

The Effect of Digital Communication on Health-Oriented Purchases of Sustainable Grocery Products: An SOR Theory Approach

Dhruv Gupta¹, Diksha Dubey², Nimmi Agarwal³, Bibek Kumar Rajak⁴

¹, Research Scholar, School of Business Studies, Sharda University, Greater Noida, UP, India
(Dhruvguptarke@gmail.com) <https://orcid.org/0009-0009-7762-2688>

², Research Scholar, School of Business Studies, Sharda University, Greater Noida, UP, India
(dikshadubey0402@gmail.com) <https://orcid.org/0009-0009-5752-6349>

³, Associate Professor, School of Business Studies, Sharda University, Greater Noida, UP, India
(nimmi.agarwal@sharda.ac.in)

⁴, Associate Professor, Department of Economics, Dyal Singh College, University Of Delhi, India
(bkrajak@dsc.du.ac.in)

Cite this paper as: Dhruv Gupta, Diksha Dubey, Nimmi Agarwal, Bibek Kumar Rajak (2024) The Effect of Digital Communication on Health-Oriented Purchases of Sustainable Grocery Products: An SOR Theory Approach. *Frontiers in Health Informatics*, 13 (3), 5828-5841

ABSTRACT

The use of digital communication plays an essential part in advancing sustainability and involving a various stakeholders. However, effective methods for determining customers' behavioural intention towards sustainable food information are still being researched. In the stimulus–organism–response model, we examine the significance of marketing communication methods for sustainable food on behavioural intentions. Using research on marketing communication, sustainable food values and hedonic and utilitarian attitude information, we investigated effect on behavioural intention. Analyzing using the Pls SEM 385 responses from Delhi NCR, consumers of sustainable dairy products, we found that hedonic attitudes, significantly influence behavioural intention. Marketing communication channel for and utilitarian attitude also effect behavioural intention. Future research could explore various communication channel and include other sustainable food products.

Keywords: Sustainable food, Purchase Intention, Digital Communication, Hedonic attitude, Utilitarian attitude, SOR.

JEL Classification- M31, Q01, D12, L66

INTRODUCTION

There are more problems in the world than ever before, and most of them are human-made. We are facing big problems with world survival right now, and the food system is a big one. Bandyopadhyay et al. (2017) say that up to 30% greenhouse gas emission come from food and farming sectors. Factors influencing food choices have expanded beyond experience and nutritional value to include environmental factors. Both United Nations and Food and Agriculture Organisation they have recently advocated a shift towards a food system that is both healthier and more sustainable. This topic is now gaining more attention from both the governments, non-governmental organisations, and also food industry (Garnett, Mathewson, Angelides, & Borthwick, 2015; UNEP, 2010; FAO, 2010). As consumers become more aware of sustainable products, they want and need more

information about them. Many companies have started to promote this information through pamphlets, social media, posters, and other means. As we can't scroll through social media on our phone without seeing our followers pictures and videos of various types, or posts from different pages that may be follow or been shown as a suggestion by the AI, people may not believe or understand the huge amount of knowledge that is offered through these mass media. So, when they need help with anything, they turn to online groups and shopper groups. It's interesting to think about how seeing different things online changes the way people buy or shop for different things. Some research (Hawkins et al., 2020) suggests that what people think about what they actually eat and drink could be affected by what they see on social media. Milk products is one of such product which has recently been advertise on social media a lot like the cheese production and its consumption in various ways as, India is the biggest milk producer in the world. It makes up 21% of the world's milk production and uses more than 80 million rural families, most of which are small farms and people without land. (Fisheries, Animal Husbandry, and Dairying Ministry, 2022). Few dairy farm companies, like Whyte Farms, Mr. Dairy, ADRA Organiks, and Shuddham Gaushaala, market their products through both controllable and uncontrollable sources of communication. Most of what they say in their ads is that their products are sustainable and the way they make them is good for the environment, in order to make consumers aware and attract them. Sustainable food consumption is at the centre of academic discussions about the food system, and the politically active customer is seen as a key driver of change toward a more sustainable food system (Spaargaren, 2011). In the last few years, more and more studies have been done that use digital methods to change people's behavior to make it more environmentally friendly. Among these treatments are "nudging," "persuasive technology," "visualization," "gamification," and "eco-feedback", (Comber et al., 2013) (Farr et al., 2014).

