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Article Consumer Psychology on Food Choice Editing in Favor of Sustainability

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Abstract: This article examines rationale behind consumers' vote for or against choice editing (reducing food choice) in favor of sustainable consumption to inform marketing communication strategies and sustainability policies. Based on a Qualitative analysis of free-text comments in a UK nationwide survey on sustainable healthy food consumption using inductive thematic analysis, we found that the majority (55.4%) disagreed with governments being given the right to minimize food choice options available to consumers by requesting that food industry players supply only sustainable food products whereas only 44.6% agreed with the idea. In-depth thematic analysis revealed that those who disagreed with it expressed the reasons to be "Freedom of choice", "Individual choice to decide and responsibility"; "Producers to be encouraged to develop sustainable products"; "Need for education"; "Consumers have power"; "Consumers should be made to fund health conditions they develop from unhealthy food."; "Government should fund production of sustainable foods"; and "this will lead to less competition within the market". On the other hand, the agreement expressed by respondents gave reasons such as, "Food industry's notorious for selling unhealthy food"; "Need to keep the price of sustainable products down."; "Government should legislate."; "All food sold should be whole natural food."; "Retailers should produce more healthy food as obesity is a problem."; "Healthy food is good for us."; "Government's obligation."; and "GMO foods, foods grown using artificial methods, harm the environment and humans." Our analysis revealed that change interventions have slowly reduced the pace of growth in the food industry, partially because of consumer awareness at a gradual rate. Moreover, sustainable food products are viewed as ineffective in the short run while market share for sustainable items remains substantially low. The implications of the results include inclusive policies for sustainable consumption, government intervention by making it mandatory to consume and produce sustainable items, accountability measures for food producers, the introduction of a rebate system for sustainable production, and the monitoring of food prices ensuring organic food is affordable to all.

Keywords: consumer psychology; choice limitation; consumer ethics; marketing communication; sustainable food policy

1. Introduction

Sustainable Consumption as a Free Choice Consumer Practice

Over the past two decades, sustainable consumption research has progressed in describing challenges and problems associated with the sustainable food sector. For instance, prior research has highlighted the legendary barriers of availability, accessibility, and less variety of sustainable food products in various retail outlets such as supermarkets [1–4] as major inhibitors to sustainable consumption. Therefore, there were grounds for optimism on the part of sustainability researchers and practitioners that the introduction of



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Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). sustainable food products into the mainstream environment of supermarkets could help surmount these barriers and promote sustainable food market growth.

Anselmsson and Johansson [5] also underscored the efforts by food marketing managers to draw consumers' attention to sustainable products through creative merchandising. Yet, recent research shows consumers do not purchase ample amounts of sustainable food products to substantially support the attainment of sustainable development goals in the medium to long term [6,7]. Sustainable food products in the context of this paper refer to products that contribute to a single or a combination of economic, ecological, or social dimension(s) by virtue of their attributes or consequence [8,9].

Admittedly, a major shift towards sustainability requires an entire institutional change [10]. Indeed, Schubert [11] emphasized the need for an institutional overhaul to re-echo that a paradigm shift away from unsustainable production and consumption-'... requires institutional change, not merely modifying individual behavior at the margin'. Thus, a broadened cross-sectoral, integrative, and stakeholder-oriented research approach that has the potential to resolve comprehensively inhibitors to sustainable food production and consumption is a fundamental requirement [10].

While previous studies have focused on sustainable consumption while covering briefly the role of government, the studies either heavily emphasized the numeric expression to explain the relationship or focused on the importance of sustainable consumption patterns. However, the consumer psychology for or against sustainable choices is understudied. The hidden embedded themes of the consumer's psychology regarding the choices and preferences remain largely understudied. Previous studies have mainly focused on the consumers' and the producers' perspectives while partially engaging the government's role in the due process, whereas the reasoning for a choice selection of the consumers (especially the consumer's psychology for selecting or opposing the organic products) have not been explored in depth. Moreover, the producer's role is often found to be discussed in a descriptive manner. This study fills the gap by providing a critical take on the producers' practices and activities as well as the futuristic role of the government in organic/sustainable items production and consumption. Thus, this study is an attempt to fill the existing gap in the literature by providing a qualitative perspective exploring the research phenomenon. The useful truth (qualitative perspective) is largely missing from the existing literature, while there is over-emphasis on the factual truth (quantitative perspective). This study also fills the gap in the methodological perspective by offering in-depth insight into the research phenomenon through the qualitative approach. Thus, the current study seeks to address an important but unexplored area of overt paternalism by examining the psychology behind consumers' reasons to vote for or against a proposal for the government to legislate food choice editing in favour of sustainable alternatives. We deem this research enquiry as the "elephant in the room of sustainable consumption scholarship". It is, in our view, a critical issue with huge implications for public health and nutrition status, consumer policy towards sustainable food production, and consumption and consumer ethics. The research is novel as it addresses the elephant in the room of sustainable consumption which has previously been ignored by researchers and academics. There is limited evidence to explore the research phenomenon by bringing the hidden embedded themes through qualitative analysis. The previous studies established the relationship through numeric expression while failing to examine the hidden themes of consumer psychology. Thus, this research is unique and novel in providing an in-depth understanding of the consumers' vote for or against sustainable items.

