (p. 188). In other words, attitude determines the future evaluation of a particular behaviour as positive or unfavourable.

Vermeir and Verbeke (2006), Lago et al. (2020) and de Barcellos et al. (2011) provided insights into the correlation between individuals' attitudes and their intentions to engage in the consumption of sustainably produced food. Alam et al. (2020) also reported a positive association between the attitude of customers and their perception and intention to purchase sustainable foods. The data indicate that the variable has a considerable effect, and the positive effect of attitude is present within the framework they developed. These findings are consistent with those of Su et al. (2021), Qi and Ploeger (2021) and Vermeir and Verbeke (2008b). The study conducted by Qi and Ploeger (2021) investigated the intentions of individuals to purchase environmentally friendly foods in China, utilising a dataset comprising 300 observations. Irrespective of the cultural backgrounds of customers, they have consistently reported that attitude is a significant determinant in shaping their behavioural intentions. Based on the available evidence, it can be inferred that a positive disposition would likely lead to intentions of patronising a restaurant that specialises in entomophagy. According to Persson (2013), the role of attitude in sustainable food consumption is of utmost importance, as it influences individuals' perceptions and beliefs regarding their dietary choices. The perception and evaluation of a specific food production can be significantly influenced and varied by one's positive or negative attitude towards it. Based on the aforementioned findings, it can be inferred that attitudes significantly influence the adoption of sustainable food consumption practices (Hwang & Kim, 2021).

This study, therefore, hypothesises that:

> *H3: Attitude towards sustainable food has a positive effect on the intention to consume sustainable food*

Social norms and intention to consume SF

As highlighted by numerous studies (Al-Swidi et al., 2014; Baker et al., 2003; Suleman et al., 2021; Tuu et al., 2008), social norms or subjective norms are an additional element in the TPB model that has an impact on intention. According to Baker et al. (2003), social norm observance significantly predicts the intention to consume sustainably produced food. According to Ruiz de Maya et al. (2011), social norms have a very strong association with culture. In addition, Vermeir and Verbeke (2008b) asserted that social norms might influence even consumers with a negative attitude toward purchasing organic food to change their minds. When consumers are motivated by social standards, their intentions to purchase sustainable and organic goods will be stronger. There is a direct association between societal norms and the intention to consume food sustainably.

Paradoxically, Arsil et al. (2018) have found that characteristics such as social norms, information, expertise, market availability, and involvement were irrelevant in influencing evaluative attitude and behavioural intention. They further acknowledge, however, that norms originate from social conditions characterised by the influence of family and moral obligations (Arsil, Tey, et al., 2018). Consumers are willing to offer their families wholesome, varied, and high-quality local food. Community, friends, teachers, merchants, governments, and families all have an impact on an individual's eating preferences. According to Johnston, Fanzo, and Cogill (2014), the consumption of sustainable food is influenced by a range of cultural and social factors. These factors encompass cultural identity, customs, family practices, and the acceptability of certain foods. Additionally, the authors noted that time constraints often take precedence over health and environmental considerations in the decision-making process related to food choices. These dietary patterns are characterized by their positive impact on health, minimal environmental footprint, and the necessity of being accessible to all individuals from socio-cultural and economic perspectives. Drewnowski (2009) confirmed that the optimum diet is one that is healthful, of sufficient quality and quantity, economical, safe, and culturally acceptable for ideal human nutrition and health status. Hence there is much social significance of sustainable food.

The findings of the regression analysis conducted in the study by Alam et al (2020) indicate that there is a positive relationship between social norms and the intention to engage in the consumption of sustainably produced food. The beta coefficient of this construct, which represents a social norm, exhibited the highest magnitude among all the variables investigated in this study pertaining to sustainable food consumption. This finding suggests that social norms exerted the most influential and statistically significant impact on food consumption choice when compared to all other variables included in their model. Several other researchers have arrived at a similar conclusion regarding the importance of social norms. The social ideologies of a collective exert significant influence in the selection of food categories (Douglas, 2018; Furst et al., 1996; Neumark-Sztainer et al., 1999). As various cohorts construct and authenticate their ideological framework, there may be divergence in social conventions across different age cohorts within a given society. Hence, the results of their research illustrate a positive correlation between social norms and the adoption of sustainable food consumption practices.

In their study, Wang et al. (2020) conducted a case study to examine the motivating factors behind pro-environmental behaviour among travellers. The results of their analysis revealed that subjective norms played a significant role in enhancing individuals' intentions to engage in such behaviour. The research conducted by Bae and Choi (2021) utilised the TPB as the foundation for their research framework. By analysing the responses of 392 Korean individuals, the study concluded that subjective norms play a significant role in shaping individuals' behavioural intentions towards the consumption of edible insects. The assertion made posits that individuals are likely to adopt the practice of consuming edible insects as food ingredients if their significant others engage in this behaviour regularly. Also, Cembalo et al. (2019) investigated the impact of an environmental incident in Italy on consumer food selection. The results of their research revealed a significant relationship between a subjective norm and customer intentions. While previous research has suggested that subjective norms may not influence individuals' intentions (e.g., Chen & Hung, 2016; Menozzi et al., 2017), the focus of this study is on the ecological dimension of an edible insect restaurant.

This study, therefore, hypothesises that:

H4: Social norms about sustainable food have a positive effect on the intention to consume sustainable food

Perceived behavioural control towards SF and intention to consume SF and SF purchase behaviour

One definition of behavioural control is the ease or difficulty of obtaining or consuming a specific product (Ajzen, 2002). This is also known as accessibility. Despite the fact that consumers are highly motivated to buy and consume sustainable food, doing so may be challenging due to the fact that SF may not be available during certain periods of the year or because food shops and markets may be located in remote areas (in the case of local foods) or sell SF for very high prices. Testing the effect of perceived behavioural control on intention, Aitken et al. (2020) conducted a study to investigate the influence of product-specific information, specifically labelling, within the framework of the TRA. The objective was to gain insights into the disparity between consumer attitudes and behaviour intentions towards the purchase of organic food goods. The findings of their study, which involved surveying 1,052 consumers in New Zealand, indicate that labelling has a significant impact on both perceived behavioural control and attitudes, hence influencing behavioural intention. This conclusion is supported by the analysis conducted using structural equation modelling. There was a positive relationship between respondents' agreement with the actionability of labelling and their attitude, perceived behavioural control, intention, and self-reported behaviour. The results of this study indicate that enhancing labelling systems to incorporate more actionable information, such as the positive impacts on health, environment, and society associated with products, can enhance customers' perceived behavioural control. Consequently, this improvement can reinforce their intent to purchase organic products. Another study in Australia by Sultan et al. (2020) was purposed to investigate the moderating influences of perceived communication, satisfaction, and trust on the discrepancy between intention and behaviour, as well as the discrepancy between perceived

behavioural control (PBC) and behaviour within the framework of the theory of planned behaviour (TPB). Their study employed a quantitative research approach. A comprehensive online survey, limited to a panel of participants from across the nation, was undertaken, yielding a total of 1011 valid responses from individuals who regularly consume organic food in Australia. The data underwent statistical analysis using SPSS v.25 and SmartPLS 3 software. The hypotheses were examined by the application of the partial least squares-based structural equation modelling (PLS-SEM) technique. The results of this study provide empirical evidence supporting the notion that perceived communication, contentment, and trust have a positive and significant impact on purchasing behaviour. Additionally, these factors help to reduce discrepancies in the links between intention-behavior and perceived behavioural control-behavior in the Theory of Planned Behaviour model. The study further substantiated the Theory of Planned Behaviour (TPB) model and demonstrated statistically significant findings that provided support for all 14 hypotheses proposed by the model.

Also, Johe & Bhullar (2016) explored the influence of psychological factors, including self-identity, attitudes, perceived behavioural control, and norms, on organic food consumption. A total of 252 individuals participated in the study, with an average age of 44.35 years and a standard deviation of 15.29. These participants were randomly allocated to one of three experimental conditions: (1) organic identity prime, (2) pro-environmental identity prime, or (3) control condition with neither pro-environmental nor organic identity primes. The results of the analysis of variance indicated that the organic identity prime condition led to a statistically significant increase in intentions to purchase organic items when compared to both the pro-environmental identity and control conditions. Subsequent mediation analysis revealed that the presence of an organic self-identity had a positive impact on customer intentions through its influence on attitudes and social norms. The findings of this study indicate that the concept of organic food identity can be effectively activated to induce changes in consumer behaviour that align with organic food consumerism.

Another study by Ariffin et al. (2019) employed structural equation modelling (SEM) with partial least squares (PLS) version 2.0 to examine the correlations among various components of the TPB. The research discovered that attitudes, perceived behaviour control, and price exert substantial influences on consumers' intention to purchase Halal organic food. However, subjective norms were found to have no significant impact. Lodorfos and Dennis also (2008) investigated the factors that impact customers' inclination to buy sustainable food. The research was grounded in Ajzen's TPB, which served as the conceptual framework. The study aimed to assess the suitability of this theory for the research context. The study was conducted using a sample size of 144 individuals in order to ascertain the underlying assumptions that influence consumers' inclination to buy SF. In addition, this study investigated the impact of attitudes, subjective norms, and perceived behavioural control on consumers' propensity to purchase SF. The results provided substantial evidence for the reliability of the TPB in elucidating the factors influencing intention within the studied population. Furthermore, it is worth noting that empirical research indicates that factors such as price, availability of organic products, product information, and subjective opinions of others play significant roles in influencing customers' intention to purchase SF products.

Chen and Hung (2016) investigated the factors that influence people's acceptance of environmentally friendly products. They found that individuals' perceptions of their own behavioural control play a significant role in the formation of their behavioural intentions to purchase environmentally friendly products. Carfora et al. (2017) conducted a survey of individuals who are responsible for making decisions within their households, and they demonstrated that perceived behavioural control had a significant influence in the generation of individuals' intentions to be environmentally friendly. Menozzi et al. (2017) investigated the role that a person's perception of their own behavioural control plays in their willingness to try novel foods that contain edible insects. Their experiments showed that one of the most important determinants of individuals' intentions is the degree to which they feel they have control over their conduct. In order to explain individuals' intention formation in food service innovation, Hwang and Kim (2021a) used Ajzen's TPB framework. The results of their

research employing 406 samples indicated a high correlation between perceived behavioural control and behavioural intentions. The decision-making process of younger generations was investigated by Hu et al. (2019) in the context of the tourism industry. The researchers' findings indicated that the perception of young people about their high ability to control their behaviour exerted a significant influence on their choice to travel in a manner that was environmentally friendly. Accordingly, it is anticipated that when individuals have the confidence and appropriate resources necessary to attend restaurants selling foods manufactured by using edible insects, there is a significant possibility that these persons will visit a restaurant offering foods made by edible insects.

This study, therefore, hypothesises that:

H5a: Perceived behavioural control towards sustainable food has a positive effect on the intention to consume sustainable food

H5b: Perceived behavioural control towards sustainable food has a positive effect on the sustainable food purchase behaviour

H5c: Perceived behavioural control towards sustainable food has a positive effect on sustainable food usage behaviour

H5d: Perceived behavioural control towards sustainable food has a positive effect on the sustainable food disposition behaviour

Intention to consume SF and SF behaviour

Researchers have discovered a high correlation between intentions and actions (e.g., Ajzen, 1985; Gieure et al., 2020; Schmidt, 2007; Taylor et al., 2014; Wiedemann et al., 2009). Intention is considered one of the elements that influence behaviour in this study. According to the TPB model, the most significant predictor of human behaviour is intention (Ajzen, 1985, 2002; Fishbein & Ajzen, 1977). Additionally, researchers such as Kim and Hunter (1993) identified intent as a predictor of behaviour. In their investigation, Vermeir and Verbeke (2006) demonstrated how a strong intention

might result in behaviour. Persson (2013) stated that the "direct association between intention and conduct" is significantly stronger than the relationships between intention and other variables. The objective of Vermeir and Verbeke's (2008b) study was to investigate the impact of determinants, as proposed by the theory of planned behaviour (TPB), namely attitudes, perceived behavioural control, and social norms, on the intention to engage in sustainable consumption. The study utilised empirical research methods to investigate the attitudes and behaviours of a sample consisting of 456 young adults in Belgium. The data collection process involved administering a questionnaire to participants, which included an advertisement showcasing hypothetical sustainable dairy products. The results of stepwise multiple regression analysis revealed that a significant proportion, specifically 50%, of the variability in individuals' intention to eat sustainable dairy products could be accounted for by a mix of personal attitudes, perceived societal influences, assessed consumer effectiveness, and perceived sustainable food availability. Furthermore, varying degrees of confidence and value orientation result in distinct magnitudes of the determinants.

This study, therefore, hypothesises that:

H6a: Intention to consume sustainable food will have a positive effect on sustainable food purchase behaviour

H6b: Intention to consume sustainable food will have a positive effect on sustainable food usage behaviour

H6c: Intention to consume sustainable food will have a positive effect on sustainable food disposition behaviour

eWoM and Intention

Previous studies have concluded that eWoM leads to intention formation for consumers. For instance, the objective of a study by Hannandeh, Al-Ghadir, Haandeh, and Al-Hawaidi (2019) was to examine the influence of eWoM on individuals' intention to engage in travel within the tourist industry. The e-WOM was represented by three primary dimensions, namely Quality, Quantity, and Trust. The

study employed a quantitative methodology and an analytical descriptive approach. Data collection was conducted through the distribution of a research questionnaire built using the Google Drive Forms tool. The questionnaire was specifically targeted towards those who are followers and active users of social media platforms such as Facebook, Twitter, and Instagram. A total of 522 replies were obtained for the questionnaire. The study employed multiple statistical analysis techniques, including measures of central tendency (mean) and variability (standard deviation), simple regression analysis, multiple regression analysis, Pearson correlation coefficient (R), beta coefficient (β), t-value analysis, F-value analysis, multicollinearity test, and Cronbach's alpha coefficient (α). The findings of the study indicate that electronic word-of-mouth (e-WOM), encompassing factors such as quality, quantity, and trust, has a favourable influence on individuals' inclination to engage in travel. Notably, the e-WOM quantity had the most significant impact, while the e-WOM trust demonstrated the least pronounced effect. The finding is consistent with other studies (e.g., Kudeshia & Kumar, 2017; Leong et al., 2021; Matute et al., 2016; Park & Lee, 2008).

According to Fan and Miao (2012), online consumer reviews encompass various forms of electronic word of mouth, serving as a valuable resource for customers in their e-commerce purchasing deliberations. Customers recognise that online consumer reviews play a crucial role in assessing the reliability of eWoM and in facilitating their purchasing decisions. Their study employed surveys and multiple regression analysis to develop an expanded Elaboration Likelihood Model that elucidates the connection between customer expertise, engagement, and rapport with the acceptance and utilisation of electronic word of mouth in the context of consumer purchasing decisions. The study findings indicated that involvement has a substantial impact on the perceived credibility of eWOM. The findings of the study indicate that the perceived credibility of eWOM has a notable impact on the intention to make a purchase. Ismagilova, Slade, Rana, and Dwivedi (2020) sought to integrate and analyse the results of prior research through the use of weight and meta-analysis techniques. This was done in order to resolve any contradictory evidence and provide a comprehensive overview of the various eWOM components that influence customers' purchasing intentions. Their study utilised

data from 69 studies to identify the most effective predictors of intention to purchase in eWoM research. These predictors were categorised into three groups: *best* predictors, which included factors such as argument quality, valence, eWOM usefulness, and trust in the message; *promising* predictors, which included factors such as eWOM credibility, emotional trust, and attitude towards the website; and *least effective* predictors, which included factors such as volume, existing eWOM, and source credibility.

Furthermore, the effect size of each predictor was determined through the implementation of a meta-analysis. The general understanding after the meta-analysis was that eWoM affects intention. Reza Jalilvand and Samiei (2012) utilised a structural equation modelling (SEM) approach to investigate the effects of e-WOM on brand image and purchase intention. The empirical testing of the study model was conducted on a sample of 341 respondents who possessed prior experience within online communities of customers and had made references to Iran Khodro's agencies during the research period. Their study concluded that eWOM is a very influential factor that significantly impacts both brand image and purchase intention within consumer marketplaces.

The primary objective of Al-Ja'afreh and Al-Adaile's (2020) study was to examine the effects of eWoM dimensions, specifically quality, quantity, and credibility, on consumers' purchase intention. The research study presented a theoretical framework and collected data through the administration of a questionnaire. The sample comprised individuals who are citizens of al Karak in Jordan. The findings of the data analysis indicate that both the quality and quantity of eWoM have a substantial influence on purchase intention. However, in contrast, the credibility of eWoM does not have a significant impact on buying intention. See-To and Ho (2014) observed that eWoM exerts a direct influence on customers' purchase intention. The dissemination of information through eWoM on social media platforms has a beneficial impact on individuals' intention to make a purchase (Sulthana & Vasantha, 2019). Findings of Jwlilvand et al. (2012) concluded that eWoM has a positive impact on the perception and the attitude of tourists, and their intention to travel.

Given the wealth of evidence demonstrating the impact of eWoM on consumer behavior, this study hypothesizes that:

H7a: eWoM received will strengthen the relationship between intention to consume sustainable food and sustainable food purchase behaviour

H7b: eWoM received will strengthen the relationship between intention to consume sustainable food and sustainable food usage behaviour

H7c: eWoM received will strengthen the relationship between intention to consume sustainable food and on sustainable food disposition behaviour

The consumption Process in SFC

The current body of scholarly literature pertaining to SFC is noticeably deficient in terms of comprehensive research that encompasses the complete consumption cycle, encompassing the stages of purchase, usage, and disposal (Sheoran & Kumar, 2021a). In the past, the majority of research utilising the TPB has approached behaviour as a unidimensional construct. In the study conducted by Van der Werf, Seabrook, and Gilliland (2019), the main emphasis was placed on the examination of food wastage behaviour. Conversely, Agboola et al.(2018) approached the topic by conceptualising behaviour within the framework of eating habits. Nevertheless, it is imperative to acknowledge that food consumption is a complex and multifaceted phenomenon, rather than a singular and isolated action.

In order to develop a deep comprehension of sustainable food consumption behaviour, it is recommended that researchers employ a multidimensional methodology that not only emphasises the acquisition and utilisation aspects, but also encompasses the phase of disposal. The incorporation of diverse aspects and strategies pertaining to food sustainability, such as the mitigation of food waste, is facilitated by this all-encompassing perspective on SFC behaviour within the theoretical framework. Although Sheoran and Kumar (2021a) did consider the complete consumption process in

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their study, it is noteworthy that their research primarily emphasized variables beyond behaviour within the theoretical framework of the TPB.

The importance of examining the entire consumption process cannot be underrated as consumer studies scholars have pushed for a more comprehensive and holistic understanding (Arnould & Thompson, 2005a). Based on this, this study hypothesises that:

> *H8: Sustainable food purchase behaviour will have a positive effect on sustainable food usage behaviour*
>
> *H9: Sustainable food usage behaviour will have a positive effect on sustainable food disposition behaviour*

Post-purchase behaviour in SFC

Word-of-mouth is an unconventional yet persuasive, trustworthy, and efficient method of promoting goods and services. It involves people sharing their experiences of purchasing and using products with other consumers. According to the study conducted by Jan, Abdullah, and Shafiq (2013), it was observed that there exists a positive relationship between consumer satisfaction with banking services and their inclination to engage in good word-of-mouth communication. According to Zhang, Zhang and Law (2014), when consumers' expectations regarding SFC are met, they tend to experience satisfaction and subsequently engage in good word-of-mouth communication. According to Konuk et al. (2019), when SF products demonstrate the ability to deliver high quality, value, and predicted benefits, or even above expectations, there is a higher likelihood that customers will promote these products to others. Chauke and Duh (2019) add that the inclusion of post-purchase outcomes in the consumption process is a crucial aspect for marketers as it offers valuable insights into the factors that influence purchase decisions and their subsequent consequences. This is especially significant given the absence of post-purchase outcomes in widely used consumer behaviour and TPB models.

The analysis of post-purchase consequences is notably absent in existing research on organic food consumption. This study, thus, provides a significant contribution in this respect.

Several studies have emphasised the role of eWoM in effectively promoting consumer engagement and facilitating the sharing of objective and reliable information about products and services leading to repurchase intention or decision to reengage in a behaviour. However, the association between eWoM and repurchase intention has been a subject of perplexity owing to the contradictory findings reported in prior scholarly investigations. The research conducted by Prahiawan et al. (2021) established a positive correlation between eWOM and repurchase intention. It is important to acknowledge, however, that their research revealed that eWOM had a positive yet statistically insignificant impact on repurchase intention. This finding indicates that there is a positive correlation between the perceived level of electronic eWOM among e-commerce consumers and their likelihood to engage in repurchase behaviour.

On the other hand, Ginting et al.(2023), Liang et al. (2018), Heryana and Yasa (2020), and Liao et al. (2023) have all conducted studies that demonstrate the substantial impact of eWoM on consumers' repurchase intention. According to the findings of Wijaya et al. ,(2021 as presented by Prahiawan et al., 2021), there is a positive correlation between the extent of positive eWOM and the likelihood of repurchase. Consumers are inclined to utilise information from eWoM as a crucial point of reference when making their ultimate purchasing and repurchase decisions (Fan et al., 2013; Hussain et al., 2018; Sun et al., 2019; Yoo, 2020). Scholarly research has indicated that word-of-mouth (WOM) is perceived as a more dependable and credible source of information compared to promotional messages created by advertisers and marketers (Chu & Kim, 2018, 2011; Jin & Phua, 2014; Levy & Gvili, 2015; Lim, 2015). The literature review demonstrates that eWoM plays a significant role as an independent variable, as well as its involvement in mediating and moderating the relationship between the intention and behaviour of consumers when purchasing green, environmentally friendly, local, and organic products.

Consequently, this study hypothesises that:

H10: Sustainable food disposal behaviour will positively affect eWoM giving about sustainable food consumption.

H11: eWoM giving will lead to an intention to consume Sustainable Food through reinforcement.

National cultural differences in SFC

Ghana, Italy, and Canada may be categorised according to cultural factors such as individualism-collectivism, power distance, uncertainty avoidance, and indulgence-restraint.

Ghana has the characteristics of a collectivistic society, placing importance on close relationships between communities and extended families. Collective harmony and collective solidarity are highly esteemed, with people often giving precedence to the interests of the group above their own aspirations. In Ghanaian culture, there is a strong emphasis on community decision-making and collective responsibility, which promotes a feeling of connectivity and mutual support. Conversely, Italy tends to exhibit a preference for an individualistic culture, placing importance on personal accomplishments, self-expression, and independence. In Italy, while there is a heavy emphasis on family connections, there is also an acknowledgment of individual identities and ambitions. Italian culture promotes self-sufficiency, business acumen, and individual achievement, with people often following their own objectives and passions.

Canada has a combination of individualistic and collectivistic cultural traits, which vary depending on the situation. Canadians place a high importance on personal liberties, individual rights, and self-expression, but they also prioritise social equality, collaboration, and inclusion. Canadian civilization fosters the welfare of both people and communities, striking a balance between individual liberty and communal responsibility.

According to Rahman and Luomala (2021), the field of consumer research has incorporated more sophisticated conceptualizations of cultural differences, including the horizontal and vertical variations of individualism-collectivism. This development has led to novel insights into the

discipline (Shavitt & Barnes, 2020; Shavitt & Cho, 2016). According to Shavitt & Barnes (2020), the concept of vertical individualism emphasizes the pursuit of personal status enhancement, the desire to distinguish oneself from others, and the inclination towards competition. On the other hand, horizontal individualism prioritises the pursuit of social equality in relation to others in terms of status, the expression of one's unique qualities, and the dependence on oneself. Vertical collectivism places importance on adhering to authority, strengthening group cohesion, and selflessness. On the other hand, horizontal collectivism prioritises sociability, community interdependence, and cooperation. Cultures, irrespective of their foundation in vertical individualism, horizontal individualism, vertical collectivism, or horizontal collectivism, hold significance as they contribute to the establishment of life objectives that individuals within these cultures are expected to pursue and the methods by which these goals are accomplished (Triandis, 1996).

In a study conducted by SudburyRiley, Hofmeister-Toth, and Kohlbacher (2014), a specific example was provided to illustrate the cross-cultural variations in sustainable consumption. The researchers discovered that in Japan, which can be considered a vertical-collectivist culture, individuals who prioritise self-fulfilment as a life goal tend to exhibit stronger environmental beliefs and attitudes. Conversely, in the United Kingdom, which can be categorised as a horizontal-individualist culture, individuals who prioritise self-respect as a life goal demonstrate similar patterns. Subsequently, the empirical component of the research investigated the motivations behind consumers' selection of SF and examined the associations between these motivations and their life goals. Furthermore, a comparative analysis was conducted across nations with distinct cultural backgrounds. Rahman & Luomala (2021) investigated the factors that drive individuals to consume organic food in both Pakistan and Finland. This study establishes a connection between the research findings and life goals that represent vertically collectivistic and horizontally individualistic cultures. The aim was to enhance comprehension of the differences in sustainable consumption across different countries. The study utilised a means-end chain methodology, specifically employing a hard laddering strategy, to gather data from participants in Pakistan (n = 101) and Finland (n = 193). It was suggested that

culturally influenced life objectives can be utilised to enhance the understanding of these motivations and contribute to the development of theoretical frameworks in future research endeavours since the differences observed were as a result of the difference in national culture.

De Boer, Helms, and Aiking (2006) presented a report that provided an overview of dietary protein consumption in the member states of the European Union. The diets exhibit considerable diversity, although a commonality may be observed in the predominant sources of sustenance, namely meat, cereals, and milk. The findings of the investigation revealed a significant correlation between geographical location and protein consumption patterns. There exist notable disparities between countries characterised by abundant vegetable and cereal protein sources and those characterised by abundant milk-derived protein sources. In terms of this aspect, Portugal, Italy, and Greece can be juxtaposed with The Netherlands, Sweden, and Finland as the opposing ends of a spectrum, with the remaining countries occupying intermediate places. The present dietary protein supply in different countries is influenced by several ecological, economic, and cultural factors, which are interconnected and give rise to distinct variances.

This study, therefore, hypothesises that:

> *H12a: Due to national cultural differences, there will be observed differences amongst*
> *the national samples based on consumption values.*

> *H12b-d: Due to national cultural differences, there will be observed differences amongst*
> *the national samples based on technology (WoM Receiving).*

> *H12e: Due to national cultural differences, there will be observed differences amongst*
> the *national samples based on technology (WoM Giving).*

A summary of the hypotheses are presented in figure (Figure 3.1) and table (table 3.1) below.

Hypothesised Framework

Behaviour

H12

National Culture
Individualistic/Collectivist/Blend

eWoM receiving
- Perceived credibility
- Experience

SF Purchase Behaviour

Values

H2

H8

Attitude towards SF

H3

SF Usage Behaviour

Intention to consume SF

H6a, H6b, H6c, H6d, H6e

H7a, H7b, H7c

H9

Subjective Norms

H4

SF Disposal Behaviour

H5a

H10

Perceived Behavioural Control

Reinforcement

H11

Communication (E-WoM giving) about SF

Figure 3.2 Hypothesised Framework

Table 3.1: Research questions and hypotheses

Research question	Hypothesis
4. How do values help to bridge the gap between attitude and behaviour in Gen Z's SFC?	H1: Food consumption values has a positive effect on Gen Z attitude towards sustainable food consumption H2: Food consumption values have a positive effect on the intention to consume sustainable food
1. How do Gen Z's motivations and attitudes towards SF reflect their intentions and behaviour?	H3: Attitude towards sustainable food has a positive effect on the intention to consume sustainable food H4: Social norms about sustainable food have a positive effect on the intention to consume sustainable food H5a: Perceived behavioural control towards sustainable food has a positive effect on the intention to consume sustainable food H5b: Perceived behavioural control towards sustainable food has a positive effect on the sustainable food purchase behaviour H5c: Perceived behavioural control towards sustainable food has a positive effect on sustainable food usage behaviour H5d: Perceived behavioural control towards sustainable food has a positive effect on the sustainable food disposal behaviour H5e: Perceived behavioural control towards sustainable food has a positive effect on eWoM giving H6a: Intention to consume sustainable food will have a positively effect on sustainable food purchase behaviour

	H6b: Intention to consume sustainable food will have a positively effect on sustainable food usage behaviour
	H6c: Intention to consume sustainable food will have a positively effect on sustainable food disposal behaviour
	H7a: eWoM received will strengthen the relationship between intention to consume sustainable food and sustainable food purchase behaviour
2. How does technology impact Gen Z's food consumption?	H7b: eWoM received will strengthen the relationship between intention to consume sustainable food and sustainable food usage behaviour
	H7c: eWoM received will strengthen the relationship between intention to consume sustainable food and on sustainable food disposal behaviour
	H8: Sustainable food purchase behaviour will have a positive effect on sustainable food usage behaviour
5. Is there any potential for change toward sustainability in Gen Z's food consumption?	H9: Sustainable food usage behaviour will have a positive effect on sustainable food disposal behaviour
	H10: Sustainable food disposal behaviour will positively affect eWoM giving about sustainable food consumption
2. How does technology impact Gen Z's food consumption?	H11: eWoM giving will lead to an intention to consume through reinforcement
	H12e: There will be differences in the SF consumption model for the three nations due to differences in national cultures.

3. How does culture affect Gen Z's food choices?	H12a-e: There will be differences in the SF consumption model for the three nations due to differences in national cultures.

Chapter Summary

This chapter explored the theoretical underpinnings that support the examination of behavioural patterns displayed by individuals who are part of Gen Z within the framework of SFC. This chapter delved into the consumer culture theory, examining its different dimensions, with a particular focus on two fundamental concepts: consumer identity projects and marketplace cultures. These concepts have assumed a pivotal role in understanding the dynamics of consumer behaviour and the reciprocal influence between consumers and the realm of consumption. The significance of consumer identity projects was highly pronounced as they provided insight into the manner in which individuals constructed their identities through the act of consumption. Marketplace cultures, as the second dimension of consumer culture theory, offer valuable insights into the ways in which consumers collectively contribute to the establishment and development of markets through their interactions and behaviours. The analysis examined the influence of Gen Z's unique values, preferences, and behaviours on the products, services, and brands in the market. The interconnection between these two dimensions was closely associated with the phenomena of eWoM and the TPB. Furthermore, the study investigated the impact of dominant societal norms on these interactions, consequently shaping the consumption preferences and behaviours of Gen Z.

In order to facilitate a comprehensive comprehension of the behavioural patterns exhibited by Gen Z, a synthesis of various theoretical frameworks was undertaken. The examination of Gen Z's consumption behaviours was facilitated by the application of SET, in conjunction with CCT. This allowed for a comprehensive analysis of the underlying dynamics of social interactions and exchanges. Moreover, the TPB was utilised to provide a comprehensive understanding of the cognitive mechanisms that influence individuals' decision-making. This framework encompasses the examination of their attitudes, subjective norms, and perceived behavioural control.

The Pavlovian theory of learning played a significant role within the theoretical framework. The concept of reinforcement was introduced, positing that behaviour is enhanced through the process of

learning. The application of this theory aimed to gain insights into the reinforcement of behaviours exhibited by Gen Z within the context of SFC.

The chapter presented a theoretical integration that was visually depicted in a diagram. This diagram provided a comprehensive depiction of the intersections between various frameworks and their respective contributions to the comprehension of Generation Z's consumption behaviour. The comprehensive theoretical framework provided a solid foundation for the examination of hypotheses that were develoed. The objective was to explore the complex connections between consumer identity projects, marketplace cultures, eWoM, the TPB, and the Pavlovian theory of reinforcement. These factors were analysed in relation to their influence on the consumption behaviour of Generation Z.

The next chapter presents the methodology of the study. The research philosophy, research design, sample and sampling strategy, data collection strategy, instruments, and results of the pilot study are explained.

CHAPTER FOUR

RESEARCH METHODOLOGY

Introduction

In the previous chapter, literature related to the theories employed in explaining the various components of the complexities of SFC of Gen Z were reviewed. An attempt was also made to integrate the various theories in a single theoretical framework. The hypotheses were then developed from the theory and linked to the objectives of the study. This chapter presents the research methodology which outlines the strategies and procedures that were employed by the researcher in the conduct of the study. The various methods used in the collection of data for the research are described. The methodology of the study, like any other research work, was essential to ensure reliability, validity, and generalization of the research findings (Creswell & Creswell, 2017).

Research Philosophy

Critical Realism

Critical realism is a philosophical framework that presents a unique perspective for comprehending and investigating the social realm, which fundamentally diverges from both positivism and interpretivism. The concept was formulated by philosopher Roy Bhaskar and has garnered recognition in the field of social research due to its emphasis on ontological realism, epistemological relativism, and a central focus on causal mechanisms (Bhaskar, 1975, 2013).

Ontological realism is a fundamental principle within the framework of critical realism. It asserts the existence of an external and objective reality that is independent of human perception and cognition. According to Sayer (2004), critical realists contend that reality encompasses not only observable

phenomena, but also encompasses unobservable structures and mechanisms that serve as the foundation for social phenomena.

Epistemological relativism is a philosophical standpoint that acknowledges the presence of an objective reality, as upheld by critical realism. However, it acknowledges that our comprehension of this reality is inevitably influenced by our subjective perceptions and conceptual frameworks. In contrast to positivism, critical realism recognises the inherent limitations and interpretive nature of our knowledge, as articulated by Bhaskar (1975).

