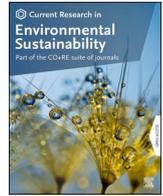




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Sustainable consumer behaviour of Indian millennials: Some evidence

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ABSTRACT

Despite policy thrusts and initiatives, driving consumer behaviour towards sustainable consumption is a challenging task. The paper in this context carries out a detailed analysis of consumer behaviour in the Indian context with a specific thrust on sustainable consumer behaviour. The paper builds on the theoretical conception of the 'Value Belief Norm (VBN)' framework developed by Stern et al. (1999) and adapts and expands the same in the Indian context by employing exploratory factor analysis. Based on consumption behaviour patterns, the study classifies Indian millennials into five different categories such as aware consumers, conscious consumers, consumers under transition, unwilling consumers, and rejecters respectively, which help to map the heterogeneities present among the Indian millennials in terms of their consumer behaviour. In addition, it emerges from the study that Indian millennials are more concerned about the environmental dimension of consumption than social and economic dimensions, which has clear policy implications in terms of creating awareness and sensitising people.

1. Background

In the landmark Sustainable Development Summit in 2015, the UN member states adopted the Sustainable Development Goals (SDGs), to transit to a path of sustainability. SDG 12, inter alia, talks about responsible consumption and production aiming at transforming the current pattern and structure of consumer behaviour to a more sustainable one. In specific, Target 12.8 of Goal 12 of SDG emphasises providing relevant information and increasing awareness regarding sustainability and lifestyles in harmony with the environment. Similarly, SDG 12 also have specific targets for achieving sustainable production. For instance, Target 12.6 talks about "encouraging companies, especially large and transnational companies to adopt sustainable business practices and to integrate sustainability information into their reporting cycles". Several country-level policy initiatives such as Extended Producer Responsibility (EPR), and Polluter Pays Principle (PPP) have been undertaken in India to transit to a regime of sustainable consumption and production. One of such policy milestones is the declaration of the National Environmental Policy 2006, where policy priorities are assigned on sustainable consumption and production. For instance, the first principle of the aforementioned policy clearly states that "Human beings are at the centre of sustainable development concerns and are entitled to a healthy and productive life in harmony with nature". The twelfth principle of the policy covers the environmental standards and

says that "environmental standards must reflect the economy and social development situation in which they apply". The policy also talks about the possible remedial actions required to address such concerns. In addition, Section 5.3.2 of the National Environmental Policy mentions 'environmental management systems, eco-labelling and certifications', as modes of achieving sustainable consumption and Section 5.5 talks about the 'significance of environmental awareness, and information creation'. Similar initiatives have been undertaken by various sectoral policies and regulations declared from time to time at different scales of governance. For instance, in the energy sector, the Government of India has taken several proactive initiatives to promote energy efficiency standards. Bureau of Energy Efficiency (BEE), formed as an offshoot of this Act, has pioneered in mainstreaming the energy efficiency labelling schemes, known as the star ratings on electrical appliances and products. Besides, the Ministry of Corporate Affairs has adhered to consumer awareness and education for sustainable consumption as elements of corporate social responsibilities in their general circular for 2014. Despite policy thrusts and initiatives, driving consumer behaviour towards sustainable consumption is a challenging task for many countries globally including India.

India, being at the critical juncture of transition from a developing nation to a global leader, continues to face several inherent challenges in the realm of sustainable consumption and production. The challenges are largely entrenched with the socio-economic milieu of the country.

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While India boasts as one of the fastest-growing economies of the world, at the same time, it continues to be the home to a large chunk of the world's poor. Often, the costs of development are borne largely by a nation's impoverished population in the form of degraded environment, depleted natural resources and restricted employment opportunities, and curtailment of their freedoms. With the rising middle-class, there has been a rise in consumption expenditure in the country. It is observed that number of people spending from USD 2 up to USD10 per person per day has grown from 300 million in 2004 to 600 million in 2012. This accounts now for half of the Indian population and a major growth was found to have occurred in the lower-middle-class families, who now consume at a much higher rate than before (Krishnan and Hatekar, 2017).

Scholarly attempts to assess the changing contours of sustainable consumption behaviour in the Indian context are limited and have not received adequate attention. Though scholarly research is abundant in studying consumer behaviour in general (Muralidharan et al., 2015; Sharma and Kurani, 2004), there have been short shrifts as far as sustainable consumer behaviour is concerned. One of the studies (WBCSD, 2008) around sustainable consumption made on a comparative basis across 14 countries including India, reveals that people feel empowered when they take actions to reduce consumption and waste to protect the environment. Given the scant scholarly focus on sustainable consumption in the Indian context, the present study would be one of the pioneering efforts in understanding the crucial dimensions of sustainable consumption behaviour of Indian youngsters and in offering key policy insights.