Eco-friendly foods have a good reputation, so people often think of them as healthy and good for the earth. They are made with natural ingredients and are safe and free of contamination (Lee and Yun, 2015; Sultan et al., 2018, 2020). So, perceived value like healthiness and the natural environment is a big reason why people buy sustainable foods. However, this study finds that there isn't enough data on how health and environmental values, opinions, and behaviors change because of sustainable foods. Also, a few studies (Tandon et al., 2020; Sultan et al., 2020) found advertising messages and related campaigns could change how customers act. However, the current study doesn't name the marketing communication sources and how those affect how people who buy sustainable food act. In this situation, there is also not a lot of research done with Indian customers. Our aim is to find how communication affect customers' intention in the context of the stimulus-organism-response (S-O-R) framework, we will also find the direct and indirect effects of marketing communication and sustainable food value. This is how the paper is put together. The next part is a review of the literature, which talks about the theory and some related empirical findings on sustainable food consumption. This is trailed by sections on the description of the construct and the hypothesis, the methodology used, results of various outputs, discussion and conclusion, managerial implication and in last limitation and future research.

LITERATURE

Stimulus-Organism-Response Theory

Mehrabian and Russell's theory from 1974 says that external Stimuli drive the state of the internal organism, which in turn triggers a behavioral response from the users. Lee et al. (2011) found that an individual's mental state moderates the effect of an input on their behaviour. (Su et al., 2020) say that SOR provides a strong and simple way to explain how people's thoughts and feelings about external events affect the actions that they then show. In order to exhibit the organism, current studies looked at cognitive and affective factors, hedonic and

utilitarian attitudes, and intention, choice, and preference when it came to reflecting responses. But the current study finds that there isn't enough research on how the different marketing communication sources of sustainable foods and the values of sustainable foods affect how customers plan to act. Following what other studies (Kim et al., 2019; Gregory et al., 2002) have said (Kim et al., 2019; Gregory et al., 2002), the present study describes an organism as having mental satisfaction, physical experience, functional usefulness, and success.

Marketing Communication And Hedonic Attitude

Marketing communication sources includes both controlled and uncontrolled communications that help shape the client and keep in touch with them over time (Emilija et al., 2023). In addition, Perreault (2015) shows that people get information about products from many places, such as TV, in-store ads, box labels, the Internet, and sales promos. Selective marketing communication channels, like local stores, local newspapers, and outdoor ads, as well as uncontrollable sources, like online blogs, comments, and food article or magazines, has a big impact on how people think about marketing communications for sustainable foods (P Sultan et al., 2021). For measuring the two different communication have taken both as one variable. Further Lee and Yun (2015) say that a hedonic attitude is a mental satisfaction and physical experience. Physical experience goes with how things look, feel, and taste are one of the most important things to think about when buying food is how it will make you feel, such as pleasure, happiness, or enjoyment. There is no actual link between marketing communication and a hedonic mindset in the research on sustainable food usage. Marketing communications for food-related efforts use the delicious smell and beautiful look of food items to appeal to the senses and encourage customers to feel good emotions and have good physical experiences, such as pleasure and happiness. Which is why:

H1. Marketing communication for sustainable food exerts a positive and significant effect on hedonic attitude.

Marketing Communication And Utilitarian Attitude

Utilitarian means seeing a product's instrumental or functional utility, like its quality, performance features, and other qualities that help people reach their own personal goals (Gregory et al., 2002). A utilitarian attitude shows how people think about a product and how useful or important they think it is (Lee and Yun, 2015). Because of this, the practical view is often based on experience. People think that sustainable foods are better for them and they judge a product by the information sources that are available (Lee and Yun, 2015) (Lu and Chi, 2018). They also look for different product related insights such as in food magazines, ads, and other places. This gives customers a better idea of what to expect from the goods. So, marketing materials for sustainable food have a big impact on how people understand data that isn't clear-cut about sustainable food items. Adequate marketing messages from a variety of reliable sources help people learn faster about sustainable foods, how they are grown and processed, their qualities, and their characteristics. which gives us:

H2. Marketing communication for sustainable food exerts a positive and significant effect on utilitarian attitude.

Marketing Communication And Behavioural Intention

Numerous studies support the positive impact of marketing communication on behavioral intentions. For instance, Brown (2017) and Davis (2017) found that well-crafted marketing messages significantly increased consumers' intention to purchase. Additionally, a meta-analysis by Johnson et al. (2019) concluded that effective

marketing communication positively correlates with favorable behavioral intentions across diverse industries.

H3. Marketing communication for sustainable food exerts a positive and significant effect on behavioural intention.