Critical realism places significant importance on the identification and explanation of causal mechanisms that operate at a deeper level than observable events. The aforementioned mechanisms are widely regarded as the primary catalysts for social phenomena. Scholars within this scholarly lineage aim to elucidate not only patterns or associations, but also the fundamental mechanisms and frameworks that generate these phenomena (Sayer, 1992).

In contrast to the positivist paradigm's primary emphasis on quantification and the interpretivist paradigm's primary emphasis on qualitative exploration of meanings, critical realism proposes a mixed-methods approach that integrates both qualitative and quantitative methods for the purpose of investigating the social world (Bhaskar, 1975). This methodology enables researchers to encompass the holistic comprehension typically associated with qualitative research, as well as the extensive range of data typically associated with quantitative research.

Critical realists argue that the objective of social science should be to provide explanations for social phenomena, rather than merely providing descriptions of them. The proponents assert that the field of social science ought to strive towards the identification of generative mechanisms responsible for producing observable outcomes, thereby transcending the limitations of mere description or correlation (Danermark et al., 2019; Pawson & Tilley, 1997).

Detractors of critical realism argue that the pursuit of revealing latent causal mechanisms, inherent to this theoretical framework, can present difficulties due to the elusive nature and limited accessibility of such mechanisms. In addition, the intricate nature of philosophy and its emphasis on abstract ideas can present difficulties when attempting to apply it in empirical research (Jessop, 2015; Martin & Wilson, 2016).

In essence, critical realism provides a philosophical underpinning for social research by integrating ontological realism and epistemological relativism. This approach motivates researchers to move beyond superficial explanations and strive to reveal the underlying causal mechanisms that underpin social phenomena, offering a distinctive viewpoint within the field of social research. Critical realism is highly pertinent to research on sustainable consumption, particularly when examining Gen Z's choices in sustainable food consumption. The framework's ontological realism acknowledges the physical causes of human behaviour, recognising that individuals possess material bodies that require sustenance. Simultaneously, critical realism accommodates the subjective realm by considering the immaterial causes of sustainable food choices, such as values, preferences, and tastes, which play a crucial role in shaping the decisions of the environmentally conscious Gen Z demographic.

Research Design

This study is exploratory in nature and hence employs the exploratory research design. A research design is "a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings" (Burns & Grove, 2010, p. 195).

Exploratory Research

This study is exploratory in design. Exploratory research is a crucial and essential aspect of the research field, especially in situations where the area of study is largely unexplored or when addressing complex, broadly defined problems, such as sustainable food consumption. The initial stage of investigation is distinguished by its inherent flexibility and adaptability, rendering it a vital point of

entry into the research endeavour. The relevance of this becomes particularly significant in cases where the current knowledge base on a specific topic is limited. In such situations, it serves as a valuable resource for researchers who are exploring new phenomena or tackling broadly defined issues. According to Yin (2018), exploratory studies provide a valuable approach to understanding current events, generating new insights, formulating insightful inquiries, and re-evaluating phenomena from novel perspectives.

The formulation of hypotheses or propositions is a crucial aspect of exploratory research. By utilizing a variety of qualitative methodologies, such as focus group interviews, in-depth interviews, case studies, and comprehensive literature searches, researchers have the ability to deeply engage with their subject matter, identify underlying patterns, and develop initial hypotheses or propositions. The aforementioned hypotheses function as provisional frameworks that provide guidance for future research endeavours. However, it is crucial to emphasize that the main aim of exploratory research is not merely to empirically test these hypotheses or propositions. Instead, its purpose is to establish a foundation for future investigations and hypothesis testing in subsequent phases of research (Charmaz, 2006; Creswell & Creswell, 2017).

Exploratory research is an initial foray into unfamiliar domains, providing researchers with the necessary resources and understanding to navigate unexplored intellectual landscapes. The significant impact of its involvement in shaping research trajectories cannot be overstated, as it facilitates the development of a nuanced comprehension of intricate phenomena, stimulates the generation of hypotheses, and ultimately contributes to the progress of knowledge in various fields of study. This dissertation takes this exploratory research dimension to answer the research questions:

1. How do Gen Z motivations and attitudes towards SF reflect their intentions and behaviour?
2. How does technology impact Gen Z food consumption?
3. How does culture affect Gen Z food choices?

4. How do values help to bridge the gap between attitude and behaviour in Gen Z SFC?

5. Is there any potential for change toward sustainability in Gen Z food consumption?

Research Approach

Scholars within the critical realist philosophical tradition have demonstrated a nuanced perspective on the use of inductive and deductive forms of inference (Downward & Mearman, 2007). While they acknowledge the value of these traditional modes of reasoning, they also advocate for incorporating abstract forms of reasoning, namely abduction and retroduction, in the process of theory construction (Farquhar et al., 2020).

Both inductive and deductive forms of reasoning have been criticised due to their limited contribution to the development of explanatory theories. According to Haig (Haig, 2005, p. 304), it is widely acknowledged that valid deductive arguments retain the information and knowledge present in their premises. Additionally, Haig asserts that while inductive arguments introduce new information, their primary function is to provide descriptions.

Critical realists embrace a third approach to logical reasoning, which involves the utilisation of abduction and the associated cognitive process of retroduction. This form of reasoning contributes to the expansion of knowledge through the process of deducing explanatory conclusions from factual premises (Haig, 2005; Zachariadis et al., 2013). The selected research approach for this thesis is the abductive research approach, which is a methodological framework that provides adaptable means of investigating intricate social phenomena. The utilization of abductive reasoning in the social sciences is gaining recognition and popularity primarily because of its ability to effectively navigate the complex relationship between theoretical frameworks and empirical evidence (Gerring, 2004).

Abductive research is distinguished by its deviation from the conventional dichotomy between deductive and inductive reasoning. The process commences by observing empirical data and

endeavours to formulate plausible explanations or theories that can adequately explain these observations (Dewey, 1916; Tavory & Timmermans, 2014). In contrast to deductive research, which commences with a pre-established theory and endeavours to validate or invalidate it through empirical evidence, or inductive research, which initiates with data and endeavours to derive theories from observations, abductive research operates in a dynamic and iterative fashion. The statement recognizes the reciprocal relationship between theories and empirical observations, wherein they mutually influence and enhance one another, leading to an ongoing process of refinement and advancement.

The decision to employ the abductive approach in this thesis is also based on the intricate nature of the research inquiries and the intention to investigate multifaceted phenomena. The method of abduction is particularly appropriate for conducting research in social and organizational contexts, as the nature of the research subject often presents challenges in neatly categorizing it within deductive or inductive frameworks (Eriksson & Engström, 2021; Kennedy & Thornberg, 2018).

Another reason is that abduction allows for the examination of established theories while also promoting the development of original perspectives. The holistic comprehension of research questions that do not adhere to a predetermined deductive or inductive orientation is particularly valuable. This thesis aims to employ abductive reasoning as a means to reveal latent patterns, test the TPB, develop a novel theoretical framework, and achieve a holistic comprehension of the research phenomena.

Mixed-Methods Approach

This study employs a mixed methods research methodology to conduct a thorough investigation into sustainable food consumption behaviours among Generation Z (GenZ) across diverse national cultures. Mixed methods research is a dynamic and progressively acknowledged methodology that methodically combines both quantitative and qualitative data in a singular research investigation or a sequence of interconnected studies (Creswell et al., 2011).

The primary justification for utilising mixed methods in this study is rooted in the acknowledgement that integrating quantitative and qualitative data collection and analysis provides a distinct and mutually beneficial utilisation of information. The aforementioned methodology places significant importance on gathering, examining, and synthesising both quantitative and qualitative data. The overarching goal is to achieve a more thorough and all-encompassing understanding of the subject matter, than what could be attained by employing either approach independently (Yazan, 2015).

One of the core principles underlying mixed methods research is its ability to enable triangulation, a methodological approach that involves the use of multiple strategies to investigate the same phenomenon. The utilisation of triangulation not only serves to strengthen the resilience of the results but also guarantees their credibility and dependability. Researchers can derive enhanced complementarity among different sources of data by integrating quantitative and qualitative data collection methods. The utilisation of this methodology results in a more extensive comprehension of research results and the capacity to investigate subtleties and intricacies that might be overlooked when exclusively depending on a single approach (Lofland et al., 2022).

This study utilised quantitative methodologies, including surveys and statistical analyses, to collect numerical data on sustainable food consumption behaviours among Gen Z individuals across various national cultures. Simultaneously, qualitative methodologies, such as conducting in-depth interviews, were employed to capture the intricate perspectives, attitudes, and motivations that underlie these behaviours. The incorporation of both quantitative and qualitative data in research on sustainable food consumption offers a comprehensive perspective on how Gen Z individuals from various national cultures are involved in addressing this significant matter. This integration enhances the overall comprehension of the subject matter.

The utilisation of mixed methods research in this study facilitates a thorough investigation into the sustainable food consumption behaviours exhibited by Gen Z individuals across various national

cultures. Through a systematic integration of both quantitative and qualitative data, this approach effectively enhances the comprehensiveness and depth of insights, thereby facilitating a more nuanced and holistic understanding of the intricate research phenomenon at hand.

Convergent Mixed Methods Design

In order to get an extensive understanding of the subject matter, this research has been conducted using the convergent parallel design, which is a mixed-methods approach. The research process may be represented by two approaches: qualitative and quantitative (Morse, 1994).

A convergent parallel design involves the researcher simultaneously conducting quantitative and qualitative aspects of the research in the same phase. The researcher gives equal importance to both methods, analyses the two components separately, and interprets the results together (Creswell & Clark, 2017).

In order to confirm and verify the findings, the researcher intends to triangulate the approaches by directly comparing the quantitative statistical data and qualitative discoveries. During the study procedure, two distinct datasets were acquired, individually analysed, and then compared.

Population of the Study

The demographic scope of this thesis includes young adults, with a primary focus on university students, from three distinct geographical regions: Ghana, Italy, and Canada. The chosen regions were carefully selected in order to offer a wide-ranging and thorough examination of sustainable food consumption patterns within Gen Z. This selection process took into consideration various cultural, social, and economic factors, ensuring a comprehensive perspective on the subject matter.

The study encompasses young adults hailing from Ghana, a nation situated in West Africa renowned for its abundant cultural diversity and distinctive culinary customs. The inclusion of Ghanaian

participants in this study provides a representation of the African context and offers significant contributions to the understanding of sustainable food consumption in a developing nation.

Italy, a country located in Southern Europe, is widely recognised for its rich culinary heritage and strong commitment to utilising traditional, locally procured ingredients. The Italian participants provide insights from a nation renowned for its rich culinary legacy, thereby elucidating the impact of cultural traditions on the adoption of sustainable food practises.

Canada, a nation located in North America, offers valuable insights into the practice of sustainable food consumption within a diverse and cosmopolitan societal framework. The participants hailing from Canada provide insights from a Western, developed country, shedding light on the intricacies of sustainable food consumption patterns within a setting characterised by a blend of cultural influences.

The rationale behind prioritising university students as the primary demographic within the target population is based on various factors. Currently, there is a notable presence of Gen Z individuals, who are young adults born approximately between the mid-1990s and early 2010s, within university populations (Livingstone, 2018; Twenge, 2017). This specific demographic group is of significant interest because of its potential to influence future consumption patterns and sustainability practices.

Furthermore, university students frequently find themselves in a period of transition, characterised by heightened autonomy and the need to make choices regarding their dietary preferences. The present phase presents a distinctive occasion to examine the determinants that impact the adoption of sustainable food consumption behaviours, encompassing cultural factors, education, and exposure to diverse perspectives.

The decision to focus on university students as the primary target population also offers the advantage of maintaining a consistent age group across the three countries, thereby facilitating a more homogeneous comparison. Nevertheless, it is imperative to recognise that the selected sample may not

be fully representative of the larger population due to the fact that university students frequently exhibit unique attributes and encounters. Hence, the findings of the study may possess greater relevance to this particular subset of the Gen Z population.

Sampling Size and Technique

The sample size for this study was carefully determined to strike a balance between being substantial enough to yield reliable results and being feasible to manage. This approach enabled a thorough investigation into sustainable food consumption patterns among Gen Z individuals in three countries with distinct cultural backgrounds: Ghana, Italy, and Canada. In order to attain a comprehensive and intricate understanding of the subject matter, two distinct methodologies were utilised for data collection: qualitative interviews and surveys.

The study employed a qualitative research design, specifically utilising interviews as the primary data collection method. A total of 30 interviews were conducted via video conferencing software, zoom., with each country contributing ten interviews. The determination of the sample size in this study was based on a pragmatic approach and the application of the data saturation principle. The data saturation principle posits that a relatively small number of interviews can yield redundant information and thematic stability, provided that the quality of the data is high (Guest et al., 2006). Despite varying population sizes, selecting 10 interview respondents from each nation—Ghana, Italy, and Canada—is justified by a combination of resource constraints, the goal of representative sampling, the need for diversity within constraints, comparative analysis facilitation, depth of analysis, logistical feasibility, ethical considerations, and the potential use of a pilot study approach. Due to limited resources, such as time and money, a smaller sample size is required, while ensuring that the individuals chosen offer a diverse range of perspectives and experiences within each country. This method encourages standardised comparative analysis, allowing for a better understanding of the cultural and contextual factors that influence responses. Logistically, a smaller sample size improves efficiency, resulting in a

higher response rate and data quality. Furthermore, ethical considerations and the potential use of a pilot study recognise the importance of respecting participants' time and well-being. Transparent communication of these justifications in the research methodology is critical for maintaining the study's integrity and validity. The primary objective of the qualitative interviews was to conduct an in-depth investigation into the participants' perspectives, opinions, and personal encounters related to sustainable food consumption. This approach facilitated a comprehensive qualitative examination of the subject matter.

The survey component of the study encompassed a substantial sample size, with the number of participants ranging from 350 to 400 respondents per country. The decision to select a larger sample size was made in order to enhance the statistical validity and generalizability of the findings within each specific national context (Creswell & Creswell, 2017). Surveys offer a more comprehensive outlook on sustainable food consumption behaviours, enabling the detection of trends, patterns, and statistical associations among variables. The sampling method employed in this study consisted of a hybrid approach, incorporating convenience sampling and purposive sampling techniques (Onwuegbuzie & Collins, 2007)

The selection of participants for the qualitative interviews was conducted using purposive sampling in order to achieve a diverse representation in terms of demographics, including age, gender, and socioeconomic background. The utilisation of this approach facilitated an extensive investigation into the sustainable food consumption patterns exhibited by individuals belonging to Gen Z.

The recruitment of survey participants was conducted using a combination of convenience sampling and online survey platforms in order to achieve a more diverse representation of Gen Z across different countries. Convenience sampling was utilised as a result of pragmatic considerations and the requirement for a substantial sample size. The participants were strongly encouraged to voluntarily

complete the survey, and deliberate measures were taken to ensure a comprehensive representation of various backgrounds and experiences.

In brief, the selection of the sample size and sampling methods utilised in this study was undertaken with the intention of achieving a harmonious equilibrium between the comprehensiveness and inclusiveness of knowledge acquisition. The utilisation of qualitative interviews yielded valuable and in-depth perspectives from a diverse and limited sample size. Conversely, surveys facilitated the acquisition of a larger dataset suitable for quantitative analysis, enabling a comprehensive examination and statistical validation of sustainable food consumption behaviours within the Gen Z demographic.

Instruments of Data Collection

This section provides a detailed explanation of the instruments utilised for data collection in the present study. The framework consists of two main elements: qualitative and quantitative instruments. The initial section outlines the qualitative instrument, specifically discussing the utilisation of in-depth interviews for the purpose of gathering comprehensive and contextually embedded data. Following this, the subsequent section explains the quantitative tool employed, specifically outlining the structured questionnaire utilised to gather numerical data systematically. Every instrument was meticulously crafted and customised, including by translation in the participants' national language, to serve its unique purpose, guaranteeing a thorough and profound investigation into the sustainable food consumption patterns exhibited by Gen Z.

Interview Structure

Each in-depth interview was meticulously structured to ensure that the study's research objectives were met. The interviews consisted of 23 open-ended questions, thoughtfully designed to uncover participants' beliefs, attitudes, and experiences in the context of sustainable food consumption. The

questions were intentionally broad and exploratory to encourage participants to share their thoughts, insights, and narratives related to the topic.

Duration

The interviews were conducted online via zoom with care and thoroughness, lasting between 35 minutes and 1 hour each. This duration allowed for in-depth discussions and facilitated the establishment of rapport between the interviewers and the participants. The extended interview times ensured that participants had the opportunity to express their viewpoints in depth, making it possible to capture the multifaceted nature of their experiences (Denzin & Lincoln, 2011).

Rich and Diverse Data

By engaging in in-depth interviews, this study sought to obtain rich, contextually embedded qualitative data. This approach facilitated the exploration of individual narratives, the identification of cultural influences, and a deeper understanding of the multifaceted factors that shape sustainable food consumption behaviours among Gen Z (Denzin & Lincoln, 2011).

Data Analysis

The data collected through the in-depth interviews were transcribed, organized, and subjected to qualitative analysis techniques such as thematic coding (Miles, n.d. et al., 2013). Through this analysis, recurring themes, patterns, and insights were identified, contributing to a comprehensive qualitative understanding of the research topic.

Standardized Questionnaire

Questionnaire Structure

The research utilized a questionnaire that consisted of multiple sub-instruments, each designed to assess particular variables of interest. There were two main sections. Section A was to measure behaviour and the second section covered questions on demographic characteristics of the respondents. The first section was subdivided into four main parts: measuring engagement with SFC, SFC behaviour, SFC information and consumption values. The sub-instruments were carefully designed to ensure accuracy and inclusiveness in capturing the intricacies of sustainable food consumption behaviours among individuals belonging to Gen Z.

Likert Scale Ratings

Participants were requested to indicate their level of agreement with the items in the questionnaire by employing a Likert scale, which is a well-established approach for assessing attitudes and opinions (Likert, 1932). The Likert scale utilized in this research had a range of 1 to 5, with 1 denoting "strongly disagree" and 5 signifying "strongly agree". The utilization of Likert scales facilitated the ability of participants to quantitatively articulate their viewpoints, thereby yielding significant data for subsequent statistical analysis.

Validity and Reliability

It is imperative to acknowledge that the questionnaire items utilized in this study were not newly developed, but rather were selected from established scientific scales that had undergone extensive validation and reliability testing in previous research (Dillman et al., 2014). The utilization of this methodology ensured that the selected inquiries were firmly established, efficient, and capable of producing reliable and resilient data.

Questionnaire Sections and Length

The survey was partitioned into four main segments and an additional section on demographic characteristics, with each main section dedicated to examining distinct facets of sustainable food consumption behaviours. The questionnaire comprised a total of 108 questions. The implementation of a structured approach facilitated a thorough investigation of the research variables, while also optimizing the utilization of respondents' time and effort. Table 3.1 below summarizes the scales and their characteristics.

Table 3.1 Summary of scale characteristics

Dimension	Subscale	No. of Item	Characteristics: Cronbach's Alpha	Source(s)
Attitude		7	0.79 - 0.92	Conner and Armitag (1999); Taylor and Todd (1995); Ajzen (2015); Sheoran and Kumar (2021b)
Subjective norms		6		
Perceived Behavioural Control		8		
Intention		8		
Behaviour	General Behaviour	7	0.90 - 0.92	Maciejewski (2020); Lendvai et al. (2022); Quoquab, Mohammad and Sukari (2019); Geiger, Fischer and Schrader (2018)
	Sustainable Food Purchase Behaviour	7		
	Sustainable Food Usage Behaviour	7		
	Sustainable Food disposal Behaviour	7		
Electronic Word of Mouth	Giving	7	0.78 - 0.89	Hennig-Thurau, Gwinner, Walsh and Gremler (2004b); Hu, Liu and Zhang (2008); Cheung, Lee and Rabjohn (2008) Goyette, Ricard,
	Receiving	6		

				Bergeron and Marticotte (2010)
Reinforcement of Behaviour		9		Wyman (2022); Torrubia, Ávila and Caseras (2008) Baumeister and Leary (1995)
Consumption Values	Emotional value	5	0.93	Kaur, Dhir, Talwar and ghuman (2021); Sikka Kainth and Verma (2011); Kim, Kim, Choi and Phetvaroon (2019); Furukawa, Matsumura and Harada (2019); Long and Schiffman (2000)
	Epistemic value	6	0.87	
	Health value	3	0.87	
	Prestige value	4	0.89	
	Social Value	4	0.86	
Demographic Characteristics of respondents		**7**		Author
		108		

Source: Author (2023)

Response Rate

The response rate in this study was impacted by the varied research methodologies utilised in three different countries—Ghana, Italy, and Canada. In Ghana, a total of 15 interviews were carried out. However, only 10 of them provided valid responses due to technical difficulties. Specifically, 3 recordings were unsuccessful, and 2 were truncated. Likewise, in Italy, 2 interviews were unsuccessful. In each case, saturation was achieved. The Canadian portion entailed conducting 5 supplementary interviews, primarily for the purpose of conducting a pilot test.

In terms of the quantitative aspect, a total of 1061 data points were initially collected. However, after removing outliers (71 cases), addressing missing data (36 cases), and excluding unengaged responses

(26 cases), the number of usable responses was refined to 928. The processed dataset serves as the foundation for the subsequent examination. The justification for the removal of cases is detailed in the next chapter.

Data Analysis Tools/Techniques

SPSS 29 and Smart PLS 4 were used to analyse the data collected. Some statistical methods that were used in the analysis of this study included the following:

Reliability and Validity Analysis

Reliability relates to the consistency of a measure. Simply put, the reliability of a scale shows how unrestricted it is from mistakes. There are a lot of dissimilar parts to reliability, and one of the key problems is the scale's internal consistency. This denotes the level to which the elements that make up the scale well integrated. The Cronbach's alpha coefficient is the unique method popularly used to measure internal consistency (Pallant, 2020). Preferably, DeVellis (2012) argues that the Cronbach Alpha coefficient of a scale should be above .70. Reliability analyses revealed that all individual subscales possessed a Cronbach's alpha above 0.7, which, in the words of DeVellis, is ideal. Based on this, all the scales were maintained (Pallant, 2020).

The validity of a scale, on the other hand, denotes the level to which a scale measures what it is intended to measure (Pallant, 2020) Again, validity denotes the level to which an instrument measures the construct of interest precisely (Hair et al., 2010). It is significant to study the validity and reliability of the data collection tools (instruments) when undertaking or criticizing a study. If all standardized loadings of items are significant and above 0.5, with the Average Variance Extracted (AVE) having a factor of 0.5 or more, convergent validity is believed to be achieved. Again, when 'the AVE estimation for a factor is bigger than the squared inter-factor correlations related to that factor,' divergent validity is believed to have occurred (Hair et al., 2011).

Factor Analysis

Child (2006) argued that Factor analysis employs statistical processes for the summarization of interconnected measures to ascertain configurations in a set of variables. Harman (1976) claimed that trying to ascertain the easiest technique of clarification of observed data is called as parsimony, and this is significantly the objective of factor analysis (Harman, 1976) . The two main methods used in factor analysis are Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA).

Exploratory Factor Analysis (EFA)

Exploratory Factor Analysis (EFA) is employed when a researcher needs to ascertain the number of factors inducing variables and to analyze which variables are correlated (DeCoster, 1998). McDonald (2014) argues that the primary premise of EFA is that there are *m* common 'latent' factors to be ascertained in the dataset, and the objective is to discover the smallest number of common factors that will explain the correlations. In other words, EFA is a statistical technique which is employed to recap data for connections and designs to be clearly explained and well taken (Yong & Pearce, 2013). It is important to note that this identification of latent constructs is dissimilar from the goal of data reduction (Fabrigar et al., 1999).

There are two major factors that determine whether a data set is appropriate for factor analysis. These are sample size and the strength of the connection amongst variables (Pallant, 2020). The endorsed sample size is at a minimum of 300 participants, and the variables that are exposed to factor analysis each should have a minimum of 5 to 10 observations (Comrey & Lee, 2013). Usually, the ratio of participants to variables should be at a minimum of 10:1, and the factors are deliberated to be steady and to cross-validate with a ratio of 30:1. Bigger sample size will lessen the mistake in the data, and so EFA usually works more appropriately with bigger sample sizes. Tabachnick & Fidell (2007) claimed that, for the strength of the relationship among variables, the correlation r must be .30 or more as anything lesser would advocate a delicate association amongst the variables. Kline (2005) also

suggested that a diverse sample is employed rather than a similar sample as the same samples lessen the variance and factor loadings.

There are several assumptions that have been made in relation to factor analysis and they pertain to certain issues which include sample size, factorability of the correlation matrix, linearity and outliers among cases (Pallant, 2020). Finally, in determining the appropriateness of the data for factor analysis, Bartlett's test of Sphericity and the Kaiser-Meyer-Olkin (KMO) values must be statistically significant at $p<0.05$ and 0.6, respectively (Pallant, 2020).

Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) permits researchers to stipulate connected measurement mistakes, constrain loadings or factor correlations to be equivalent to each other to execute statistical assessments of alternate models, test second-order factor models, and statistically liken the factor structure of two or more groups (Gorsuch, 1990). Simply put, confirmatory factor analysis is a multifaceted and complex set of methods employed in a study to test precise hypotheses or theories regarding the structure fundamental to a set of variables (Pallant, 2020). A difference amongst exploratory factor analysis and confirmatory factor analysis is the point that EFA permits a researcher to "explore the main dimensions to generate a theory (or model)" using latent constructs while CFA allows the researcher to test the projected theory (B. Williams et al., 2010, p. 3). In this study, CFA was analyzed using Smart PLS 4.

Structural Equation Modelling (SEM)

Structural equation models (SEMs) define connections among variables. They are related to merging multiple regression and factor analysis. In other words, SEM is a type of linear, cross-sectional arithmetical modelling method that may be seen as a mixture of factor analysis, regression, or path analysis (Hox & Bechger, 1999). This was also analyzed in this study using Smart PLS 4. SEM

establishes relationships (which are denoted by regression or path coefficients) between hypothetical constructs (which are denoted by latent factors). SEM was used in this study to determine whether the conceptual framework is valid since the purpose of SEM is confirmatory as opposed to exploratory.

Amaro et al. (2015) stated that there are 2 basic kinds of SEM - Covariance-Based SEM (CB-SEM) and partial least squares SEM (PLS-SEM). They continued that while CB-SEM aims to duplicate the hypothetical covariance matrix centring on explained variance, PLS-SEM strives to get the most out of the explained variance of the reliant constructs. PLS-SEM was used for the reason elaborated.

Ethical Considerations

Saunders and Wenzel (2008) defined ethics in a study setting as the suitability of the researcher's conduct in relation to the rights of those who become the subject of that researcher's work or are affected by it. Put simply, ethics in research refers to whether an actual practice or behavior is right or wrong. To ensure ethical considerations were met, this research followed guidelines established by the American Psychological Association (APA), including providing informed consent to participants, allowing participants to freely choose to participate or reject the study, accurately reporting methodologies and outcomes, avoiding plagiarism, taking acknowledgement only for this dissertation and giving credit where it is due, and sharing research data for confirmation (APA, 2017).

Chapter Summary

In this chapter, the following topics were discussed: research philosophies, research design, population target, data sources, and collection. Additionally, data analysis tools and techniques were also discussed. All the data analysis tools and techniques presented in this chapter are of significant relevance to this thesis, as they form the foundations for scientific or quantitative research and provide grounds for the acceptance of this thesis. For instance, the validity analysis was used to measure the level to which the instruments employed in this thesis precisely tested the hypotheses being tested.

Factor Analysis, on the other hand, was used to aid data interpretation and reduce the number of variables being tested in this thesis.

Exploratory Factor Analysis (EFA) was used to explore the main dimensions of the thesis to generate a theory or model using underlying hypotheses, while Confirmatory Factor Analysis (CFA) was employed to test the proposed theory. Furthermore, the discussion of the Structural Equation Modelling (SEM) is also of significance as it allowed for the establishment of relationships symbolized by path factors between theoretical hypotheses represented by hidden factors. SPSS 29 and Smart PLS 4 were employed for all the statistical analysis. Finally, ethical considerations were discussed in this chapter. The next chapter captures the application of all the discussions on the tools and techniques presented in this chapter in analysing the data.

CHAPTER FIVE

DATA ANALYSIS AND RESULTS

Introduction

In the previous chapter, the research methodology applied to the study was outlined. It was set out to also describe the instruments used to collect both qualitative and quantitative data to test the research model developed in this study. The methodology was deployed, and the data was captured using Statistical Package for the Social Sciences (SPSS). To reiterate, the purpose of this study is to assess the SFC behaviours of Gen Z across national cultures. Data captured in this study has been analysed, and the results obtained from the data collected are presented in this chapter.

This study adopts the use of a concurrent mixed methods approach consisting of both quantitative and qualitative data. The qualitative results served a validation role. The survey was divided into different sections to enable the respondents to understand. The Likert scale with five items of the possible answers was used to assess the extent of agreement or disagreement (from Strongly Agree to Strongly Disagree). For the qualitative study, prior to the analysis phase, all interviews were transcribed. This transcription process, as advocated by Reissman (2003) and Kowal and O'Connell (2014), serves the purpose of acquainting the researcher with the dataset and enabling textual analysis. Microsoft Word files were generated for each set of data. To safeguard the integrity of the information, password protection was applied to all files. These files were stored exclusively on the researcher's personal portable computer, accessible only to the researcher.

In alignment with the methodology, the unit of analysis for coding was determined by the meaning of the analysis context, as opposed to a sentence-by-sentence or paragraph-by-paragraph approach. Coding was executed with an emphasis on capturing and interpreting meaning within the data. The qualitative software program utilized for data management and analysis was NVivo version 12, chosen for its functionality in facilitating the systematic examination of qualitative data.

Respondents' Profile

The respondents' profile is presented in two sections. The first section presents the demographic characteristics of the respondents of the in-depth interviews and the second, respondents of the survey. For each section, the data is presented based on the country.

Depth interview participants' profile

Table 5.1:In-depth interview participants' profile

Respondent ID	Age	Gender	Occupation	Family Income	Location	Main Sustainable Food Practices	Interview Length	Date of Interview
AG1	18	Female	High School Student	Moderate	Ghana	Organic food, Local sourcing, Reduced meat intake	30 minutes	05-Apr-23
AG2	21	Male	Undergraduate Student	High	Ghana	Seasonal eating, Avoiding fast food, Cooking at home	25 minutes	10-Apr-23
AG3	23	Female	Undergraduate Student	Low	Ghana	Food composting, Eating local produce, Reducing plastic use	35 minutes	15-Apr-23
AG4	19	Female	Undergraduate Student	Moderate	Ghana	Sustainable packaging, Plant-based diet, Supporting local farmers	28 minutes	20-Apr-23
AG5	20	Male	Undergraduate Student	High	Ghana	Mindful portion control, Food waste reduction, Local market shopping	32 minutes	25-Apr-23
AG6	22	Female	Graduate Student	Moderate	Ghana	Reducing meat intake, Cooking at home, Sustainable packaging	30 minutes	02-May-23
AG7	17	Male	High School Student	Low	Ghana	Seasonal eating, Avoiding fast food, Local market shopping	26 minutes	08-May-23
AG8	25	Female	Undergraduate Student	High	Ghana	Organic food, Mindful portion control, Supporting local farmers	38 minutes	15-May-23
AG9	24	Male	Undergraduate Student	Moderate	Ghana	Plant-based diet, Food waste reduction, Cooking at home	34 minutes	22-May-23

AG10	26	Female	Undergraduate Student	High	Ghana	Eating local produce, Sustainable packaging, Reducing plastic use	40 minutes	28-May-23
AI1	19	Male	Undergraduate Student	Moderate	Italy	Vegetarian diet, Seasonal eating, Sustainable packaging	29 minutes	07-July-23
AI2	22	Female	Undergraduate Student	High	Italy	Organic food, Local sourcing, Cooking at home	33 minutes	12-Apr-23
AI3	20	Male	Undergraduate Student	Low	Italy	Plant-based diet, Reducing meat intake, Supporting local farmers	36 minutes	17-Apr-23
AI4	18	Male	High School Student	Moderate	Italy	Seasonal eating, Avoiding fast food, Mindful portion control	31 minutes	22-June-23
AI5	21	Female	Graduate Student	High	Italy	Food composting, Eating local produce, Sustainable packaging	27 minutes	28-Apr-23
AI6	23	Male	Graduate Student	Moderate	Italy	Sustainable packaging, Plant-based diet, Avoiding fast food	37 minutes	05-July-23
AI7	17	Female	High School Student	Low	Italy	Local market shopping, Eating local produce, Cooking at home	39 minutes	10-May-23
AI8	25	Male	Undergraduate Student	High	Italy	Reducing plastic use, Organic food, Mindful portion control	42 minutes	18-May-23
AI9	24	Female	Undergraduate Student	Moderate	Italy	Food composting, Seasonal eating, Supporting local farmers	33 minutes	24-May-23
AI10	26	Male	Graduate Student	High	Italy	Cooking at home, Sustainable packaging, Mindful portion control	35 minutes	30-Aug-23
AC1	18	Female	Undergraduate Student	Moderate	Canada	Reducing meat intake, Cooking at home, Sustainable packaging	31 minutes	09-Apr-23
AC2	21	Male	Undergraduate Student	High	Canada	Seasonal eating, Avoiding fast food, Local market shopping	29 minutes	14-Apr-23

AC3	23	Non-Binary	Undergraduate Student	Low	Canada	Organic food, Mindful portion control, Supporting local farmers	34 minutes	19-Apr-23
AC4	19	Female	Undergraduate Student	Moderate	Canada	Plant-based diet, Food waste reduction, Cooking at home	28 minutes	15-Oct-23
AC5	20	Male	Undergraduate Student	High	Canada	Eating local produce, Sustainable packaging, Reducing plastic use	32 minutes	30-Apr-23
AC6	22	Female	Undergraduate Student	Moderate	Canada	Plant-based diet, Avoiding fast food, Reducing meat intake	30 minutes	10-Oct-23
AC7	17	Male	High School Student	Low	Canada	Eating local produce, Sustainable packaging, Seasonal eating	26 minutes	14-Sep-23
AC8	25	Female	Undergraduate Student	High	Canada	Food waste reduction, Cooking at home, Avoiding fast food	38 minutes	21-May-23
AC9	24	Male	Undergraduate Student	Moderate	Canada	Sustainable packaging, Supporting local farmers, Mindful portion control	34 minutes	27-Sep-23
AC10	26	Female	Undergraduate Student	High	Canada	Seasonal eating, Reducing plastic use, Cooking at home	40 minutes	02-Jun-23

Source: Researcher's field work

The qualitative interview included a heterogeneous cohort of participants from Ghana, Italy, and Canada, spanning an age range of 16 to 26, as seen in Table 5.1. All individuals included in the study were enrolled as High School, undergraduate or graduate students, representing a population with a younger age range. One of the prerequisites for participation was the age range because the study is concerned with Gen Z only. Participants from Ghana engage in various SFC practices, including the use of seasonal and organic foods, the reduction of meat consumption, and the preference for locally sourced food items. The Italian participants exhibited comparable behaviours, placing a significant emphasis on sustainability while making their food selections. The respondents from Canada demonstrated a strong dedication to sustainable behaviours, such as the reduction of food waste and the selection of nutritional choices.