Against this backdrop, the paper carries out a detailed critical analysis of consumer behaviour in the Indian context with a specific thrust on the sustainable consumer behaviour of millennials. The question that this paper seeks to answer is 'whether the behaviour of Indian consumers is sustainable'. The paper, by design, chooses millennials,¹ as the unit of analysis with the understanding that they are the most dynamic, informed, sensitised group in terms of their consumption behaviour and consumption decisions. The specific thrust of the paper on millennials is built on the fact that India has the largest millennial population in the world. It is reported that millennials have amazing spending power, and they are much inclined towards purchasing eco-friendly products and they prefer working in environmentally congenial atmospheres (Koo et al., 2012). Besides, millennials are known to be the first "high-tech generation", as they are the major users of mobile technology and mobile-based communications such as e-mails, texting, and interactive media and accessing the web (McMahon and Pospisil, 2005). Literature also suggests that the use of ICT by millennials significantly influences their consumption pattern (Young and Hinesly, 2012). Hence, it is logical to choose millennials as the unit of analysis for the present study. As of 2016, millennials constitute almost a quarter of India's total population. With such numbers, the potential impact of millennials on consumption is very high and there have short shrifts in scholarly research to understand their consumer behaviour in the Indian context. The paper is an attempt to fill in this research void and bring out a nuanced understanding of consumer behaviour among Indian millennials from the lens of sustainability. The findings of the study can contribute to the policymaking in the sphere of sustainable consumer behaviour and can aid in designing an effective marketing strategy for Indian corporates, by integrating the consumption choices of Indian millennials.

The paper is structured as follows. The second section briefly reviews the key and recent literature on sustainable consumer behaviour in general and the role and importance of information in motivating such behaviour. The third section talks about the research framework, method of analysis, and data employed to carry out the analysis. The

fourth section discusses the key findings, and the final section concludes the paper.

2. Review of the literature

Sustainable consumer behaviour has been connoted differently by different scholars consisting of a whole range of elements and varying interpretations. These include the purchase of 'sustainable' products, recycling of waste, using energy-efficient appliances, ethical investments, switching to organic food items, switching mode of transport, buying recycled goods, adopting minimalist ways among others (Kempton et al., 2008). A major strand of literature on sustainable consumer behaviour is discussed around the environmental impacts of such behaviour. It is asserted that the consumption choices people make in their daily lives have some indirect or direct implications on the environment. In the policy sphere also, environmental considerations have received prioritised attention in policy agenda and policymaking, when it comes to sustainable consumption (Jackson et al., 2005). This connection between consumer behaviour and the environment is often connoted as environmentally significant consumer behaviour. It is characterised as the extent to which human behaviour, impacts the availability of material or energy from the environment or alters the structure and dynamics of ecosystems or the biosphere (Stern, 1997). Stern (1997) refers to behaviours that directly or proximally cause environmental changes such as disposing of household waste or clearing of forest etc.

Literature classifies environmentally significant behaviours into different groups. According to the Value Belief Norm (VBN)² theory advocated by Stern (1999), the environmentally significant behaviours are classified into two different groups; behaviours of environmental activists and other non-activist behaviours. Environmentally significant consumer behaviour falls within the group of non-activist behaviour. Such behaviours include the purchase, use, and disposal of household products and personal goods, etc. This can be further subdivided according to the magnitude and degree of environmental characteristics of products being purchased i.e. purchase of goods and services with larger environmental impacts (e.g., automobiles, recreational air travels); the use and maintenances of devices with significant impact (e.g. heaters, air conditioners); and "green" consumerism and household waste disposal. These distinctions reveal that some of these choices, such as the infrequent purchase of major household appliances and automobiles, have a higher environmental impact than other decisions, such as changing the magnitude of use of certain equipment (Stern, 2000).

Given the intricate nexus between consumer behaviour and the environmental consequences of such behaviours, policymakers often incentivise consumer behaviour to make it more environmentally friendly by controlling or altering consumer behaviour (Gardner and Stern, 2002). Ölander and Thøgersen (2014) in their scholarly piece highlight the dichotomy between "informing versus nudging in environment policy" and suggest an integrated approach to address the complexities of consumer behaviour, rather than emphasizing a singular dimension such as incentives and nudging. Stern (1999) argues that consumer sovereignty is constrained by factors that are outside of consumer's control and just by changing consumer experience will not necessarily bring change in consumer behaviour. Factors such as change in financial and other material incentives associated with consumption, new and beneficial technologies, changing attitudes, values, and beliefs with information and education, or modifying institutional structures can significantly contribute to the change in consumer behaviour.

The importance of information has been highlighted by several scholarly contributions in connection with sustainable consumer

¹ Millennials is the cohort of people born between 1980 and 2000. They are also known as generation Y.

² VBN theory of environmentalism offers non-activist environmental behavioural indicators which can be used to understand environmentally conscious behaviour of a population.

behaviour. It is convincingly put forward that information on the environmental impacts of consumption of products influences consumers' behaviour and purchase decisions. A study (Leire and Thidell, 2005) reveals that Nordic consumers have significant knowledge about the impacts of consumer goods on the environment; however, the use of such information varies according to the context of the purchasing situations. Information on energy ratings is proved to be very effective in changing consumer behaviour in many countries in the world (Chaturvedi et al., 2012). Digging deeper into the role of information, a study carried out by Sammer and Wustenhausen (Sammer and Wustenhausen, 2006) in Switzerland context reveals that information on price, energy, and water consumption holds primacy in the decision to purchase washing machines. A similar study in Germany for a decision to opt for household solar PV reveals that environmental and energy-saving reasons have become the prime basis for consumers' decision to own rooftop solar PV (Wittenberg et al., 2018).