Sustainable Food Value, Hedonic Attitude, And Utilitarian Attitude

People's ideas about the value of sustainable food are fairly uniform and probably won't change because of marketing messages, as Individual have a different values which includes health, happiness, longevity, and satisfaction, whereas family values included family health and well-being; and in case of societal values it included the environment, animal rights, and welfare (Thøgersen et al., 2015; Jensen et al., 2019). So, research has shown that perceived worth comes before a person's intention to buy (Makatouni, 2002). In sustainable food studies, it's not always clear what the link is between perceived value and attitude. Some of the studies says that the positive links between beliefs and values that support the desire to buy sustainable food (Thøgersen et al., 2015). This means that the current research is not readily apparent. Other studies, like Chen et al. (2007), did not find such a link. Consumers perceived food values that prioritize good health and demonstrate environmental consciousness. These values make consumers feel good about buying sustainable food. However, there isn't enough proof in the present literature to show a link between how people feel about sustainable food, their hedonic attitudes, and their practical attitudes. People who buy sustainable food usually do so for health and environmental reasons. It makes them feel good and brings pleasure while helping them reach their goals. Which gives us:

H4. Sustainable food value has a positive and significant effect on hedonic attitude.

H5. Sustainable food value has a positive and significant effect on utilitarian attitude.

Sustainable Food Value And Behavioural Intention

Due to environment concerns customers are prepared to pay a high costs on sustainable environmental friendly food products. This finding is supported by Henri and Turner (1986) in there theory of social identity. Any steps or initiative taken by the company in a sustainable form are been highly appreciated by those individuals who are into saving the environment and this leads them to pay more for such products (T. J. Brown & P. A. Dacin, 1997). In U.S restaurants it was found that the customer who care about the environment are willing to pay at least ten percent more where green practices are more used (Dutta et al., 2008) However, Carrigan & Attalla (2001) found that the majority of consumers do not take ethical initiatives into account when making purchasing decisions. Which gives us:

H6. Sustainable food value has a positive and significant effect on behavioural intention

Hedonic Attitude, Utilitarian Attitude, And Behavioural Intention

Behavioural intentions shows whether a customer plans to stick with a company or brand or actually leave it, which means that customers can act in of the way, which can include both good or bad changes in their thoughts and actions (Sultan and Wong, 2012). People who buy sustainable food often plan to act based on other people's advice, good word of mouth, a promise to buy again, spending more, and the willingness to pay more if necessary. Several research works have shown that attitude and behavior purpose are linked (Asif et al., 2018; Sultan et al., 2020). Ajzen (1991) says that TPB describes attitude as how a customer feels about a topic, whether they like it or not. So, a person's mood often decides whether they will act in a certain way or not (Scalco et al., 2017). Furthermore, research has indicated that positive attitude helps in formation of intention towards purchase, which is closely linked to purchase of sustainable products (Dubey et al., 2024). When it

comes to SOR theory attitude hasn't gotten enough attention in the current literature, especially when it comes to how it affects people's buying plans. Which gives us:

H7. Hedonic attitude has a positive and significant effect on behavioural intention.

H8. Utilitarian attitude has a positive and significant effect on behavioural intention.

Mediating Effect

Regulatory fit sustained theory says when a person's goal like wanting pleasure, being happy, or being healthy and the way they can reach that goal like healthy food or health information, they feel confident in those ways, which may make them more likely to behave in a good way (Sweetin et al., 2013). People who buy sustainable food look for more information from a variety of sources and carefully consider the values of sustainable food to meet their hedonic and utilitarian goals for a regulatory fit. This is shown by their behavior intentions. Getting specific feelings from consumers might help explain their buying plans more especially when those emotions come from certain types of triggers (Michaelidou and Hassan, 2014), Which gives us:

H9. Hedonic attitude has a positive and significant mediating effect between marketing communication for sustainable food and behavioural intention.

H10. Hedonic attitude has a positive and significant mediating effect between sustainable food values and behavioural intention.

H11. Utilitarian attitude has a positive and significant mediating effect between marketing communication for sustainable food and behavioural intention.

H12. Utilitarian attitude has a positive and significant mediating effect between sustainable food values and behavioural intention.

The proposed model is shown in figure one, as per the theoretical foundation and research hypotheses mentioned earlier. Market communication sources and sustainable food value are part of the stimuli, while hedonic attitude and utilitarian attitude fall under organism, and behaviour intention represents the response.