The academic novelty includes contributing a new body of knowledge by overcoming numeric expression and exploring the research phenomenon through a qualitative perspective. Thus, this paper has a robust methodology. Moreover, the existing literature needed updated information behind consumer psychology, producers' existing practice, and the role of the government in the due process–all being covered under one umbrella research. Moreover, the practical implication includes suggested innovative techniques and the promotion of sustainable consumption and production practices and procedures. The structure of the manuscript after the introduction includes a literature review, which critically evaluates the existing studies, followed by a research methodology explaining the methods and materials employed in the existing study to gather the information and commence the primary investigation. The next section after methods and materials is qualitative findings and discussions expressing the current findings in relation to the previous literature at hand. This is followed by a conclusion and implications. Lastly, the

2. Literature Review

manuscript contains research limitations and future studies.

A vast literature has confirmed that, in several economies, sustainability is a prevailing key problem, particularly in the agri-food industry [9,10,12–15]. Furthermore, regarding sustainable food consumption, several attributes are found to be connected to the differentiation of products, thus, assisting and enabling agri-food ventures to increase the value of their respected commodities [12,14–17]. In addition to that, those organizations that demonstrate the triple bottom approach (caring for people, the planet, and profit) by being ethical, social, and environmentally responsible reflect a higher corporate image [14,18,19]. Nonetheless, the consumers' psychology and their input are still understudied. The work of Haque et al. [14] carried out in a similar dimension, primarily focused on "amenable to reduce food selection options available in order to offer increased sustainable alternatives" while giving very little scope and detail about why the consumers would/would not be willing to consume sustainable/organic items. Thus, there is a need to explore the in-depth themes that reflect the consumer psychology of two types: (a) those in favor of sustainable consumption and (b) those opposing sustainable consumption practices.

Haque et al. [14] argued that there is still no agreement on a widely accepted definition of sustainability. Equally, the concept of sustainable food has not been studied under one standard approach [10,20]. From the lens of food production, there are several products that are marketed as sustainable items by showing ethical and/or environmental aspects. Labels and certifications are also used to show their credibility so that consumers can easily identify them [21,22]. Some consumers might buy but still may not buy those items. The useful truth must be explored to know the consumer's psychology behind or against decisions. Interestingly, "per current status, there is no omnibus label for sustainable food, but rather reflected in ethical, social, and environmental elements being the focal point for any scheme is expressed in fairtrade, organic, or eco-labels" [15]; cited from Haque et al. [14].

Discourses on behavior-change intervention have also reinforced the centrality of the food consumer stakeholder as the main actor behind the slow pace of growth of this important industry [3,4,6,7]. Indeed, notable strands of sustainable food consumption scholarship have emerged to promote awareness and behavior change include: (1) Consumer-behavior research focused on closing the attitude-behavior gap [23–25] and (2) Green nudges studies [11,26–31]. These efforts notwithstanding, it is arguable that strategies based on the 'attitude-behavior gap' and 'green nudges' research aimed at promoting the patronage of sustainable food products appear ineffective in the short term, as their impact on the market share of the sustainable food industry has been minimal [7,32]. Therefore, the sense of optimism that heralded mainstreaming of sustainable food products into the mainstream environment of supermarkets has not significantly engendered sustainable consumption. This situation serves to remind researchers and practitioners about the dynamic and complex nature of consumer behavior and the need to explore research avenues beyond attitude-behavior gaps and nudges to promote sustainable consumption.

Consumers frequently like to associate themselves with sustainable items reflecting higher concern for society, healthy food, or commodities exhibiting greater fairness to-wards food producers [14,33]. Worldwide, there is an increased awareness of consumption patterns escalating the demand for the production of sustainable items [14,34,35]. Globalization has significantly influenced the expansion of the market by reducing boundaries for the exchange of information and goods and services [15]. Yet, it is not free from the challenges it has brought to sustainable consumption. In fact, it could be argued that globalization is one of the hurdles to uniform sustainable consumption practices in the country. However, there are arguments proposed by the champions in favor of globalization that global consumers have higher market awareness and enable the promotion fairtrade practices [36–40]. Yet, from the extracted literature at hand, we could not find a study that has examined the reasoning behind being for or against sustainable consumption. The consumer's psychology in this regard is still understudied.

A plethora of studies has focused on environmental sustainability while primarily concentrating on the specific dimension of sustainable food consumption [15]. A wide range of studies found that "sustainability has mainly focused on environment-friendly consumption and the consumption of organic products" [1,41–43]. Criticism about the organic sector is that it has still failed to capture a large segment of the market despite having the potential. Thus, our study is an attempt to investigate the reasoning behind the failure of organic items being unable to capture their potential. Yet, few attempts are carried out by research academics that explore fairtrade as a facet of ethical consumption [44,45] or animal welfare [41,46].

The work of Sidali and Hemmerling [47] found that consumers often have higher expectations from the producers to produce sustainable products. Yet, consumers themselves take little or no initiative to travel a long distance to purchase and consume sustainable food. For example, the work of Sirieix et al. [48] revealed that, for seasonal items, consumers are not very enthusiastic about travelling long distances; they would instead consume the items that are easily accessible. However, we are looking to explore the reason reflecting consumer psychology about the sustainable food available in the supermarket, which is closer and easily accessible. We attempt to understand the reason for favouring or opposing it.