Studies also indicate that sustainable consumer behaviour has demographic characteristics as well, such as they differ across age groups. It is found that a younger consumer segment known as millennials is showing increasing spending power (Koo et al., 2012), and are more willing to buy eco-friendly products (Guevarra, 2010) compared to their counterparts. Millennials had an estimated spending power worth \$200 billion by the year 2013, a rate of expenditure much higher than previous generations and they also can influence family purchase decisions (Fuller, 2013).

Studies in an Indian context, through are limited, point to interesting facets of consumer behaviour. A study by Muralidharan et al. (2015) applies a 'consumer socialisation model' to understand the green consumer behaviour of younger millennials on a comparative basis between the United States and India. The findings of the study reveal that differences are visible between millennials from the United States and India. Though, interestingly, it came out clearly in both the countries' contexts that peers and family significantly influence consumer behaviour. Some other studies in the Indian context have been focussed on the Ecomark labels - introduced by the Ministry of Environment and Forest (MoEF) of the Government of India in 1991. A study analysing the effectiveness of Ecomark labels contends that the scheme has not been very successful in achieving its desired goals (Sharma and Kurani, 2004). This contention was partly connected to the very nature and character of Indian consumers, which according to experts are not ready to recognize the importance of Life Cycle Analysis (LCA) considerations (Sood and Arora, 2006). On the other hand, the Bureau of Energy Efficiency (BEE) through its standards and labelling programme has been able to reaching out to people and create awareness (Sarangi and Taghizadeh-Hesary, 2020). The review brings out the existing gaps in the studies on sustainable consumer behaviour with specific reference to India, especially for the growing middle-class millennial population. One of the neglected aspects of studies on sustainable consumer behaviour is that while most of the studies have emphasised environmentally conscious behaviour, social and economic dimensions of consumption decisions are often side-lined. This has been reiterated by others too. It is asserted that the use of economic and social aspects along with the Life Cycle Analysis (LCA) approach as a tool to understand sustainable consumption and production behaviours has become a new phenomenon (Hertwich, 2005).

3. Research framework, method of analysis, and data

3.1. Theoretical framework

The paper builds on the theoretical conception of 'Value Belief Norm

(VBN) framework developed by Stern (1999), and adapts and expands the same in the Indian context. The framework expounds that the causal chain that leads to determining behaviour includes five key variables: 1) personal values (Biospheric, altruistic and egoistic), 2) ecological world view,³ 3) adverse consequences for valued objectives,⁴ 4) perceived ability to reduce the threat,⁵ and 5) personal norms for pro-environmental action. The chain moves from central, relatively stable elements of personality to more focused beliefs about the relationship of humans with the environment, and the individual's responsibility to take corrective action. The authors hypothesize variables in the chain are correlated and they may affect variables down in the chain. The schematic of such a causal chain is depicted in Fig. 1 and Table 1 describes the variables of the theory.

VBN framework provides the best explanation of non-activist environmental behaviours and their varieties. Non-activist environmentalism includes consumer purchase behaviour, household equipment maintenance, and change to efficient equipment, environmentally conscious lifestyle, proper waste disposal, among others (Stern, 2000). Evidence from studies including Black et al. (1985), Stern et al. (1995) and Gardner and Stern (1996) support this claim. Furthermore, the VBN framework has been applied by Steg et al. (2005) and his colleagues to understand the factors influencing the acceptability of energy policies for Dutch citizens.

The VBN framework has also been employed to compare different indicators of pro-environmental behaviour against three other ecological value-based frameworks (Stern et al., 1999). Such comparisons unfold that VBN explains more variance than the other competing theories and frameworks. Several other studies such as Karp (2016) has applied this framework to study how values interact with pro-environment behaviour.

While the VBN framework is limited in assessing the environmental significant consumer behaviour, the present paper goes a step ahead by expanding the framework by including social and economic dimensions of sustainable consumer behaviour. A set of additional questions such as;

- How often do you purchase from local vendors to promote the local economy?
- Will economic development and mass production and consumption of all goods will be a very serious problem for the country as a whole?

are added to capture the social and economic dimensions of sustainable consumer behaviour. The present paper is an exploratory study of the framework in the Indian context.

3.2. Survey, data gathering, and analysis

Primary data collection was carried out by sample online surveys during March–June 2018. Snowball sampling is employed in the study to collate data and information. The method yields its sample by referrals made among people who know of others possessing the desired characteristics that might be of interest to the present study. This method is uniquely designed for social science research as it allows the

³ Dunlap et al. (2000) proposed ecological world view where human actions have significant adverse effects on our biosphere to be the New Ecological Paradigm (NEP).

⁴ The concept of adverse consequences for valued objects or awareness of consequences (AC) is derived from Moral Norm Activation theory. The theory holds that personal actions towards betterment of environment occur due to moral norms of people who believe; deteriorating environmental conditions pose a threat to people, biosphere and other species.

⁵ Perceived ability to reduce threat or ascription of responsibility to self (AR) is also derived from Moral Norm Activation theory (Schwartz, 1977). The theory holds that pro-environment actions taken by individuals could avert or reduce the consequences of environmental degradation.