The interviews were conducted online through video conferencing. The duration of the interviews exhibited considerable variation, lasting from 25 to 42 minutes, therefore suggesting a comprehensive examination of the viewpoints held by the participants. The interviews were carried out throughout the period spanning from April 1, 2023, to October 15, 2023, including a wide array of replies within this timeframe.

Survey Participants' profile[3]

Table *5.2 Demographic characteristics of survey respondents*

		Country						Total	
		Ghana		Italy		Canada			
		N	%	N	%	N	%	N	%
Gender	Male	144	43.50%	92	30.30%	119	42.80%	355	38.90%
	Female	187	56.50%	212	69.70%	159	57.20%	558	61.10%
Total		331	100.00%	304	100.00%	278	100.00%	913	100.00%
Age	11 -15 years	3	0.90%	8	2.70%	0	0.00%	11	1.20%
	16 - 20 years	97	30.70%	70	23.50%	80	28.90%	247	27.70%
	21 – 26 years	216	68.40%	220	73.80%	197	71.10%	633	71.00%
Total		316	100.00%	298	100.00%	277	100.00%	891	100.00%
Education	High School	30	9.30%	169	55.60%	6	2.20%	205	22.60%
	Bachelors	246	75.90%	131	43.10%	264	95.00%	641	70.80%
	Masters	43	13.30%	2	0.70%	4	1.40%	49	5.40%

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[3] Survey respondent's demographic output was developed after outliers consisting of 71 cases, missing data consisting of 36 cases and 26 unengaged responses were removed.

	Professional Certificate	5	1.50%	2	0.70%	4	1.40%	11	1.20%
Total		324	100.00%	304	100.00%	278	100.00%	906	100.00%
Employment	Employed	111	35.00%	83	28.70%	22	8.00%	216	24.50%
	Unemployed	206	64.00%	206	71.30%	252	92.00%	661	75.10%
Total		317	100.00%	289	100.00%	274	100.00%	880	100.00%
Family Income (based on country currency)	20,000-39,999	103	51.80%	141	54.40%	100	40.00%	344	48.60%
	40,000-59,999	29	14.60%	66	25.50%	35	14.00%	130	18.40%
	60,000-79,999	24	12.10%	23	8.90%	26	10.40%	73	10.30%
	80,000-99,999	14	7.00%	10	3.90%	22	8.80%	46	6.50%
	above 100,000	29	14.60%	19	7.30%	67	26.80%	115	16.20%
Total		199	100.00%	259	100.00%	250	100.00%	708	100.00%

Table *5.2* above shows a distribution of demographic attributes of the individuals who participated in the survey. The demographic profile of the respondents suggests that the survey predominantly encompasses the viewpoints of young people between the ages of 21 and 26. The age distribution presented in this study corresponds to the research emphasis on Gen Z, offering pertinent observations on sustainable food consumption behaviours among individuals in this demographic.

The level of educational achievement is noteworthy since a considerable fraction of the respondents have undergraduate degrees, indicating a highly educated group. Including respondents with varying job statuses, including both persons who are working and those who are unemployed, enhances the depth of the research by considering economic aspects that influence sustainable eating habits.

The representation of income distribution, delineated by country-specific categories, serves to highlight the economic heterogeneity existing within each nation. The provided information is of utmost importance in order to provide context to the viewpoints of the participants since economic considerations have the potential to have a substantial influence on individuals' food consumption practices.

Multivariate Analysis of Variance

The results of the Multivariate Analysis of Variance (MANOVA) revealed significant effects for both the intercept (Pillai's Trace = .985, $F(103.000, 823.000) = 534.682$, $p < .001$) and country (Pillai's Trace = 1.120, $F(206.000, 1648.000) = 10.172$, $p < .001$). The significant effect for the intercept indicates overall differences in sustainable food consumption patterns across all participants, while the significant effect for country suggests differences in sustainable food consumption patterns among participants from different countries. Additionally, the observed power for both intercept and country effects was 1.000, indicating a high likelihood of detecting significant effects given the sample size and effect size. Based on these results, it is appropriate to merge the three datasets for further analysis, as the differences in sustainable food consumption patterns among participants from Ghana, Italy, and Canada warrant further investigation.

Data Screening

Two types of screening were conducted: response screening (which included checking for missing data and unengaged responses) and variable screening.

Thirty-six (36) responses were removed from the dataset due to missing data. The missing data were more than a third of the responses that were supposed to be provided by a single participant. Hence, it was appropriate to remove them. Twenty-nine (29) other incomplete responses were identified, but since they had only one or two missing values, they were replaced with the median for the variable (Gaskin, 2021). Missing values for descriptive characteristics of the participants were, however, left without altering.

Unengaged responses were checked. Unengaged responses refer to situations where respondents only tick a specific number throughout the questionnaire or a majority of the questions in the questionnaire (Ullah et al., 2021). Twenty-six (26) responses were removed due to unengaged responses. To check for unengaged responses, the standard deviation of the responses was checked according to the rows. No item was removed at this stage because all standard deviations were above 0.5 (Gaskin, 2021).

The normality of the data was checked using skewness and kurtosis methods, as suggested by Bryne (2013). The variables' normality is acceptable when the skewness and kurtosis fall between -2 and +2 (Byrne, 2013; Norman & Streiner, 2008). No item was removed because all items fell between the acceptable boundary; hence, none violated the assumption of normality. *Table 5.3* represents the normality test.

Table 5.3 Normality Test of items

Variable Name	Item Code[4]	Valid	Missing	Mean	Median	Mode	Std. Deviation	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis	Min.	Max.
Attitude	ASFC1	928	0	3.99	4	4	0.958	-0.973	0.08	0.935	0.16	1	5
	ASFC2	928	0	3.85	4	4	0.929	-0.919	0.08	1.021	0.16	1	5
	ASFC3	928	0	3.86	4	4	1.021	-0.945	0.08	0.833	0.16	1	5
	ASFC4	928	0	3.91	4	4	0.956	-0.793	0.08	0.351	0.16	1	5
	ASFC5	928	0	4.08	4	5	1.029	-1.242	0.08	1.223	0.16	1	5
	ASFC6	928	0	4.06	4	4	0.964	-1.137	0.08	1.271	0.16	1	5
Subjective norms	SN1	928	0	3.47	4	4	0.969	-0.439	0.08	-0.090	0.16	1	5
	SN2	928	0	3.88	4	4	0.900	-0.696	0.08	0.416	0.16	1	5
	SN3	928	0	3.39	3	3	0.940	-0.155	0.08	-0.170	0.16	1	5
	SN4	928	0	3.81	4	4	0.884	-0.753	0.08	0.837	0.16	1	5
	SN5	928	0	3.38	3	4	1.019	-0.503	0.08	-0.006	0.16	1	5
	SN6	928	0	3.19	3	3	1.074	-0.311	0.08	-0.258	0.16	1	5
	SN7	928	0	3.41	3	3	0.953	-0.255	0.08	-0.095	0.16	1	5
	SN8	928	0	3.41	3	3	0.959	-0.132	0.08	-0.316	0.16	1	5
Perceived Behavioural Control	PBC1	928	0	3.61	4	4	0.988	-0.909	0.08	0.736	0.16	1	5
	PBC2	928	0	3.28	3	4	1.001	-0.419	0.08	-0.207	0.16	1	5
	PBC3	928	0	3.47	4	4	1.015	-0.597	0.08	0.122	0.16	1	5
	PBC4	928	0	3.56	4	4	0.967	-0.632	0.08	0.234	0.16	1	5
	PBC5	928	0	3.39	3	4	1.034	-0.423	0.08	-0.211	0.16	1	5
	PBC6	928	0	3.58	4	4	0.996	-0.634	0.08	0.118	0.16	1	5
	PBC7	928	0	3.38	4	4	0.998	-0.649	0.08	0.090	0.16	1	5

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[4] The item codes refer to the questions in the questionnaire for example, ASFC1 refers to the first attitude question.

		928	0						0.08		0.16	1	5
	PBC8	928	0	3.35	3	4	1.084	-0.419	0.08	-0.457	0.16	1	5
Intention	INT1	928	0	3.57	4	4	0.961	-0.727	0.08	0.372	0.16	1	5
	INT2	928	0	3.26	3	3	1.002	-0.260	0.08	-0.255	0.16	1	5
	INT3	928	0	3.69	4	4	0.952	-0.702	0.08	0.359	0.16	1	5
	INT4	928	0	3.48	4	4	0.935	-0.396	0.08	-0.016	0.16	1	5
	INT5	928	0	3.60	4	4	0.954	-0.708	0.08	0.405	0.16	1	5
	INT6	928	0	3.59	4	4	0.930	-0.527	0.08	0.256	0.16	1	5
	INT7	928	0	3.55	4	4	0.995	-0.568	0.08	0.130	0.16	1	5
Sustainable Food Purchase Behaviour	SFPB1	928	0	3.55	4	4	1.092	-0.572	0.08	-0.241	0.16	1	5
	SFPB2	928	0	3.54	4	4	1.121	-0.597	0.08	-0.380	0.16	1	5
	SFPB3	928	0	3.70	4	4	1.037	-0.665	0.08	-0.043	0.16	1	5
	SFPB4	928	0	3.75	4	4	1.017	-0.682	0.08	0.050	0.16	1	5
	SFPB5	928	0	3.57	4	4	0.986	-0.351	0.08	-0.386	0.16	1	5
	SFPB6	928	0	3.59	4	4	0.959	-0.459	0.08	-0.006	0.16	1	5
	SFPB7	928	0	3.52	4	4	1.120	-0.616	0.08	-0.270	0.16	1	5
Sustainable Food Usage Behaviour	SFUB1	928	0	3.51	4	4	1.078	-0.634	0.08	-0.095	0.16	1	5
	SFUB2	928	0	3.50	4	4	0.986	-0.485	0.08	0.030	0.16	1	5
	SFUB3	928	0	3.57	4	4	1.207	-0.630	0.08	-0.427	0.16	1	5
	SFUB4	928	0	3.74	4	4	1.158	-0.797	0.08	-0.142	0.16	1	5
	SFUB5	928	0	3.20	3	3	1.176	-0.328	0.08	-0.673	0.16	1	5
	SFUB6	928	0	3.57	4	4	1.024	-0.401	0.08	-0.350	0.16	1	5
	SFUB7	928	0	3.40	3.5	4	1.124	-0.352	0.08	-0.600	0.16	1	5
Sustainable Food disposal Behaviour	SFWDB1	928	0	3.80	4	4	1.042	-0.895	0.08	0.485	0.16	1	5
	SFWDB2	928	0	4.04	4	4	0.932	-1.005	0.08	1.031	0.16	1	5
	SFWDB3	928	0	3.59	4	4	1.053	-0.467	0.08	-0.310	0.16	1	5
	SFWDB4	928	0	3.60	4	4	0.964	-0.371	0.08	-0.149	0.16	1	5
	SFWDB5	928	0	3.56	4	4	1.114	-0.405	0.08	-0.626	0.16	1	5
	SFWDB6	928	0	3.48	4	4	1.102	-0.359	0.08	-0.683	0.16	1	5

		928	0	Mean	Median	Mode	Std	Skew	0.08	Kurt	0.16	Min	Max
	SFWDB7	928	0	3.16	3	3	1.210	-0.257	0.08	-0.794	0.16	1	5
Electronic Word of Mouth Giving	EWMG1	928	0	3.74	4	4	0.902	-0.564	0.08	0.167	0.16	1	5
	EWMG2	928	0	3.36	3	3	1.084	-0.375	0.08	-0.374	0.16	1	5
	EWMG3	928	0	3.32	3	3	1.115	-0.358	0.08	-0.391	0.16	1	5
	EWMG4	928	0	3.67	4	4	1.022	-0.873	0.08	0.592	0.16	1	5
	EWMG5	928	0	3.79	4	4	0.911	-0.653	0.08	0.473	0.16	1	5
	EWMG6	928	0	3.37	3	4	1.071	-0.244	0.08	-0.619	0.16	1	5
	EWMG7	928	0	3.15	3	3	1.125	-0.213	0.08	-0.519	0.16	1	5
Electronic Word of Mouth Receiving	EWMR1	928	0	3.28	3	4	1.211	-0.418	0.08	-0.705	0.16	1	5
	EWMR2	928	0	3.38	4	4	1.130	-0.520	0.08	-0.351	0.16	1	5
	EWMR3	928	0	3.40	3	4	0.957	-0.514	0.08	0.151	0.16	1	5
	EWMR4	928	0	3.33	3	4	1.018	-0.344	0.08	-0.328	0.16	1	5
	EWMR5	928	0	3.08	3	3	1.018	-0.033	0.08	-0.448	0.16	1	5
	EWMR6	928	0	2.98	3	3	1.038	0.072	0.08	-0.470	0.16	1	5
	EWMR7	928	0	3.17	3	3	1.093	-0.384	0.08	-0.427	0.16	1	5
	EWMR8	928	0	3.28	3	4	1.028	-0.537	0.08	-0.180	0.16	1	5
Reinforcement of Behaviour	RB1	928	0	3.32	3	3	0.954	-0.512	0.08	0.294	0.16	1	5
	RB2	928	0	3.42	3	3	0.947	-0.551	0.08	0.394	0.16	1	5
	RB3	928	0	3.45	4	4	0.916	-0.651	0.08	0.600	0.16	1	5
	RB4	928	0	3.46	4	4	0.922	-0.550	0.08	0.355	0.16	1	5
	RB5	928	0	3.56	4	4	0.944	-0.757	0.08	0.584	0.16	1	5
	RB6	928	0	3.52	4	4	0.916	-0.653	0.08	0.497	0.16	1	5
	RB7	928	0	3.37	3	3	0.966	-0.405	0.08	-0.011	0.16	1	5
Emotional value	CVEMOV1	928	0	3.48	3	3	0.949	-0.428	0.08	0.302	0.16	1	5
	CVEMOV2	928	0	3.47	4	4	0.938	-0.468	0.08	0.266	0.16	1	5
	CVEMOV3	928	0	3.06	3	3	1.051	-0.126	0.08	-0.455	0.16	1	5
	CVEMOV4	928	0	3.45	3	3	0.964	-0.460	0.08	0.204	0.16	1	5

		928	0	3.46	4	4	0.908	-0.486	0.08	0.115	0.16	1	5
	CVEMOV5	928	0	3.46	4	4	0.908	-0.486	0.08	0.115	0.16	1	5
	CVEMOV6	928	0	3.31	3	3	0.996	-0.203	0.08	-0.213	0.16	1	5
Epistemic value	CVEPIV1	928	0	3.66	4	4	1.014	-0.716	0.08	0.299	0.16	1	5
	CVEPIV2	928	0	3.62	4	4	0.995	-0.806	0.08	0.571	0.16	1	5
	CVEPIV3	928	0	3.70	4	4	0.932	-0.740	0.08	0.806	0.16	1	5
	CVEPIV4	928	0	3.62	4	4	0.935	-0.564	0.08	0.384	0.16	1	5
	CVEPIV5	928	0	3.68	4	4	0.946	-0.774	0.08	0.676	0.16	1	5
	CVEPIV6	928	0	3.63	4	4	0.956	-0.651	0.08	0.485	0.16	1	5
Health value	CVHV1	928	0	3.82	4	4	0.973	-0.835	0.08	0.817	0.16	1	5
	CVHV2	928	0	3.86	4	4	0.989	-1.016	0.08	1.046	0.16	1	5
	CVHV3	928	0	3.73	4	4	1.035	-0.717	0.08	0.214	0.16	1	5
Prestige value	CVPV1	928	0	3.35	3	4	1.034	-0.440	0.08	-0.160	0.16	1	5
	CVPV2	928	0	3.14	3	3	1.12	-0.318	0.08	-0.543	0.16	1	5
	CVPV3	928	0	3.32	3	3	1.071	-0.354	0.08	-0.338	0.16	1	5
	CVPV4	928	0	3.26	3	3	1.109	-0.371	0.08	-0.369	0.16	1	5
Social Value	CVSV1	928	0	3.65	4	4	1.006	-0.684	0.08	0.327	0.16	1	5
	CVSV2	928	0	3.09	3	3	1.216	-0.131	0.08	-0.882	0.16	1	5
	CVSV3	928	0	3.40	3	3	0.986	-0.345	0.08	0.076	0.16	1	5
	CVSV4	928	0	3.55	4	4	0.989	-0.649	0.08	0.352	0.16	1	5
	CVSV5	928	0	3.15	3	3	1.144	-0.189	0.08	-0.641	0.16	1	5

a. Multiple modes exist. The smallest value is shown

Preliminary Analysis

Reliability Analysis

The reliability of all the scales in this study was above the recommended minimum of 0.7 (DeVillis, 2012). Reliability (internal consistency) for each factor was calculated using Cronbach's alpha (α) coefficient. The Cronbach's α coefficient for the variables ranged from 0.843 to 0.952. The reliability of each variable has been analysed below.

Reliability of Attitude Scale

Table 5.4 Item-Total Statistics (Attitude)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
ASFC1	19.76	18.073	0.766	0.917
ASFC2	19.90	18.234	0.772	0.917
ASFC3	19.89	17.220	0.822	0.910
ASFC4	19.84	17.936	0.787	0.915
ASFC5	19.67	17.295	0.803	0.913
ASFC6	19.69	17.867	0.789	0.914

Current reliability (α) = 0.928

Decision: No need to delete/remove an item as current reliability is higher than when any item is deleted

Table 5.4 displays Item-Total Statistics pertaining to the attitude scale, with a specific emphasis on the scale mean in the event of item deletion, scale variance in the event of item deletion, corrected item-total correlation, and Cronbach's Alpha in the event of item deletion for each attitude item (ASFC1-ASFC6). It is worth noting that the mean values of the items, when deleted, range from 19.67 to 19.90. This suggests that the removal of items has a relatively consistent effect on the overall mean of the scale. The corrected item-total correlations illustrate the degree of association between each individual item and the comprehensive attitude scale, with values ranging from 0.766 to 0.822. Furthermore, the range of Cronbach's Alpha values resulting from item deletion is 0.910 to 0.917. The current reliability coefficient (α) is 0.928. Based on the provided statistics, the decision is that there is no necessity to

eliminate or exclude any item, as the present scale's reliability surpasses that achieved by removing any individual item. The high internal consistency indicated by Cronbach's Alpha provides evidence for the robustness of the scale in measuring attitudes.

Reliability of Social Norm Scale

Table 5.5 Item-Total Statistics (Social norm)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SN1	24.46	27.645	0.618	0.893
SN2	24.05	29.511	0.467	0.905
SN3	24.54	27.139	0.701	0.885
SN4	24.12	28.389	0.606	0.893
SN5	24.56	25.738	0.784	0.877
SN6	24.75	25.486	0.760	0.879
SN7	24.52	26.405	0.773	0.878
SN8	24.52	26.418	0.766	0.879

Current reliability (α) = 0.899

Decision: No need to delete/remove an item as current reliability is far greater than the threshold. However, item SN2 is flagged because its removal will result in a 0.006 increase in the scale's reliability. Further analysis will help determine if this item needs to be removed.

The rationale for retaining all items in the Social Norm scale is based on the strong current reliability coefficient of 0.899 (*Table 5.5*). Although the internal consistency of the overall scale is robust, item SN2 warrants further scrutiny as its exclusion impacts the existing reliability. The presence of this anomaly necessitates further examination to determine the extent to which the item contributes to the measurement of social norms. Subsequent inquiries will determine whether the alteration or preservation of item SN2 is imperative for achieving optimal precision in capturing the concept of social norms.

Reliability of Perceived Behavioural Control Scale

Table 5.6 Item-Total Statistics (Perceived Behavioural Control)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PBC1	24.02	33.754	0.763	0.918
PBC2	24.35	34.176	0.71	0.922
PBC3	24.16	33.232	0.789	0.916
PBC4	24.06	33.449	0.815	0.914
PBC5	24.24	33.681	0.728	0.921
PBC6	24.05	33.385	0.792	0.916
PBC7	24.24	33.479	0.781	0.917
PBC8	24.28	33.967	0.661	0.926

Current reliability (α) = 0.928

Decision: No need to delete/remove an item as current reliability is higher than when any item is deleted

The decision to retain all items in the Perceived Behavioural Control scale is justified by the strong current reliability coefficient of 0.928. The analysis of Item-Total Statistics (*Table 5.6*) demonstrates a consistent pattern of mean values and corrected item-total correlations, which suggests a stable and reliable relationship between each individual item and the overall scale. The internal consistency of the scale is confirmed by the Cronbach's Alpha values, which range from 0.914 to 0.926 when individual items are excluded. The present decision highlights the instrument's reliability in assessing perceived behavioural control, as the current alpha coefficient surpasses the values obtained by excluding any individual item. The robustness and consistency of the scale indicate that each item plays a significant role in effectively measuring the intended construct.

Table 5.7 Item-Total Statistics (Intention)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
INT1	21.18	25.286	0.821	0.937
INT2	21.48	25.560	0.748	0.943
INT3	21.05	25.418	0.814	0.937
INT4	21.26	25.406	0.835	0.935
INT5	21.14	25.064	0.855	0.934
INT6	21.15	25.625	0.812	0.937
INT7	21.19	24.832	0.839	0.935

Current reliability (α) = 0.945

Decision: No need to delete/remove an item as current reliability is high.

Reliability of Intention Scale

Table 5.7 above shows the item-total statistic for the intention scale. The Intention scale demonstrates a high level of reliability, with a current coefficient alpha of 0.945, indicating strong internal consistency. The decision to retain all items in the analysis is grounded in the stability demonstrated by consistent mean values and strong corrected item-total correlations. It is worth noting that even after removing individual items, Cronbach's Alpha remains consistently high, ranging from 0.934 to 0.943. This highlights the redundancy and overall importance of the items in accurately assessing intention.

Reliability of Sustainable Food Purchase Behaviour Scale

Table 5.8 Item-Total Statistics (Food Purchase Behaviour Scale)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SFPB1	21.76	25.140	.714	.895
SFPB2	21.77	24.574	.762	.890
SFPB3	21.68	26.238	.623	.905
SFPB4	21.61	25.123	.736	.892

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SFPB5	21.76	25.914	.709	.895
SFPB6	21.76	25.415	.778	.888
SFPB7	21.80	24.800	.746	.891

Current reliability (α) = 0.908

Decision: No need to delete/remove an item as current reliability is higher than when any item is deleted

The current reliability coefficient of 0.908 supports the decision to refrain from removing any item from the Sustainable Food Purchase Behaviour scale, as it demonstrates a satisfactory level of internal consistency. The Item-Total Statistics (*Table 5.8*) exhibit consistent mean values and corrected item-total correlations, indicating a stable association between each item and the overall scale. The Cronbach's Alpha values exhibit slight variations (ranging from 0.888 to 0.905) when specific items are removed from the analysis. However, the overall reliability of the measurement of sustainable food purchase behaviour remains consistently high. This finding further emphasises the significant collective contribution of all items in assessing this behaviour. The aforementioned decision highlights the instrument's ability to effectively measure the desired construct, with each item contributing significantly to the overall reliability of the scale.

Reliability of Food Usage Behaviour Scale

Table 5.9 Item-Total Statistics (Sustainable Food Usage Behaviour)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SFUB1	21.67	24.293	0.671	0.878
SFUB2	21.68	23.358	0.747	0.869
SFUB3	21.53	26.135	0.518	0.896
SFUB4	21.47	24.532	0.708	0.874
SFUB5	21.65	24.797	0.706	0.874
SFUB6	21.64	24.618	0.753	0.869
SFUB7	21.70	23.502	0.732	0.871

Current reliability (α) = 0.892

Decision: No need to delete/remove an item as current reliability is higher than when any item is deleted except SFUB3 whose removal increases the reliability by 0.04.

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The decision to retain all items on the Sustainable Food Usage Behaviour scale is justified based on the current reliability coefficient of 0.892, which suggests a satisfactory degree of internal consistency. The Item-Total Statistics (*Table 5.9*) exhibit consistent mean values and corrected item-total correlations, indicating a stable association between each individual item and the overall scale. Although there are slight fluctuations in the Cronbach's Alpha values, ranging from 0.869 to 0.896, when specific items are removed, the overall reliability of the measure remains consistently high. This highlights the combined impact of all elements on the assessment of sustainable food consumption behaviour. The findings of this study support the effectiveness of the measurement tool in accurately assessing the intended concept. Each individual item in the scale contributes significantly to the overall reliability of the instrument.

Reliability of Food Disposal Behaviour Scale

Table 5.10 Item-Total Statistics (Sustainable Food Disposal Behaviour)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SFWDB1	21.43	22.884	0.454	0.842
SFWDB2	21.20	22.546	0.574	0.825
SFWDB3	21.65	21.095	0.650	0.813
SFWDB4	21.64	20.936	0.751	0.800
SFWDB5	21.67	20.382	0.683	0.807
SFWDB6	21.76	21.563	0.559	0.827
SFWDB7	22.07	20.975	0.546	0.831
Current reliability (α) = 0.843				

Decision: No need to delete/remove an item as current reliability is higher than when any item is deleted.

Internal consistency of 0.843 supports the decision not to remove any item from the Sustainable Food Disposal Behaviour scale. The Item-Total Statistics (*Table 5.10*) show stable mean values and corrected item-total correlations, indicating a stable item-scale relationship. Deleted items would cause Cronbach's Alpha values to range from 0.800 to 0.842, but reliability remains high. This shows that

all items contribute to measuring sustainable food disposal behaviour. The decision strengthens the instrument's ability to capture the intended construct, with each item contributing to the scale's reliability.

Reliability of Electronic Word-of-Mouth Giving Scale

Table 5.11 Item-Total Statistics (Electronic Word-of-Mouth Giving)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
EWMG1	20.66	26.809	0.607	0.900
EWMG2	21.03	23.375	0.834	0.874
EWMG3	21.07	22.879	0.860	0.871
EWMG4	20.72	25.096	0.699	0.890
EWMG5	20.60	27.936	0.470	0.913
EWMG6	21.03	23.834	0.795	0.879
EWMG7	21.24	24.046	0.723	0.888
Current reliability (α) = 0.903				
Decision: No need to delete/remove an item as current reliability is relatively as high as when any item is deleted. However, giving that EWMG1 and EWMG5 are too close, they are flagged pending further analyses to determine whether they will be removed.				

Table 5.11 above presents the item-total statistic for the eWoM giving scale. The decision to retain all items in the Electronic Word-of-Mouth Giving scale is justified by a robust reliability coefficient of 0.903. Nevertheless, it is necessary to conduct a more detailed analysis of items EWMG1 and EWMG5 due to their close alignment, in order to ascertain any potential redundancy. Although there is currently no pressing requirement for their removal, it is necessary to subject both items to further examination in order to evaluate their individual contributions to the measurement of electronic word-of-mouth.

Reliability of Electronic Word-of-Mouth Receiving Scale

Table 5.12 Item-Total Statistics (Electronic Word-of-Mouth Receiving)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
EWMR1	22.62	31.868	0.739	0.889

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
EWMR2	22.52	32.496	0.750	0.887
EWMR3	22.49	34.449	0.719	0.891
EWMR4	22.56	33.547	0.751	0.888
EWMR5	22.81	35.065	0.609	0.900
EWMR6	22.91	35.493	0.555	0.904
EWMR7	22.73	32.991	0.737	0.888
EWMR8	22.61	33.804	0.718	0.890

Current reliability (α) = 0.904

Decision: No need to delete/remove an item as current reliability is higher than when any item is deleted except for EWMR6 which when deleted, the reliability remains the same. However, at this stage, EWMR6 is flagged pending further analysis.

The decision to retain all items in the Electronic Word-of-Mouth Receiving scale is justified by a strong current reliability coefficient of 0.904 (*Table 5.12*). Nevertheless, the removal of EWMR6 would only result in the same reliability, thereby suggesting the need for additional analysis. This indicates the possibility of redundancy or overlapping content, necessitating a more thorough investigation to ascertain the accuracy and precision of the scale.

Reliability of Reinforcement of Behaviour Scale

Table 5.13 Item-Total Statistics (Reinforcement of Behaviour)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
RB1	20.78	24.610	0.849	0.944
RB2	20.68	24.672	0.849	0.944
RB3	20.64	25.075	0.833	0.945
RB4	20.64	24.886	0.850	0.944
RB5	20.54	24.792	0.837	0.945
RB6	20.58	24.962	0.848	0.944
RB7	20.73	24.956	0.795	0.949

Current reliability (α) = 0.952

Decision: No need to delete/remove an item as current reliability is higher than when any item is deleted.

The rationale behind retaining all items on the Reinforcement of Behaviour scale is supported by the strong internal consistency demonstrated by the current reliability coefficient of 0.952. The analysis

of Item-Total Statistics (*Table 5.13*) demonstrates that the mean values remain consistent across all items, indicating a stable relationship between each individual item and the overall scale. Additionally, the strong corrected item-total correlations further emphasise the robustness of this relationship.

Reliability of Emotional Value Scale

Table 5.14 Item-Total Statistics (Emotional Value)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CVEMOV1	16.76	16.299	0.779	0.887
CVEMOV2	16.77	16.342	0.785	0.886
CVEMOV3	17.18	17.242	0.553	0.922
CVEMOV4	16.79	15.971	0.814	0.882
CVEMOV5	16.78	16.501	0.792	0.886
CVEMOV6	16.92	15.965	0.781	0.887

Current reliability (α) = 0.908

Decision: Removing Item CVEMOV3 would significantly improve the reliability of the scale. Also, it has a moderate correlation with the other items in the variable. However, the overall reliability of the scale is far higher than the acceptable limit. Hence, the decision to retain CVEMOV3 at this stage pending further analysis.

In reference to *Table 5.14*, the decision at hand pertains to the potential removal of Item CVEMOV3 from the Emotional Value scale, with the primary consideration being its potential impact on the scale's reliability. The analysis demonstrates that the removal of CVEMOV3 would have a substantial positive impact on the scale's overall reliability. The CVEMOV3 exhibits a moderate correlation with other variables in the dataset. However, it is worth noting that the current reliability coefficient of 0.908 surpasses the acceptable threshold. Hence, it is deemed appropriate to maintain CVEMOV3 at its current stage, subject to additional analysis being conducted to ascertain its comprehensive impact on the overall accuracy of the Emotional Value scale.

Reliability of Epistemic Value Scale

Table 5.15 Item-Total Statistics (Epistemic Value)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CVEPIV1	18.25	17.649	0.810	0.928
CVEPIV2	18.29	17.771	0.812	0.928
CVEPIV3	18.21	18.060	0.839	0.925
CVEPIV4	18.29	17.841	0.869	0.921
CVEPIV5	18.23	18.351	0.781	0.932
CVEPIV6	18.28	18.198	0.793	0.930

Current reliability (α) = 0.939

Decision: No need to delete/remove an item as current reliability is higher than when any item is deleted.

Based on the item-total statistics of the Epistemic Value scale (*Table 5.15*), it is determined that there is no necessity to eliminate any items, as the current level of reliability is notably high, measuring at 0.939. The Item-Total Statistics demonstrate consistent mean values and robust corrected item-total correlations, indicating a stable association between each individual item and the overall scale. The present decision serves to validate the effectiveness of the instrument in assessing epistemic value, as each individual item makes a substantial contribution to the scale's strong internal consistency.