3. Methods and Materials

Four months (from November 2018 to February 2019) of data was gathered by means of nationwide data collection from UK supermarket Fairtrade consumers. Participants were screened to capture respondents that were responsible for the majority of food purchases for their household and that had purchased sustainable food within the previous three months. We used an online consumer survey circulated through the SurveyMonkey platform. This technique enabled us to gather a large response set while providing the convenience of time flexibility in the participation process to the target audience. Networking and connections played a pivotal role in the attainment of loyalty card data from the UK supermarkets. The use of networking and connection is a handy and credible approach in social science research [49,50]. This technique also enabled us the filtering and identification of specific participants primarily responsible for most of their household shopping and particular items consumed by those individuals. Furthermore, the cluster sampling strategy was also incorporated to ensure the aim of a large-scale survey to delimit the regional specification and enhance the geographical spread of the sample. The regional delimiting technique is also a credible and valid approach previously used in social science studies [51,52]. Thus, the spread of this sample covered six regions in the UK (the East of England, Northern Scotland, Scottish Borders, Northern Ireland, Wales and the West of England, and Southern England).

The cluster sampling technique enabled us to attain fair representation [51] through regional quotas, therefore, 16% of each regional quota representation was attained. Interestingly, a total of 1601 usable questionnaires were returned and completed, indicating a 58% response rate (which is adequate and acceptable in drawing a fair conclusion). It also helps in the attainment of an appropriate sample size ratio [14,49]. Moreover, the selective extrapolation method used in this study is effective in avoiding non-response bias [53]. Frequently, in qualitative studies, the sample size is not about numeric quantification because it is to understand the hidden embedded themes in-depth [49]. The focus is more on the useful truth rather than the factual truth [54,55].

The survey questions were partly adapted from a study by Sidali et al. [15] but it was conducted in English. We asked for the views of survey participants on which food industry stakeholders ought to be directly responsible for ensuring or deciding that sustainable food

alternatives be made available on the consumer market. The survey featured an open-ended question to enable researchers to undertake a thematic analysis of whether governments have the approval of shoppers to reduce food choices by requesting food producers and retailers to selectively offer sustainable healthy food products. A dichotomous question was asked to elicit consumers' readiness to back a government proposal for choice editing in favor of sustainable foods and to allow them to give the rationale behind their respective positions. Subsequently, the survey enquired of respondents an estimate: "By discounting price, how much of your shopper freedom in terms of food selection options are you ready to surrender to enable your favourite supermarkets to supply sustainable healthy foods?" Data of 1601 respondents were used in the analysis. The study employed qualitative analysis of free-text comments in a UK nationwide survey on sustainable healthy food consumption using inductive thematic analysis. The responses were saved in an Excel spreadsheet. We used Bar Diagrams to visually represent the agreement and disagreement of the consumers. This was followed by Pro Word Cloud to visually present the main themes drawn from the agreed and disagreed consumers.

4. Qualitative Analysis and Discussion

Following the section above that highlights our data choice and methods, here we critically discuss the qualitative findings. The results are examined and discussed using the extant literature as the basis to confirm or contradict existing scholarship. We established from the results that there is a split opinion among consumers, as categorized into two: (a) in favor, and (b) against the idea that the government be allowed to reduce consumer food choice (See Figure 1).

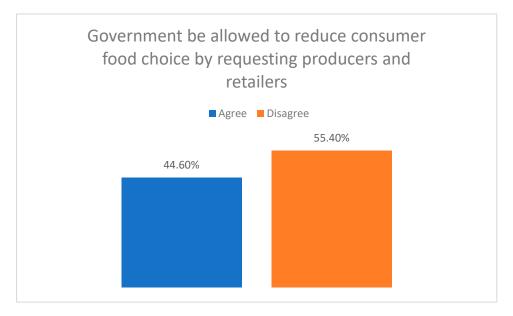


Figure 1. UK Consumers' response to the government is allowed to reduce consumer food choices by requesting producers and retailers.

The qualitative analysis involved a thematic analysis of consumer opinions on whether the government should be given the right to edit consumer food selection options by encouraging food producers and retailers to offer to the market only sustainable healthy food products. Out of the sample of 1598 responses, 712 (44.6%) agreed that the government should be given the right to edit consumer food selection options by encouraging food producers and retailers to offer to the market only sustainable healthy food, while a majority of 886 (55.4%) disagreed (See Figure 1).

Of the majority who disagreed or discouraged food choice reduction intervention, the main thematic responses were "Freedom of choice"; "Individual choice to decide and responsibility"; "Producers to be encouraged to develop sustainable products"; "Need for education";

"Consumers have power"; "Consumers should be made to fund health conditions they develop from unhealthy food."; "Government should fund the production of sustainable foods"; and "This will lead to less competition within the market" (See Figure 2).



Figure 2. Thematic response/reasoning given by the disagreed consumers.