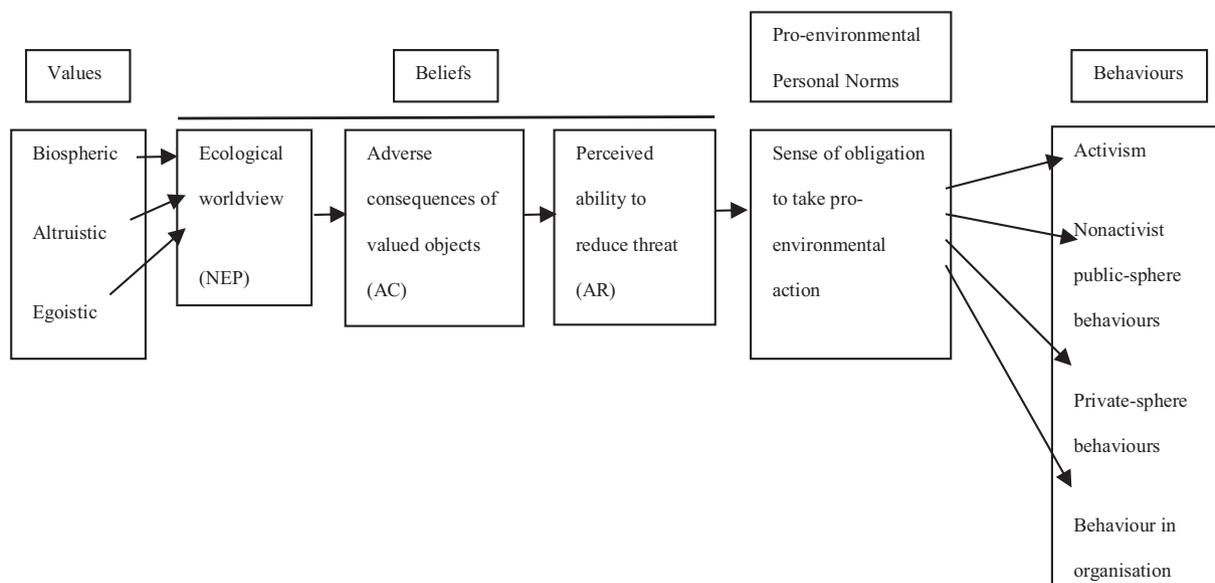


Fig. 1. Schematic representation of variables in VBN framework adapted from Stern (2000).

Table 1 Descriptions of VBN framework.

| Value/Belief | Description |
|--------------------------------|--|
| New Ecological Paradigm | Respondent's understanding of anthropogenic impacts on Climate change |
| Altruistic (values) | Values of the respondent towards protecting weaker sections of society and the environment |
| Traditional (values) | Respondents value loyalty towards friends and family, self-discipline, and forgiveness. |
| Self Interest (values) | Respondent's interest in establishing control over others and gaining social power. |
| Openness to change (values) | Values that contribute to the respondent's curiosity and intent to explore. |
| Hierarchy (cultural bias) | Respondents who have a bias to preserve old traditions, customs, and culture. |
| Egalitarianism (cultural bias) | Respondents who want an economically fair society and believe in redistribution of resources. |
| Individualism (cultural bias) | Biases where the respondents believe in a free-market economy and wish for less government control. |
| Fatalism (cultural bias) | Biases where the respondents are pessimistic about cooperative work with others. |
| Awareness of consequences | The respondents attribute a scope to the environmental, social and economic issues, and consider its impact on their social network, nation, and the global biosphere. |
| Personal normative beliefs | The normative beliefs of the respondents towards positive impact on environment and society. |
| Consumer behaviour | Respondent's action towards sustainable choices. |
| Willingness to sacrifice | Respondent's willingness towards furthering positive impact on environment and society |
| Environmental citizenship | Respondents who engage in advocacy towards a sustainable future. |

sampling of naturally interactional units. Reaching out to respondents through an online survey with snowball sampling technique appeared to be the most suitable approach in the present context given the thrust of the paper. There have been many studies in the past, which have employed similar methods for data collection. For instance, in the study “Social research 2.0: virtual snowball sampling method using Facebook” the authors (Baltar and Brunet, 2012) use a similar approach for their study. Muralidharan et al. (2015) have employed online sampling for eliciting consumer responses for analysing sustainable consumer behaviour. A study by Dusek et al. (2015) has used snowball sampling techniques using social media to cover a hard-to-reach population.

The questionnaire is framed drawing from the study “A Value-Belief-Norm Theory of Support for Social Movements: The Case of Environmentalism” by Stern et al. (1999), and a set of new questions such as How

often do you purchase from local vendors to promote local economy? Will economic development and mass production and consumption of all goods will be a very serious problem for the country as a whole? among others are added to capture the economic and social dimensions of sustainable consumption. These questions while being drawn from the triple bottom line⁶ principles of sustainability, their relevance in the Indian context is established by discussing with a set of experts.

The questionnaire was administered to 850 respondents including university students and employees of organisations. These include central universities such as Delhi University, Jawaharlal Nehru University, IIT Bombay and IIM Indore, state universities such as Maharaja Sayajirao University, Pune University, Gujarat Technological University among others; and organisations include Wipro, TERI and Auroville. Through their networks present in various cities in India, we received a total response of 302 responses, of which 2 responses were found to be incomplete. This makes the response rate at 35% considering 300 responses legitimate responses. Responses of 16 Indians living in Europe and the United States were also recorded.