Reliability of Health Value Scale

Table 5.16 Item-Total Statistics (Health Value)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CVHV1	7.59	3.726	0.826	0.901
CVHV2	7.55	3.557	0.869	0.866
CVHV3	7.68	3.488	0.833	0.897

Current reliability (α) = 0.922

Decision: No need to delete/remove an item as current reliability is higher than when any item is deleted.

The decision on the Health Value scale is that there is no necessity to eliminate any item, given that the current level of reliability stands at a robust value of 0.922. The Item-Total Statistics (*Table 5.16*) exhibit consistent mean values and robust corrected item-total correlations, suggesting a stable

association between each individual item and the overall scale. The aforementioned decision highlights the efficacy of the instrument in assessing health value, as each item substantially contributes to the scale's strong internal consistency.

Reliability of Prestige Value Scale

Table 5.17 Item-Total Statistics (Prestige Value)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CVPV1	9.72	9.455	0.830	0.924
CVPV2	9.94	8.821	0.861	0.914
CVPV3	9.75	9.064	0.868	0.912
CVPV4	9.81	8.977	0.842	0.920

Current reliability (α) = 0.937
Decision: No need to delete/remove an item as current reliability is higher than when any item is deleted.

The determination made regarding the Prestige Value scale is that it is not necessary to eliminate any item based on the robust reliability coefficient of 0.937. The analysis of Item-Total Statistics (*Table 5.17*) demonstrates that the mean values remain consistent, and the corrected item-total correlations are robust. This suggests a stable and reliable relationship between each individual item and the overall scale. The aforementioned decision highlights the instrument's effectiveness in assessing the value of prestige, as each item plays a substantial role in maintaining the scale's strong internal consistency.

Reliability of Social Value Scale

Table 5.18 Item-Total Statistics (Social Value)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CVSV1	13.20	14.045	0.699	0.884
CVSV2	13.76	12.517	0.736	0.878
CVSV3	13.45	13.607	0.790	0.865
CVSV4	13.30	13.698	0.771	0.869

CVSV5	13.70	12.861	0.750	0.873

Current reliability (α) = 0.896

The determination regarding the Social Value scale asserts that there is no necessity to eliminate any item, given that the present level of reliability stands at a robust 0.896. The Item-Total Statistics exhibit consistent mean values and strong corrected item-total (*Table 5.18*) correlations, suggesting a stable association between each individual item and the overall scale. The aforementioned decision underscores the efficacy of the instrument in assessing social value, as each item makes a substantial contribution to the scale's strong internal consistency.

Exploratory Factor Analysis (EFA)

According to Bandalos and Finney (2018), factor analysis is a statistical technique that aims to represent the interrelationships among observed variables by utilising one or more underlying latent constructs. The primary objective of this study is to elucidate the fundamental constructs that underlie the variables of interest, as stated by Bandalos and Finney (2018). Mukherjee, Sinha, and Chattopadhyay (2018) assert that the primary objective of factor analysis is to discern latent factors that account for the observed correlations among a given set of variables. The primary goal frequently entails generating a succinct collection of factors that can substitute a greater quantity of variables (Beavers et al., 2013). The methodology described in this study functions as a means of reducing data, intending to reveal a limited number of factors that account for the majority of the observed variance within a larger collection of observable variables (Mukherjee et al., 2018). As a result, subsequent to conducting factor analysis, researchers opt to retain variables that account for a significant proportion of the variance, while discarding those that contribute the least amount of variance.

Principal components analysis (PCA) was employed in the study to extract factors. Principal Component Analysis (PCA), as described by Lee et al. (2016), is a statistical technique that seeks to

identify orthogonal factors that represent the directions of maximum variance. This method is selected due to its capacity to generate uncorrelated linear combinations of observed variables, making it suitable for situations involving a singular correlation matrix. The selection of the promax method as a factor rotation technique in this study was based on theoretical considerations (Abdi, 2003) that suggested correlations among factors. The coefficients were arranged in descending order based on their magnitudes, and any values below 0.4 in absolute terms were omitted (Pallant, 2020). The findings of the study encompassed interpretations of the correlation matrix, the Kaiser-Meyer-Olkin measure (*Table 5.19*), Bartlett's test, Factor Extraction, and the Rotated Pattern Matrix (*Table 5.22*). Actually, EFA was conducted using maximum likelihood with promax rotation to determine if the items loaded well on the variables and correlated adequately. Maximum likelihood estimation was chosen to determine the unique variance among items and the correlation between factors. According to Pallant (2020), Maximum Likelihood also provides goodness of fit test for the factor solution. Promax was chosen due to the large data set (n=928) and also due to the fact that promax can account for the correlated factors. The 15-factor pattern matrix (Table 5.22) below shows the outcome of the factor analysis. Before the factor analysis, the Bartlett's test of sphericity and Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy were assessed. The results revealed a KMO of 0.959 and that the Bartlet's test is significant at $\alpha=0.000$ with a Chi-square of 85783.22, indicating the suitability of conducting exploratory factor analysis (Kaiser, 1974).

Correlation Matrix

The correlation matrix was the first to be interpreted. Because there were so many factors considered in this study, the questionnaire had 95 total questions (factors), and the correlation matrix tables extracted were too large to display, so the researcher opted to only observe the correlations and mention the determinant statistic. The correlation matrix revealed that the highest correlation coefficient was 0.824, which was observed between RB2 and RB1. High correlations between 0.778 and 0.824 were observed between items of the same variable. The rest of the coefficients were less than 0.770. The

determinant of the correlation matrix was discovered to be 1.184E-46, which is more than the threshold value of 0.00001. This implies that there is no problem of multicollinearity with the data used in this study.

Kaiser-Meyer-Olkin and Bartlett's test

The second outcome of the principal component analysis (PCA) factor analysis was the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test (*Table 5.19*). The Kaiser-Meyer-Olkin (KMO) statistic is a measure that falls within the range of 0 to 1. In order for factor analysis to yield reliable results, it is preferable for the Kaiser-Meyer-Olkin (KMO) measure to approach a value of 1 rather than 0. A value close to one (1) suggests that correlation patterns exhibit a high level of compactness, indicating that factor analysis is likely to produce distinct and dependable factors. It is advisable to consider values exceeding 0.5, as suggested by Kaiser (1974). Moreover, according to Dhagarra et al. (2020), values ranging from 0.5 to 0.7 are regarded as average, values falling between 0.7 and 0.8 are deemed as good, values within the range of 0.8 and 0.9 are classified as very good, and values exceeding 0.9 are considered best.

The KMO statistic value for the data used in this study was found to be 0.959, as shown in *Table 5.19*; this value falls in the range, so we can be confident that factor analysis is appropriate for these data.

Table 5.19 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.959
Bartlett's Test of Sphericity	Approx. Chi-Square	85783.22
	df	4560
	Sig.	.000

Communalities

Communalities in factor analysis indicate the degree to which observed variables exhibit shared variance with underlying factors. Pallant (2020) suggests eliminating items with communality values

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below .3 for multiple reasons: these items may have a weak association with the factors of interest, their inclusion can result in unnecessary model complexity without significant explanatory ability, their removal improves the interpretability of the remaining variables, and it enhances the stability of the results by reducing sensitivity to data variations. The selected threshold of .3 acts as a criterion for researchers to optimize the model, prioritize significant variables, and enhance the comprehensibility of the factor analysis results. As may be noted from *Table 5.20*, the communality figures are between 0.531 and 0.849 based on the communalities.

Table 5.20 Communalities

Item	Initial	Extraction
ASFC1	0.716	0.708
ASFC2	0.703	0.662
ASFC3	0.791	0.757
ASFC4	0.731	0.693
ASFC5	0.755	0.749
ASFC6	0.735	0.682
SN1	0.604	0.524
SN2	0.631	0.531
SN3	0.657	0.574
SN4	0.671	0.574
SN5	0.767	0.741
SN6	0.800	0.787
SN7	0.793	0.766
SN8	0.794	0.773
PBC1	0.744	0.703
PBC2	0.678	0.594
PBC3	0.749	0.700
PBC4	0.770	0.774
PBC5	0.687	0.611
PBC6	0.750	0.707
PBC7	0.745	0.678
PBC8	0.653	0.517
INT1	0.776	0.725
INT2	0.714	0.645
INT3	0.767	0.733
INT4	0.798	0.779

INT5	0.797	0.787
INT6	0.784	0.752
INT7	0.820	0.793
SFPB1	0.699	0.641
SFPB2	0.754	0.683
SFPB3	0.655	0.530
SFPB4	0.665	0.630
SFPB5	0.686	0.598
SFPB6	0.734	0.643
SFPB7	0.714	0.655
SFUB1	0.685	0.614
SFUB2	0.619	0.432
SFUB3	0.651	0.562
SFUB4	0.665	0.614
SFUB5	0.617	0.559
SFUB6	0.655	0.553
SFUB7	0.601	0.415
SFWDB1	0.616	0.508
SFWDB2	0.630	0.534
SFWDB3	0.656	0.582
SFWDB4	0.737	0.670
SFWDB5	0.643	0.498
SFWDB6	0.714	0.540
SFWDB7	0.626	0.507
EWMG1	0.662	0.563
EWMG2	0.841	0.807
EWMG3	0.857	0.876
EWMG4	0.745	0.688
EWMG5	0.679	0.534
EWMG6	0.805	0.770
EWMG7	0.807	0.756
EWMR1	0.802	0.778
EWMR2	0.826	0.800
EWMR3	0.685	0.598
EWMR4	0.703	0.633
EWMR5	0.645	0.517
EWMR6	0.653	0.585
EWMR7	0.752	0.642
EWMR8	0.750	0.682
RB1	0.846	0.779

RB2	0.855	0.784
RB3	0.792	0.772
RB4	0.819	0.800
RB5	0.835	0.791
RB6	0.840	0.814
RB7	0.745	0.715
CVEMOV1	0.788	0.755
CVEMOV2	0.755	0.752
CVEMOV3	0.568	0.424
CVEMOV4	0.768	0.765
CVEMOV5	0.773	0.734
CVEMOV6	0.788	0.756
CVEPIV1	0.815	0.768
CVEPIV2	0.796	0.747
CVEPIV3	0.801	0.793
CVEPIV4	0.828	0.831
CVEPIV5	0.791	0.706
CVEPIV6	0.771	0.719
CVHV1	0.771	0.784
CVHV2	0.843	0.836
CVHV3	0.816	0.777
CVPV1	0.824	0.798
CVPV2	0.828	0.824
CVPV3	0.840	0.822
CVPV4	0.833	0.801
CVSV1	0.753	0.712
CVSV2	0.763	0.716
CVSV3	0.775	0.770
CVSV4	0.760	0.728
CVSV5	0.722	0.655

Extraction Method: Principal Component Analysis.

Factor Extraction

The third output from SPSS presents the total variance explained, displaying Eigenvalues corresponding to each linear component (factor) both before and after rotation. Initially, there were 96 linear components in the dataset before extraction. Each factor's Eigenvalue signifies the variance explained by that particular linear component. To streamline the presentation, SPSS was configured to display only factors with Eigenvalues greater than 1, resulting in a total of 15 factors.

In *Table 5.21*, Eigenvalues are presented as a percentage of the total variance explained. For instance, component 1 elucidates 32.811% of the overall variance. The cumulative percentage column indicates the total percentage of variance explained by the current factor and those preceding it. Examining *Table 5.21* reveals that factor 1 through 15 collectively account for 68.380% of the total variance.

Table 5.21 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	32.811	34.178	34.178	32.262	33.606	33.606	18.177
2	6.498	6.768	40.946	6.246	6.506	40.112	12.834
3	6.045	6.296	47.243	5.648	5.883	45.995	15.801
4	4.219	4.395	51.638	3.443	3.587	49.582	17.932
5	3.737	3.892	55.530	3.852	4.013	53.594	15.557
6	2.617	2.726	58.256	2.289	2.384	55.978	17.887
7	2.398	2.498	60.755	2.069	2.155	58.133	16.709
8	2.227	2.319	63.074	1.945	2.026	60.159	15.692
9	1.960	2.041	65.115	1.729	1.801	61.960	17.291
10	1.696	1.767	66.882	1.215	1.265	63.225	18.140
11	1.510	1.573	68.455	1.220	1.271	64.497	16.681
12	1.435	1.495	69.950	1.310	1.364	65.861	18.712
13	1.199	1.249	71.200	0.866	0.902	66.763	18.681
14	1.085	1.130	72.329	0.835	0.870	67.633	12.738
15	1.047	1.091	73.420	0.716	0.746	68.380	5.938
16	0.985	1.026	74.446				
17	0.933	0.972	75.417				
18	0.842	0.877	76.294				
19	0.780	0.813	77.107				
20	0.742	0.773	77.880				
21	0.730	0.761	78.641				
22	0.658	0.685	79.326				
23	0.636	0.663	79.989				
24	0.619	0.645	80.634				
25	0.575	0.599	81.233				
26	0.572	0.595	81.829				
27	0.552	0.575	82.404				
28	0.524	0.546	82.950				

29	0.515	0.537	83.486
30	0.499	0.520	84.006
31	0.480	0.500	84.506
32	0.466	0.486	84.992
33	0.450	0.469	85.461
34	0.444	0.463	85.924
35	0.434	0.452	86.376
36	0.425	0.442	86.818
37	0.415	0.432	87.250
38	0.401	0.417	87.668
39	0.394	0.410	88.078
40	0.377	0.393	88.471
41	0.361	0.376	88.847
42	0.357	0.372	89.219
43	0.355	0.370	89.589
44	0.341	0.355	89.945
45	0.335	0.348	90.293
46	0.319	0.332	90.625
47	0.316	0.329	90.954
48	0.308	0.321	91.275
49	0.298	0.311	91.586
50	0.288	0.300	91.886
51	0.283	0.295	92.181
52	0.277	0.289	92.469
53	0.274	0.285	92.755
54	0.266	0.277	93.032
55	0.259	0.270	93.302
56	0.245	0.255	93.557
57	0.243	0.253	93.810
58	0.239	0.249	94.059
59	0.235	0.245	94.304
60	0.227	0.237	94.540
61	0.225	0.234	94.774
62	0.218	0.228	95.002
63	0.215	0.224	95.225
64	0.207	0.215	95.441
65	0.204	0.212	95.653
66	0.200	0.208	95.862
67	0.196	0.204	96.066
68	0.192	0.200	96.265

69	0.185	0.192	96.458				
70	0.181	0.189	96.647				
71	0.177	0.184	96.831				
72	0.172	0.179	97.009				
73	0.166	0.173	97.182				
74	0.162	0.169	97.351				
75	0.160	0.167	97.517				
76	0.157	0.164	97.681				
77	0.151	0.157	97.839				
78	0.146	0.152	97.991				
79	0.142	0.148	98.139				
80	0.138	0.144	98.282				
81	0.134	0.139	98.422				
82	0.132	0.138	98.559				
83	0.128	0.133	98.693				
84	0.122	0.127	98.819				
85	0.119	0.124	98.943				
86	0.118	0.123	99.066				
87	0.106	0.110	99.176				
88	0.103	0.108	99.284				
89	0.099	0.103	99.387				
90	0.096	0.100	99.487				
91	0.092	0.096	99.583				
92	0.090	0.094	99.677				
93	0.086	0.089	99.767				
94	0.082	0.085	99.852				
95	0.072	0.075	99.927				
96	0.070	0.073	100.000				

Extraction Method: Maximum Likelihood.

Rotated Pattern Matrix

The rotated pattern matrix table shown in *Table 5.22* is the final and most important output to be explained. The rotated pattern matrix provides factor loadings for each variable onto each factor, allowing for a summary of the factors to consider or eliminate for future analysis. To purify the measurement items, a minimum factor loading of 0.4 was used as a criterion (Clossey et al., 2019; Hair et al., 2011).

Furthermore, all item loadings greater than 0.4 represent a level commonly regarded as significant. Therefore, factors with factor loadings less than 0.4 were excluded from the output, which explains the gaps in the table (for example, items SFWDB6, SFWDB7 and SFUB7 have no corresponding loadings). The three (3) items have been flagged at this stage. At the next fail, they will be completely removed from further analysis.

Additionally, SN2 and SN4 are found to be loading on different factors, meaning that they do not explain Social Norms but Attitudes towards SFC. They are highly recommended for removal. This means that they do not help in explaining the variables they are presumed to be. EWMR6 was also found to be loading on two factors, which is an issue of concern. The EWMR6 is also flagged at this stage. SFUB2, SFUB3 and SFUB4 also load on two factors. This is not perceived as a problem for two reasons: (1) SF usage and disposal are practically and theoretically intertwined. According to Fan and Sivo (2007), theoretical relevance should precede statistical cut-offs. (2) the items also load on a unique factor. Further analysis will help determine which items should be taken out.

Table 5.22 Pattern Matrix_a

Factor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
RB5	0.934														
RB6	0.921														
RB4	0.872														
RB2	0.808														
RB3	0.778														
RB1	0.773														
RB7	0.756														
ASFC5		0.904													
ASFC1		0.866													
ASFC3		0.854													
ASFC4		0.841													
ASFC2		0.840													
ASFC6		0.815													
SN2		0.476													
SN4		0.473													
SFWDB3			0.820												
SFWDB4			0.696												
SFWDB1			0.680												
SFWDB2			0.653												
SFUB5			0.594												
SFUB1			0.567												0.458
SFUB4			0.562												0.418
SFUB3			0.522												0.420
SFUB6			0.504												
SFWDB5			0.493												

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SFUB2	0.414			
SFWDB7				
PBC4	0.955			
PBC3	0.785			
PBC6	0.779			
PBC2	0.690			
PBC5	0.682			
PBC7	0.663			
PBC1	0.629			
PBC8	0.542			
INT7		0.934		
INT5		0.892		
INT1		0.832		
INT4		0.823		
INT6		0.806		
INT3		0.806		
INT2		0.737		
CVEPIV3			0.844	
CVEPIV4			0.843	
CVEPIV1			0.735	
CVEPIV2			0.716	
CVEPIV6			0.703	
CVEPIV5			0.595	
EWMR1				0.747
EWMR8				0.742
EWMR6				0.738	-0.412
EWMR2				0.719
EWMR5				0.709
EWMR4				0.661
EWMR3				0.634

EWMR7	0.613		
SN7	0.913		
SN8	0.858		
SN5	0.812		
SN6	0.803		
SN3	0.625		
SN1	0.513		
SFPB4		0.851	
SFPB2		0.746	
SFPB6		0.722	
SFPB1		0.649	
SFPB7		0.621	
SFPB5		0.530	
SFPB3		0.513	
SFWDB6			
SFUB7			
EWMG3		0.926	
EWMG6		0.886	
EWMG2		0.830	
EWMG7		0.701	
EWMG4		0.533	
EWMG5		0.528	
EWMG1		0.512	
CVSV2			0.702
CVSV3			0.701
CVSV5			0.680
CVSV4			0.600
CVSV1			0.538
CVEMOV4			0.804
CVEMOV2			0.772

CVEMOV5	0.765	
CVEMOV1	0.729	
CVEMOV6	0.658	
CVEMOV3	0.465	
CVPV3		0.814
CVPV2		0.791
CVPV4		0.754
CVPV1		0.692
CVHV1		0.825
CVHV2		0.761
CVHV3		0.695

Extraction Method: Maximum Likelihood; Rotation Method: Promax with Kaiser Normalization; a. Rotation converged in 11 iterations.

As discussed thus far, at this stage the following items were flagged: CVEMOV3, EWMG1, EWMG5, SFWDB7, SFWDB6, EWMR6, SN2, SN4, SFUB3 and SFUB7

Test for assumptions for Structural Equation Modelling (SEM)

To use the SEM in this study, some assumptions need to be checked. This section is dedicated to checking the assumptions to find the appropriateness for the use of structural equation modelling, which is the predominant analytic tool used in this study. These assumptions are Multivariate normality, Multicollinearity, Sample size adequacy, Positive definiteness and Univariate normality.

Multivariate normality

To check for multivariate normality, a liner regression was run with the IDs (the IDs are serial numbers generated for each respondent. They are not ordinal but only nominal. E.g., the first respondents' responses was given ID as 1 and the second, 2, etc.) as the dependent variable and the other items as independent variables (please refer to

Table 5.23). After, the Mahalanobis distance check was conducted to see if there were any outliers, it was found out that seventy-one (71) cases fell below the expected probability level of .001, which is the maximum. Hence the 71 cases were eliminated from further analysis. The Mahalanobis distance considers if there is an outlier after the aggregation of all the items for each case (Byrne, 2013).

Multicollinearity

To check for multicollinearity, the same regression output was examined. In the collinearity statistics under the coefficients table (

Table 5.23), the tolerance and Variance Inflation Factors (VIF) were screened for figures <.01 and >10 respectively. Since none of the tolerance figures was below .01 and the VIF above 10, the assumption that multicollinearity was excluded is satisfied. (Menard, 1995).

Table 5.23 Multicollinearity test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.014	0.174		23.071	<.001		
	ASFC1	-0.083	0.045	-0.097	-1.869	0.062	0.284	3.517
	ASFC2	-0.073	0.045	-0.082	-1.618	0.106	0.297	3.370
	ASFC3	0.061	0.049	0.076	1.257	0.209	0.209	4.784
	ASFC4	-0.024	0.046	-0.028	-0.516	0.606	0.269	3.722
	ASFC5	-0.112	0.045	-0.141	-2.507	0.012	0.245	4.075
	ASFC6	-0.005	0.046	-0.005	-0.100	0.920	0.265	3.773
	SN1	0.098	0.037	0.116	2.641	0.008	0.396	2.523
	SN2	-0.054	0.042	-0.059	-1.289	0.198	0.369	2.713
	SN3	0.092	0.041	0.106	2.235	0.026	0.343	2.914
	SN4	-0.071	0.045	-0.077	-1.584	0.114	0.329	3.042
	SN5	-0.057	0.046	-0.071	-1.226	0.221	0.233	4.296
	SN6	-0.032	0.047	-0.043	-0.685	0.494	0.200	5.002
	SN7	0.101	0.052	0.118	1.932	0.054	0.207	4.831
	SN8	-0.165	0.052	-0.193	-3.150	0.002	0.206	4.857
	PBC1	0.078	0.046	0.094	1.715	0.087	0.256	3.910
	PBC2	-0.098	0.040	-0.120	-2.447	0.015	0.322	3.108
	PBC3	-0.071	0.045	-0.087	-1.577	0.115	0.251	3.983
	PBC4	0.155	0.049	0.183	3.168	0.002	0.230	4.344
	PBC5	0.004	0.039	0.006	0.114	0.909	0.313	3.195
	PBC6	-0.028	0.046	-0.034	-0.619	0.536	0.250	4.000
	PBC7	0.093	0.045	0.114	2.063	0.039	0.255	3.928
	PBC8	-0.036	0.036	-0.048	-1.010	0.313	0.347	2.878
	INT1	-0.105	0.050	-0.123	-2.099	0.036	0.224	4.465
	INT2	0.006	0.042	0.007	0.135	0.892	0.286	3.491
	INT3	0.051	0.049	0.060	1.040	0.298	0.233	4.298
	INT4	0.006	0.054	0.007	0.106	0.915	0.202	4.959
	INT5	0.050	0.053	0.058	0.941	0.347	0.203	4.915
	INT6	-0.069	0.053	-0.078	-1.308	0.191	0.216	4.633
	INT7	-0.030	0.054	-0.036	-0.557	0.578	0.180	5.549
	SFPB1	-0.063	0.038	-0.084	-1.657	0.098	0.301	3.325
	SFPB2	0.004	0.041	0.006	0.104	0.917	0.246	4.063
	SFPB3	-0.003	0.037	-0.004	-0.088	0.930	0.345	2.898
	SFPB4	-0.009	0.039	-0.011	-0.232	0.816	0.335	2.983
	SFPB5	0.033	0.041	0.039	0.796	0.426	0.314	3.182

SFPB6	0.068	0.046	0.080	1.479	0.139	0.266	3.752
SFPB7	-0.056	0.038	-0.076	-1.473	0.141	0.286	3.496
SFUB1	-0.030	0.038	-0.040	-0.810	0.418	0.315	3.177
SFUB2	-0.021	0.037	-0.026	-0.573	0.567	0.381	2.622
SFUB3	-0.021	0.032	-0.030	-0.648	0.517	0.349	2.865
SFUB4	0.024	0.034	0.035	0.720	0.472	0.335	2.988
SFUB5	-0.001	0.031	-0.001	-0.027	0.979	0.383	2.613
SFUB6	0.003	0.038	0.003	0.069	0.945	0.345	2.898
SFUB7	0.004	0.032	0.005	0.114	0.910	0.399	2.508
SFWDB1	-0.075	0.035	-0.095	-2.127	0.034	0.384	2.605
SFWDB2	0.047	0.040	0.053	1.168	0.243	0.370	2.703
SFWDB3	-0.081	0.037	-0.105	-2.207	0.028	0.344	2.911
SFWDB4	0.004	0.046	0.004	0.079	0.937	0.263	3.807
SFWDB5	0.007	0.034	0.010	0.220	0.826	0.357	2.799
SFWDB6	0.024	0.039	0.033	0.631	0.528	0.286	3.494
SFWDB7	-0.044	0.031	-0.065	-1.441	0.150	0.374	2.670
EWMG1	0.000	0.043	0.000	0.008	0.994	0.338	2.963
EWMG2	0.055	0.053	0.073	1.046	0.296	0.159	6.305
EWMG3	-0.041	0.054	-0.055	-0.755	0.450	0.143	6.988
EWMG4	0.164	0.044	0.205	3.732	<.001	0.255	3.915
EWMG5	0.067	0.044	0.074	1.517	0.130	0.321	3.112
EWMG6	-0.028	0.048	-0.036	-0.577	0.564	0.195	5.122
EWMG7	0.071	0.046	0.097	1.533	0.126	0.193	5.192
EWMR1	-0.016	0.042	-0.024	-0.381	0.703	0.198	5.043
EWMR2	-0.032	0.048	-0.044	-0.661	0.509	0.174	5.755
EWMR3	-0.002	0.042	-0.002	-0.042	0.967	0.315	3.174
EWMR4	0.114	0.041	0.142	2.782	0.006	0.297	3.372
EWMR5	0.035	0.037	0.043	0.926	0.355	0.355	2.817
EWMR6	-0.089	0.037	-0.112	-2.386	0.017	0.347	2.879
EWMR7	0.047	0.042	0.063	1.133	0.257	0.248	4.036
EWMR8	-0.063	0.044	-0.079	-1.424	0.155	0.250	3.997
RB1	-0.094	0.061	-0.110	-1.552	0.121	0.154	6.477
RB2	0.066	0.063	0.076	1.048	0.295	0.145	6.885
RB3	0.007	0.054	0.008	0.132	0.895	0.208	4.808
RB4	0.046	0.058	0.051	0.785	0.433	0.181	5.536
RB5	0.132	0.059	0.152	2.233	0.026	0.165	6.043
RB6	-0.205	0.062	-0.229	-3.304	<.001	0.160	6.253
RB7	0.023	0.047	0.027	0.493	0.622	0.255	3.925
CVEMOV1	0.235	0.052	0.272	4.513	<.001	0.212	4.720
CVEMOV2	-0.097	0.049	-0.111	-1.980	0.048	0.245	4.079
CVEMOV3	-0.044	0.033	-0.056	-1.328	0.185	0.432	2.316
CVEMOV4	-0.015	0.049	-0.018	-0.308	0.758	0.232	4.301
CVEMOV5	0.014	0.053	0.016	0.267	0.789	0.227	4.415
CVEMOV6	-0.128	0.050	-0.156	-2.581	0.010	0.212	4.711
CVEPIV1	-0.183	0.052	-0.226	-3.501	<.001	0.185	5.410
CVEPIV2	0.004	0.051	0.005	0.080	0.937	0.204	4.899

CVEPIV3	0.088	0.055	0.100	1.605	0.109	0.199	5.028
CVEPIV4	-0.015	0.059	-0.017	-0.259	0.796	0.172	5.823
CVEPIV5	-0.023	0.053	-0.026	-0.430	0.668	0.209	4.791
CVEPIV6	0.011	0.050	0.013	0.230	0.818	0.229	4.363
CVHV1	-0.085	0.049	-0.101	-1.747	0.081	0.229	4.367
CVHV2	0.032	0.058	0.039	0.550	0.583	0.157	6.388
CVHV3	0.088	0.051	0.111	1.717	0.086	0.184	5.428
CVPV1	-0.055	0.052	-0.070	-1.054	0.292	0.176	5.672
CVPV2	0.073	0.049	0.100	1.494	0.135	0.172	5.813
CVPV3	-0.043	0.053	-0.056	-0.801	0.423	0.160	6.259
CVPV4	-0.004	0.050	-0.006	-0.088	0.930	0.167	5.986
CVSV1	-0.119	0.045	-0.146	-2.613	0.009	0.247	4.043
CVSV2	-0.083	0.038	-0.124	-2.169	0.030	0.237	4.212
CVSV3	0.034	0.049	0.040	0.691	0.489	0.225	4.435
CVSV4	-0.047	0.047	-0.056	-0.996	0.320	0.240	4.163
CVSV5	0.033	0.038	0.047	0.886	0.376	0.278	3.601

a. Dependent Variable: ID

Sample size

To check for the appropriateness of the sample size for SEM for the greatest effect size of 0.5, an online calculator was used (Soper, 2023). After calculation, the minimum sample size generated was 175. The 928 cases used in this analysis far exceed the minimum required number of cases hence the sample size is appropriate for SEM of the study. Considering the group-level sample size, each country's sample size exceeds the threshold of 175 (344 respondents from Ghana, 306 from Italy and 278 from Canada).

Positive definiteness

To determine that the assumption of positive definiteness is not violated, factor analysis was conducted. Under the correlation matrix table, the determinant value should not be equal to zero. The observed determinant was not equal to zero (2.16^{-42}); therefore, the assumption of positive definiteness was not violated for the study.

Common Method Bias

Common Method Bias (CMB) is a potential problem in behavioural research. It is arguably one of the main sources of measurement bias which threatens the validity of results (Lindell & Whitney, 2001). According to Nunnally (1978), the error is of two types: systematic and random error. More importantly, systematic error always offers a different reason for the connection seen between measurements of various concepts (Podsakoff et al., 2003). Common method bias is evident when a single factor explains a majority of the data due to external factors. To check for this, Herman's single-factor test was conducted. Herman's test requires that a single unrotated factor solution is factor analysed to determine if a single factor explains the majority of the variance in the model. A single factor should not explain more than 50% of the variance. In this study, CMB does not exist since the single factor accounted for 34.18%, which is less than 50% (*Table 5.24*).

Table 5.24 Total Variance Explained (single factor)

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	32.811	34.178	34.178	32.086	33.423	33.423
2	6.498	6.768	40.946			
3	6.045	6.296	47.243			
4	4.219	4.395	51.638			
5	3.737	3.892	55.530			
6	2.617	2.726	58.256			
7	2.398	2.498	60.755			
.	.	.	.			
.	.	.	.			
.	.	.	.			
90	0.096	0.100	99.487			
91	0.092	0.096	99.583			
92	0.090	0.094	99.677			
93	0.086	0.089	99.767			
94	0.082	0.085	99.852			
95	0.072	0.075	99.927			
96	0.070	0.073	100.000			

Extraction Method: Maximum Likelihood.
NB: Table has been shortened
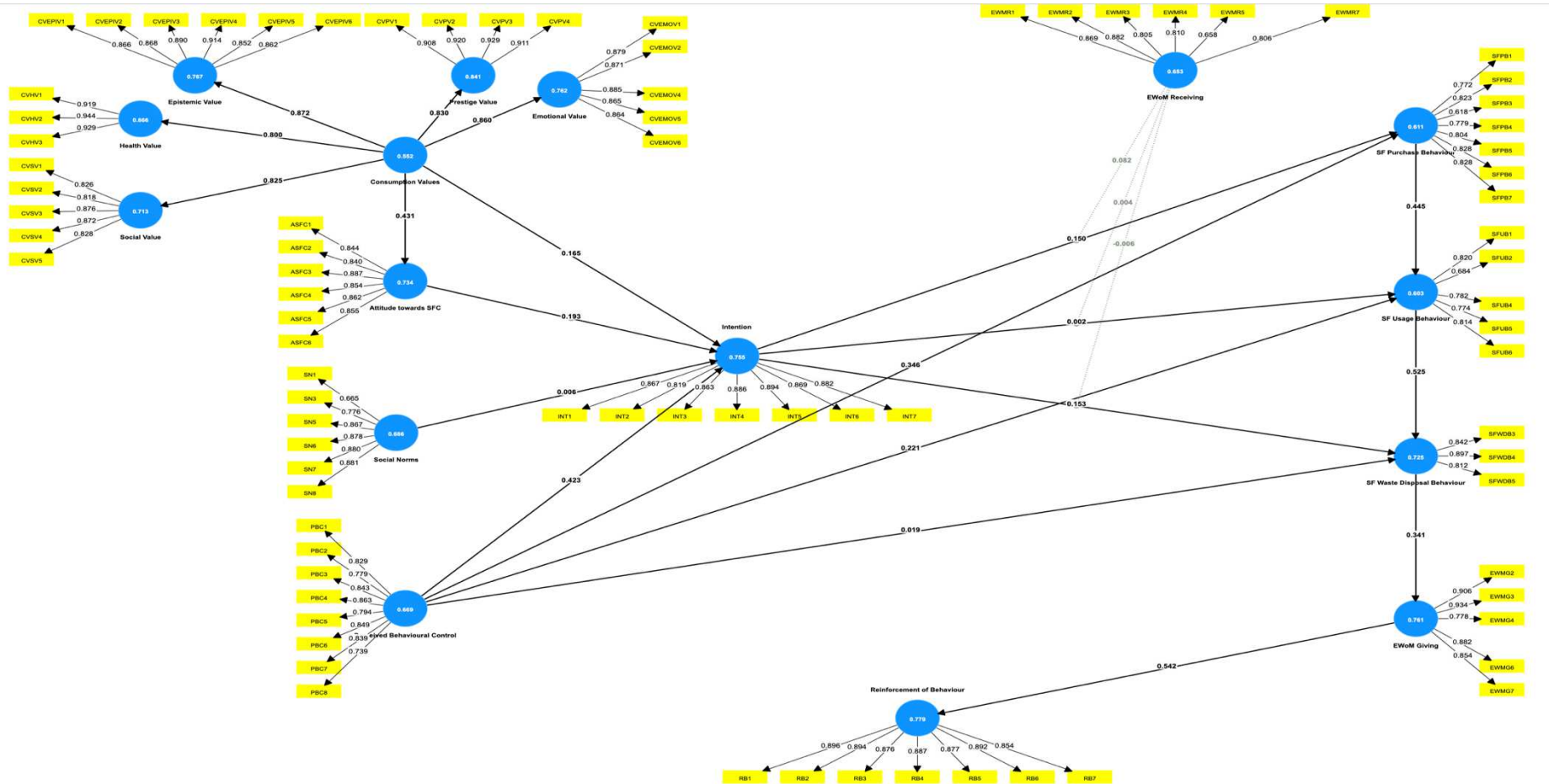
The following were taken out: SFWDB1 and SfWDB2 because their loadings were low.