The in-depth exploration of the emerged themes revealed that opposing the idea of forced choices meant that consumers have no freedom to select their preferred choices. Thus, many disagreed by supporting that freedom of choice is an important aspect. The exerted force is still a force without one's own willingness, even if it is meant to be healthy and sustainable. Another theme evident from the disagreed phenomenon was the final decision and responsibility component. This indicates that the final decision and responsibility of selecting the food from the shelves should be with the consumers. They should be deciding upon what is right or not for them. A third theme emerged about why consumers should be forced to change their choice. The burden of sustainable behavior should not be solely on the consumer, instead, the produced should be forced to produce sustainable items. If non-sustainable items are on the shelves, consumers will buy them because they are inexpensive. Thus, the producers should be held responsible to develop and produce sustainable items. The burden of sustainable consumption should not be on the consumers, but the burden of sustainable producers.

Another interesting argument that emerged from those who oppose the idea is that government should start educating people before imposing ideas of consumption. People would switch to sustainable items when they have awareness of the benefits and needs of sustainable consumption. There was also a theme that consumers have the power and should always be empowered to make the decision about consumption. Such thoughts emerged from the notion that money and purchasing power lies with the consumers so they should make the choice whether to consume any item or not.

Another theme emerged that is more of a suggestion from those who disagreed with the imposed idea of sustainable consumption, which is that such consumers who do not want to reduce their non-sustainable consumption pattern should be asked to make health donations. This would at least balance out the sustainable act/behavior to a larger extent. On the other hand, the argument also emerged that if the government wants the consumers to adopt sustainable consumption behavior, then they should fund production of sustainable foods. Perhaps that will make it less expensive and easier for consumers to buy.

The last theme that emerged was that the forced choice upon the consumers will also mean that all the producers are producing sustainable items, which is again a threat to competition. Competition keeps businesses active and dynamic, while the possibility of competition shrinking is likely because of such decisions. It is good to have competition because it benefits the consumers and producers. Therefore sustainable consumption should not be forced to keep the competition alive.

The discussion based on the present qualitative findings in the light of the literature at hand shows that sustainable consumption is a consistent yet progressive challenge that is evident in the sustainable food sector. Despite the governmental efforts and enhanced social awareness among the consumers through digital and other platforms about organic and sustainable consumption, there is still higher reluctance among the consumers toward sustainable food. Thus, our findings to a large extent aligned with previous studies [6,7,50,56]. The qualitative findings also revealed that there is an argument that there is very little variety of sustainable consumption items and accessibility in many retail outlets; supermarkets, for example, are substantially lower in organic and/or sustainable items, which further proves to be a hurdle in developing taste and preference for sustainable food consumption. Hence, the findings of the present study partially support the previous work of [1–4].

However, for those who agreed or encouraged food choice reduction intervention, the main thematic responses were "Food industry's notorious for selling unhealthy food"; "Need to keep the price of sustainable products down."; "Government should legislate."; "All food sold should be whole natural food."; "Retailers should produce more healthy food as obesity is a problem."; "Healthy food is good for us."; "Government's obligation."; and "GMO foods, foods are grown using artificial methods, harm the environment and humans." (See Figure 3).



Figure 3. Thematic response/reasoning given by the agreed consumers.

On exploration of the reasons behind the agreement, it is evident that participants believe that the food industry has been notorious for selling unhealthy food. Thus, forcing the development of sustainable consumption patterns would also drive the food producers to give up on their unhealthy food production process and invest in sustainable practices. Interestingly, there emerged a theme about prices, which is more of a suggestion that sustainable product prices should be kept lower because organic products prices are higher which discourages the consumers from buying them. Thus, the government control of reducing non-sustainable choices in favor of sustainable items would also include a reduction in the prices of sustainable items. Another theme evident along similar lines is that government should legislate and regulate the prices and patterns in the food industry. Such legislature of monitoring would enable the consumers to have healthy food choices while the producers would also develop healthy food processing and production practices. Interestingly, some of the participants stated that all unnatural foods should be removed from the shelves and replaced with whole natural food. If there were no such choice of selection between natural and unnatural existing and only natural food were on shelves, the consumers would automatically develop a sustainable consumption pattern.

The participants advocating sustainable food choices stated that obesity is a big problem, thus retailers should be urged to produce more healthy items to promote sustainable consumption patterns and behaviors. Another reasoning that emerged from the supportive group in the study is that healthy food is good for consumers, so, therefore, even if it is forced, it is for the benefit of the consumers.

Interestingly, some respondents stated that it is the obligation of the government to impose sustainable practices. They should play an active role in the process. Lastly, the argument also emerged that switching to sustainable consumption is essential because artificial methods of grown goods (inorganic food) are harmful to humans as well as the environment. Thus, there should be sustainable consumption practices, and it should be strictly imposed on all stakeholders for the betterment of societies and communities. The work of Mauri et al. [56] revealed that in the UK, the government has now included calories in restaurant menus. The study also revealed through the experiment that sugar is indeed not sustainable [56]. Hence, there are traces in recent times that efforts are made to create consumer awareness about their consumption patterns and unhealthy choices.