The details of respondent types are presented in Fig. 2. Samples were collected from three different cities of different sizes to capture the heterogeneity in the consumption behaviour pattern across city types. Close to 50% of respondents are from tier I cities in India (including the National Capital Region of Delhi), 26.33% and 20.66% respondents are from tier II cities, and tier III, respectively. Besides, about 5.33% of the total respondents constitutes Non-Resident Indians (NRIs) (Fig. 3).

The monthly expenditure of respondents is classified into four different categories, ranging from less than Rs 10,000 per month to over Rs 30,000 per month, while the national average per capita urban consumption is Rs 2630 as per India's National Sample Survey Organisation. Close to 40% of the total sample falls under less than 10,000 INR monthly per capita expenditure, whereas close to 10% of individuals have more than 30,000 per capita monthly expenditures.

A study by Mehrotra et al. (2014) indicates that the average age of Indians joining the workforce below 23 years of age has shown a declining trend, indicating the possibility that they continue to be part of formal educational systems such as university. Drawing from the above study, we can assume that, close to 45% of respondents aged below 23 years can be grouped as university students and the rest 55% as working

⁶ Triple bottom line is a framework that incorporates three dimensions of sustainability performance: social, environmental and financial (economic).

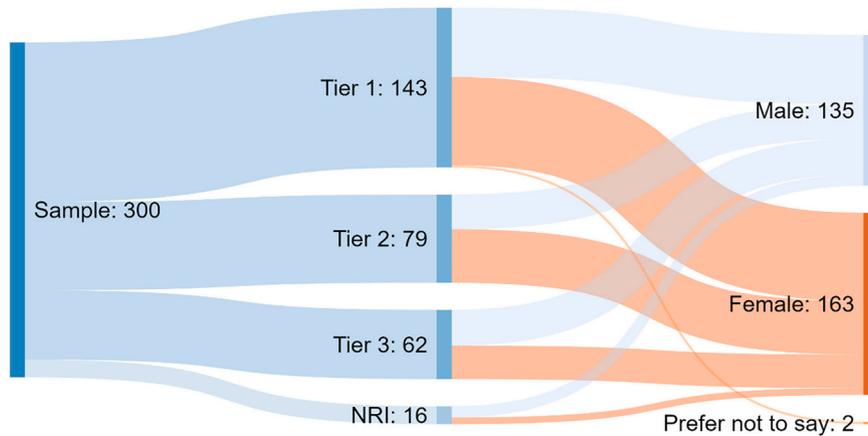


Fig. 2. Respondent types across cities.

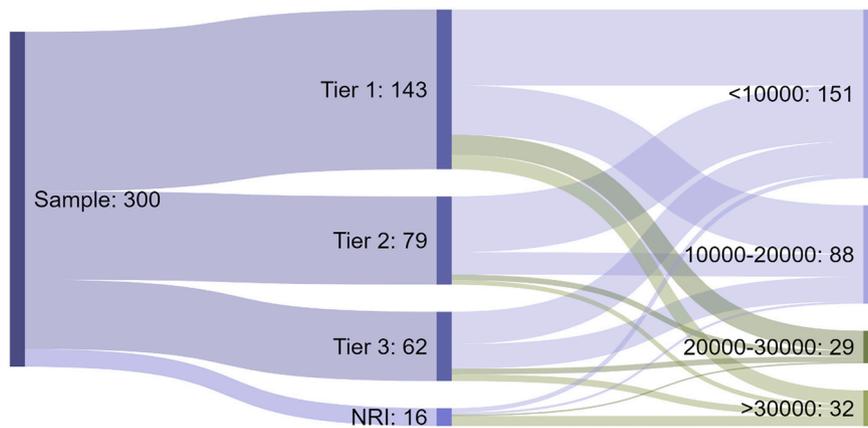


Fig. 3. Respondents grouped by personal monthly expenditure.

professionals.

Segregating the responses based on gender indicates that 55% of total constitute female respondents and close to 44% are male respondents. Finally, close to 1% of respondents preferred not to reveal their gender (Fig. 4).

As mentioned elsewhere in the paper the VBN framework is expanded and elaborated in the Indian context by including variables on social and economic dimensions of sustainable consumption behaviour. A detailed questionnaire was designed for the survey. Additional questions on personal normative beliefs, awareness of consequences, and

consumer behaviour; are included capturing the social and economic dimensions of sustainable consumption. The data gathered from the survey were analysed by using the software R. In addition to the survey, a few focus group discussions (FGDs) and key informant interviews were conducted to test the viability of the VBN framework in the Indian context and the need for inclusion of social and economic variables with the framework. Data analysis is carried out by using the statistical technique of factor analysis. Several studies in the past such as Das et al. (2009) have also used factor analysis to understand the consumer behaviour of Indians. Factor analysis will be an appropriate tool to