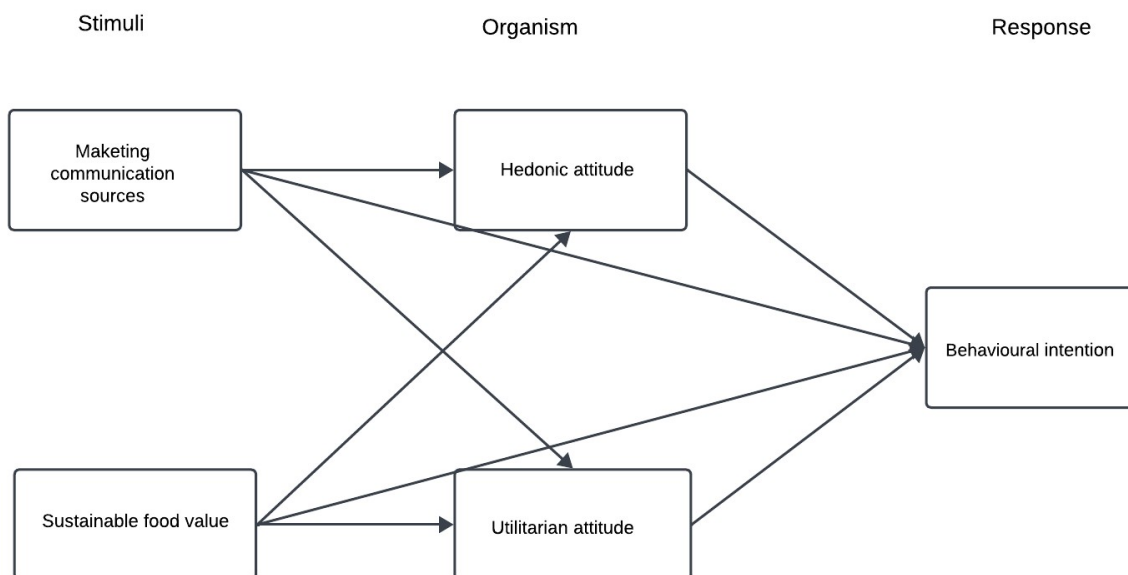


Figure 1. Research model.

METHODOLOGY

The items in the questionnaires were measured on a 7-point Likert scale, ranging from 1 (Strongly disagree) to 7 (Strongly agree). The completed version of the questionnaire was sent to 500 individuals via an online platform. Out of the 500 questionnaires, we were left with 385 questionnaires for data analysis. The data was collected by from Delhi (India). The researcher utilised PLS-SEM to analyse the data.

RESULTS

The data was analysed using Partial Least Square (PLS) version 4 to investigate the influence of mediating variables. At the start of the analysis, the researcher utilised SPSS 25 to examine the demographics of the study. Below is Table 1, which displays the demographic profile of the respondents. The majority of the respondents were male, with 57.9%, while the remaining 41.1% were women. A majority of the respondents were not-married, with just under half of the respondents being married. A significant majority of the respondents have completed their undergraduate studies, comprising 42% of the total.

Table 1 Respondent profile

Marital Status		
	Frequency	Percent
MARRIED	190	49.4
SINGLE	195	50.6
Age		
20-29	207	53.8
30-39	20	5.2
40-49	96	24.9
50-59	62	16.1
Education		
GRADUATE	165	42.9
HIGH SCHOOL	84	21.8
INTERMEDIATE	50	13
OTHERS	16	4.2
PG	70	18.2
Gender		
FEMALE	162	42.1
MALE	223	57.9

Reliability and convergent validity are assessed as part of the first step of the measurement model. Convergent validity was assessed by evaluating the average variance extracted and factor loading. According to the criteria set forth by the researchers, achieving convergent validity requires that each item in the study has a factor loading greater than 0.70. In addition, Hair et al. (2017) highlighted the importance of selecting items for the study that have a loading of more than 0.708, as indicated in Table 2. Currently Given that all factor loadings exceed 0.70 (with the exception of a few that are close to 0.70), they are considered acceptable according to Hulland's (1999) indicator reliability criteria.

Table 2. Factor loading

Factor	Outer loadings
BI 1 <- BI	0.885
BI 2 <- BI	0.891
CO 1 <- MCS	0.683
CO 2 <- MCS	0.776
CO 3 <- MCS	0.889
HA 1 <- HA	0.729
HA 2 <- HA	0.901
HA 3 <- HA	0.853
HA 4 <- HA	0.821
HA 5 <- HA	0.748
HA 6 <- HA	0.837
HA 7 <- HA	0.739
SFV 1 <- SFV	0.911
SFV 2 <- SFV	0.821
SFV 3 <- SFV	0.814
UA 1 <- UA	0.728
UA 2 <- UA	0.804
UA 3 <- UA	0.784
UA 4 <- UA	0.747
UA 5 <- UA	0.773
UA 6 <- UA	0.842
UNCO 1 <- MCS	0.794
UNCO 2 <- MCS	0.795
UNCO 3 <- MCS	0.692

According to Hair et al. (2012), it is important for the AVE value to be 0.5 or higher in order to establish convergent validity. Based on the data presented in table 3, it can be observed that the values of AVE exceed 0.5. Below Figure 2 displays the outcome of the model test.