Figure 5.2 Measurement Validation

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[5] Please note: The moderation line that connects from consumption values to the line between attitude and intention did not appear in any of the diagrams when it was downloaded. This was a technical difficulty. That notwithstanding, all analyses include the moderation path.

Table 5.25 Outer loadings

	Attitude towards SFC	Emotional Value	Epistemic Value	Health Value	Prestige Value	Social Value	EWoM Giving	EWoM Receiving	Intention	Perceived Behavioural Control	Reinforcement of Behaviour	SF Purchase Behaviour	SF Usage Behaviour	SF Waste Disposal Behaviour	Social Norms
ASFC1	0.871														
ASFC2	0.765														
ASFC3	0.930														
ASFC4	0.790														
ASFC5	0.756														
ASFC6	0.824														
CVEMOV1		0.851													
CVEMOV2		0.832													
CVEMOV4		0.831													
CVEMOV5		0.821													
CVEMOV6		0.856													
CVEPIV1			0.807												
CVEPIV2			0.835												
CVEPIV3			0.833												
CVEPIV4			0.889												
CVEPIV5			0.869												
CVEPIV6			0.855												
CVHV1				0.850											
CVHV2				0.903											
CVHV3				0.929											
CVPV1					0.914										
CVPV2					0.850										
CVPV3					0.901										
CVPV4					0.884										
CVSV1						0.850									
CVSV2						0.720									
CVSV3						0.847									
CVSV4						0.856									

CVSV5						0.719								
EWMG2							0.911							
EWMG3							0.880							
EWMG4							0.811							
EWMG6							0.784							
EWMG7							0.793							
EWMR1								0.874						
EWMR2								0.888						
EWMR3								0.706						
EWMR4								0.658						
EWMR5								0.652						
EWMR7								0.781						
INT1									0.795					
INT2									0.869					
INT3									0.798					
INT4									0.918					
INT5									0.813					
INT6									0.906					
INT7									0.795					
PBC1										0.931				
PBC2										0.662				
PBC3										0.673				
PBC4										0.773				
PBC5										0.809				
PBC6										0.812				
PBC7										0.845				
PBC8										0.748				
RB1											0.962			
RB2											0.861			
RB3											0.816			
RB4											0.765			
RB5											0.739			

Item														
RB6											0.949			
RB7											0.896			
SFPB1												0.721		
SFPB2												0.760		
SFPB3												0.621		
SFPB4												0.605		
SFPB5												0.852		
SFPB6												0.775		
SFPB7												0.804		
SFUB1													0.694	
SFUB2													0.701	
SFUB4													0.652	
SFUB5													0.706	
SFUB6													0.781	
SFWDB3														0.723
SFWDB4														0.833
SFWDB5														0.745
SN1														0.687
SN3														0.641
SN5														0.680
SN6														0.900
SN7														0.919
SN8														0.863

From the measurement model *Figure 5.2* and its outer loadings table *Table 5.1*, the strength of the factors is confirmed. Lower values less than 0.7 are red lettered. The items that do not hold well are, therefore, flagged for further analysis.

Confirmation of construct reliability and validity

Table 5.26 Construct reliability and validity

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Attitude towards SFC	0.928	0.931	0.927	0.681
Consumption Values	0.962	0.964	0.963	0.520
EWoM Giving	0.920	0.924	0.921	0.701
EWoM Receiving	0.892	0.903	0.893	0.587
Emotional Value	0.922	0.922	0.922	0.703
Epistemic Value	0.939	0.940	0.939	0.720
Health Value	0.923	0.925	0.923	0.800
Intention	0.946	0.947	0.945	0.712
Perceived Behavioural Control	0.929	0.933	0.927	0.618
Prestige Value	0.937	0.937	0.937	0.788
Reinforcement of Behaviour	0.953	0.956	0.951	0.738
SF Purchase Behaviour	0.893	0.900	0.893	0.546
SF Usage Behaviour	0.834	0.836	0.833	0.501
SF Waste Disposal Behaviour	0.809	0.816	0.812	0.591
Social Norms	0.907	0.920	0.907	0.624
Social Value	0.899	0.904	0.899	0.642

The reliability and validity statistics displayed in *Table 5.26* offer a thorough evaluation of the measurement quality for the different constructs in the thesis. These metrics are crucial for determining the reliability and robustness of the final measurement items used. The Cronbach's alpha values range from 0.809 to 0.962, exceeding the commonly recommended threshold of 0.7 (Nunnally, 1978). This implies that the items within each construct consistently assess the same underlying concept, indicating robust internal coherence.

Regarding composite reliability, the values of both rho_a and rho_c, which range from 0.816 to 0.964, offer additional proof of the measurement model's reliability (Hair et al., 2017). The values surpass the recommended threshold of 0.7, confirming the internal coherence of the constructs. The

composite reliability scores indicate the dependability of the underlying concepts and the robustness of the measurement model used in this study.

The convergent validity of the study was confirmed by calculating the Average Variance Extracted (AVE), which yielded values ranging from 0.501 to 0.800. The values exceed the recommended threshold of 0.5 proposed by Fornell and Larcker (1981), indicating that a significant amount of the variability in each construct is accounted for by its corresponding indicators. This highlights the validity and effectiveness of the measurement instruments in accurately measuring the intended concepts.

Table 5.27 Heterotrait-Monotrait ratio (HTMT) - Matrix

	Attitude towards SFC	EWoM Giving	EWoM Receiving	Emotional Value	Epistemic Value	Health Value	Intention	Perceived Behavioural Control	Prestige Value	Reinforcement of Behaviour	SF Purchase Behaviour	SF Usage Behaviour	SF Waste Disposal Behaviour	Social Norms	Social Value
Attitude towards SFC															
EWoM Giving	0.262														
EWoM Receiving	0.259	0.631													
Emotional Value	0.387	0.539	0.584												
Epistemic Value	0.430	0.517	0.518	0.765											
Health Value	0.521	0.433	0.432	0.644	0.743										
Intention	0.454	0.299	0.354	0.485	0.450	0.308									
Perceived Behavioural Control	0.436	0.631	0.549	0.501	0.375	0.290	0.614								
Prestige Value	0.287	0.694	0.618	0.683	0.617	0.622	0.297	0.510							
Reinforcement of Behaviour	0.304	0.573	0.649	0.641	0.618	0.541	0.414	0.427	0.625						
SF Purchase Behaviour	0.374	0.558	0.581	0.565	0.506	0.404	0.473	0.628	0.532	0.454					
SF Usage Behaviour	0.282	0.480	0.508	0.491	0.474	0.322	0.396	0.599	0.468	0.340	0.720				
SF Waste Disposal Behaviour	0.325	0.392	0.442	0.447	0.425	0.343	0.430	0.493	0.374	0.338	0.699	0.761			
Social Norms	0.466	0.581	0.443	0.433	0.368	0.332	0.452	0.681	0.547	0.338	0.522	0.474	0.375		
Social Value	0.333	0.550	0.652	0.664	0.615	0.630	0.428	0.556	0.797	0.631	0.525	0.568	0.432	0.564	

The Heterotrait-Monotrait Ratio (HTMT) matrix, displayed in *Table 5.27*, evaluates the extent to which different constructs in the study can be distinguished from each other. Discriminant validity is essential because it is a statistical validation process used to ensure that different constructs or variables in a study are genuinely distinct from one another and are not overly correlated or interconnected. The HTMT values in this matrix represent the relative magnitude of relationships between constructs, with values closer to 1 indicating potential concerns regarding discriminant validity.

The values located below the diagonal of the matrix indicate the HTMT ratios between pairs of constructs. To ensure sufficient discriminant validity, it is generally recommended that HTMT values remain below 0.85, according to Henseler et al. (2015). A lower HTMT ratio indicates a higher level of differentiation between the constructs.

The HTMT ratios in *Table 5.27* largely conform to the suggested threshold, thus confirming the discriminant validity of the constructs. All values are significantly below 0.85, which indicates that the constructs have enough discriminant validity. For example, the HTMT ratios between Attitude towards SFC and other constructs, such as EWoM Giving, EWoM Receiving, Emotional Value, etc., are significantly lower than the threshold. This strengthens the uniqueness of these constructs.

Table 5.28 Fornell-Larcker criterion

	Attitude towards SFC	Consumption Values	EWoM Giving	EWoM Receiving	Emotional Value	Epistemic Value	Health Value	Intention	Perceived Behavioural Control	Prestige Value	Reinforcement of Behaviour	SF Purchase Behaviour	SF Usage Behaviour	SF Waste Disposal Behaviour	Social Norms	Social Value
Attitude towards SFC	0.825															
Consumption Values	0.454	0.721														
EWoM Giving	0.263	0.637	0.837													
EWoM Receiving	0.260	0.656	0.628	0.766												
Emotional Value	0.388	0.917	0.539	0.578	0.838											
Epistemic Value	0.431	0.912	0.518	0.514	0.765	0.849										
Health Value	0.521	0.844	0.434	0.432	0.645	0.743	0.894									
Intention	0.455	0.474	0.300	0.345	0.486	0.449	0.308	0.844								
Perceived Behavioural Control	0.438	0.525	0.627	0.547	0.501	0.379	0.294	0.622	0.786							
Prestige Value	0.290	0.871	0.693	0.613	0.684	0.619	0.624	0.301	0.511	0.887						
Reinforcement of Behaviour	0.304	0.720	0.576	0.643	0.640	0.617	0.541	0.413	0.434	0.628	0.859					
SF Purchase Behaviour	0.368	0.596	0.564	0.585	0.561	0.502	0.399	0.473	0.631	0.533	0.452	0.739				
SF Usage Behaviour	0.277	0.554	0.485	0.514	0.492	0.475	0.322	0.399	0.598	0.471	0.344	0.724	0.708			
SF Waste Disposal Behaviour	0.323	0.478	0.392	0.438	0.446	0.425	0.342	0.430	0.490	0.373	0.339	0.699	0.760	0.768		
Social Norms	0.456	0.509	0.573	0.440	0.427	0.356	0.317	0.458	0.678	0.537	0.338	0.519	0.465	0.363	0.790	
Social Value	0.339	0.885	0.547	0.643	0.667	0.622	0.639	0.432	0.552	0.795	0.635	0.523	0.565	0.432	0.550	0.801

The Fornell-Larcker Criterion, displayed in *Table 5.28* is a crucial evaluation tool used to determine discriminant validity in structural equation modeling. The analysis involves comparing the square root of the average variance extracted (AVE) for each construct with the correlations between that construct and all other constructs. Discriminant validity of a construct is established when the square root of its Average Variance Extracted (AVE) exceeds its correlation with other constructs.

The diagonal elements of the table indicate the square root of the average variance extracted (AVE) for each construct. These values quantify the extent to which the construct captures variance from its indicators. The off-diagonal elements demonstrate the associations between pairs of constructs. After careful examination, it is evident that the diagonal values, which correspond to the square root of the Average Variance Extracted (AVE), consistently surpass the off-diagonal values. This observation suggests that there is a strong discriminant validity. Significantly, the square root of the Average Variance Extracted (AVE) for each construct is greater than its correlation with other constructs, thus meeting the requirements of the Fornell-Larcker Criterion.

Structural Model and Hypothesis Testing

Direct Effects (Test of hypotheses 1- 6, 8-11)

Based on the results presented in *Table 5.29* and *Figure 5.2* below, Hypothesis 1 is supported, revealing a substantial positive relationship between Consumption Values and Attitude towards Sustainable Food Consumption ($\beta = 0.431$, $p = 0.000$). Hypothesis 2 is also supported, demonstrating a significant positive impact of Consumption Values on Intention to consume sustainable food ($\beta = 0.165$, $p = 0.000$). Hypothesis 3 gains support as well, indicating that Attitude towards Sustainable Food Consumption positively influences Intention ($\beta = 0.193$, $p = 0.000$). However, Hypothesis 4 is unsupported, suggesting that Social Norms do not significantly influence consumers' Intention ($\beta = 0.005$, $p = 0.868$). Moving to Hypothesis 5, Perceived Behavioral Control is shown to have a substantial positive effect on Intention ($\beta = 0.424$, $p = 0.000$). Additionally, Hypothesis 6 is supported, as Perceived Behavioral Control positively impacts SF Purchase Behavior ($\beta = 0.348$, $p = 0.000$), SF Usage Behavior ($\beta = 0.220$, $p = 0.000$), and SF Waste Disposal Behavior ($\beta = 0.016$, $p = 0.691$). Hypothesis 7 is unsupported; Intention does not significantly influence SF Usage Behavior ($\beta = 0.003$, $p = 0.939$). However, Hypotheses 8, 9, and 10 receive strong support, showing significant positive effects of Intention on SF Purchase Behavior ($\beta = 0.148$, $p = 0.000$), SF Usage Behavior ($\beta = 0.155$, $p = 0.000$), and SF Waste Disposal Behavior ($\beta = 0.446$, $p = 0.000$). In summary, the findings elucidate the nuanced relationships between these constructs in shaping sustainable food consumption behavior.

Table 5.29 Results of direct effects

Hypothesis	Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Decision
H1: Food consumption value has a positive effect on Gen Z attitude towards sustainable food consumption	Consumption Values -> Attitude towards SFC	0.431	0.432	0.040	10.832	0.000	Supported
H2: Food consumption values have a positive effect on the intention to consume sustainable food	Consumption Values -> Intention	0.165	0.164	0.032	5.115	0.000	Supported
H3: Attitude towards sustainable food has a positive effect on the intention to consume sustainable food	Attitude towards SFC -> Intention	0.193	0.194	0.034	5.704	0.000	Supported
H4: Social norms about sustainable food have a positive effect on the intention to consume sustainable food	Social Norms -> Intention	0.005	0.008	0.032	0.166	0.868	Unsupported
H5a: Perceived behavioural control towards sustainable food has a positive effect on the intention to consume sustainable food	Perceived Behavioural Control -> Intention	0.424	0.423	0.032	13.442	0.000	Supported
H5b: Perceived behavioural control towards sustainable food has a positive effect on the sustainable food purchase behaviour	Perceived Behavioural Control -> SF Purchase Behaviour	0.348	0.346	0.045	7.752	0.000	Supported
H5c: Perceived behavioural control towards sustainable food has a positive effect on sustainable food usage behaviour	Perceived Behavioural Control -> SF Usage Behaviour	0.220	0.222	0.046	4.757	0.000	Supported
H5d: Perceived behavioural control towards sustainable food has a positive effect on the sustainable food disposal behaviour	Perceived Behavioural Control -> SF Waste Disposal Behaviour	0.016	0.015	0.040	0.398	0.691	Unsupported
H6a: Intention to consume sustainable food will have a positive effect on sustainable food purchase behaviour	Intention -> SF Purchase Behaviour	0.148	0.148	0.038	3.938	0.000	Supported
H6b: Intention to consume sustainable food will have a positive effect on sustainable food usage behaviour	Intention -> SF Usage Behaviour	0.003	0.002	0.035	0.077	0.939	Unsupported
H6c: Intention to consume sustainable food will have a positive effect on sustainable food disposal behaviour	Intention -> SF Waste Disposal Behaviour	0.155	0.155	0.034	4.610	0.000	Supported
H8: Sustainable food purchase behaviour will have a positive effect on sustainable food usage behaviour	SF Purchase Behaviour -> SF Usage Behaviour	0.446	0.446	0.041	10.804	0.000	Supported

|							
H9: Sustainable food usage behaviour will have a positive effect on sustainable food disposal behaviour	SF Usage Behaviour -> SF Waste Disposal Behaviour	0.527	0.527	0.034	15.478	0.000	Supported
H10: Sustainable food disposal behaviour will positively affect eWoM giving about sustainable food consumption	SF Waste Disposal Behaviour -> EWoM Giving	0.340	0.342	0.032	10.663	0.000	Supported
H11: eWoM giving will lead to an intention to consume through reinforcement	EWoM Giving -> Reinforcement of Behaviour	0.542	0.542	0.027	19.788	0.000	Supported
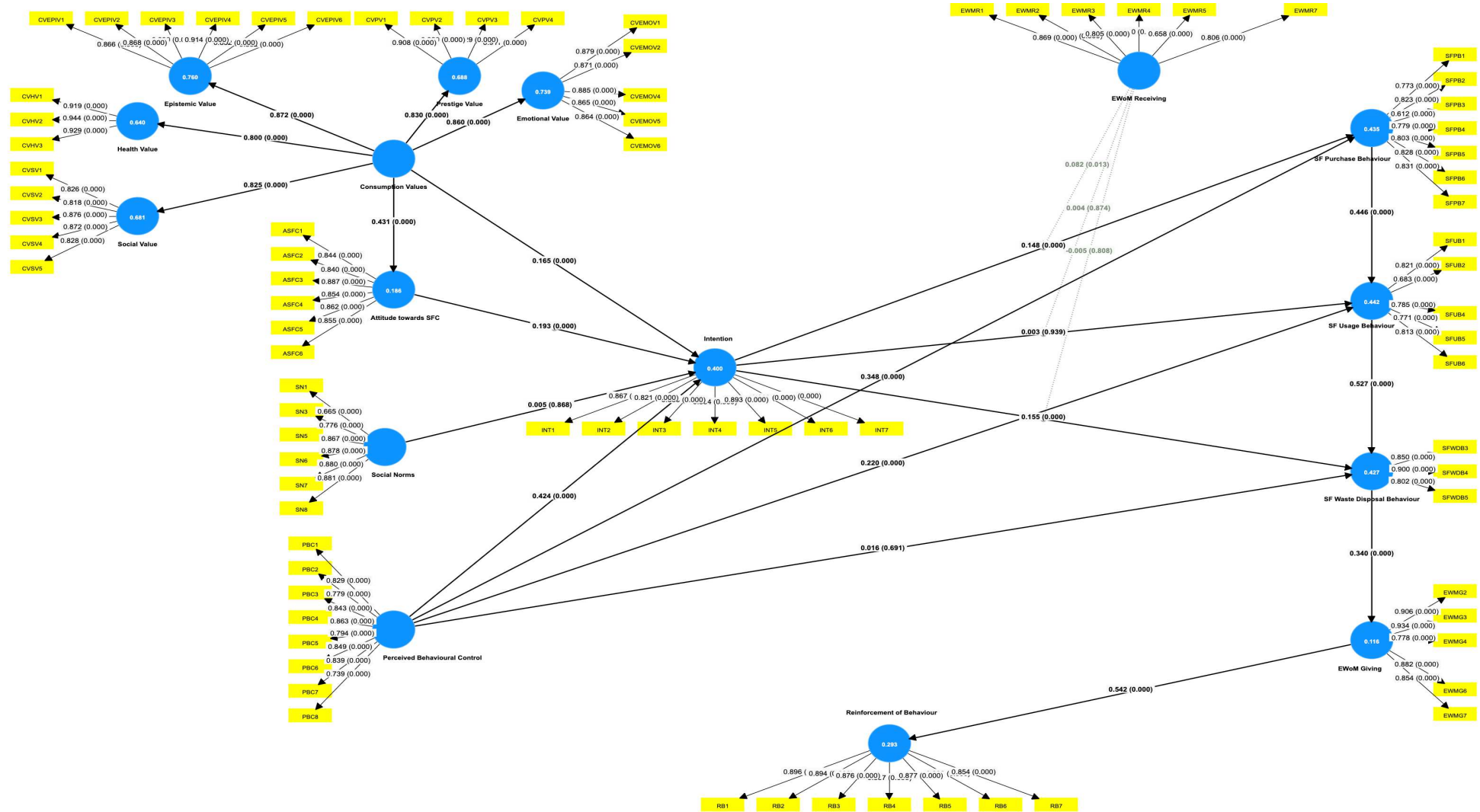
Figure 5.3 Structural Model

The initial focus is on the relationship between individuals' Consumption Values and their Attitudes towards Sustainable Food Consumption. The substantial path coefficient of 0.431, coupled with an exceptionally low p-value of 0.000, underscores that individuals holding specific consumption values are significantly more likely to harbor positive attitudes toward sustainable food consumption.

The connection between Consumption Values and Intention to consume sustainable food reveals a noteworthy association. With a path coefficient of 0.165 and an impressively low p-value of 0.000, the analysis suggests that individuals embracing particular consumption values are more inclined to form intentions aligned with adopting sustainable food practices.

Transitioning to the interplay between Attitudes towards Sustainable Food Consumption and Intention, the results unveil a positive relationship. The path coefficient of 0.193, along with a low p-value of 0.000, indicates that individuals with favorable attitudes towards sustainable food are more likely to harbor concrete intentions to engage in sustainable food practices.

Contrary to expectations, the examination of Social Norms in relation to Intention to consume sustainable food reveals a more nuanced picture. The minimal path coefficient of 0.005 and a non-significant p-value of 0.868 suggest that social norms such as peer opinions or family traditions have a limited influence on individuals' intentions to adopt sustainable food behaviors.

Shifting focus to the influence of Perceived Behavioral Control, the analysis demonstrates a robust connection with Intention. The path coefficient of 0.424, along with a p-value of 0.000, highlights the significant impact of individuals' perceived control over their actions in shaping intentions to engage in sustainable food practices.

Extending the exploration into behavioral outcomes, perceived behavioral control emerges as a potent determinant of sustainable food purchase behavior. With a robust path coefficient of 0.348 and a p-value of 0.000, this analysis suggests that individuals who perceive control over their

actions are more likely to translate their intentions into actual purchase behaviors within the sustainable food domain.

The influence of perceived behavioral control extends beyond mere purchase decisions to impact sustainable food usage behavior. The path coefficient of 0.220, coupled with a p-value of 0.000, indicates that individuals' perceived control plays a significant role in shaping how they use sustainable food items. This finding emphasizes the comprehensive impact of perceived control on various dimensions of sustainable food behavior.

While perceived behavioral control resonates in shaping purchase and usage behaviors, its impact on waste disposal behaviors within the sustainable food domain appears less pronounced. The path coefficient of 0.016 and a non-significant p-value of 0.691 suggest that perceived control has a limited influence on individuals' behaviors related to the disposal of sustainable food items. This highlights a potential area where other factors may come into play.

Transitioning to the relationship between intention and actual behaviors, the analysis reveals a positive association between individuals' intentions and their sustainable food purchase behavior. With a path coefficient of 0.148 and a low p-value of 0.000, this finding suggests that intentions significantly contribute to the realization of concrete purchase actions within the sustainable food landscape.

Contrary to the influence on purchase behavior, the connection between intention and sustainable food usage behavior appears to be negligible. The path coefficient of 0.003, combined with a non-significant p-value of 0.939, suggests that individuals' intentions may not strongly translate into how they use sustainable food items. This underscores the importance of exploring distinct dimensions of behavior within the sustainable food context.

Building upon the multifaceted nature of sustainable food behaviour, the analysis reveals a positive association between intention and waste disposal behaviour. With path coefficient of 0.155 and a p-value of 0.000, individuals' intentions significantly contribute to their behaviours related to

the disposal of sustainable food items, highlighting the comprehensive impact of intentions on diverse facets of sustainable food practices.

The transition from sustainable food purchase behavior to usage behavior reveals a substantial and positive relationship. The path coefficient of 0.446, coupled with a p-value of 0.000, underscores that individuals who engage in sustainable food purchases are likely to extend their commitment to the usage phase. This interconnection emphasizes the continuum of sustainable food practices and the cohesive nature of consumer behaviors within this domain.

Extending the exploration into the life cycle of sustainable food items, the analysis highlights a significant connection between usage behavior and waste disposal behavior. With a robust path coefficient of 0.527 and a low p-value of 0.000, this finding suggests that individuals who actively engage in using sustainable food items are more likely to exhibit responsible behaviors in their food waste disposal, completing the cycle of sustainable food consumption.

The conscientious handling of sustainable food items extends further to influence electronic word-of-mouth (EWoM) giving. The positive relationship between waste disposal behavior and EWoM giving, with a path coefficient of 0.340 and a p-value of 0.000, indicates that individuals who responsibly dispose of sustainable food items are more inclined to share their experiences and opinions electronically. This highlights the potential for positive environmental practices to become advocacy through digital channels.

Finally, the ripple effect of sustainable food behaviors extends to the reinforcement of these behaviors. The positive path coefficient of 0.542, along with a p-value of 0.000, suggests that individuals who engage in eWoM giving related to sustainable food practices are more likely to reinforce these behaviors. This finding underscores the role of social reinforcement and digital advocacy in shaping and perpetuating sustainable food consumption patterns.

Test of Moderation Effects of eWoM received (Test of hypothesis 7a-c)

It was the objective of the study to assess the moderating role of consumption values and technology. It was found (*Table 5.30*) that when the respondents received eWoM, their intention to purchase sustainable food increased slightly but statistically significantly. However, eWoM did not have significant effect in the relationship between intention and SF usage and SF waste disposal.

The findings from the hypothesis testing are presented as follows. Hypothesis 7a, suggesting that eWoM received strengthens the relationship between intention to consume sustainable food and sustainable food purchase behavior, is supported. The path coefficient is 0.082, and the T-statistic of 2.476, with a p-value of 0.013, indicates statistical significance, confirming the positive impact of eWoM in enhancing this particular relationship. However, Hypothesis 7b, positing that eWoM received strengthens the relationship between intention and sustainable food usage behavior, is unsupported. The path coefficient is 0.004, and the T-statistic of 0.159, with a p-value of 0.874, suggests a lack of statistical significance, indicating that eWoM does not significantly influence the relationship between intention and sustainable food usage behavior. Similarly, Hypothesis 7c, proposing that eWoM received strengthens the relationship between intention and sustainable food disposal behavior, is also unsupported. The path coefficient is -0.005, and the T-statistic of 0.243, with a p-value of 0.808, implies a lack of statistical significance, indicating that eWoM does not play a significant role in reinforcing the relationship between intention and food waste disposal behavior. These nuanced findings shed light on the varied impact of eWoM in different dimensions of sustainable food consumption behavior.

Table 5.30 Moderation effect of eWoM Received

Hypothesis	Path coefficients	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Decision
H7a: eWoM received will strengthen the relationship between intention to consume sustainable food and sustainable food purchase behaviour	EWoM Receiving x Intention -> SF Purchase Behaviour	0.082	0.082	0.033	2.476	0.013	Supported
H7b: eWoM received will strengthen the relationship between intention to consume sustainable food and sustainable food usage behaviour	EWoM Receiving x Intention -> SF Usage Behaviour	0.004	0.004	0.026	0.159	0.874	Unsupported
H7c: eWoM received will strengthen the relationship between intention to consume sustainable food and on sustainable food disposal behaviour	EWoM Receiving x Intention -> SF Waste Disposal Behaviour	-0.005	-0.006	0.022	0.243	0.808	Unsupported

Multi-group Moderation Analysis (Test of hypotheses 12a-e)

The examination of the moderation effect of Consumption Values on the relationship between Attitude towards SFC and Intention (*Table 5.31*) yielded a path coefficient of -0.050. Analyzing the differences among national samples, the contrasts between Canada and Ghana (0.016), Canada and Italy (0.066), and Ghana and Italy (0.785) were explored. One-tailed p-values for these differences were calculated: Canada vs Ghana (0.380), Canada vs Italy (0.061), and Ghana vs Italy (0.431). Correspondingly, the two-tailed p-values were 0.761, 0.122, and 0.761, respectively. Ultimately, the analysis suggests that the hypothesis is unsupported, indicating no significant differences among national samples based on consumption values.

The evaluation of the moderation effect of EWoM Receiving on the relationship between Intention and SF Purchase Behaviour revealed a path coefficient of 0.312. Examining differences, the contrasts between Canada and Ghana (0.210), Canada and Italy (-0.103), and Ghana and Italy (0.000) were assessed. One-tailed p-values for these contrasts were determined as follows: Canada vs Ghana (0.012), Canada vs Italy (0.876), and Ghana vs Italy (0.000). The two-tailed p-values were 0.023, 0.248, and 0.000. This hypothesis is partly supported, indicating significant differences between Canada and Ghana and between Canada and Italy, but not between Ghana and Italy.

For the moderation effect of EWoM Receiving on Intention and SF Usage Behaviour, with a path coefficient of 0.063, the differences were examined: Canada vs Ghana (-0.065), Canada vs Italy (-0.128), and Ghana vs Italy (0.163). One-tailed p-values for these differences were 0.792, 0.958, and 0.326, respectively, with two-tailed p-values of 0.415, 0.084, and 0.415. The findings suggest that the hypothesis is unsupported, indicating no significant differences among national samples based on technology (WoM Receiving) for SF Usage Behaviour.

Similarly, for the moderation effect of EWoM Receiving on Intention and SF Waste Disposal Behaviour, with a path coefficient of 0.048, the differences were explored: Canada vs Ghana (0.061), Canada vs Italy (0.013), and Ghana vs Italy (0.210). The one-tailed p-values for these differences were 0.143, 0.444, and 0.420, while the two-tailed p-values were 0.285, 0.888, and 0.285. The hypothesis is unsupported, signifying no significant differences among national samples based on technology (WoM Receiving) for SF Waste Disposal Behaviour.

Analyzing the relationship between EWoM Giving and Reinforcement of Behaviour, with a path coefficient of 0.057, the differences were scrutinized: Canada vs Ghana (0.104), Canada vs Italy (0.047), and Ghana vs Italy (0.176). The one-tailed p-values for these differences were 0.081, 0.214, and 0.353, while the two-tailed p-values were 0.162, 0.429, and 0.162. The findings suggest that the hypothesis is unsupported, revealing no significant differences among national samples based on technology (WoM Giving) for Reinforcement of Behaviour.

Table 5.31Test of multigroup moderation analysis

Hypothesis	Bootstrap Multigroup Analysis (MGA)	Difference (Canada - Ghana)	Difference (Canada - Italy)	Difference (Ghana - Italy)	1-tailed (Canada vs Ghana) p value	1-tailed (Canada vs Italy) p value	1-tailed (Ghana vs Italy) p value	2-tailed (Canada vs Ghana) p value	2-tailed (Canada vs Italy) p value	2-tailed (Ghana vs Italy) p value	Decision
H12a: Due to national cultural differences, there will be observed differences amongst the national samples based on consumption values	Consumption Values x Attitude towards SFC -> Intention	-0.050	0.016	0.066	0.785	0.380	0.061	0.431	0.761	0.122	Unsupported
H12b-d: Due to national cultural differences, there will be observed differences amongst the national samples based on technology (WoM Receiving)	EWoM Receiving x Intention -> SF Purchase Behaviour	0.312	0.210	-0.103	0.000	0.012	0.876	0.000	0.023	0.248	Partly supported
	EWoM Receiving x Intention -> SF Usage Behaviour	0.063	-0.065	-0.128	0.163	0.792	0.958	0.326	0.415	0.084	Unsupported
	EWoM Receiving x Intention -> SF Waste Disposal Behaviour	0.048	0.061	0.013	0.210	0.143	0.444	0.420	0.285	0.888	Unsupported
H12e: Due to national cultural differences, there will be observed differences amongst the national samples based on technology (WoM Giving)	EWoM Giving -> Reinforcement of Behaviour	0.057	0.104	0.047	0.176	0.081	0.214	0.353	0.162	0.429	Unsupported

Results of thematic analysis

In this subsection, results of the qualitative data collected are presented. The following tables

(*Table 5.32*,

   Table 5.33, and *Table 5.34*) present the thematic analysis of data collected from Ghana,

Italy, and Canada. The themes were developed based on the research questions asked. The codes

were developed after reading through the transcripts and classified based on the research questions.