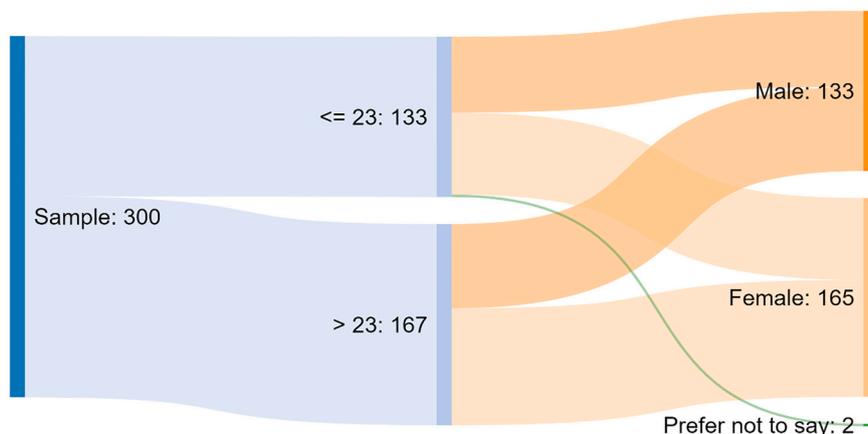


Fig. 4. Respondents according to gender.

classify variables according to their correlation coefficient values and define how they lead to different consumer behaviour patterns. In the present study, exploratory factor analysis is used to figure out behavioural patterns of millennials according to their responses to their values, beliefs, and norms, by combining certain sets of variables. The identified variables are further analysed by employing the factor analysis method to draw meaningful conclusions. For carrying out factor analysis, it is important to test whether the sample data satisfies the required criteria for such an analysis. Kaiser, Meyer, Olkin (KMO), a measure to test the sampling adequacy criteria, is employed in the present case. KMO measure revealed that the sampling adequacy of the collated data is 0.786, which satisfies the minimum criteria for carrying out factor analysis. Exploratory factor analysis was performed in R using function ‘factanal’, with the rotation method kept being maximum using ‘varimax’. In addition to that, simple statistical techniques are employed to draw some meaningful conclusions from the study. The next section discusses in detail the key results derived from this study.

4. Key findings and discussion

Key results drawn from the study are presented in the following section.

4.1. Key insights from data analysis

First cut analysis of the gathered data reveals some interesting findings. 88% of the respondents prefer shopping online through various e-commerce platforms, compared to 5% national average. This could be attributed to the sample characteristics of this study which consist of a particular age group and are limited to cities only. It also emerged from the study that though information about purchasing decisions are drawn from varying sources, the internet is found as the primary source of information with 3/4th of millennials surveyed. Another key finding is associated with the causes of environmental deterioration in the country. Three-fourth of the respondents are of the view that it is human beings- who are largely responsible for such deterioration (Fig. 5). Close to 75% of respondents felt that “Humans are severely abusing the environment”. A related finding reveals that 2/3rd of respondents emphasize the need to protect the environment and prioritise social justice (Fig. 6).

Similar trends are observed when questions regarding social justice and promoting local economy are asked: In both cases, it appears that promotion of justice and local economy are prioritised by respondents (Figs. 7 and 8). It emerges from the findings that millennials assign less importance to social and economic aspects of sustainable development, compared to the environmental dimension. This lack of understanding of the holistic nature of sustainable development could act as a hindrance in driving sustainable consumption in the country.

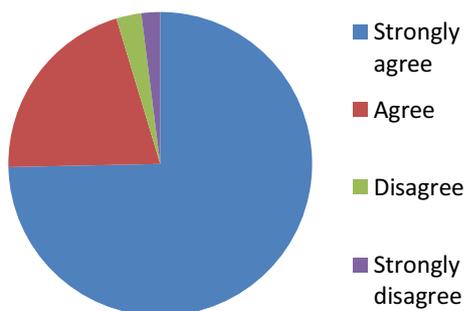


Fig. 5. Response to question whether humans are severely abusing the environment.

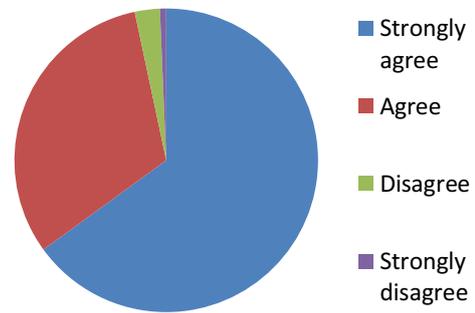


Fig. 6. Responses to question - "I want to protect environment, promote social justice and preserve nature".

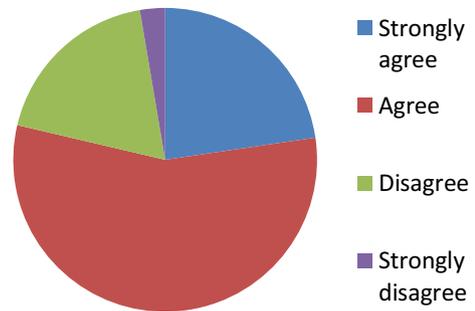


Fig. 7. Responses to question - "I care for social justice. If I see any injustice happening on the marginalised people, I correct it."

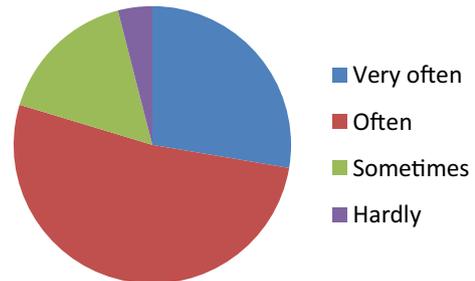


Fig. 8. Responses to question - "How often do you purchase from local vendors to promote local economy?"