Now we move on to determining the internal consistency of the variables in the study. According to the criteria outlined by George and Mallery (2003), a value of 0.70 is accepted for determining the acceptability of CR and Cronbach Alpha (Table 3). Take a look at Figure 2, which displays the path diagram for a clearer and more comprehensive view of the results.

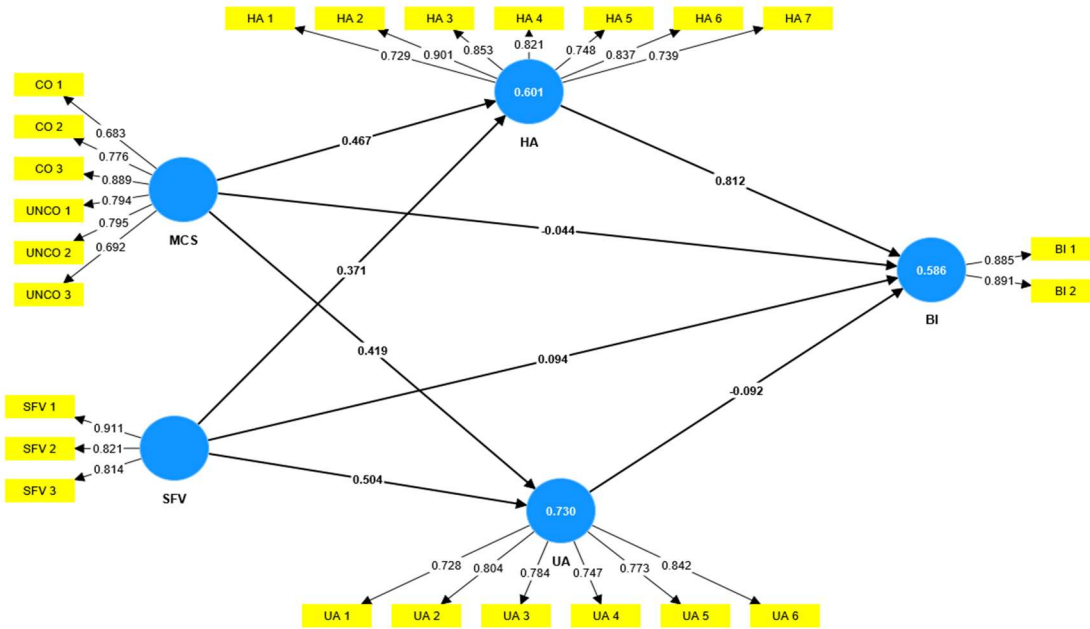


Fig 2. Path diagram

Table 3. Analysis of reliability and validity

	Cronbach's alpha	Composite reliability (rho a)	Composite reliability (rho c)	Average variance extracted (AVE)
Behavior Intension	0.732	0.733	0.882	0.789
Hedonic Attitude	0.909	0.913	0.928	0.650
Marketing Communication Sources	0.865	0.873	0.899	0.600
Sustainable Food Value	0.807	0.821	0.886	0.722
Utilitarian Attitude	0.871	0.872	0.903	0.609

Later, PLS algorithm procedure was utilised to assess HTMT. All the constructs in the study demonstrated discriminant validity, as the values obtained were less than 0.85 (Table 4).

Table 4. Discriminant validity (HTMT Criterion)

	Behaviour Intension	Marketing Communication Sources	Hedonic Attitude	Sustainable Food Value	Utilitarian Attitude
Behaviour Intension					
Marketing Communication Sources	0.686				
Hedonic Attitude	0.809	0.811			
Sustainable Food	0.714	0.824	0.798		

Value					
Utilitarian Attitude	0.849	0.885	0.889	0.896	

Later, hypotheses were tested by interpreting the data using SEM (Structural Equation Modelling) with partial least square (PLS) (Table 5). The support for H1 was strong, as MCS had a positive and significant impact on HA ($t = 11.393, P = 0.000$). The hypothesis H2 is supported as it is found that MCS has a significant effect on UA ($t = 12.149, P = 0.000$). The study found that MCS has a positive and significant impact on BI, providing support for hypothesis H3. The support for H4, H5, and H6 was based on the positive impact of SFV on HA, UA, and BI, respectively ($t = 7.959, P = 0.000$), ($t = 13.177, P = 0.000$), and ($t = 2.101, P = 0.036$). Additionally, hypothesis H7 demonstrated a significant positive effect of HI on BI ($t = 16.393, P = 0.000$). Only one hypothesis, H8, was rejected as the study found that the UA does not have a significant effect on BI ($t = 1.543, P = 0.123$).

Table 5. Path coefficient and hypotheses testing.