Excerpts from the transcripts are also presented along with the respondent ID.

Table 5.32 Thematic analysis of respondent's responses according to research questions (Ghana Data)

Research Question	Main Themes	Code	Selected related Excerpt	Respondent ID
	Environmental concern	Knowledge of global warming	"Actually, I've been hearing about global warming and environmental changes."	AGI
			"Primarily, my motivation stems from environmental concerns and the desire to support local farmers and reduce the carbon footprint of my diet."	AG4
	Financial Considerations	Mindful budgeting	"As a student, I need to be mindful of my budget, and I also consider my health when making food choices."	AG3
What are Gen Z motivations and attitudes towards food across national cultures?		Managing costs and avoiding food waste	"My motivation for sustainable food consumption primarily revolves around cost considerations. I am concerned about not wasting money and believe in efficient cost management, which encourages me to adopt sustainable food consumption practices."	AG10
	Health considerations	Health related to less waste	I try to eat enough, and I usually don't buy food outside. So, I don't bring home a lot of plastic waste.	AG3
		Prioritizing nutrition and wellbeing	"My motivation is driven by concerns for my health and the well-being of the community and the environment."	AG6
	Social considerations	Social awareness	"I've observed that our consumption habits play a significant role in contributing to environmental problems."	AG5
		Appreciation for traditional foods	My cultural background has instilled a deep appreciation for traditional, locally sourced foods, which significantly influences my sustainable food practices.	AG4

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	Future planning	Preparing for uncertain times	"My primary motivation for adopting sustainable food practices is the desire to plan for the future. I recognize that economic circumstances can change, and having a reserve of food can provide a safety net during challenging times."	AG7
How does technology impact Gen Z food consumption?	Technology influence	Access to information	"I believe technology can contribute positively by providing information to consumers about sustainable food choices, helping them make more informed decisions."	AG5
		Exposure to advertising	"Technology may lead to unhealthy food choices due to advertising and the availability of convenience foods that are not always sustainable."	AG3
	Technology usage	Access to information	Yes, technology can save time and provide access to information that helps with sustainable food choices.	AG3
		Recipe ideas	"Yes, I sometimes watch YouTube videos for recipe ideas and inspiration."	AG3
		Locating suppliers	"Yes, I've used apps that help locate local farmers' markets and provide information on seasonal produce. These apps have made it easier to find sustainable food options."	AG4
		Extending shelf life with refrigeration	"Yes, I've used technology, such as a refrigerator, to store food for extended periods. Using a fridge helps me reduce food waste by preserving items for more extended periods."	AG7
How does culture affect Gen Z food choices?	Cultural influence	Food taboos	"Some foods are considered taboo in my culture, and I abstain from them based on these cultural beliefs."	AG5
		Traditional foods	"My cultural background has instilled a deep appreciation for traditional, locally sourced foods, which significantly influences my sustainable food practices."	AG4
		Cultural emphases	"Our culture emphasizes minimal packaging and fresh produce. We prefer foods that do not require excessive packaging, and this is an important aspect of our sustainable food practices."	AG3

	Traditional practices	Influencing food distribution and meat consumption	"Cultural practices within my family influence food distribution, especially regarding the consumption of meat."	AG8
	Religious norms	Restricting certain food types	"there are societal values, especially religious norms, that affect what foods I can or cannot consume."	AG7
How do values help to bridge the gap between attitude and behaviour in Gen Z SFC?	Personal values influence	Health considerations	"It's important for me to eat what suits me and consider my health. I avoid foods I'm allergic to and aim for a balanced diet."	AG3
		Environmental stewardship	"My personal values, including environmental stewardship and supporting local communities, guide me in making sustainable food choices."	AG4
		Personal values alignment	"My motivation mainly revolves around saving money and time. As a student, I need to be mindful of my budget, and I also consider my health when making food choices."	AG3
		Personal values alignment	My personal values will continue to guide my future sustainable food consumption practices.	AG4
	Aligning values	Harmony between personal and societal values	"Adhering to social values aligns with the belief that sustainable food consumption is the right thing to do. It's a practice that doesn't cause harm and is in harmony with societal values, reinforcing my commitment to sustainability."	AG10
Is there any potential for change toward sustainable food consumption?	Potential for change	Education	"I believe that with more education and awareness, sustainable food consumption can become more mainstream."	AG3
		Policy changes	"I believe policy changes, including education and standards, can help promote sustainable food consumption. These changes would be necessary to encourage sustainability."	AG5
		Mainstream adoption	"Yes, I believe sustainable food consumption will become mainstream as people become more conscious of the environmental and health benefits of such choices."	AG4

| Increasing adoption | Mainstream appeal in future | "I believe that sustainable food consumption should become more mainstream in the future, as it benefits both the present and the future." | AG6 |
| Education and policy | Driving cultural and societal change | "I believe that changes on multiple fronts are necessary to shift towards more sustainable food consumption practices. These changes should encompass cultural, societal, and policy aspects." | AG8 |

Table 5.32 displays the thematic analysis of participants' answers to research inquiries regarding the sustainable food consumption habits of Gen Z in Ghana.

The first research question investigated the motivations and attitudes towards food consumption within different national cultures. Respondents demonstrate a notable emphasis on environmental concerns, expressing awareness of global warming and a willingness to back local farmers while minimising their carbon emissions. Financial factors are important, as careful budgeting and cost management have an impact on the selection of sustainable food options. Respondents demonstrate a clear focus on health by prioritising nutrition, well-being, and minimising plastic waste. Social considerations encompass a consciousness of one's consumption patterns and a recognition of the value of traditional, locally procured food. Respondents are driven by the necessity to anticipate unpredictable circumstances, making future planning (for food security) a prominent theme.

The second research question examined the influence of technology on the dietary habits of Gen Z. Technology is perceived as having a dualistic impact, exerting both beneficial and detrimental effects. It enables access to vast amounts of information, while also promoting unhealthy food options through advertising. Additionally, it facilitates the discovery of recipe ideas, helps locate suppliers, and extends the shelf life of products.

The third research question explored the impact of culture on the food preferences of Gen Z, uncovering themes such as dietary restrictions, indigenous cuisines, cultural values, customary rituals, and religious guidelines.

The fourth research question investigated the role of values in connecting attitudes and behaviours in the context of sustainable food consumption. Factors such as personal values, encompassing health, environmental stewardship, budget considerations, and alignment with societal values, are recognised as influential.

The final segment examined the possibility of transitioning towards sustainable food consumption, emphasising topics such as education, policy reforms, widespread acceptance, and the expectation of greater adoption of sustainable practices in the future. In general, the table offers a thorough summary of the various factors that influence the sustainable food consumption behaviours of Gen Z in the context of Ghana.

Table 5.33 Thematic analysis of respondents' responses according to research questions (Italy Data)

Research Question	Main Themes	Code	Selected related Excerpt	Respondent ID
What are Gen Z motivations and attitudes towards food across national cultures?	Health considerations	Prioritizing fitness and physical wellbeing	"I mostly focus on my health and fitness when it comes to food choices."	AI5
		Personal health	"checking my eating normally"	AI8
	Environmental concern	Worried about the planet	"My primary motivation is my concern for the environment and the kind of world we are leaving for future generations."	AI1
		Climate change	"address climate change and protect the environment"	AI6
	Animal welfare	Meat industry issues	"Getting to know how much animal farms polluted and abused animals and nature, pushed me to minimize spending on meat."	AI7
How does technology impact Gen Z food consumption?	Access to information	Apps providing recommendations	"Technology can help bridge the gap by providing easy access to information about sustainable food products and their availability."	AI1
		Food waste apps	"I've used a lot of time the app Too Good To Go, to reduce food waste and have a good cheap meal."	AI7
	Misinformation	Influencers promoting unhealthy behaviors	"Technology can spread misinformation, and influencers can sometimes promote unsustainable behaviors."	AI4
	Technology barriers	Lack of apps	"I found that many of these apps did not provide adequate tracking of social sustainability factors"	AI6
How does culture affect Gen Z food choices?	Traditional dishes	Consuming cultural staples	"I normally eat traditional food"	AI2
		African cuisine	"my taste buds are still in touch with my … roots"	AI8
	Religious prohibitions	Avoiding pork due to faith	"Our muslim brothers and sisters don't really eat pork due to their belief."	AI2

	Cultural barriers	Social occasions	"it's not easy to socialize and integrate in social occasions."	AI7
How do values help to bridge the gap between attitude and behaviour in Gen Z SFC?	Environmental values	Concern for the planet	"You can't preach sustainability without putting thought in your consumption habits."	AI3
	Value-action gap	Intention-behavior gap	"we already share the same values, it doesn't significantly encourage me to do more."	AI6
Is there any potential for change toward sustainable food consumption?	Increasing awareness	Education about impacts	"I believe that making sustainable choices will become a trend and mainstream behavior as more people become educated and aware of the importance of sustainability."	AI4
	Potential for change	Generational shift	"I appreciate that young people seem to be more naturally concerned about sustainability"	AI6
	Barriers to change	Affordability	"The price of sustainable food can be a bit higher, making it less accessible."	AI6

Table 5.33 presents a comprehensive analysis of the responses from Italian respondents regarding various aspects related to Gen Z motivations and attitudes towards food consumption. These aspects include the influence of technology on food consumption, the impact of culture on food choices, the role of values in bridging the gap between attitudes and behaviours, and the potential for promoting sustainable food consumption.

The first question regarding motivations and attitudes towards food in different national cultures revealed that health considerations play a prominent role. Respondents place high importance on fitness, physical well-being, and personal health. In addition, the text emphasises environmental concerns, which include anxieties about the planet, climate change, and concerns regarding animal welfare in the meat industry.

The second research question investigated the impact of technology on the dietary habits of Gen Z in Italy. The positive impact of accessing information through apps that offer recommendations and address the issue of food waste is acknowledged. Nevertheless, there are concerns regarding the dissemination of false information by influencers and the presence of technological obstacles, such as the absence of apps that effectively monitor social sustainability indicators.

The third research question examined the impact of culture on the dietary preferences of Gen Z. Traditional dishes, including local cuisine, hold great importance, as religious restrictions influence food choices, such as abstaining from pork based on religious beliefs. Identified as influential factors are cultural barriers, specifically those pertaining to social occasions.

The fourth research question investigated the role of values in facilitating the connection between attitude and behaviour in sustainable food consumption. Environmental values, such as a deep concern for the planet, are recognised as important drivers. Nevertheless, there is recognition of a

discrepancy between values and actions, as respondents indicated that having shared values does not always result in a greater adoption of sustainable behaviour.

The ultimate research inquiry investigated the capacity for transformation towards sustainable food consumption in Italy. Education is considered a catalyst for change in raising awareness about the effects of food choices. There is optimism that this will lead to a generational shift towards increased concern for sustainability. Nevertheless, obstacles to change, such as the higher cost of sustainable food of sustainable food, are recognised as possible difficulties. Generally, the table provides valuable information about the subtle viewpoints of Italian Gen Z individuals regarding sustainable food consumption habits.

Table 5.34 Thematic analysis of respondents' responses according to research questions (Canada Data)

Research Question	Main Themes	Code	Selected related Excerpt	Respondent ID
What are Gen Z motivations and attitudes towards food across national cultures?	Motivations and Attitudes	Health motivation	"The personal benefit I see is better health, especially when I choose organic foods."	AC7
			"The personal benefit I see is better health..."	AC1
		Environmental motivation	"My motivation stems from a deep concern for the environment and a sense of responsibility to minimize my ecological impact."	AC8
			"My motivation is rooted in my desire to protect the environment..."	AC1
		Ethics motivation	"I also believe in supporting local economies, promoting ethical treatment of animals..."	AC8
How does technology impact Gen Z food consumption?	Technology and Food Consumption	Use of technology/apps	"Yes, I've used apps that provide information about the environmental impact of different food products."	AC7
			"Yes, I've used various apps and technology to make more sustainable food choices."	AC2
		Access to information	"I believe technology can help by spreading awareness about the benefits of sustainable food choices."	AC7
How does culture affect Gen Z food choices?	Culture and Food Choices	Local and traditional foods	"It encourages me to explore sustainable options within this context, such as supporting indigenous food practices and embracing local food traditions."	AC8
			"My cultural background as a Canadian has shaped my appreciation for diverse food cultures..."	AC2
		Conflict with social/cultural norms	"The prevailing culture of convenience can make it challenging to consume food sustainably."	AC8
How do values help to bridge the	Values and Sustainable	Environmental values	"a desire to protect the environment and minimize harm to the planet."	AC10

gap between attitude and behaviour in Gen Z SFC?	Food Consumption		"a commitment to environmental responsibility and ethical choices..."	AC4
		Sense of responsibility	"My motivation comes from a sense of responsibility to protect the environment..."	AC9
Is there any potential for change toward sustainable food consumption?	Potential for Change	Optimism about future	"I believe sustainable food consumption will become more mainstream as people become more aware of its benefits."	AC7
		Barriers to sustainability	"The main barrier is the cost, especially when it comes to organic foods."	AC7
			"Cost can be a limitation, as sustainable options are sometimes more expensive."	AC4

Table 5.34 displays a thematic analysis of Canadian respondents' views on various aspects related to Gen Z motivations and attitudes towards food. This includes the influence of technology on food consumption, the impact of culture on food choices, the role of values in bridging the gap between attitudes and behaviours, and the potential for promoting sustainable food consumption. The very first question regarding motivations and attitudes towards food among different national cultures revealed that health motivations, environmental concerns, and ethics motivations are the predominant themes. Respondents articulate a preference for enhancing their personal well-being by opting for organic alternatives, demonstrating a profound apprehension towards environmental issues, and displaying a dedication to bolstering local economies and ensuring ethical treatment of animals.

The second research question investigated the impact of technology on the dietary habits of Gen Z individuals in Canada. The emphasis is placed on utilising technology and applications to obtain information regarding the ecological consequences of food products. Respondents asserted that technology has the potential to disseminate information regarding the advantages of sustainable food choices, thereby positively influencing consumer awareness.

The third research question examined the impact of culture on the dietary preferences of Gen Z in Canada. The recognition of local and traditional cuisines is acknowledged, with an emphasis on endorsing Indigenous culinary traditions and embracing a wide range of food cultures. Nevertheless, the clash with dominant cultural norms, specifically the culture of convenience, is recognised as a hurdle to achieving sustainable food consumption.

The fourth research question investigated the role of values in closing the disparity between attitude and behaviour in the context of sustainable food consumption. The adoption of sustainable

food practices is strongly driven by environmental values and a sense of responsibility towards protecting the environment.

The ultimate research question investigated the capacity for transformation towards sustainable food consumption in Canada. Respondents are optimistic about the future, as they believe that sustainable food consumption will gain popularity as people become more cognizant of its advantages. Nevertheless, obstacles to achieving sustainability in food consumption, specifically the financial burden associated with purchasing organic foods, are recognised as potential difficulties. In summary, the table offers significant information about the driving factors, impacts, and viewpoints of Canadian Gen Z individuals in relation to sustainable food consumption habits.

Similarities and differences in responses from the three countries

When analysing the feedback from Ghana, Italy, and Canada regarding the sustainable food consumption habits of Gen Z within different national cultures, distinct similarities and differences become apparent across the research inquiries. These findings enhance our understanding of the various factors that influence the attitudes and motivations of Gen Z individuals when it comes to making sustainable food choices.

Similarities

Environmental Concerns: In all three countries, respondents demonstrate a collective dedication to ensuring the long-term viability of the environment. Gen Z individuals in Ghana, Italy, and Canada frequently express apprehensions regarding global warming, climate change, and the wider ecological consequences of their dietary decisions as major driving forces behind their adoption of sustainable consumption practices.

Technology's role: Technology plays a crucial role in shaping the food consumption behaviours of Gen Z in all three countries. Respondents universally highlight the beneficial influence of technology in facilitating access to information regarding sustainable food options. Nevertheless, the apprehensions regarding the dissemination of false information and obstacles associated with the utilisation of technology are acknowledged as plausible obstacles.

Cultural Influences: The impact of culture on food preferences is a prominent aspect in Ghana, Italy, and Canada. The food preferences of Gen Z individuals are influenced by traditional dishes and cultural practices, highlighting the significance of cultural context in promoting sustainable

food consumption. Respondents in all three countries demonstrate a correlation between their cultural heritage and sustainable food practices.

Health considerations: Health considerations are a significant factor for Gen Z respondents in Ghana, Italy, and Canada when it comes to choosing sustainable food options. The pursuit of personal well-being, whether through prioritising fitness, nutrition, or avoiding specific foods for health reasons, consistently plays a crucial role in driving sustainable food choices.

Differences

Economic Considerations: Although financial considerations and budgeting impact sustainable food choices in both Ghana and Canada, the distinct economic challenges and barriers vary between the two countries. Respondents in Ghana emphasise cost management and the prevention of food waste as their main motivations. In Canada, the expense of sustainable alternatives, particularly organic foods, is recognised as a significant obstacle to their widespread acceptance.

Cultural Context: The particular cultural factors that impact sustainable food choices differ among the three countries. Ghana exhibits a notable inclination towards traditional, locally procured cuisine, which is greatly influenced by cultural values. Italian respondents highlight the importance of traditional culinary preparations and the influence of religious convictions on dietary preferences. Canada prioritises bolstering local economies and embracing diverse food cultures in agreement with the federal policies of supporting multi-culturalism.

Technology Challenges: Although technology is generally perceived as a beneficial tool, there are varying concerns regarding the challenges it presents. Italian respondents have concerns regarding influencers endorsing unhealthy behaviours and the insufficient availability of apps that effectively

monitor social sustainability indicators. Identifying sustainable options as a technology-related barrier is a cost issue in Canada.

Values and Behavior Alignment: The correlation between values and behaviour, specifically in the realm of sustainable food consumption, demonstrates variations. In Ghana, interview participants emphasise the significance of personal values such as well-being, financial prudence, and long-term strategizing. In Italy, there is recognition of a discrepancy between values and actions, whereby common values may not necessarily result in a greater adoption of sustainable behaviour. Canada places significant emphasis on fostering a sense of responsibility towards environmental protection. *Table 5.35* below presents a summary of the similarities and differences.

Table 5.35 Summary of the similarities and differences

Research Question	Aspect	Ghana	Italy	Canada
Motivations and Attitudes towards Food Across National Cultures	Environmental Concerns	Shared concerns about global warming and environment	Common motivation rooted in concern for the environment	Strong emphasis on minimizing ecological impact
	Technology's Role	Positive impact on sustainable choices	Positive influence with concerns about misinformation	Positive influence with concerns about cost barriers
	Cultural Influences	Appreciation for traditional, locally sourced foods	Emphasis on traditional dishes and diverse food cultures	Connection between cultural background and food choices
	Health Considerations	Focus on health and wellbeing	Prioritizing personal health and fitness	Pursuit of personal well-being as a key motivator
Technology Impact on Gen Z Food Consumption	Access to Information	Positive influence through apps providing information	Emphasis on apps providing information about sustainable food products	Belief in technology's role in spreading awareness about sustainable choices
	Misinformation	Generally positive, with no specific challenges	Concerns about influencers and technology barriers	Positive impact with challenges related to cost

	Technology Barriers	Generally positive, with no specific challenges	Concerns about the lack of apps providing adequate tracking	Positive impact with challenges related to cost
Culture Affecting Gen Z Food Choices	Local and Traditional Foods	Deep appreciation for traditional foods	Significance of traditional dishes and religious beliefs	Support for local economies and embracing diverse cultures
	Conflict with Social/Cultural Norms	Generally positive, with no specific challenges	Mention of prevailing culture of convenience as a challenge	Acknowledgment of challenges in socializing and integrating sustainably
Values Helping Bridge Gap Between Attitude and Behavior in Gen Z SFC	Environmental Values	Values aligning with environmental stewardship	Acknowledgment of a value-action gap	Strong emphasis on environmental responsibility
	Sense of Responsibility	Values include a sense of responsibility to protect the environment	Acknowledgment of a value-action gap	Strong emphasis on environmental responsibility
Potential for Change Toward Sustainable Food Consumption	Optimism About Future	Positive outlook on mainstream adoption	Optimism about sustainable choices becoming mainstream	Belief in increased awareness leading to mainstream behavior
	Barriers to Sustainability	Generally positive, with no specific challenges	Mention of the cost as a limitation for sustainable options	Acknowledgment of economic challenges, especially the cost of sustainable options

Chapter Summary

This chapter presented the data analyses and results in relation to the objectives and hypothesis

generated in the third chapter. Statistical tools employed in this section include path analysis, test

of moderation effects and multigroup analysis all performed in the structural equation modelling.

Out of the 23 hypotheses, 14 were supported, but 9 were unsupported. Mainly, it was found that

whilst the Theory of Planned Behaviour is partially confirmed, the presentation of the behaviour variable as stages and multi-dimensional is endorsed. Also, the interplay of values and technology has challenged popular notions. The Consumer Culture Theory is confirmed in this study; hence, national cultures seem to be irrelevant when studying the SFC of Gen Z. In the next chapter, these findings are discussed, and conclusions are drawn.

CHAPTER SIX

SUMMARY, DISCUSSIONS AND CONCLUSIONS

Introduction

This chapter concludes the entire study by providing a summary of the results and discussions based on the five research questions set out to be investigated, the research contributions, limitations of the study and suggestions for future research and concludes with my reflections of the entire project.

Summary of Findings and Discussions

This sub-section presents a concise overview of findings obtained as answers to the five research questions, namely (How do Gen Z motivations and attitudes towards SF reflect their intentions and behaviour? How does technology impact Gen Z's food consumption? How does culture affect Gen Z's food choices? How do values help to bridge the gap between attitude and behaviour in Gen Z's SFC? Is there any potential for change toward sustainability in Gen Z's food consumption?). To do so, it provides persuasive evidence from both quantitative and qualitative primary data collected in three different countries. The findings enhance our knowledge of the study's outcomes by providing a detailed perspective supported by rigorous data analysis. The theory of planned behaviour was the initial theoretical background for the study.

How do Gen Z motivations and attitudes towards SF reflect their intentions and behaviour?

This research question, which could be rephrased as "How do the motivations and attitudes of Gen Z towards sustainable food consumption align with their intentions and behaviour?", acts as a

crucial framework for understanding the various factors that impact the sustainable food choices made by the Gen Z cohort. This discussion combines quantitative and qualitative results to explain the motivations, attitudes, intentions, and behaviours that define Gen Z's involvement with sustainable food.

The study's quantitative analysis strongly supports the assertion made by Hypothesis 3, which states that attitudes towards sustainable food have a positive impact on the intention to consume such food. The thematic analysis reinforces the importance of health motivations as a primary factor influencing Gen Z preference for sustainable food. This is consistent with broader societal patterns that show an increased awareness among this group of people about the interdependence between personal well-being and dietary decisions. The results indicate that the attitudes of Gen Z towards sustainable food are inherently connected to their perceptions of health and well-being.

However, the study also uncovers a fascinating inconsistency with Hypothesis 4, which proposes that social norms regarding sustainable food, such as peer influence and family tradition, have a positive impact on the intention to consume such food. The quantitative analysis does not provide evidence to support this hypothesis, which necessitates a more thorough investigation of the qualitative aspects. Although the statistical significance is lacking, the qualitative investigation emphasises a strong environmental drive among Gen Z, indicating that while social norms may not have a statistically significant impact, environmental factors still play a significant role in shaping their sustainable food choices. This prompts thought-provoking inquiries regarding the comparative influence of peer pressure and environmental awareness on the decision-making mechanisms of individuals belonging to Gen Z. This is in line with very recent findings, for instance, the findings of D'Arco, Marino and Reciniti (2023). According to D'Arco et al. (2023),

Gen Z is more influenced by personal and intrinsic motivations and norms than by social norms in making eco-friendly choices. This finding is a drift from the TPB, which suggests that social norms are a potent influencer of behaviour.

Hypothesis 5a investigates the impact of perceived behavioural control on the intention to consume sustainable food, discovering robust empirical evidence in favour of this relationship. The qualitative analysis illuminates the ethical aspects of motivations, highlighting the moral factors that influence the decision-making processes of Gen Z in favour of sustainable food choices. This is consistent with the TPB, indicating that ethical principles have a crucial influence on intentions regarding sustainable consumption.

Hypothesis 5b posits that there is a positive correlation between perceived behavioural control and sustainable food purchase behaviour. The prominence of environmental concerns and awareness of global warming highlights the interdependence of cognitive factors and environmental consciousness in influencing tangible behaviours among Gen Z. This indicates a high level of knowledge and incorporation of environmental factors into their decision-making process, with a focus on a comprehensive approach to promoting sustainable food consumption.

The following sub-hypotheses within Hypothesis 5c and 5d offer a detailed viewpoint on how perceived behavioural control affects sustainable food usage and disposal behaviour in distinct ways. The qualitative analysis uncovers themes such as concern for the environment, suggesting a complex connection between perceived control and different aspects of sustainable food behaviour. Nevertheless, the absence of backing for H5d, which pertains to sustainable food disposal behaviour, necessitates additional investigation into the intricacies of Gen Z's decision-making mechanisms within the realm of sustainable practices.

The study provides empirical evidence supporting the assertion that the intention to consume sustainable food has a positive impact on sustainable food purchase behaviour, as stated in Hypothesis 6a. The qualitative analysis emphasises that animal welfare considerations and concerns with the meat industry's ecological footprint strongly influence Gen Z's purchasing decisions regarding sustainable food, revealing a prominent ethical aspect. This aligns with the wider societal pattern of increased ethical considerations impacting consumer behaviour, especially among younger age groups. Empirical data and qualitative analysis from studies conducted by Ajzen (2015), Al-Swidi et al. (2014b), and Vermeir & Verbeke (2008c) provide support for the claim that the desire to consume sustainable food has a beneficial influence on sustainable food purchasing behaviour. The impact of ethical considerations about animal welfare on food purchase decisions aligns with wider cultural trends (Sherwani et al., 2018).

However, there is no empirical evidence to support Hypothesis 6b, which proposes a positive correlation between intention and sustainable food usage behaviour. The qualitative investigation highlights the impact of financial factors, particularly conscientious budgeting, on usage patterns. The presence of this incongruity highlights the complex and diverse factors that shape the sustainable food choices of Gen Z. Economic determinants are intertwined with other cognitive and ethical considerations in this process.

Hypothesis 6c demonstrates a direct correlation between the intention to consume sustainable food and engaging in sustainable food waste disposal behaviour, with empirical evidence supporting this relationship. The qualitative findings highlight themes such as cost management and food waste reduction, indicating a deliberate endeavour by Gen Z individuals to align their personal decisions with wider sustainability objectives. This highlights the interdependence between

intention and tangible actions, where economic factors and waste management come together to influence sustainable food decisions.

Upon conducting qualitative analysis, it becomes evident that there are clear themes that arise in relation to health considerations, social considerations, and future planning. The significant emphasis on health-related motivations, prioritising physical fitness, and a conscientious focus on nutrition and well-being highlights the intricate relationship between personal health and the sustainable food choices of Gen Z. Understanding of societal consciousness and recognition of traditional food illuminates the collective aspects that intertwine with personal tastes, unveiling a complex fabric of influences that transcend the individual sphere. According to Vantamay (2018), perceived behavioural control refers to the combination of internal and external factors that limit behaviour, such as obstacles like high cost of healthy food that might impede sustainable behaviours. Participants showcase the connection between economic factors and the desire to adopt environmentally friendly behaviours by consciously integrating sustainable aims into their personal budgets.

The concept of future planning illuminates the strategic anticipation of unpredictable circumstances, showcasing a forward-thinking viewpoint that impacts Gen Z's decisions regarding sustainable food. This qualitative analysis enhances our understanding of the complex motivations that drive sustainable food consumption among Gen Z, highlighting the intricate interaction of personal, societal, and environmental influences in shaping their actions.

Ultimately, the combination of quantitative and qualitative research allows for a thorough grasp of how the motivations and attitudes of Gen Z towards sustainable food align with their intentions and actions. While certain hypotheses have strong empirical evidence, others require further

investigation, emphasising the necessity of a detailed and multifaceted approach to understanding the complex nature of sustainable food choices among this particular demographic. The results emphasise the significance of taking into account not just cognitive aspects, but also ethical, social, and economic aspects when comprehending and forecasting Gen Z's involvement in sustainable food practices.

How does technology impact Gen Z food consumption?

One characteristic that sets GenZ apart from other generations is their technology savviness. This question explores the impact of technology on the dietary habits of Gen Z. Examining the impact of digital platforms, apps, and online information and communication on decision-making yields valuable insights into a rapidly changing technological environment. Gaining insight into the influence of technology on food-related choices is crucial for developing successful interventions or strategies to encourage sustainable practices among this technologically proficient population. The research question focused on examining the influence of technology on the food consumption patterns of Gen Z provides a thorough perspective to analyse the relationship between electronic word-of-mouth (eWoM), sustainable food intentions, behaviours, and technology usage. The study's quantitative and qualitative results provide insight into the various ways in which technology impacts the food consumption habits of Gen Z.

Hypothesis 7a proposed that the reception of electronic word-of-mouth (eWoM) would enhance the connection between the intention to consume sustainable food and the actual behaviour of purchasing sustainable food. The empirical evidence overwhelmingly corroborates this hypothesis, demonstrating that electronic word-of-mouth plays a crucial role in establishing the

connection between intention and concrete purchasing decisions among Gen Z. The thematic analysis reveals that technology and access to information play a crucial role in the relationship between sustainable food intentions and actual purchase behaviour. It demonstrates how the widespread availability of information through digital channels enhances this connection.

In contrast, Hypotheses 7b and 7c, which propose that the amount of electronic word-of-mouth (eWoM) received would enhance the connection between intention and sustainable food usage behaviour and waste food disposal behaviour, respectively, do not have empirical evidence to support them. The qualitative findings indicate that exposure to advertising and access to information are significant factors that influence the relationship between electronic word-of-mouth (eWoM) and food usage or disposal behaviour. The lack of statistical significance calls for a more detailed investigation into the complex dynamics of how electronic word-of-mouth affects various aspects of sustainable food behaviour among Gen Z.

Hypothesis 10 suggests that engaging in sustainable food disposal behaviour has a positive impact on electronic word-of-mouth (eWoM) related to sustainable food consumption, with empirical evidence supporting this claim. The thematic analysis emphasises the impact of technology usage and themes, such as recipe ideas, on the connection between sustainable food disposal behaviour and electronic word-of-mouth contribution. This highlights the significance of technology in both influencing individuals' sustainable food decisions and enabling the exchange of these decisions within online communities.

Hypothesis 11 posits that electronic word-of-mouth (eWoM) giving will result in an intention to consume by means of reinforcement, and the empirical evidence corroborates this claim. The qualitative investigation reveals that access to information, applications offering

recommendations, and influencers endorsing healthy behaviours are the main topics. This implies that electronic word-of-mouth (eWoM), enabled by technology, functions as a strengthening mechanism, impacting the desire to consume environmentally friendly food through different digital platforms (Cheung & Thadani, 2010; Goldsmith, 2008). The interaction between technology and social reinforcement plays a significant role in influencing the sustainable food intentions of Gen Z.

Furthermore, the qualitative findings shed light on barriers related to technology. The presence of misinformation, as demonstrated by influencers endorsing unhealthy behaviours, presents a significant obstacle in the digital realm. This implies that the content shared on technology platforms does not consistently encourage sustainable and health-conscious food choices. In addition, the presence of technology obstacles, such as the absence or high price of appropriate applications, emphasises the necessity for a digital environment that is more accessible and user-friendly in order to promote sustainable food consumption among Gen Z.

The combination of quantitative and qualitative data highlights the significant influence of technology on the food consumption habits of Gen Z. The empirical evidence confirming the impact of eWoM on the connection between intention and purchasing behaviour suggests that digital platforms have a significant role in shaping concrete actions. Nevertheless, the absence of backing for particular sub-hypotheses implies a complex connection between technology and specific elements of sustainable food behaviour. This calls for a more comprehensive examination of the contextual factors that influence these dynamics.

The thematic analysis demonstrates that technology functions as a channel for spreading information, promoting advertising, and strengthening sustainable food intentions through

electronic word-of-mouth (eWoM). At the same time, it reveals challenges arising from spreading false information and obstacles related to access to technology. These challenges emphasise the importance of using technology in a careful and flexible way to promote sustainable food consumption.

To summarise, the findings clarify the complex ways in which technology influences the food consumption habits of Gen Z. The beneficial impact of electronic word-of-mouth (eWoM) on enhancing the connection between intentions to consume sustainable food and actual purchasing behaviour emphasises the capacity of digital platforms to stimulate sustainable decision-making. Nevertheless, the subtle distinctions revealed in the qualitative analysis highlight the significance of taking into account both the favourable and unfavourable elements of technology. This emphasises the necessity for specific interventions and initiatives focused on digital literacy and better control over the quality of information spread through information technology to effectively utilise technology's capabilities in promoting sustainable food behaviours among Gen Z.

How does culture affect Gen Z food choices?