Although, in the present study, the disagreement ratio is higher than the agreed, there are traces for the sustainable producers too because over 40% agreed, which means that there is still optimism about the prevalence of sustainable items on shelves. It is possible that mainstream supermarkets can play a pivotal role in the promotion and growth of the sustainable food market.

The extracted themes of those supporting the work of Anselmsson and Johansson [5] have also underscored the efforts by food marketing managers to draw consumers' attention to sustainable products through creative merchandising. Yet, recent research shows consumers do not purchase ample amounts of sustainable food products to substantially support the attainment of sustainable development goals in the medium to long term [6,7]. Sustainable food products in the context of this paper refer to products that contribute to a single or a combination of economic, ecological, or social dimension(s) by virtue of their attributes or consequence [8,9].

The thematic analysis revealed that the change intervention has gradually reduced the pace of growth in the food industry, but the rate of consumer awareness is retained at a sustainable rate. Thus, this study partially supports the work of previous studies including [3,4,6,7]. Interestingly, our findings revealed that sustainable food products are viewed as ineffective in the short term while the market share of sustainable good items remains substantially low. Therefore, the present findings to a larger extent support the previous findings [7,32] whereas they reflect the concept of attitude-behavior gap [23–25] and the concept of green nudges [11,26–31].

5. Conclusions

The conclusion is drawn from the findings of current research that a major shift toward sustainability requires an entire institutional change in relation to the consumers' rationale behind votes for or against choice editing, specifically reduction in the food choices in favor of sustainable consumption. The majority of the consumers revealed that they disagree with the idea that government should be allowed to impose the selection choices. There is less willingness to give up on the product preferences in order to encourage and develop sustainable consumption patterns. The clear division between disagreed and agreed consumers enables the research to explore the reasons behind their choices for and against sustainable consumption. Those who disagreed that government should be allowed to force

sustainable consumption and reduce the consumers' preferred items stated various reasons; however, the most common that emerged is such force is against freedom of choice. This reflects that consumers have the right to choose for themselves, irrespective of the fact that the selection might not be sustainable. Other themes driven by the disagreement include: the responsibility and ultimate decision lie with what the individual prefers. Instead of forcing the decision on the consumer, the burden of sustainability should be upon the producers. They should be forced rather than the consumers. Interestingly, the theme also emerged that, before forcing a choice, there is a need for education about the importance of sustainable consumption. The opinion also emerged that power is and should be with the consumers. Ultimately, the argument is that if the consumer is spending money, then it is their right to buy what they like. Another interesting thought also occurred that consumers who do not develop sustainable consumption behavior should make denations to health

who do not develop sustainable consumption behavior should make donations to health organizations for such acts while others thought that it is the government's responsibility, thus, they should fund the production of sustainable foods. Perhaps it will make it less expensive and easier for consumers to buy. The last theme that emerged was that the competition in the market will shrink because only sustainable items would be available. There should be a wide range to keep the competition, which ultimately benefits the consumers and producers.

On the other hand, those in favor of the government imposing sustainable practices by force stated their various reasons. The most widely stated theme was that the food industry has been renowned for being notorious for selling unhealthy food, thus, sustainable consumption should be imposed to eradicate unhealthy food selling practices. The food processors and producers must be bound to produce healthy and sustainable items. Moreover, the prices should be kept reasonable so that consumers can afford to buy organic products. A strong reason for avoiding organic food also is that it is expensive in comparison to inorganic products. Governments should play a key role in controlling production and consumption patterns by ensuring there are only organic items on shelves ensuring that the prices are monitored and legislating and regulating the production process. This would encourage healthy and sustainable food production and consumption patterns and behaviors. Moreover, there is also the suggestion that there should only be whole natural food production and promotion in the market. Government and producers should work together to ensure that only organic choices are available on shelves by discarding inorganic and unhealthy food items.

Obesity is a critical issue and unhealthy food is the main reason behind the increasing obesity problem. Retailers should be encouraged to produce sustainable items to control the issue of obesity. There are no harms in organic food, but there is an extremely adverse impact of inorganic (unhealthy) food on both humans and the environment. Thus, the government should legislate, regulate, and control the adverse impact by intervening in the process. Such intervention would promote sustainable consumption behavior and sustainable production practices and would contribute towards healthy communities. Neuromarketing (NM) application could be valuable; neuroimaging and physiological tools such as emotions, decision-making, attention, and memory towards brands and advertisements [57] should be frequently used by the producers to correlate the consumer's behavior. Thus, the use of innovation and technology would further help in understanding the consumer's psychology. Moreover, the use of eye-tracking and electroencephalogram (EEG) are other effective marketing innovations [58,59] that could help in improving the understanding of consumer psychology.

We also conclude that change interventions have been gradually reducing the growth pace of the industry. There have been traces of more consumer awareness, encouraging sustainable practices, yet most consumers are still not being fully educated about the benefits of organic items and the adverse impact of unhealthy food, resulting in higher opposition to the sustainable consumption pattern.