Relationship	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values
HA -> BI	0.812	0.812	0.035	23.481	0.000
MCS -> BI	-0.044	-0.043	0.018	2.400	0.016
MCS -> HA	0.467	0.467	0.028	16.745	0.000
MCS -> UA	0.419	0.419	0.024	17.797	0.000
SFV -> BI	0.094	0.093	0.024	3.891	0.000
SFV -> HA	0.371	0.370	0.030	12.422	0.000
SFV -> UA	0.504	0.504	0.025	20.470	0.000
UA -> BI	-0.092	-0.092	0.039	2.362	0.018

Mediation Effect

The results of the four mediational tests are summarised in Table 6. Based on the analysis of 4999 bootstrapping samples, it is evident from the results in table 5 that there is a direct relationship, indicating 'partial mediation' in all the findings. The article discusses the relationship between sustainable food value, marketing communication sources, utilitarian attitude, hedonic values, and behaviour intention. It suggests that there is partial mediation between these factors.

Table 6. Mediation effects

Relationship	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Result
SFV -> UA -> BI	0.794	0.792	0.097	8.192	0.000	Partial Mediation
SFV -> HA -> BI	0.127	0.131	0.066	1.927	0.054	Partial Mediation
MCS -> HA -> BI	0.139	0.136	0.054	2.583	0.010	Partial Mediation
MCS -> UA -> BI	0.379	0.381	0.095	3.997	0.000	Partial Mediation

DISCUSSION AND CONCLUSIONS

The study utilised a questionnaire to measure the effects of utilitarian attitude and hedonic attitude on two types of behaviour intention. Based on the findings, the study draws the following conclusion. Studies have also discovered that consumers have a preference for sustainable foods to include certain information on the product's label, such as nutritional facts and details about the country of origin (Kihlberg et al., 2005). Recent research indicates a strong correlation between marketing communication and purchase intention. Additionally, it reveals that marketing communication has a direct and significant impact on both hedonic and utilitarian attitudes. It was found that consumer are influenced by the information of the product like the production process, ingredients, certificates and other information's (Vermeir and Verbeke, 2004). Therefore, providing information to the consumer through in-store promotion, have shown influence in sustainable food purchases (Sultan et al., 2020). In contrast to the study conducted by Konuk (2019), our research aligns with the findings of Ditlevsen et al. (2019).

Marketing communications have a noticeable impact on behavioural intentions, with both hedonic and utilitarian attitudes playing a role in mediating this effect. This discovery is quite remarkable within the realm of the S-O-R model and the literature on sustainable food consumption. It reveals that relying solely on marketing communications is insufficient to sway behavioural intentions. Instead, it is important to create a well-balanced communication mix that aims to elicit positive evaluations from consumers in terms of their hedonic and their utilitarian attitudes, ultimately leading to behavioural intentions. In contrast, behavioural intentions shows a evidence of partial mediation between sustainable food values and behavioural intentions through hedonic and utilitarian attitudes. This suggests that food values have a direct impact on behavioural intentions. The available research confirms that consumers' purchase intentions are influenced by food values, as shown in previous studies (Aertsens et al., 2009; Makatouni, 2002).

MANAGERIAL IMPLICATION

The insights from this paper can be useful for the companies indulged in sustainable food products. Firstly, it is important to prioritise the genuine needs of consumers when developing sustainable products. The utilitarian value of a sustainable product is primarily centred around its price and authenticity. Price plays a crucial role for consumers, as it provides them with easy access to the product. However, if the price is too high, even interested consumers may be unable to afford the product. In order to achieve optimal cost-efficiency without compromising on quality, a company must focus on screening, coordination, and integration within its supply chain. Our goal is to minimise labour and investor expenses, enabling us to pass on the savings to consumers.

This means that you can enjoy the tangible benefits of our high-quality products at affordable prices. Additionally, it is recommended that marketers thoroughly analyse the communication mix strategies considering variations in gender and location. When it comes to sustainable foods, it is important to carefully design communication channels to effectively convey the health-value messages. These messages can include promoting the health benefits, encouraging a healthy lifestyle, and emphasising the positive impact on overall well-being. When investing in marketing communication channels, it is crucial to carefully plan and structure the approach. Special consideration should be given to influencing consumers' attitudes towards both hedonic aspects, such as feeling good and enjoying spending money on sustainable food, as well as utilitarian aspects, such as ethical production methods, and environmental friendliness. These outcomes can include an increased desire to buy, a stronger commitment to making a purchase, and positive word-of-mouth recommendations. Research indicates that crafting communication messages, channel mixes, and value propositions that are carefully tailored to the preferences of different consumer groups can lead to positive attitudes, intentions, and behaviours. This is particularly relevant for male-female and urban-metro consumers. In conclusion, findings provide valuable insights for managers seeking to influence the behavioural intentions of those sustainable food consumers by the effect of marketing communication with sustainable food value.