Examining the impact of national culture on Gen Z's particular dietary preferences is crucial for gaining a comprehensive understanding of sustainable food consumption. This research question aims to ascertain the cultural elements that either facilitate or hinder sustainable food practices among Gen Z. This question recognises the significant influence of cultural norms, traditions, and societal expectations on attitudes and behaviours regarding food consumption.

The study provided empirical evidence to support the hypothesis that sustainable food purchase behaviour has a positive impact on sustainable food usage behaviour. The thematic analysis

revealed that cultural factors, specifically food taboos, have a substantial impact and are identified as significant themes. This indicates that cultural norms and values have a crucial influence on both the initial choice to buy sustainable food and the subsequent behaviours related to its usage among Gen Z. This aligns with the broader literature suggesting that Generation Z's attitudes toward sustainable food consumption vary based on their cultural background (Garai-Fodor & Popovics, 2022). The results indicate that the incorporation of sustainability into food selection is influenced by cultural factors that go beyond the act of buying.

Furthermore, Hypothesis 9 proposes that engaging in sustainable food consumption behaviour has a positive impact on engaging in sustainable food disposal behaviour, which is supported by empirical evidence. The qualitative analysis highlights the significance of cultural factors, particularly the emergence of themes such as traditional foods as influential. This demonstrates how cultural preferences and practices influence the way food is used and disposed of, emphasising the complex ways in which cultural elements affect sustainable food behaviour among Gen Z.

Regarding Hypothesis 12a, which suggests that national cultural differences lead to observed variations among national samples in terms of consumption values, the empirical evidence does not support this claim. Nevertheless, the qualitative investigation revealed themes associated with cultural priorities, indicating that although there may not be statistically significant variations, cultural values still play a role in the dietary preferences of Gen Z in various countries. This prompts more inquiries regarding the complexities of cultural impacts that may not be comprehensively captured solely by quantitative assessments.

Hypotheses 12b to 12e explore the moderating influence of technology, specifically electronic word-of-mouth (WoM), across different cultural dimensions. Hypothesis 12b received limited

confirmation, suggesting that technology, specifically electronic Word-of-Mouth (eWoM), influences the connection between intention and the act of purchasing sustainable food among different countries. The qualitative analysis demonstrated the impact of conventional customs, specifically in the realm of food allocation and meat consumption. Gen Z's sustainable food choices are influenced by the intersection of cultural practices, deeply rooted in traditional methods of sourcing and consuming food, with technology.

However, there is no empirical evidence to support Hypotheses 12c to 12e, which investigate how technology affects the relationships between intention and sustainable food usage, disposal, and reinforcement behaviour. The qualitative analysis revealed themes pertaining to religious norms, traditional dishes, and African cuisine. This suggests that although technology may not have a statistically significant impact on these relationships, cultural factors still play a prominent role in influencing different aspects of sustainable food behaviour.

The thematic analysis provided a deeper understanding of the various ways in which culture influences the food preferences of Gen Z. Salient themes include cultural barriers, social occasions, local and traditional foods, and conflicts with social/cultural norms. These findings emphasise the complex and interconnected connection between cultural influences and sustainable food choices, emphasising the importance of a comprehensive understanding of cultural factors that go beyond statistical measures.

Ultimately, the amalgamation of quantitative and qualitative findings offers a comprehensive understanding of how culture influences the food preferences of Gen Z. The empirical evidence confirming the impact of cultural factors on sustainable food purchase, usage, and disposal behaviour highlights the complex and diverse nature of this connection. The impact of cultural

values and practices plays a significant role in shaping the sustainable food choices of Gen Z, despite the moderating effect of technology (electronic word-of-mouth). The study supports the adoption of an all-encompassing and culturally aware method to comprehend and encourage sustainable food habits among Gen Z. It acknowledges the complex interaction between culture, technology, and sustainability and potential ways of changing the unsustainable food culture of today's Gen Z, it seems to me.

How do values help to bridge the gap between attitude and behaviour in Gen Z SFC?

This question examines the correlation between values, attitudes, and tangible actions in the context of environmentally conscious food consumption among Gen Z. The study seeks to examine how deeply rooted beliefs and ethical considerations can impact the translation of positive attitudes into sustainable food practices by specifically exploring the role of values. Comprehending this connection is essential for formulating focused interventions that align to the value systems of Gen Z.

The research question focuses on understanding values' role in connecting attitudes and behaviours in sustainable food consumption among Gen Z individuals. As such, it offers a perspective to analyse the complex connection between personal values, attitudes, and intentions in influencing the real actions of Gen Z individuals regarding sustainable food choices. The incorporation of both numerical and descriptive results enhances our conception of how values function as a crucial link in converting favourable attitudes into concrete actions.

The first hypothesis suggested that the values related to food consumption have a favourable impact on the attitudes of Gen Z towards sustainable food consumption, and the empirical evidence

strongly confirms this claim. The thematic analysis explores the complex ways in which values impact attitudes, with a particular focus on the prominent theme of health considerations. Gen Z individuals demonstrate a strong connection between their personal health values and the idea of sustainable food consumption, indicating a comprehensive perspective that goes beyond just environmental factors.

Expanding on this basis, Hypothesis 2 further asserts that the values associated with food consumption have a positive impact on the intention to consume sustainable food. The quantitative results support this hypothesis, emphasising the significant influence of values on shaping intentions regarding sustainable food choices. The thematic analysis provides additional insights into this connection, highlighting environmental stewardship, alignment with values, and a sense of responsibility as significant themes. These findings indicate that the correlation between values and the wider societal values represented by sustainable food consumption is crucial in promoting purposefulness among individuals from Gen Z.

An important theme that arises from the qualitative findings is the notion of a value-action discrepancy. This highlights the subtle difficulties that Gen Z encounters when trying to transform their positive intentions into concrete actions. The presence of this gap suggests that although individuals may demonstrate favourable attitudes and intentions towards sustainable food consumption, there are several obstacles or intricacies that can hinder the smooth progression from intention to action. Gaining a correct and comprehensive understanding of the factors that contribute to this discrepancy between values and actions is crucial in order to develop precise interventions that can effectively bridge this divide.

The thematic analysis also highlights the importance of aligning personal and societal values in influencing sustainable food behaviours. Gen Z individuals are more likely to adopt sustainable food practices when their personal values align with societal values such as justice. This demonstrates the connection between individual and collective perspectives in influencing behavioural change.

The prominence of environmental values highlights the profound and inherent worry for the planet among individuals belonging to Gen Z. This is consistent with wider global patterns that indicate a heightened recognition of environmental concerns and a rising dedication to sustainable behaviours among younger cohorts. The presence of responsibility that accompanies these environmental values further strengthens the potential for positive attitudes to be converted into deliberate sustainable food behaviours.

Essentially, combining quantitative and qualitative findings gives us a comprehensive understanding of how values serve as a vital link between attitudes and behaviours in sustainable food consumption among Gen Z. The correlation between individual and societal values, the significant influence of environmental responsibility, and the recognition of a disparity between values and actions highlight the complex dynamics involved in shaping the sustainable food preferences of Gen Z.

The study indicates that interventions targeting the promotion of sustainable food behaviours among Gen Z should not solely concentrate on cultivating positive attitudes and intentions, but also tackle the complexities associated with the value-action gap. Employing strategies that emphasise the congruity between individual values and wider societal values, in conjunction with

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environmental education and advocacy, can be effective means of bridging this divide and propelling Gen Z towards adopting more sustainable food consumption patterns.

Is there any potential for change toward sustainability in Gen Z food consumption?

This research question focuses on the prospective dimension of the study, aiming to ascertain the capacity for favourable transformation in Gen Z dietary habits towards sustainability. The research seeks to offer practical insights for policymakers, businesses, and educators who are interested in promoting sustainable practices among Gen Z. The question examines the ever-changing nature of human behaviour and the possibility of influential interventions to guide Gen Z towards making more sustainable food choices.

An overarching motif is the perceived capacity for transformation through education. The qualitative data highlights the significance of education in shaping Gen Z's understanding of the effects of food consumption on sustainability. The theme exemplifies an increasing awareness among Gen Z individuals, motivated by a deeper understanding of the ecological and societal consequences of their dietary decisions. The prioritisation of education as a catalyst for change implies that interventions that concentrate on increasing awareness and imparting knowledge about the wider impacts of food consumption can play a crucial role in promoting lasting changes towards sustainability. Education is essential for fostering sustainable food consumption. Jones (2012) emphasises the beneficial influence of a school programme that incorporates food sustainability concerns, such as the use of locally sourced, seasonal, and organic foods, on the intake of fruits and vegetables by students. This assertion is reinforced by João and Silva (2022), who underscore the necessity of a shared knowledge of sustainable consumption education in order

to stimulate behavioural modification, especially within the realm of higher education. Simanjuntak (2019) emphasises the significance of incorporating environmental chemistry education into higher education to foster sustainable food consumption, specifically by advocating for the eating of healthy, diversified, and well-balanced food. Moura and Aires (2018) also highlights the importance of integrating sustainability into food consumer sciences education, namely through online programmes, in order to tackle the ecological consequences of the worldwide food system.

The emergence of policy changes highlights the significant impact that societal-level structural adjustments can have on the sustainability of Gen Z's food choices. The qualitative findings emphasise the significance of policy interventions in facilitating cultural and societal transformations. Regulatory measures, incentives, and institutional frameworks can influence the overall context in which Gen Z makes decisions about food consumption. Implementing policies that endorse sustainable practices and align with the values of Gen Z (most significantly, health values) has the potential to stimulate significant changes in their dietary habits. Policy reform is vital in promoting sustainable food consumption by shaping and influencing individual behaviours and societal norms (Paddock, 2017). By strategically bundling several policy measures, it is possible to enhance public support for successful policies that aim to mitigate the environmental impact of food systems, even if they are initially unpopular (Fesenfeld et al., 2020). Also, to achieve sustainable food systems, it is necessary to have strong public policy guidance, technical innovation from the commercial sector, and culturally appreciated and affordable nutritious diets (Moberg et al., 2021). Essential measures for promoting sustainable food consumption encompass

information-based tools, market-driven initiatives, direct legislation, and "nudges" (Reisch et al., 2013).

The concept of mainstream adoption signifies a positive perspective regarding the future trend of sustainable food consumption among Gen Z. The qualitative data suggests a growing popularity of sustainability, indicating a cultural change towards more mindful dietary decisions. These findings indicate that sustainable practices are not limited to small, specialised groups but are increasingly being embraced by a larger portion of the population. This is a positive sign that such behaviours are becoming more common and accepted by society as a whole.

On the other hand, barriers to sustainability refer to the obstacles and difficulties that Gen Z encounters when trying to adopt more sustainable food consumption habits. The issue of affordability arises as a significant obstacle, indicating that economic factors are vital in determining the practicality of sustainable options. This discovery implies that efforts to promote sustainability must consider economic variables and investigate methods to enhance the accessibility and affordability of sustainable choices for individuals belonging to Gen Z. Price reductions without a compromise on quality have been shown to effectively increase the purchase of healthier foods, suggesting that lower prices can positively influence sustainable food consumption (French, 2003).

The convergence of growing consciousness and obstacles to alteration suggests an intricate terrain where mere knowledge may not be adequate to propel metamorphosis. The data emphasise the necessity for a sophisticated strategy that tackles not just cognitive elements but also practical obstacles and moral and economic factors. Efforts to encourage sustainable food consumption

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should be customised to address these intricacies and provide practical solutions that align with the real-life encounters of Gen Z.

To summarise, the combination of quantitative and qualitative data provides a detailed and subtle understanding of the possibility for sustainable changes in food consumption among Gen Z. The presence of education, policy changes, subsidies for mainstream adoption, optimism about the future, and barriers to sustainability collectively indicate a landscape that is both promising and challenging. Gen Z demonstrates a clear recognition and willingness to embrace change. However, in order to move forward, a comprehensive approach is needed that includes educational programmes, policy interventions, and actions to overcome practical obstacles. The findings indicate that the ability to bring about change is closely connected to a comprehensive and flexible approach that takes into account the complex nature of Gen Z's attitudes, behaviours, and the wider societal context in which they make their food choices.

Research Contributions

Theoretical contributions

The study's findings provide significant theoretical contributions by questioning established frameworks and offering detailed insights into the complex dynamics of Gen Z's sustainable food consumption. The research presents a critique of the traditional Hofstede cultural dimensions and supports the Consumer Culture Theory (CCT) (Arnould & Thompson, 2005b), emphasising a

transition from a solely national-cultural viewpoint to the incorporation of consumer-focused approach.

Hofstede's cultural dimensions have traditionally played a significant role in explaining cultural disparities, specifically within the realm of consumer behaviour. Nevertheless, the study's failure to provide evidence for hypotheses grounded in national cultural disparities implies that these dimensions may not be significant in elucidating the disparities in Gen Z decisions regarding sustainable food. However, the significance of topics such as personal values alignment, environmental stewardship, and cultural emphasis questions the consumer-centric cultural perspectives. This shift highlights the importance of considering the distinct subcultures and value systems within Gen Z, which questions the suitability of general national cultural dimensions.

Furthermore, this study enhances our understanding of the Theory of Planned Behaviour (TPB) (Ajzen, 1991) by demonstrating its cyclical nature instead of a linear sequence. The qualitative findings reveal a discrepancy between values and actions, suggesting that even though Gen Z individuals have favourable attitudes and intentions, they face difficulties in translating them into concrete sustainable food behaviours. The cyclical reinforcement loop undermines the conventional linear understanding of TPB, proposing that behaviour itself strengthens and shapes new intentions. This nuanced viewpoint adds to the ongoing discussion on TPB and emphasises the necessity for a more comprehensive understanding of how intentions and behaviours relate to real-life actions over time.

Furthermore, the study offers substantiation for the theoretical amalgamation of TPB, Social Exchange Theory (SET) (Bagozzi, 2011; Cropanzano & Mitchell, 2005), and CCT. The qualitative themes of education, policy modifications, widespread acceptance, and obstacles to long-term

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viability indicate an intricate interaction between personal incentives, societal pressures, and economic factors. The incorporation of TPB highlights the significance of individual attitudes and intentions, while SET emphasises the social dynamics through eWoM that impact behaviour, and CCT draws attention to the cultural factors that shape sustainable food choices. The incorporation of a triadic integration offers a more all-encompassing theoretical structure that accurately encompasses the complex and diverse decision-making processes of Gen Z.

This study provides a significant theoretical contribution by going beyond traditional linear models and seeing consumer behaviour as a complex, iterative process. The investigation of sustainable food choices involves the behaviours of purchasing, using, and disposing of food, providing an in-depth understanding that surpasses current research frameworks. Acknowledging this complex and interrelated process challenges the conventional linear viewpoint, enhancing the theoretical framework and facilitating a nuanced understanding of Gen Z experience with sustainable food consumption.

Also, the findings enhance our understanding of the capacity for transformation in sustainable food consumption. The focus on education, policy modifications, and widespread acceptance corresponds with broader conversations in sustainability literature. The study indicates that significant changes in sustainable behaviours may not only be determined by individual decisions but also depend on larger societal and cultural transformations. This observation is consistent with recent viewpoints highlighting the necessity of comprehensive modifications and collaborative endeavours to tackle sustainability issues (Conley & Moote, 2003; Liu et al., 2018).

Methodological contributions

The study's methodological contributions are noteworthy as it adopts a critical realist philosophical stance and utilises a mixed-methods approach. The methodological choices employed in this study contribute to a comprehensive and detailed analysis of Gen Z's sustainable food consumption, enabling a nuanced comprehension of its inherent complexities.

Adopting a critical realist philosophical stance is a significant methodological advancement. Critical realism acknowledges the presence of an objective stratified reality that exists independently of individual perceptions, while also recognising the impact of social structures and mechanisms on human behaviour. This ontological position is consistent with the study's investigation of the complex interaction between individual values, attitudes, intentions, and behaviours within the larger social and cultural environment. By adopting critical realism, the study transcends the limitations of a purely positivist or interpretivist approach, enabling a more thorough investigation of the fundamental mechanisms that influence Gen Z's sustainable food consumption.

Utilising mixed methods enhances the methodological rigour of the study. The combination of quantitative Structural Equation Modelling (SEM) and qualitative Thematic Analysis allows for a thorough investigation that surpasses the constraints of using either method individually. Structural Equation Modelling (SEM) is a method that allows for a precise analysis of the connections between variables. It provides statistical evidence to support hypotheses and uncovers patterns within the data. Conversely, Thematic Analysis explores the qualitative intricacies, revealing the profound insights embedded in the participants' narratives. This methodological duality enables a

comprehensive and precise understanding of the research questions, enhancing the study with a combination of extensive coverage and detailed analysis.

The role of Structural Equation Modelling is crucial in analysing the intricate interconnections between variables proposed by the Theory of Planned Behaviour. Structural Equation Modelling (SEM) allows for the investigation of underlying concepts such as attitudes, intentions, and behaviours. It provides a statistical framework for comprehending the proposed connections between these concepts. Its incorporation enhances the methodological repertoire by providing a quantitative method to evaluate intricate theoretical models, aligning with the study's objective to understand the complex dynamics of sustainable food consumption among Gen Z.

Thematic Analysis serves as a complementary tool by providing a qualitative perspective to interpret and give context to the quantitative findings. Thematic Analysis uncovers the lived experiences, perceptions, and socio-cultural factors that may not be captured solely by statistical measures by identifying common themes in participants' responses. The qualitative depth is crucial for comprehending the intricate rationales behind Gen Z's sustainable food choices, thereby enhancing a comprehensive and contextually nuanced interpretation of the research findings. Especially given the research design, which incorporates the points of view of representatives of Gen Z from three different national contexts.

The use of both qualitative and quantitative methods in triangulation strengthens the methodological reliability of the study. Testing results obtained through various methodological approaches enhances the credibility and dependability of the findings. Triangulation validates the evidence and enhances knowledge by capturing the nuances that may be disregarded when relying solely on one method. The chosen methodology is in line with the study's objective to thoroughly

investigate Gen Z's sustainable food consumption, while recognising the complex nature of this phenomenon.

The study's methodological contributions are highlighted by its utilisation of a critical realist philosophical stance, the implementation of mixed methods involving Structural Equation Modelling and Thematic Analysis, and the inclusion of triangulation. The study's methodological choices enhance its rigour, providing a strong basis for investigating the intricacies of Gen Z's sustainable food consumption. Additionally, these choices contribute to the ongoing discussion about research methods in the field of consumer behaviour.

Contributions to practice

The results of this study have practical implications that go beyond the academic sphere, offering valuable insights for different stakeholders such as managers, non-governmental organisations (NGOs), policymakers, and educators. These pragmatic contributions provide effective strategies to promote sustainable food consumption practices among Gen Z. The dissertation is designed to co-create transdisciplinary sustainability knowledge by various academic disciplines working together with various stakeholders interested in sustainable food consumption. Together, they can hope to advance towards a new sustainable food culture in various national cultural backgrounds.

1. Managerial Implications: Managers in the food industry can utilise the findings of the study to customise their marketing strategies in a way that aligns with the values and preferences of Gen Z. The focus on health considerations, environmental stewardship, and personal values alignment underscores opportunities for creating sustainable food products that are in line with these priorities. To optimise product development, marketing campaigns, and branding for Gen Z,

managers must comprehend the cultural and value-driven factors that influence their choices. Moreover, the study's findings regarding obstacles to sustainability, such as the issue of affordability, can assist managers in formulating pricing tactics that enhance the accessibility and attractiveness of sustainable food to Gen Z consumers.

2. Guidance for NGOs: Non-governmental organisations committed to sustainability can utilise the study's findings to enhance their advocacy and educational initiatives. The focus on education as a possible catalyst for change implies that NGOs have the ability to significantly contribute in increasing awareness regarding the environmental and societal consequences of food consumption. Through the implementation of focused educational initiatives, these organisations can equip Gen Z with the necessary information and resources to make well-informed and environmentally friendly food decisions. Furthermore, the study's results regarding alterations in policies and widespread acceptance emphasise the significance of working together with policymakers and industry stakeholders to promote systemic changes that facilitate sustainable practices on a broader level.

3. Implications for Policymakers: Policymakers can utilise the study's findings to guide the formulation of regulations and initiatives aimed at fostering sustainability in the food industry. The focus on policy changes as a possible catalyst for societal and cultural transformations implies the necessity of supportive regulatory frameworks. Policymakers should contemplate the implementation of incentives to promote sustainable practices, establish regulations for food labelling to improve transparency and encourage collaborations between the government, industry, and NGOs to cultivate an environment that supports sustainable food consumption. Moreover, knowing the economic obstacles identified in the study can assist policymakers in formulating

subsidies or financial incentives to enhance the economic feasibility of sustainable food alternatives for consumers.

4. Educational Strategies: Educators at different educational institutions, ranging from primary schools to universities, can integrate the findings of the study into their curricula to enhance understanding and foster a mindset of sustainability among students. Through the incorporation of teachings on the ecological, health and societal consequences of dietary selections, educators have the ability to equip students with the understanding necessary to make deliberate sustainable choices. Moreover, highlighting the cyclical nature of intentions and behaviours identified in the study contradicts conventional linear models, offering educators a more dynamic framework for instructing about decision-making processes and behaviour modification.

5. Collaborative Efforts: The study highlights the importance of combining the Theory of Planned Behaviour, Social Exchange Theory, and Consumer Culture Theory to achieve sustainable change. This approach emphasises the need for involvement from various stakeholders to drive the desired outcome. The synergy between businesses, NGOs, policymakers, and educational institutions can leverage the unique strengths of each perspective to develop a holistic approach for advancing sustainable food consumption. Through collaborative efforts, these key participants can effectively tackle the complex obstacles outlined in the research and establish an environmentally sustainable food ecosystem that is resistant to disruptions.

Limitations of the study

Cultural Generalisation: A constraint of the study is the impossibility of making broad generalisations across different cultures. The research examines variations in national cultures, but it may fail to consider the variety present within each country sample. The study's findings may

not comprehensively reflect the complex reality of three different countries with different histories, economic development levels, and socio-political systems. As well the study may not accurately reflect the viewpoints of multiple subcultures or geographical variances, since cultural values can exhibit significant variability even within a single nation.

The study's investigation of information technology's contribution to sustainable food behaviours reveals an intricate and multifaceted scenario. A comprehensive examination of certain technological platforms and their growing functions is necessary due to the diverse and dynamic impact of information technology on behaviours. The study's broad methodology may not comprehensively encompass the subtle impacts (positive and negative) of technology on several facets of sustainable food practices.

Insufficient Longitudinal Perspective: The study mainly concentrates on a single moment in time on sustainable dietary behaviours, without considering long-term trends. A more prolonged research period might enhance the comprehension of enduring alterations in attitudes and behaviours. The lack of a longitudinal approach hinders the capacity to make conclusive statements on the stability or progression of sustainable food practices over a period of time.

The research examines the impact of generational ideals but it may oversimplify the viewpoints of Generation Z, so disregarding their diversity. The research may not sufficiently account for the different perspectives within Generation Z, as factors such as socioeconomic level, education, and geographical location can greatly influence generational beliefs, even within the same generation.

Restricted Scope of Qualitative Investigation: Although the qualitative results are abundant in thematic substance, they may be constrained in their extent. The study encompasses a range of cultural and generational factors, but, doing a more thorough qualitative investigation that

specifically targets certain cultural or generational groupings might yield more profound findings. This constraint highlights the necessity of doing focused qualitative research to reveal the intricacies within certain cultural and generational settings.

Suggestions for future research

The current study has revealed the complex layers of Gen Z's sustainable food choices, making it a starting point for future research endeavours. The intricacy of the subject matter implies various opportunities for additional investigation, illuminating unexplored domains within the realm of sustainable consumer behaviour. Here are several suggestions that may stimulate future research endeavours:

Analyse the impact of digital platforms, influencers, and emerging cultural trends on the sustainable food choices of Gen Z. It is crucial to understand the influence of online platforms on sustainable consumption behaviours due to the growing dependence on digital spaces for information and social interactions.

Longitudinal studies: This thesis can be the start of longitudinal research to uncover the enduring effects of educational interventions, policy changes, and generational cultural shifts on sustainable food consumption. Monitoring shifts in attitudes, intentions, and behaviours over time will yield valuable insights into the long-term sustainability trajectory of Gen Z as they transition through various life stages.

Exploring Cross-Cultural Differences: Examine the intricacies of cross-cultural variations, recognising the diversity that exists within different national cultures. The hypotheses pertaining to national cultural differences, although only partially supported, indicate the necessity for more

detailed investigations into the cultural factors that influence sustainable food choices. This should include an analysis of subcultures and localised practices.

Analysis of Intersectionality: Examine the interconnectedness of various identities among Gen Z, taking into account variables such as gender, socioeconomic standing, and disparities between urban and rural areas. Gaining insight into how these overlapping identities influence values and behaviours can offer a more comprehensive understanding of the various factors at work.

Behavioural Interventions: Examine the efficacy of behavioural interventions in addressing the discrepancy between individuals' values and their actions. Create and execute strategies that utilise psychological knowledge to promote long-lasting food choices, taking into account elements such as subtle influences, rewards, and societal expectations.

Impact of Environmental Education: Assess the influence of environmental education on sustainable behaviours that extend beyond the parameters of this study. Examine the intricacies of educational programmes, with a specific emphasis on their efficacy in cultivating a more profound understanding of environmental consequences and encouraging sustainable decision-making.

Consumer Responses to Policy Changes: Analyse consumer reactions to policy modifications concerning sustainable food consumption. Examine the impact of regulatory measures, labelling requirements, and other policy interventions on consumer choices, revealing the wider societal consequences of these initiatives.

Impact of Traditions on Sustainable Practices: Analyse the effect of customary practices and cultural traditions on sustainable food practices. Examine the influence of long-standing cultural practices on food choices and consumption patterns, while recognising the potential conflict between cultural traditions and the need for sustainable practices.

Exploration of Motivational Shifts: Examine the progression of motivations and attitudes towards the adoption of sustainable food consumption practices over a period of time. Examine the possible changes in motivations as Gen Z progresses through different phases of life, taking into account factors like shifts in careers, becoming parents, and other significant life occurrences.

Comparative Analyses with Other Generations: Comparative analyses should be conducted to compare Gen Z with other demographic cohorts in order to identify trends and changes in sustainable food consumption across generations. Comprehending the various approaches to sustainability among different generational cohorts can offer valuable insights into the progression of consumer values throughout history.

Researcher's Reflections

As a critical realist: Taking a critical realist philosophical stance has been very important in shaping the study's ontology. By recognising that reality is in levels and social structures, it became possible to look at Gen Z relationship with sustainable food consumption in more depth. This choice was important because it helped people see how personal values, cultural influences, and the way society works are all connected. It also made simpler explanations of consumer behaviour more difficult to accept. As a researcher, the critical realist lens gave me a philosophical base that helped me get a better sense of the complex realities that affect choices about sustainable food.

Dissecting the Layers: As the one who designed this research, I couldn't help but think about the layers that make up our values. The study made clear that values are dynamic constructs that change in response to societal norms, institutions, individual experiences, and environmental concerns rather than being static entities. Seeing how Gen Z integrates health, environmental

stewardship, and personal ethics into their values exposed the malleability of these fundamental principles. It emphasised the idea that values are not isolated patches of thought but rather are interwoven strands within larger cultural and environmental settings.

Harmony and Misalignment: One intriguing theme that surfaced was the idea of harmony between individual and social values. The quest for sustainability among Gen Z appeared to thrive when individual values aligned with more general societal and environmental requirements. It was a realisation that struck a deep chord with my personal thoughts about harmony—both within oneself and with the outside world. However, the study also found instances of misalignment, which brought attention to the gap between human values and actions. This conflict between intent and conduct made me reflect on how difficult it is to translate moral principles into concrete deeds—a problem that cuts across generational divides.

Environmental Values: It was interesting to investigate the environmental values incorporated into sustainable food choices. Seeing Gen Z show responsibility and concern for the environment highlighted the significant influence that ecological awareness can have on forming personal values. It made me stop and think about my personal environmental principles as well as our shared responsibility for preserving the environment for coming generations.

The Study's Examination of Change Potential: The study's examination of change potential highlighted the transformative power of policy and education. It was unforgettable to see the hope for the future and the conviction that there would be a generational change. It gave me a glimmer of hope for possible improvement, which made me consider how individual optimism and group efforts can propel societal changes in the direction of sustainability.

Personal Implications: This experience made me more aware of the complex relationship that exists between behaviour and values on a personal level. It emphasised how societal structures and cultural paradigms have an impact on sustainable choices in addition to personal convictions. It made me re-evaluate my own principles and prompted me to consider whether my actions and my beliefs are in line, especially when it comes to sustainable living.

Future Thoughts: As the effects of this study continue to resonate within me, I'm thinking about future thoughts. How can a knowledge of these values influence societal initiatives, individual decisions, and academic discourse? How can we, both as a group and as individuals, promote a culture in which moral principles are easily translated into environmentally friendly behaviour? How can I personally change to prompt the change to sustainable behavior I want to see in others in Gen Z? These unanswered questions encourage continued introspection and research into the changing terrain of sustainability and values.

Conclusion

As I wrap up this dissertation, I find myself at the point where valuable knowledge and questions converge after having explored the complex web of Gen Z's environmentally friendly food preferences. This project was undertaken with the objective of understanding the intricacies that lay behind the attitudes, motives, and behaviours of this generation in relation to sustainable food consumption. Numerous significant conclusions arise from the integration of quantitative data, qualitative narratives, and methodological concerns.

The study confirms the interdependence of cultural factors on sustainable food preferences among Gen Z painting a complex picture of cultural intricacies, encompassing dietary restrictions to customary rituals, intricately intertwined with the framework of national decision-making

procedures. The study highlights the significance of recognising varied subcultures and localised behaviours within national contexts. However, it only found a limited link between electronic communications and cultural variations.

Furthermore, the study emphasises the crucial significance of values, including transcendental values, in influencing the attitudes of Gen Z towards sustainable food consumption. The convergence of individual values with the principles of environmental stewardship and health considerations has emerged as a driving force behind the adoption of sustainable choices. Nevertheless, the study also revealed a discrepancy between ideals and actions, which raises questions about the complex relationship between personal beliefs and observable behaviours and which requires further research.

Moreover, the capacity for transformation in Gen Z's sustainable food consumption patterns is simultaneously encouraging and limited. The presence of optimism for the future, a confidence in a significant change occurring across generations, and a willingness to accept educational and policy modifications indicate a readiness to embrace transformative endeavours. Nevertheless, obstacles such as the lack of affordability and a lack of maturity in making responsible personal choices which will impact others and the future of nature emphasise the necessity for comprehensive and inclusive approaches to facilitate significant transformation.

The research adopted critical realism as its methodology, acknowledging the dynamic interaction between objective reality and social conceptions. The use of a combination of research techniques, such as Structural Equation Modelling and Thematic Analysis, provided a thorough perspective to examine the many aspects of Gen Z's decision-making. The study's credibility was enhanced by triangulation, which involved combining information from many methodological approaches.

Practically speaking, this dissertation has a transdisciplinary importance that goes beyond academic discussions. Managers, NGOs, politicians, and educators may extract practical lessons to customise tactics that guide the ideals of Gen Z towards sustainability. The study's findings have practical implications for promoting sustainable food consumption, ranging from utilising internet platforms to facilitating partnerships for legislative improvements.

Nevertheless, as I bring this chapter to a close, I acknowledge the inherent constraints in any investigation. This research documents a specific point in the ongoing story of how Gen Z is connected to sustainability. The ever-changing nature of societal, cultural, and technical advancements indicates that this connection is constantly evolving. Future research must undertake new investigations to capture the changing dynamics and get a more thorough grasp of the longer-term sustainable choices made by Gen Z as the cohort matures and evolves towards a new generation.

Essentially, this dissertation acts as a milestone in the continuous process of comprehending and shaping sustainable consumer behaviour. As future researchers take over, their task is to explore uncharted areas, uncover new levels of intricacy, and contribute to the joint endeavours aimed at promoting a sustainable and resilient future.

Chapter summary

This chapter synthesised the various strands of knowledge interwoven throughout the dissertation. The emphasis was placed on the interconnectivity of cultural influences, the significance of values, and the capacity for change in Gen Z's sustainable food choices. The study's contribution to the

evolving discourse on sustainable consumer behaviour was facilitated by methodological

reflections, practical implications, and potential areas for future research

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Appendix 1: Questionnaire (English Version)

<u>QUESTIONNAIRE</u>

Dear Participant,

My name is Nathaniel Amoah, a PhD student studying Sustainable Food Consumption (SFC) behaviours of generation Zs across national cultures. SFC refers to ***the process of buying, using and disposing of safe, healthy, and nutritious food***. Some SFC practices include avoiding food waste, eating organic food, avoiding fast foods, eating less meat, eating own-grown foods, and recycling food for compost. This study will enhance our knowledge of Generation Z SFC behaviours and contribute significantly to the theory explaining this phenomenon. The target respondents are between 11 and 26 years old.

I hope you can spare about 20 minutes to complete this questionnaire. If the answers in the questionnaire are to be of value to this study, every question must be answered frankly. Every effort will be taken that the strictest confidentiality is ensured.

Thank you in advance for your help.