6. Implications

We encourage that there should be inclusive policies for sustainable consumption that would enable consumers to engage in sustainable food practices and gradually democratize sustainability to ensure mutual benefits for business, consumers, and society. Inorganic and unhealthy food has a huge adverse impact on public health and nutrition status. Thus, we propose that government should intervene by making it mandatory to consume and produce sustainable items at a reasonable rate. However, before that, it is essential that government start educating people about the benefits of sustainable consumption practices. There has been a vast majority opposing the idea of sustainable practices, but the consumers' ethics in such regard could only be questioned if they were properly informed about the adverse impact of inorganic items.

Furthermore, the food processing industry should be accountable for its practices and production. They should be legislated and controlled by imposing restrictions on production methods. They should be encouraged with rebates for producing sustainable items. The government should not only replace the inorganic items with organic items on shelves but also control the prices so that consumers can afford them too. Neuromarketing (NM), eye tracking, and electroencephalogram (EEG) are some of the effective innovations that could create better awareness about consumer psychology and thus should be incorporated during the production and processing of sustainable items.

There is a need to revisit the consumer policy toward sustainable food production and consumption practices. The psychology of the majority of consumers remains focused on pricing, thus the items should be available to consumers at affordable prices.

7. Research Limitations and Future Directions

Despite the best effort to produce comprehensive results, there is always room for improvement. One of the constraints of the present study is over-emphasis on the qualitative findings, which subsequently led to ignoring quantitative findings. The idea was to attain useful truth rather than factual truth. Hence, the numeric expression of the relationship is ignored. It would be good to use follow-up quantitative findings in future studies because it would make the methodology more robust. The useful truth would be backed by factual truth. Therefore, future studies shall incorporate the follow-up quantitative methods to further robust the methodology.

The present model examined the qualitative perspective; however, the model does not include in-depth discussion with the experts. Therefore, future studies shall consider the model of research with experts' views in this regard. The current model opens the way to understand consumer psychology, while future studies should include in their model the role of information technology to attain whether more a comprehensive understanding and education of the consumers would lead to sustainable consumption patterns.

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References

- 1. Aertsens, J.; Verbeke, W.; Mondelaers, K.; van Huylenbroeck, G. Personal determinants of organic food consumption: A review. *Br. Food J.* **2009**, *111*, 1140–1167. [CrossRef]
- Buder, F.; Feldmann, C.; Hamm, U. Why regular buyers of organic food still buy many conventional products: Product-specific purchase barriers for organic food consumers. *Br. Food J.* 2014, 116, 390–404. [CrossRef]
- Chkanikova, O.; Mont, O. Corporate supply chain responsibility: Drivers and barriers for sustainable food retailing. *Corp. Soc. Responsib. Environ. Manag.* 2015, 22, 65–82. [CrossRef]
- 4. Grimmer, M.; Kilburn, A.P.; Miles, M.P. The effect of purchase situation on realized pro-environmental consumer behavior. *J. Bus. Res.* **2016**, *69*, 1582–1586. [CrossRef]
- Anselmsson, J.; Johansson, U. Corporate social responsibility and the positioning of grocery brands: An exploratory study of retailer and manufacturer brands at point of purchase. *Int. J. Retail. Distrib. Manag.* 2007, 35, 835–856. [CrossRef]
- Kristensson, P.; Wästlund, E.; Söderlund, M. Influencing consumers to choose environment friendly offerings: Evidence from field experiments. J. Bus. Res. 2007, 76, 89–97. [CrossRef]