LIMITATIONS

There are certain limitations to our research findings. It appears that regional differences were not considered in this study. The research was conducted in Delhi NCR India, so it does not take into account the impact of individuals from different countries. It is still unclear how regional differences impact consumer willingness to have intention, so this paper warrants further investigation. Additionally, the survey sample for this study primarily consists of young consumers who are more inclined to use sustainable products. This is likely influenced by the information they receive from various communication channels. Additionally, researchers can explore the option of segmenting consumers by age group for better understanding of their behavioural intentions. Future research can be beneficial by investigating the different communication channels or perceived values, and how they impact consumer demographics. When using a survey tool, it's important to be cautious because the findings from this type of survey (online) can be influenced by self-selection bias. This occurs when respondents choose whether or not to participate in the survey, which can affect the overall model estimation.

REFERENCE

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Asif, M., Xuhui, W., Nasiri, A., & Ayyub, S. (2018). Determinant factors influencing organic food purchase intention and the moderating role of awareness: A comparative analysis. *Food Quality and Preference*, 63, 144-150.
- Bandyopadhyay, J., & Dalvi, G. (2017). Can interactive installations bring about behaviour change? Using interactive installation to change food waste behaviours. In *Research into Design for Communities, Volume 2: Proceedings of ICoRD 2017* (pp. 235-245). Springer Singapore.
- Brown, J. L. (2017). Physician exposure to direct-to-consumer pharmaceutical marketing: Potential for creating prescribing bias. *The American Journal of Medicine*, 130(6), e247-e248.
- Brown, T. J., & Dacin, P. A. (1997). The company and the product: Corporate associations and consumer product responses. *Journal of Marketing*, 61(1), 68-84.
- Carrigan, M., & Attalla, A. (2001). The myth of the ethical consumer—Do ethics matter in purchase behaviour? *Journal of Consumer Marketing*, 18(7), 560-578.
- Chen, M. (2007). Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: Moderating effects of food-related personality traits. *Food Quality and Preference*, 18(7), 1008-1021.
- Comber, R., Thieme, A., Rafiev, A., Taylor, N., Krämer, N., & Olivier, P. (2013). BinCam: Designing for engagement with Facebook for behavior change. In *Human-Computer Interaction—INTERACT 2013: 14th IFIP TC 13 International Conference, Cape Town, South Africa, September 2-6, 2013, Proceedings, Part II 14* (pp. 99-115). Springer Berlin Heidelberg.
- Davis, R., Smith, S. D., & Lang, B. U. (2017). A comparison of online and offline gender and goal directed shopping online. *Journal of Retailing and Consumer Services*, 38, 118-125.
- Dubey, D., Gupta, D., Agarwal, N., Jain, N., & Thapliyal, C. B. L. (2024). Generation Z's Green Purchase Intentions: Impact of Consumer Attitude, Brand Positioning, and Knowledge. *Library Progress International*, 44(3), 565-582.
- Ditlevsen, K., Sandøe, P., & Lassen, J. (2019). Healthy food is nutritious, but organic food is healthy because it is pure: The negotiation of healthy food choices by Danish consumers of organic food. *Food Quality and Preference*, 71, 46-53.
- Dutta, K., Umashankar, V., Choi, G., & Parsa, H. G. (2008). A comparative study of consumers' green practice orientation in India and the United States: A study from the restaurant industry. *Journal of Foodservice Business Research*, 11(3), 269-285.
- Farr-Wharton, G., Choi, J. H. J., & Foth, M. (2014, December). Food talks back: Exploring the role of mobile applications in reducing domestic food wastage. In *Proceedings of the 26th Australian Computer-Human Interaction Conference on Designing Futures: The Future of Design* (pp. 352-361).
- FAO, R. (2010). International scientific symposium biodiversity and sustainable diets united against hunger. N. Garnett, T., Mathewson, S., Angelides, P., & Borthwick, F. (2015). Policies and actions to shift eating patterns: What works. *Foresight*, 515(7528), 518-522.
- George, D., & Mallery, P. (2003). *SPSS for windows step by step: A simple guide and reference*. Contemporary Psychology, 44, 100-100.
- Gregory, G. D., Munch, J. M., & Peterson, M. (2002). Attitude functions in consumer research: Comparing value-attitude relations in individualist and collectivist cultures. *Journal of Business Research*, 55(11), 933-942.