4.2. Results drawn from exploratory factor analysis

The factor analysis is carried out to classify variables according to their correlation coefficient values, which eventually will determine the patterns in consumer behaviour. Five key factors are identified through the factor analysis exercise having implications for the sustainable consumer behaviour of millennials. The cumulative variance of these five factors constitutes 45.1%, with factors 1, to 5 explaining 12.3%, 10.8%, 7.8%, 7.5% and 6.7% of the variance respectively (Fig. 9 and Table 2).

The factor analysis shows that there is a high uniqueness to most of the VBN variables. This is indicative of the varying contextual factors for individuals surveyed. This would imply that the millennials with similar consumer behaviour might act differently according to their contextual situation while purchasing.

The common factors were defined by the factor loadings of individual VBN variables. The variables with high loading in each factor would signify how the group behaves. Factors 1 to 5 are connoted as aware, conscious consumers, transitioning, unwilling and rejecters respectively, because of the higher loadings on various common factors

Exploratory Factor Analysis

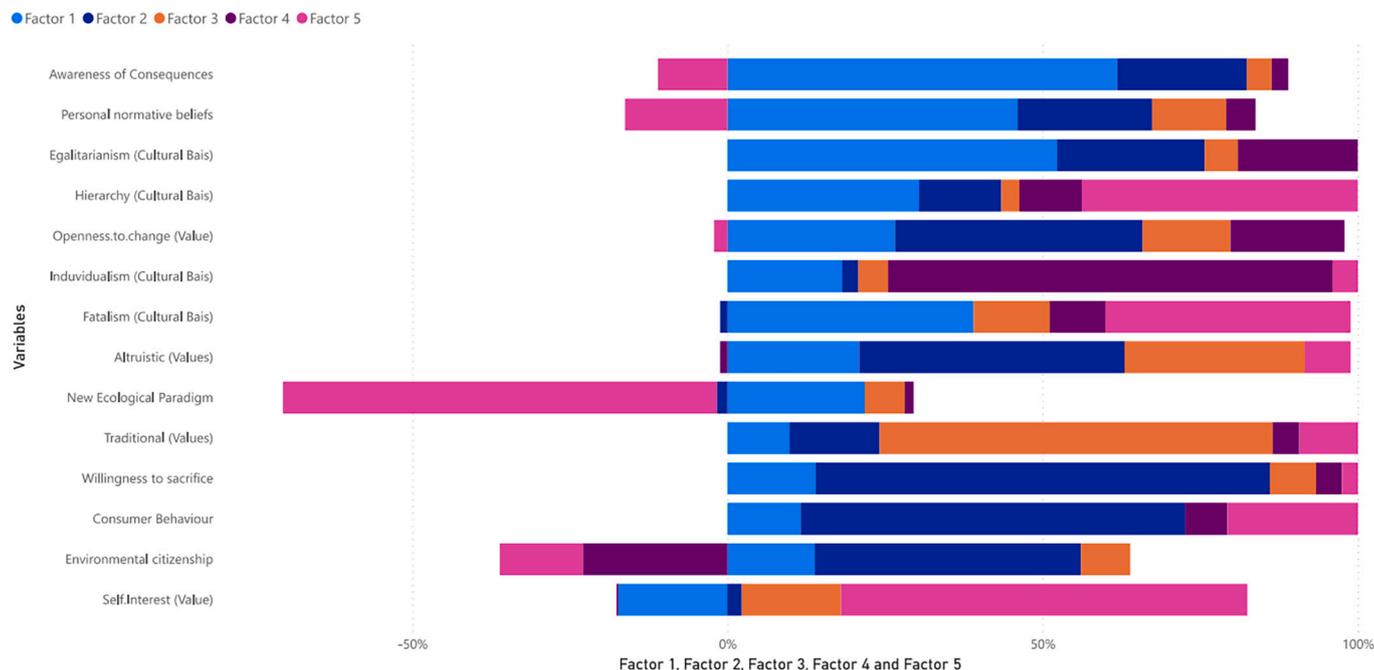


Fig. 9. Factor analysis.

Table 2
Cumulative variances of top three factors.

| | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 |
|----------------|----------|----------|----------|----------|----------|
| SS loading | 1.72 | 1.506 | 1.091 | 1.05 | 0.941 |
| Proportion var | 0.123 | 0.108 | 0.078 | 0.075 | 0.067 |
| Cumulative var | 0.123 | 0.23 | 0.308 | 0.383 | 0.451 |

from the VBN framework. The high factor loadings on common factors indicate that values, beliefs or norms play an important role in defining the characteristics of the group.

4.3. Factor connotations and explanation

The first factor can be defined as ‘aware’ consumers. These millennials are aware because they have the highest factor loading on new ecological paradigm, awareness of consequences, personal normative belief which indicates they are aware of the high impact of human consumption on the environment and society. They also have higher loadings on other variables such as altruistic values, openness to change, and egalitarianism. This factor does not represent the active decision-making side of the millennials due to lower loadings on variables including willingness to sacrifice, environmental citizenship and consumer behaviour.

The second factor can be called ‘conscious consumers’ specifically due to higher loadings on consumer behaviour, willingness to sacrifice and environmental citizenship which represent the active decision-making side. Though not as up to date as aware millennials as, there is some loading on awareness of consequences and personal normative belief variables. They also show higher altruistic and openness to change values which further strengthens their intent towards conscious consumption.