- Yamoah, F.A.; Acquaye, A. Unravelling the attitude-behaviour gap paradox for sustainable food consumption: Insight from the UK apple market. J. Clean. Prod. 2019, 217, 172–184. [CrossRef]
- 8. Reheul, D.; Mathijs, E.; Relaes, J. Elements for a future view with respect to sustainable agri-and horticulture in Flanders. *Rep. Proj. Sustain. Agric.* 2001.
- 9. Vermier, I.; Verbeke, W. Sustainable food consumption: Exploring the consumer "attitude-Behavioral Intention" Gap. J. Agric. Environ. Ethics 2006, 19, 169–194. [CrossRef]
- 10. Reisch, L.; Eberle, U.; Lorek, S. Sustainable food consumption: An overview of contemporary issues and policies. *Sustain. Sci. Pract. Policy* **2013**, *9*, 7–25. [CrossRef]
- 11. Schubert, C. Exploring the (behavioural) political economy of nudging. J. Inst. Econ. 2017, 13, 499–522. [CrossRef]
- 12. Codron, J.M.; Sirieix, L.; Reardon, T. Social and environmental attributes of food products in an emerging mass market: Challenges of signaling and consumer perception, with European illustrations. *Agric. Hum. Values* **2005**, 23, 283–297. [CrossRef]
- Grunert, K.G.; Scholderer, J.; Rogeaux, M. Determinants of consumer understanding of health claims. *Appetite* 2011, 56, 269–277. [CrossRef]
- Haque, A.U.; Yamoah, F.; Sroka, W. Willingness to Reduce Food Choice in Favour of Sustainable Alternatives: The Role of Government and Consumer Behaviour. In *Perspectives on Consumer Behaviour*; Sroka, W., Ed.; Springer: Berlin/Heidelberg, Germany, 2020; Chapter 3.
- 15. Sidali, K.L.; Spiller, A.; von Meyer-Höfer, M. Consumer expectations regarding sustainable food: Insights from developed and emerging markets. *Int. Food Agribus. Manag. Rev.* 2016, 19, 141–170. [CrossRef]
- 16. Dosi, C.; Moretto, M. Is ecolabelling a reliable environmental policy measure? Environ. Resour. Econ. 2001, 18, 113–127. [CrossRef]
- 17. McEachern, M.G.; McClean, P. Organic purchasing motivation and attitudes: Are they ethical. *Int. J. Consum. Stud.* **2002**, *26*, 85–92. [CrossRef]
- Carlson, L.; Grove, S.; Kangun, N.; Polonsky, M.J. An international comparison of environmental advertising: Substantive vs. associative claims. J. Macromark. 1996, 16, 57–68. [CrossRef]
- 19. Morris, L.A.; Hastak, M.; Mazis, M.B. Consumer comprehension of environmental advertising and labelling claims. *J. Consum. Aff.* **1995**, *29*, 328–350. [CrossRef]
- 20. Johnston, P.; Everard, M.; Santillo, D.; Robèrt, H. Reclaiming the definition of sustainability. *Environ. Sci. Pollut. Res.* 2007, 14, 60–66. [CrossRef]
- 21. Caswell, J.A.; Padberg, D.I. Toward a more comprehensive theory of food labels. Am. J. Agric. Econ. 1992, 74, 460–468. [CrossRef]
- 22. Jahn, G.; Schramm, M.; Spiller, A. The reliability of certification: Quality labels as a consumer policy tool. *J. Consum. Policy* 2005, 28, 53–73. [CrossRef]
- 23. Jacobs, K.; Petersen, L.; Hörisch, J.; Battenfeld, D. Green thinking but thoughtless buying? An empirical extension of the value-attitude-behaviour hierarchy in sustainable clothing. *J. Clean. Prod.* **2018**, 203, 1155–1169. [CrossRef]
- Cotton, D.; Shiel, C.; Paço, A. Energy saving on campus: A comparison of students' attitudes and reported behaviours in the UK and Portugal. J. Clean. Prod. 2016, 129, 586–595. [CrossRef]
- 25. Terlau, W.; Hirsch, D. Sustainable consumption and the attitude-behaviour-gap phenomenon-causes and measurements towards a sustainable development. *Int. J. Food Syst. Dyn.* **2015**, *6*, 159–174.
- 26. Lehner, M.; Mont, O.; Heiskanen, E. Nudging—A promising tool for sustainable consumption behaviour? J. Clean. Prod. 2016, 134, 166–177. [CrossRef]
- Bucher, T.; Collins, C.; Rollo, M.E.; McCaffrey, T.A.; De Vlieger, N.; Van der Bend, D.; Truby, H.; Perez-Cueto, F.J. Nudging consumers towards healthier choices: A systematic review of positional influences on food choice. *Br. J. Nutr.* 2016, 115, 2252–2263. [CrossRef] [PubMed]
- Gunn, M.; Mont, O. Choice editing as a retailers' tool for sustainable consumption. *Int. J. Retail. Distrib. Manag.* 2014, 42, 464–481. [CrossRef]
- 29. Wilson, A.L.; Buckley, E.; Buckley, J.D.; Bogomolova, S. Nudging healthier food and beverage choices through salience and priming. Evidence from a systematic review. *Food Qual. Prefer.* **2016**, *51*, 47–64. [CrossRef]