Section A
Instruction: Please choose by circling a number for <u>each</u> statement to indicate the extent to which you agree or disagree with the statement (1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4= agree; 5= strongly agree)

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Section A1: Engagement with SFC						
	Attitude					
1	For me, engaging in SFC would be a positive experience.	1	2	3	4	5
2	To me, engaging in SFC would be a worthwhile pursuit.	1	2	3	4	5
3	I believe that engaging in SFC would be beneficial to me.	1	2	3	4	5
4	I think that engaging in SFC is an excellent thing to do.	1	2	3	4	5
5	I think that engaging in SFC is a good for the environment.	1	2	3	4	5
6	I am convinced that engaging in SFC would be useful.	1	2	3	4	5
	Subjective norms					
1	People whose opinions I value would approve of me engaging in SFC.	1	2	3	4	5
2	I admire people who engage in SFC	1	2	3	4	5
3	The people who matter to me would think I should engage in SFC.	1	2	3	4	5

4	For me, engaging in SFC is the right thing to do	1	2	3	4	5
5	Those whose opinions I care about would like me to engage in SFC.	1	2	3	4	5
6	My peers would expect me to engage in SFC.	1	2	3	4	5
7	The people who are important to me would encourage me to engage in SFC.	1	2	3	4	5
8	My family would want me to engage in SFC.	1	2	3	4	5
	Perceived Behavioural Control					
1	I feel that I am capable of engaging in SFC.	1	2	3	4	5
2	I have the necessary resources to engage in SFC.	1	2	3	4	5
3	I believe I have control over whether I engage in SFC.	1	2	3	4	5
4	I am confident in my ability to engage in SFC successfully.	1	2	3	4	5
5	I believe that I can engage in SFC for the next 20 years.	1	2	3	4	5
6	I feel that I have the ability to be more effective with my SFC behaviour.	1	2	3	4	5
7	I believe that I have the necessary skills to engage in SFC.	1	2	3	4	5
8	I do not depend on others to engage successfully in SFC.	1	2	3	4	5
	Intention					
1	I plan to engage in SFC in the near future.	1	2	3	4	5
2	I intend to engage in SFC within the next few weeks.	1	2	3	4	5
3	I am likely to engage in SFC in the future.	1	2	3	4	5
4	I am determined to engage in SFC.	1	2	3	4	5
5	I expect to engage in SFC in the near future.	1	2	3	4	5
6	I am willing to engage in SFC.	1	2	3	4	5
7	I am seriously considering engaging in SFC in the near future.	1	2	3	4	5
Section A2: SFC Behaviour						
	Behaviour					
1	I have engaged in SFC regularly in the last 5 years.	1	2	3	4	5
2	I have engaged in SFC to the best of my ability.	1	2	3	4	5
3	I have successfully engaged in SFC.	1	2	3	4	5
4	I have carried out SFC consistently.	1	2	3	4	5
5	I have complied with SFC.	1	2	3	4	5
6	I have executed SFC thoroughly.	1	2	3	4	5
7	I have fully engaged in SFC as much as possible.	1	2	3	4	5
	Sustainable Food Purchase Behaviour					
1	I consider the environmental impact of the food I buy.	1	2	3	4	5
2	I try to buy food that is locally produced.	1	2	3	4	5
3	I try to buy food that is in season.	1	2	3	4	5
4	I try to buy food that is grown without harmful chemicals.	1	2	3	4	5
5	I buy food with minimal packaging.	1	2	3	4	5

6	I prefer to buy food from companies that prioritise sustainability.	1	2	3	4	5
7	I am willing to pay more for sustainably produced food.	1	2	3	4	5
	Sustainable Food Usage Behaviour					
1	I use all parts of the food I buy to minimise waste.	1	2	3	4	5
2	I cook meals with ingredients that have a lower environmental impact.	1	2	3	4	5
3	I avoid using disposable plates, cups, and utensils.	1	2	3	4	5
4	I use reusable containers to store leftover food.	1	2	3	4	5
5	I compost food scraps.	1	2	3	4	5
6	I use energy-efficient appliances when cooking and storing food.	1	2	3	4	5
7	I avoid overcooking food to minimise energy waste.	1	2	3	4	5
	Sustainable Food Waste Disposal Behaviour					
1	I dispose of food waste to minimise its impact on the environment.	1	2	3	4	5
2	I avoid throwing away food that could still be consumed.	1	2	3	4	5
3	I recycle packaging materials from food products.	1	2	3	4	5
4	I try to buy products with recyclable packaging.	1	2	3	4	5
5	I dispose of cooking oil and other fats properly.	1	2	3	4	5
6	I use environmentally friendly cleaning products to clean dishes.	1	2	3	4	5
7	I donate excess food to others or food banks.	1	2	3	4	5
Section A3: SFC Information						
	Electronic Word of Mouth Giving					
1	I would recommend SFC behaviours to others online.	1	2	3	4	5
2	I would post a review of my SFC behaviour online.	1	2	3	4	5
3	I would share my experience with SFC on social media.	1	2	3	4	5
4	I would tell friends and family about SFC.	1	2	3	4	5
5	I would give sustainable food and related products a positive rating on an e-commerce website.	1	2	3	4	5
6	I would leave a comment about SFC on an online discussion forum.	1	2	3	4	5
7	I would write a blog post about SFC.	1	2	3	4	5
	Electronic Word of Mouth Receiving					
1	I read online reviews before making a purchase decision.	1	2	3	4	5
2	I pay attention to ratings and reviews of sustainable food products/services on e-commerce websites.	1	2	3	4	5
3	I trust the opinions of other consumers on SFC posted online.	1	2	3	4	5
4	I rely on online reviews of SFC to help me make a purchase decision.	1	2	3	4	5
5	Online information about SFC is misleading	1	2	3	4	5
6	Online information about SFC is false	1	2	3	4	5
7	I use social media to get recommendations for SFC practices.	1	2	3	4	5
8	I read reviews from multiple sources about sustainable food before making a purchase decision.	1	2	3	4	5
	Reinforcement of Behaviour					

1	After discussing my SFC behaviour with others online, I am more interested in engaging in it.	1	2	3	4	5
2	After discussing my SFC behaviour with others online, I am more motivated to engage in more SFC.	1	2	3	4	5
3	After discussing my SFC behaviour with others online, I feel more accountable for re-engaging in SFC.	1	2	3	4	5
4	After discussing my SFC behaviour with others online, I feel more supported to practice it again.	1	2	3	4	5
5	After discussing my SFC behaviour with others online, I feel more knowledgeable about it.	1	2	3	4	5
6	After discussing my SFC behaviour with others online, I am more likely to try new SFC behaviours.	1	2	3	4	5
7	After discussing my SFC behaviour with others online, I am more satisfied with my SFC behaviour.	1	2	3	4	5
Section A4: Consumption Values						
	Consumption Values: Emotional value					
1	Engaging in SFC makes me feel happy.	1	2	3	4	5
2	Engaging in SFC gives me pleasure.	1	2	3	4	5
3	Engaging in SFC is emotionally burdensome	1	2	3	4	5
4	Engaging in SFC changes my mood positively.	1	2	3	4	5
5	Engaging in SFC fascinates me.	1	2	3	4	5
6	Engaging in SFC makes me feel excited.	1	2	3	4	5
	Consumption Values: Epistemic value					
1	I want to seek out more information about SFC.	1	2	3	4	5
2	I am more curious about SFC.	1	2	3	4	5
3	Engaging in SFC is an excellent opportunity for me to learn new things.	1	2	3	4	5
4	I want to try more diverse SFC behaviours.	1	2	3	4	5
5	My knowledge of SFC has increased.	1	2	3	4	5
6	I learn SFC behaviours through my experiences	1	2	3	4	5
	Consumption Values: Health value					
1	SFC practices are hygienic.	1	2	3	4	5
2	SFC makes me healthy.	1	2	3	4	5
3	SFC keeps me safe.	1	2	3	4	5
	Consumption Values: Prestige value					
1	Engaging in SFC gives me a chance to show off my SFC experiences to others.	1	2	3	4	5
2	I have higher social status when engaging in SFC behaviours.	1	2	3	4	5
3	It is worthwhile to show pictures of my SFC experiences to others.	1	2	3	4	5
4	SFC gives me prestige.	1	2	3	4	5
	Consumption Values: Social value					
1	SFC makes me a better citizen	1	2	3	4	5

2	I engage in SFC to be accepted by my society	1	2	3	4	5
3	My family is proud of me when I engage in SFC	1	2	3	4	5
4	I help society by engaging in SFC	1	2	3	4	5
5	I engage in SFC because people around me also engage in it	1	2	3	4	5

Section B Demographic characteristics of the respondent
Instruction: kindly select the appropriate option by ticking in the bracket before the option (e.g., (√) Yes ( ) No)

1. Gender: ( ) Male ( ) Female ( ) Other
2. Age: ( ) 11 -15 years ( ) 16 - 20 years ( ) 21 – 26 years
3. Education Level ( ) High School ( ) Bachelors ( ) Masters ( ) Doctorate ( ) Professional Certificate
4. Employment Status: ( ) Employed ( ) Unemployed
5. Country: ( ) Nigeria ( ) Ghana ( ) Italy ( ) United Kingdom
6. Your total family income in 2021 was in the range (Please state your currency …………): (20,000-39,999) (40,000-59,999) (60,000-79,999) (80,000-99,999) (above 100,000)
7. Which of the following SFC practices do you engage in (Please tick as many as apply to you)?
   - avoiding over consumption
   - avoiding fast foods
   - eating organic foods, reducing meat intake
   - eating healthy foods
   - eating seasonal foods, reducing plastic use in food package
   - eating local foods
   - choosing fair traded food products, eating nnnnnnnnn foods
   - reducing food waste
   - consumption of Wholesome Nutrition
   - buying from farmer's market
   - insects consumption.

If you want to share other thoughts about your SFC experience, please do so in the box below

Thank you for your assistance.

Nathaniel Amoah
PhD student at the University of Brescia, Italy
You may contact me at n.amoah@unibs.it

QUESTIONARIO

Caro Partecipante,

Mi chiamo Nathaniel Amoah e sono uno studente di dottorato che studia i comportamenti di Consumo Alimentare Sostenibile (CAS) della generazione Z nelle culture nazionali. CAS si riferisce al processo di acquisto, utilizzo e smaltimento di alimenti sicuri, sani e nutrienti. Alcune pratiche CAS includono di evitare sprechi alimentari, mangiare cibi biologici, evitare fast food, mangiare meno carne, mangiare cibi di produzione propria e riciclare cibo per il compost. Questo studio migliorerà la nostra conoscenza dei comportamenti CAS di generazione Z e contribuirà in modo significativo alle teorie che spiegano questo fenomeno. Gli intervistati target hanno un'età compresa tra gli 11 ei 26 anni.

Spero che tu possa investire circa 20 minuti per completare questo questionario. Se le risposte nel questionario devono essere utili per questo studio, ogni domanda deve essere risolta con franchezza. Sarà fatto ogni sforzo per garantire la massima riservatezza.

Grazie in anticipo per il vostro aiuto.

Sezione A
Istruzioni: scegli cerchiando un numero per ogni affermazione per indicare la misura in cui sei d'accordo o in disaccordo con l'affermazione (1 = Assolutamente in disaccordo; 2 = in disaccordo; 3 = né d'accordo né in disaccordo (neutrale) 4= d'accordo; 5= Assolutamente d'accordo)

		Assolutamente in	In disaccordo	Neutrale	D' accordo	Assolutamente d' accordo
Sezione A1: Impegno con CAS						
	Atteggiamento					
1	Per me, partecipare a CAS sarebbe un'esperienza positiva.	1	2	3	4	5
2	Per me, impegnarsi in CAS sarebbe una ricerca utile.	1	2	3	4	5
3	Credo che impegnarmi in CAS sarebbe vantaggioso per me.	1	2	3	4	5
4	Penso che impegnarsi in CAS sia una cosa eccellente da fare.	1	2	3	4	5
5	Penso che impegnarsi in CAS sia un bene per l'ambiente.	1	2	3	4	5
6	Sono convinto che impegnarsi in CAS sarebbe utile.	1	2	3	4	5
	Norme soggettive					
1	Le persone di cui apprezzo le opinioni approverebbero il mio coinvolgimento in CAS.	1	2	3	4	5
2	Ammiro le persone che si impegnano in CAS.	1	2	3	4	5
3	Le persone che contano per me penserebbero che dovrei impegnarmi in CAS.	1	2	3	4	5

		1	2	3	4	5
4	Per me, partecipare a CAS è la cosa giusta da fare	1	2	3	4	5
5	Coloro le cui opinioni mi interessano vorrebbero che mi impegnassi in CAS.	1	2	3	4	5
6	I miei colleghi si aspetterebbero che mi impegnassi in CAS.	1	2	3	4	5
7	Le persone che sono importanti per me mi incoraggerebbero a impegnarmi in CAS.	1	2	3	4	5
8	La mia famiglia vorrebbe che mi impegnassi in CAS.	1	2	3	4	5
	Controllo comportamentale percepito					
1	Sento di essere in grado di impegnarmi in CAS.	1	2	3	4	5
2	Ho le risorse necessarie per impegnarmi in CAS.	1	2	3	4	5
3	Credo di avere il controllo sull'opportunità di impegnarmi in CAS.	1	2	3	4	5
4	Sono fiducioso nella mia capacità di impegnarmi con successo in CAS.	1	2	3	4	5
5	Credo di potermi impegnare in CAS per i prossimi 20 anni.	1	2	3	4	5
6	Sento di avere la capacità di essere più efficace con il mio comportamento CAS.	1	2	3	4	5
7	Credo di avere le competenze necessarie per impegnarmi in CAS.	1	2	3	4	5
8	Non dipendo dagli altri per impegnarmi con successo in CAS.	1	2	3	4	5
	Intenzione					
1	Ho intenzione di impegnarmi in CAS nel prossimo futuro.	1	2	3	4	5
2	Ho intenzione di impegnarmi in CAS nelle prossime settimane.	1	2	3	4	5
3	È probabile che mi impegnerò in CAS in futuro.	1	2	3	4	5
4	Sono determinato a impegnarmi in CAS.	1	2	3	4	5
5	Mi aspetto di impegnarmi in CAS nel prossimo futuro.	1	2	3	4	5
6	Sono disposto a impegnarmi in CAS.	1	2	3	4	5
7	Sto seriamente pensando di impegnarmi in CAS nel prossimo futuro.	1	2	3	4	5
Sezione A2: Comportamento CAS						
	Comportamento					
1	Mi sono impegnato in CAS regolarmente negli ultimi 5 anni.	1	2	3	4	5
2	Mi sono impegnato in CAS al meglio delle mie capacità.	1	2	3	4	5
3	Mi sono impegnato con successo in CAS.	1	2	3	4	5
4	Ho svolto costantemente CAS.	1	2	3	4	5
5	Ho rispettato CAS.	1	2	3	4	5
6	Ho eseguito completamente CAS.	1	2	3	4	5
7	Mi sono impegnato in CAS il più possibile.	1	2	3	4	5
	Comportamento di acquisto alimentare sostenibile					
1	Considero l'impatto ambientale del cibo che compro.	1	2	3	4	5
2	Cerco di acquistare cibo prodotto localmente.	1	2	3	4	5
3	Cerco di comprare cibo di stagione.	1	2	3	4	5
4	Cerco di acquistare cibo coltivato senza sostanze chimiche nocive.	1	2	3	4	5

5	Cerco di acquistare cibo con un imballaggio minimo.	1	2	3	4	5
6	Preferisco acquistare cibo da aziende che danno priorità alla sostenibilità.	1	2	3	4	5
7	Sono disposto a pagare di più per cibo prodotto in modo sostenibile.	1	2	3	4	5
	Comportamento sostenibile nell'uso degli alimenti					
1	Cerco di utilizzare tutte le parti del cibo che compro per ridurre al minimo gli sprechi.	1	2	3	4	5
2	Cerco di cucinare i pasti con ingredienti che hanno un minor impatto ambientale.	1	2	3	4	5
3	Evito di usare piatti, tazze e utensili usa e getta.	1	2	3	4	5
4	Uso contenitori riutilizzabili per conservare il cibo avanzato.	1	2	3	4	5
5	Composto avanzi di cibo.	1	2	3	4	5
6	Uso elettrodomestici ad alta efficienza energetica quando cucino e conservo il cibo.	1	2	3	4	5
7	Evito di cuocere troppo il cibo per ridurre al minimo lo spreco di energia.	1	2	3	4	5
	Comportamento sostenibile per lo smaltimento dei rifiuti alimentari					
1	Smaltisco i rifiuti alimentari per minimizzarne l'impatto sull'ambiente.	1	2	3	4	5
2	Evito di buttare cibo che potrebbe ancora essere consumato.	1	2	3	4	5
3	Riciclo i materiali di imballaggio dei prodotti alimentari.	1	2	3	4	5
4	Cerco di acquistare prodotti con imballaggi riciclabili.	1	2	3	4	5
5	Smaltisco correttamente l'olio da cucina e altri grassi.	1	2	3	4	5
6	Uso prodotti per la pulizia ecologici per pulire i piatti.	1	2	3	4	5
7	Cerco di donare il cibo in eccesso ad altri o alle banche del cibo.	1	2	3	4	5
Sezione A3: Informazioni CAS						
	Il passaparola elettronico					
1	Consiglierei i comportamenti CAS ad altri online.	1	2	3	4	5
2	Pubblicherei una recensione del mio comportamento CAS online.	1	2	3	4	5
3	Vorrei condividere la mia esperienza con CAS sui social media.	1	2	3	4	5
4	Direi ad amici e parenti di CAS.	1	2	3	4	5
5	Darei al cibo sostenibile e ai prodotti correlati una valutazione positiva su un sito di e-commerce.	1	2	3	4	5
6	Vorrei lasciare un commento su CAS su un forum di discussione online.	1	2	3	4	5
7	Vorrei scrivere un post sul blog su CAS.	1	2	3	4	5
	Ricezione passaparola elettronica					
1	Ho letto le recensioni online prima di prendere una decisione di acquisto.	1	2	3	4	5
2	Presto attenzione alle valutazioni e alle recensioni di prodotti/servizi alimentari sostenibili sui siti di e-commerce.	1	2	3	4	5
3	Mi fido delle opinioni di altri consumatori su CAS pubblicate online.	1	2	3	4	5
4	Mi affido alle recensioni online di CAS per aiutarmi a prendere una decisione di acquisto.	1	2	3	4	5
5	Le informazioni online su CAS sono fuorvianti	1	2	3	4	5

6	Le informazioni online su CAS sono false	1	2	3	4	5
7	Uso i social media per ottenere consigli per le pratiche CAS.	1	2	3	4	5
8	Ho letto recensioni da più fonti sul cibo sostenibile prima di prendere una decisione di acquisto.	1	2	3	4	5
	Rinforzo del comportamento					
1	Dopo aver discusso il mio comportamento CAS con altri online, sono più interessato a impegnarmi in esso.	1	2	3	4	5
2	Dopo aver discusso il mio comportamento CAS con altri online, sono più motivato a impegnarmi in più CAS.	1	2	3	4	5
3	Dopo aver discusso il mio comportamento CAS con altri online, mi sento più responsabile per il reimpegno in CAS.	1	2	3	4	5
4	Dopo aver discusso il mio comportamento CAS con altri online, mi sento più supportato a praticarlo di nuovo.	1	2	3	4	5
5	Dopo aver discusso il mio comportamento CAS con altri online, mi sento più informato al riguardo.	1	2	3	4	5
6	Dopo aver discusso il mio comportamento CAS con altri online, è più probabile che provi nuovi comportamenti CAS.	1	2	3	4	5
7	Dopo aver discusso il mio comportamento CAS con altri online, sono più soddisfatto del mio comportamento CAS.	1	2	3	4	5
Sezione A4: Valori di consumo						
	valore emotivo					
1	Partecipare a CAS mi fa sentire felice.	1	2	3	4	5
2	Partecipare a CAS mi dà piacere.	1	2	3	4	5
3	Impegnarsi in CAS è emotivamente gravoso	1	2	3	4	5
4	Partecipare a CAS cambia positivamente il mio umore.	1	2	3	4	5
5	Partecipare a CAS mi affascina.	1	2	3	4	5
6	Partecipare a CAS mi fa sentire eccitato.	1	2	3	4	5
	valore epistemico					
1	Voglio cercare maggiori informazioni su CAS.	1	2	3	4	5
2	Sono più curioso di CAS.	1	2	3	4	5
3	Partecipare a CAS è un'ottima opportunità per me per imparare cose nuove.	1	2	3	4	5
4	Voglio provare comportamenti CAS più diversi.	1	2	3	4	5
5	La mia conoscenza di CAS è aumentata.	1	2	3	4	5
6	Imparo i comportamenti CAS attraverso le mie esperienze	1	2	3	4	5
	valore sanitario					
1	Le pratiche CAS sono igieniche.	1	2	3	4	5
2	CAS mi rende sano.	1	2	3	4	5
3	CAS mi tiene al sicuro.	1	2	3	4	5
	valore di prestigio					
1	Partecipare a CAS mi dà la possibilità di mostrare le mie esperienze CAS agli altri.	1	2	3	4	5

2	Ho uno status sociale più elevato quando mi impegno in comportamenti CAS.	1	2	3	4	5
3	Vale la pena mostrare agli altri le immagini delle mie esperienze CAS.	1	2	3	4	5
4	CAS mi dà prestigio.	1	2	3	4	5
	valore sociale					
1	CAS mi rende un cittadino migliore	1	2	3	4	5
2	Mi impegno in CAS per essere accettato dalla mia società	1	2	3	4	5
3	La mia famiglia è orgogliosa di me quando mi impegno in CAS	1	2	3	4	5
4	Aiuto la società impegnandomi in CAS	1	2	3	4	5
5	Mi impegno in CAS perché anche le persone intorno a me si impegnano in esso	1	2	3	4	5

Sezione B Caratteristiche demografiche del rispondente
Istruzioni: seleziona gentilmente l'opzione appropriata spuntando la parentesi prima dell'opzione (ad es. (√) Sì ( ) No)

8. Sesso: ( ) Maschio ( ) Femmina ( ) Altro
9. Età: ( ) 11 -15 anni ( ) 16 - 20 anni ( ) 21 – 26 anni
10. Livello di istruzione ( ) Scuola superiore ( ) Laurea ( ) Master ( ) Dottorato ( ) Certificato professionale
11. Condizione occupazionale: ( ) Occupato ( ) Disoccupato
12. Paese: ( ) Nigeria ( ) Ghana ( ) Italia ( ) Regno Unito
13. Il tuo reddito familiare totale nel 2021 era compreso nell'intervallo (indica la tua valuta …………): (20.000-39.999) (40.000-59.999) (60.000-79.999) (80.000-99.999) (superiore a 100.000)
14. In quale delle seguenti pratiche SFC ti impegni (contrassegna quelle che ti riguardano)?
    o evitare il consumo eccessivo
    o evitare cibi veloci
    o mangiare cibi biologici, riducendo l'assunzione di carne
    o mangiare cibi sani
    o mangiare cibi di stagione, riducendo l'uso di plastica nelle confezioni degli alimenti
    o mangiare cibi locali
    o scegliere prodotti alimentari del commercio equo e solidale, mangiare cibi nnnnnnnnn
    o ridurre lo spreco alimentare
    o consumo di nutrizione sana
    o acquisto dal mercato del contadino
    o consumo di insetti.

Se vuoi condividere altri pensieri sulla tua esperienza CAS, fallo nella casella sottostante

Grazie per il vostro aiuto.

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Appendix 3: Interview Guide

INTRODUCTION
1. Self-introduction of the interviewer
2. Explain the purpose of the meeting
3. Explain the general purpose of the study
    a. The purpose of this interview is to engage Gen Z consumers and to understand their food consumption behaviour.
4. Seek interviewee consent on recording
5. Assurance of confidentiality
6. Take demographics of the participant (a) Age bracket (b) Education level (c) Marital status (d) Income bracket
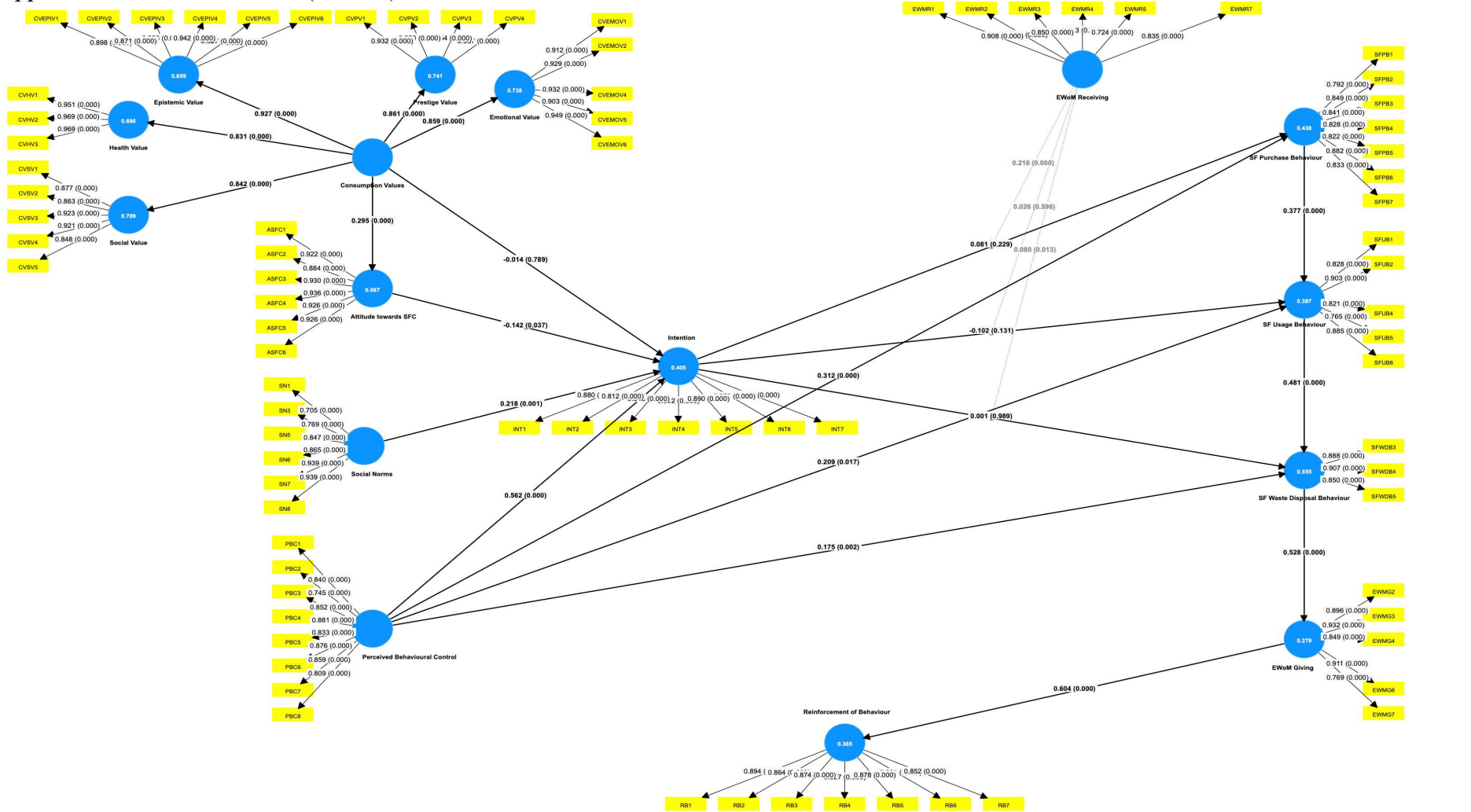
INTERVIEW QUESTIONS
1. Do you have some sustainable food consumption practices?
2. Can you tell me about your current food consumption behaviours in relation to sustainability?
3. What motivates you to consume food in a sustainable way?
4. What kind of foods do you usually eat, and where do you get them from?
5. Have you ever made any changes to your food consumption habits to be more sustainable? If so, what were these changes?
6. How important are sustainability considerations to you when making food purchasing decisions?
7. Are there any personal benefits you derive from consuming food in a sustainable way?
8. How do your personal values and beliefs influence your SFC practices?
9. How do the social values (justice, freedom, respect, community, and responsibility) you adhere to influence your SFC practices?
10. How does your cultural background impact on your attitudes and behaviours towards sustainable food consumption?
11. Have you ever used any technology or apps to help you make more sustainable food choices? If so, can you describe your experience with them?
12. Do you talk to your friends about your sustainable food practices? Do you do that in person or over the internet or social media?
13. How does talking to friends about your sustainable food practices encourage you to engage in this type of behaviour even more?
14. Are there any barriers that prevent you from consuming food in a more sustainable way?
15. Do you think that technology can play a role in overcoming barriers to sustainable food consumption, such as access to information or availability of sustainable food products?
16. How do you think technology can have a negative influence on your sustainable consumption choices (for instance, media ads contribution to eating disorders, obesity, etc.)?

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17. Are there any cultural or social norms that make it challenging to consume food in a sustainable way?
18. Do you face any conflicts between your personal values and the values of the larger society when it comes to sustainable food consumption?
19. How do you see the future of sustainable food consumption?
20. Are there any changes you would like to see in the food consumption behaviours of young people to encourage more sustainable food consumption practices?
21. Do you think that sustainable food consumption will become more mainstream in the future?
22. Do you think that cultural, societal or policy changes will be necessary to shift towards more sustainable food consumption practices, and if so, what kind of changes do you envision?
23. How do you see your personal values and beliefs influencing your future sustainable food consumption practices?

Appendix 4: Structural Model (Ghana)
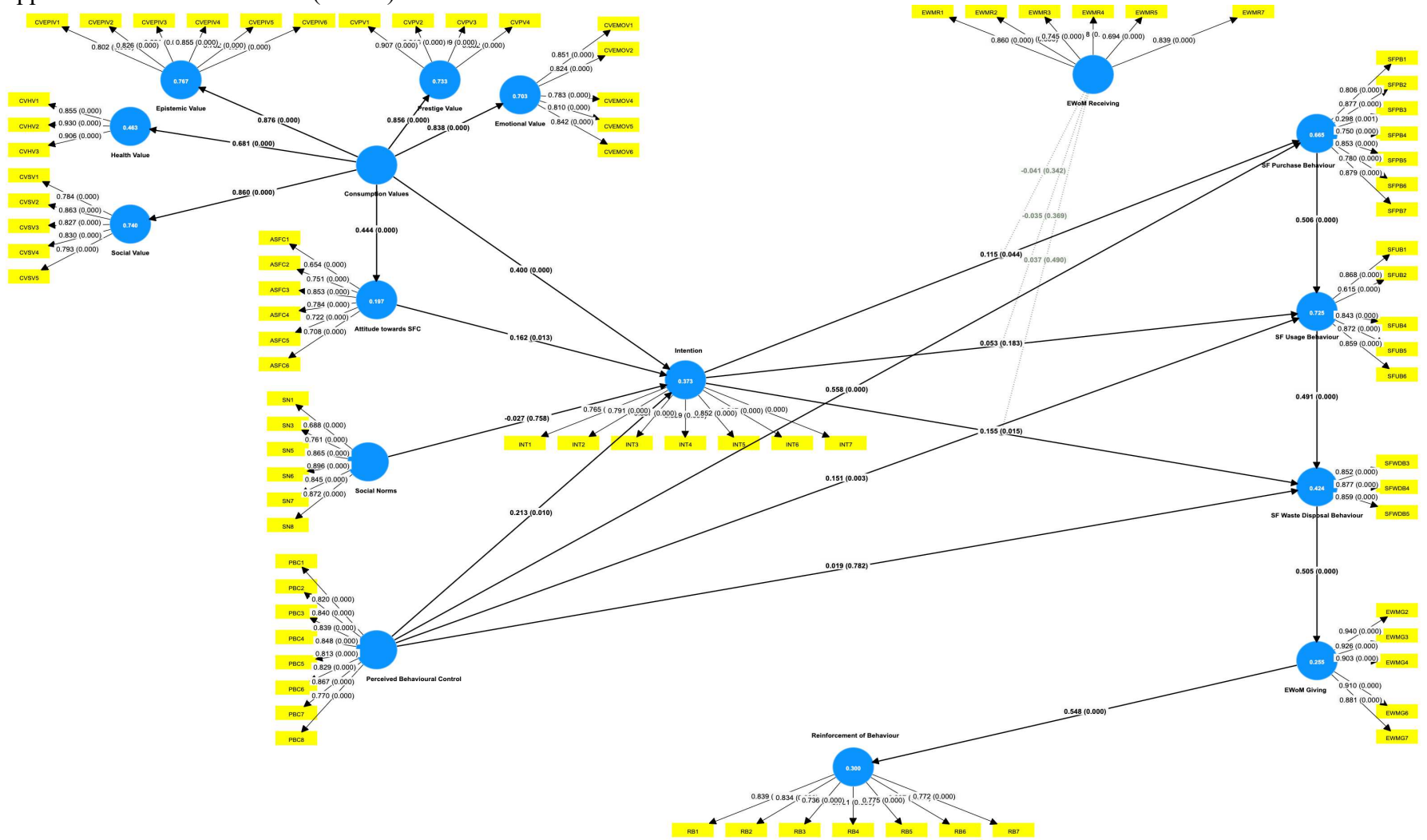
Appendix 5: Structural Model (Canada)