- Grier, S. A., Thomas, K. D., & Johnson, G. D. (2019). Re-imagining the marketplace: Addressing race in academic marketing research. *Consumption Markets & Culture*, 22(1), 91-100.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2012). *Multivariate data analysis* (7th ed.). Pearson.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Sage Publications.
- Hawkins, L. K., Farrow, C., & Thomas, J. M. (2020). Do perceived norms of social media users' eating habits and preferences predict our own food consumption and BMI? *Appetite*, 149, 104611.
- Henri, T., & Turner, J. C. (1986). The social identity theory of intergroup behavior. *Psychological Intergroup Relations*, 2, 7-24.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20(2), 195-204.
- Jensen, J. D., Christensen, T., Denver, S., Ditlevsen, K., Lassen, J., & Teuber, R. (2019). Heterogeneity in consumers' perceptions and demand for local (organic) food products. *Food Quality and Preference*, 73, 255-266.
- Kihlberg, I., Johansson, L., Langsrud, Ø., & Risvik, E. (2005). Effects of information on liking of bread. *Food Quality and Preference*, 16(1), 25-35.
- Kim, M. J., Lee, C. K., & Jung, T. (2019). Exploring consumer behavior in virtual reality tourism using an extended stimulus-organism-response model. *Journal of Travel Research*, 59(1), 69-89.
- Konuk, F. A. (2019). The influence of perceived food quality, price fairness, perceived value and satisfaction on customers' revisit and word-of-mouth intentions towards organic food restaurants. *Journal of Retailing and Consumer Services*, 50, 103-110.
- Lee, H. J., & Yun, Z. S. (2015). Consumers' perceptions of organic food attributes and cognitive and affective attitudes as determinants of their purchase intentions toward organic food. *Food Quality and Preference*, 39, 259-267.
- Lee, S., Ha, S., & Widdows, R. (2011). Consumer responses to high-technology products: Product attributes, cognition, and emotions. *Journal of Business Research*, 64(11), 1195-1200.
- Lu, L., & Chi, C. G. Q. (2018). An examination of the perceived value of organic dining. *International Journal of Contemporary Hospitality Management*, 30(8), 2826-2844.
- Makatouni, A. (2002). What motivates consumers to buy organic food in the UK? Results from a qualitative study. *British Food Journal*, 104(3/4/5), 345-352.
- Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. The MIT Press.
- Michaelidou, N., & Hassan, L. (2014). New advances in attitude and behavioural decision-making models. *Journal of Marketing Management*, 30(5-6), 519-528.
- Scalco, A., Noventa, S., Sartori, R., & Ceschi, A. (2017). Predicting organic food consumption: A meta-analytic structural equation model based on the theory of planned behavior. *Appetite*, 112, 235-248.
- Spaargaren, G. (2011). Theories of practices: Agency, technology, and culture: Exploring the relevance of practice theories for the governance of sustainable consumption practices in the new world-order. *Global Environmental Change*, 21(3), 813-822.
- Su, L., Hsu, M. K., & Boostrom Jr, R. E. (2020). From recreation to responsibility: Increasing environmentally responsible behavior in tourism. *Journal of Business Research*, 109, 557-573.
- Sultan, P., & Wong, H. Y. (2012). Service quality in a higher education context: An integrated model. *Asia Pacific Journal of Marketing and Logistics*, 24(5), 755-784.

- Sultan, P., & Wong, H. Y. (2019). How service quality affects university brand performance, university brand image and behavioural intention: The mediating effects of satisfaction and trust and moderating roles of gender and study mode. *Journal of Brand Management*, 26, 332-347.
- Sultan, P., Tarafder, T., Pearson, D., & Henryks, J. (2020). Intention-behaviour gap and perceived behavioural control-behaviour gap in theory of planned behaviour: Moderating roles of communication, satisfaction and trust in organic food consumption. *Food Quality and Preference*, 81, 103838.
- Sweetin, V. H., Knowles, L. L., Summey, J. H., & McQueen, K. S. (2013). Willingness-to-punish the corporate brand for corporate social irresponsibility. *Journal of Business Research*, 66(10), 1822-1830.
- Tandon, A., Dhir, A., Kaur, P., Kushwah, S., & Salo, J. (2020). Why do people buy organic food? The moderating role of environmental concerns and trust. *Journal of Retailing and Consumer Services*, 57, 102247.
- Thøgersen, J., de Barcellos, M. D., Perin, M. G., & Zhou, Y. (2015). Consumer buying motives and attitudes towards organic food in two emerging markets: China and Brazil. *International Marketing Review*, 32(3-4), 389-413.
- Van Huylenbroeck, G., Mondelaers, K., & Aertsens, J. (2009). The added value of organic farming for environment and health: Facts and consumer perceptions. *British Food Journal*, 111(10).
- Vermeir, I., & Verbeke, W. (2004). Sustainable food consumption: Exploring the consumer attitude-behaviour gap (ID: 2004/7012/54, 268). Ghent University, Faculty of Economics and Applied Economics.