- 30. Bruns, H.; Kantorowicz-Reznichenko, E.; Klement, K.; Jonsson, M.L.; Rahali, B. Can nudges be transparent and yet effective? *J. Econ. Psychol.* **2018**, *65*, 41–59. [CrossRef]
- 31. Roberto, C.A.; Pomeranz, J.L.; Fisher, J.O. The need for public policies to promote healthier food consumption: A comment on Wansink and Chandon (2014). *J. Consum. Psychol.* **2014**, *24*, 438–445. [CrossRef]
- 32. Madichie, N.O.; Yamoah, F.A. Revisiting the European horsemeat scandal: The role of power asymmetry in the food supply chain crisis. *Thunderbird Int. Bus. Rev.* 2017, 59, 663–675. [CrossRef]
- 33. von Meyer-Höfer, M.; Olea Jaink, E.; Padilla-Bravo, C.; Spiller, A. Mature and emerging organic markets: Modelling consumer attitude and behaviour with partial least square approach. J. Food Prod. Mark. 2015, 21, 626–653. [CrossRef]
- BBMG; GlobeScan; SustainAbility. Re: Thinking Consumption Consumers and the Future of Sustainability. The Regeneration Roadmap. 2012. Available online: http://www.globescan.com/component/edocman/?view=category&id=1&Itemid=591 (accessed on 18 October 2019).
- National Geographic & GlobeScan. Greendex Report. Consumer Choice and the Environment—A Worldwide Tracking Survey. 2012. Available online: https://environment.nationalgeographic.com/environment/greendex/2012-survey (accessed on 20 October 2019).
- Craig, C.S.; Douglas, S.P. Beyond national culture: Implications of cultural dynamics for consumer research. *Int. Mark. Rev.* 2006, 23, 332–342. [CrossRef]
- 37. Court, D.; Narasimhan, L. Capturing the world's emerging middle class. McKinsey Q. 2010, 3, 12–17.
- Douglas, S.P.; Craig, C.S. Convergence and divergence: Developing a semiglobal marketing strategy. J. Int. Mark. 2011, 19, 82–101. [CrossRef]
- 39. Miller, T. Global segments from "Strivers" to "Creatives". Mark. News 1998, 32, 11-12.
- 40. Shermach, K. Portrait of the world. *Mark. News* 1995, 29, 20.
- 41. Honkanen, P.; Olsen, S.O. Environmental and animal welfare issues in food choice: The case of farmed fish. *Br. Food J.* **2009**, *111*, 293–309. [CrossRef]
- 42. Loureiro, M.L.; McCluskey, J.J.; Mittelhammer, R.C. Assessing consumer preferences for organic, eco-labeled, and regular apples. *J. Agric. Resour. Econ.* **2001**, *26*, 404–416.
- 43. Roberts, J.A. Green consumers in the 1990s: Profile and Implications for Advertising. J. Bus. Res. 1996, 36, 217–231. [CrossRef]
- 44. Adams, M.; Raisborough, J. Making a difference: Ethical consumption and the every day. Br. J. Sociol. 2010, 61, 256–274. [CrossRef]
- 45. McCluskey, J.J.; Durham, C.A.; Horn, B.P. Consumer preferences for socially responsible production attributes across food products. *Agric. Resour. Econ. Rev.* **2009**, *38*, 345–356. [CrossRef]
- 46. Lagerkvist, C.J.; Hess, S. A meta-analysis of consumer willingness to pay for farm animal welfare. *Eur. Rev. Agric. Econ.* **2011**, *38*, 55–78. [CrossRef]
- Sidali, K.L.; Hemmerling, S. Developing an authenticity model of traditional food specialties: Does the self-concept of consumers matter? *Br. Food J.* 2014, *116*, 1692–1709. [CrossRef]
- 48. Sirieix, L.; Kledal, P.; Sulitang, T. Organic food consumers' trade-offs between local or imported, conventional or organic products: A qualitative study in Shanghai. *Int. J. Consum. Stud.* **2011**, *35*, 670–678. [CrossRef]
- Faizan, R.; Haque, A.U.; Cockrill, A.; Aston, J. Females at Strategic Level affecting Logistics Firms' Competitiveness: Qualitative Comparative Analysis. *Forum Sci. Oeconomia* 2019, 7, 57–71.
- 50. Haque, A.U.; Basuki, B.; Aston, J.; Widyanti, R. Do Different Stressors Affect Working Efficiency of Public University Personnel Differently? *Pol. J. Manag. Stud.* 2021, 23, 172–187. [CrossRef]
- 51. Haque, A.U.; Aston, J.; Kozlovski, E. The impact of stressors on organisational commitment of managerial and non-managerial personnel in contrasting economies: Evidences from Canada and Pakistan. *Int. J. Bus.* **2018**, *23*, 152–168.
- 52. Haque, A.U.; Oino, I. Managerial Challenges for Software Houses related to Work, Worker and Workplace: Stress Reduction and Sustenance of Human Capital. *Pol. J. Manag. Stud.* **2019**, *19*, 170–189. [CrossRef]
- 53. Armstrong, J.S.; Overton, T.S. Estimating nonresponse bias in mail surveys. J. Mark. Res. 1977, 14, 396–402. [CrossRef]
- Haque, A.U. Varying Occupational Stress and Organisational Commitment within the University Staff of Contrasting Economies (Cross-Sectional Comparative Study of Middle Range Public Universities in Pakistan and the UK). Ph.D. Thesis, University of Wales Trinity Saint David, Lampeter, UK, 2020. Available online: https://repository.uwtsd.ac.uk/id/eprint/1570/ (accessed on 29 July 2022).
- 55. Haque, A.U.; Yamoah, F.A. The Role of Ethical Leadership in Managing Occupational Stress to Promote Innovative Work Behaviour: A Cross-Cultural Management Perspective. *Sustainability* **2021**, *13*, 9608. [CrossRef]
- 56. Mauri, C.; Grazzini, L.; Ulqinaku, A.; Poletti, E. The effect of front-of-package nutrition labels on the choice of low sugar products. *Psychol. Mark.* **2001**, *38*, 1323–1339. [CrossRef]
- 57. Alsharif, A.H.; Md Salleh, N.Z.; Baharun, R.; Alharthi, R.H. Neuromarketing research in the last five years: A bibliometric analysis. *Cogent Bus. Manag.* 2021, *8*, 1978620. [CrossRef]
- Khushaba, R.N.; Wise, C.; Kodagoda, S.; Louviere, J.; Kahn, B.E.; Townsend, C. Consumer neuroscience: Assessing the brain response to marketing stimuli using electroencephalogram (EEG) and eye tracking. *Expert Syst. Appl.* 2013, 40, 3802–3812. [CrossRef]
- Alsharif, A.H.; Md Salleh, N.Z.; Baharun, R. Neuromarketing: Marketing research in the new millennium. *Neurosci. Res. Notes* 2021, 4, 27–35. [CrossRef]