The third factor represents ‘transitioning’ who are either yet to form an opinion or develop an understanding around the issue of sustainability and consumption. They have very low factor loading on the new ecological paradigm, consumer behaviour, environmental citizenship and awareness of consequences. They do have higher traditional and

altruistic values and some loadings on openness to change and personal normative beliefs. These variables indicate that there is some inclination towards change that has not happened yet.

The fourth factor can be defined as ‘unwilling’ to change towards the cause of sustainability. This is evident from very high factor loading on individualistic values and a negative loading on environmental citizenship. They do have some loading on variable openness to change, but no loading on other relevant variables such as willingness to sacrifice, new ecological paradigm, awareness of consequences and consumer behaviour which further supports the definition.

The fifth factor represents the ‘rejecters’ who do not believe in the current climate crisis or the need to be sustainable. This is evident from the fact that they have negative loadings on the new ecological paradigm, awareness of consequences, personal normative beliefs and environmental citizenship. They also have higher loadings on self-interest, hierarchy and fatalistic values.

4.4. Behavioural groups within the sample

Given the definition of the factors above, we can observe some behaviour in the sample set. The variables were analysed to understand the patterns within the sample and to assess how they differ across categories. Figs. 10, 11 and 12 show the standardised average responses of each variable from the VBN framework according to the millennials’ city types, age groups, and gender. The values range from -1 to 1, where -1 meaning ‘do not agree’ and 1 means ‘strongly agree’.

It is observed that respondents from larger cities are better aware of the sustainability discourse, and sometimes participate in advocacy, and are quite liberal in their worldview. However, they do not engage much in sustainable consumption practice and have a lower willingness to sacrifice. A pattern can be observed at least for three variables, new ecological paradigm, personal normative belief, and environmental citizenship, where the responses are highest for tier 1 city and lowest in the tier 3 city. This can be due to the awareness of current environmental problems due to education and exposure in larger cities. Though for consumer behaviour, millennials from tier 2 cities show the highest average. This finding corroborates with other studies (e.g. [Sehrawet and Kundu, 2007](#)), where it is found that consumers in rural India are more

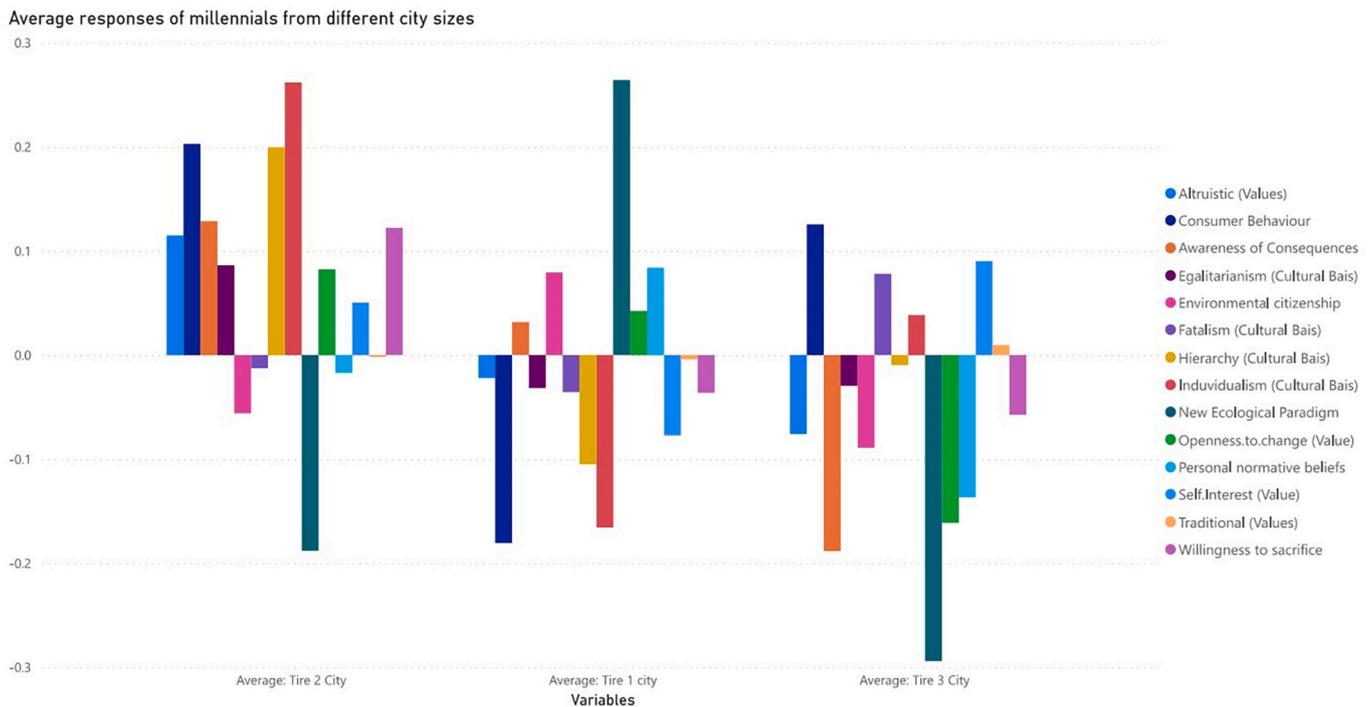


Fig. 10. Average responses of millennials from different city sizes.

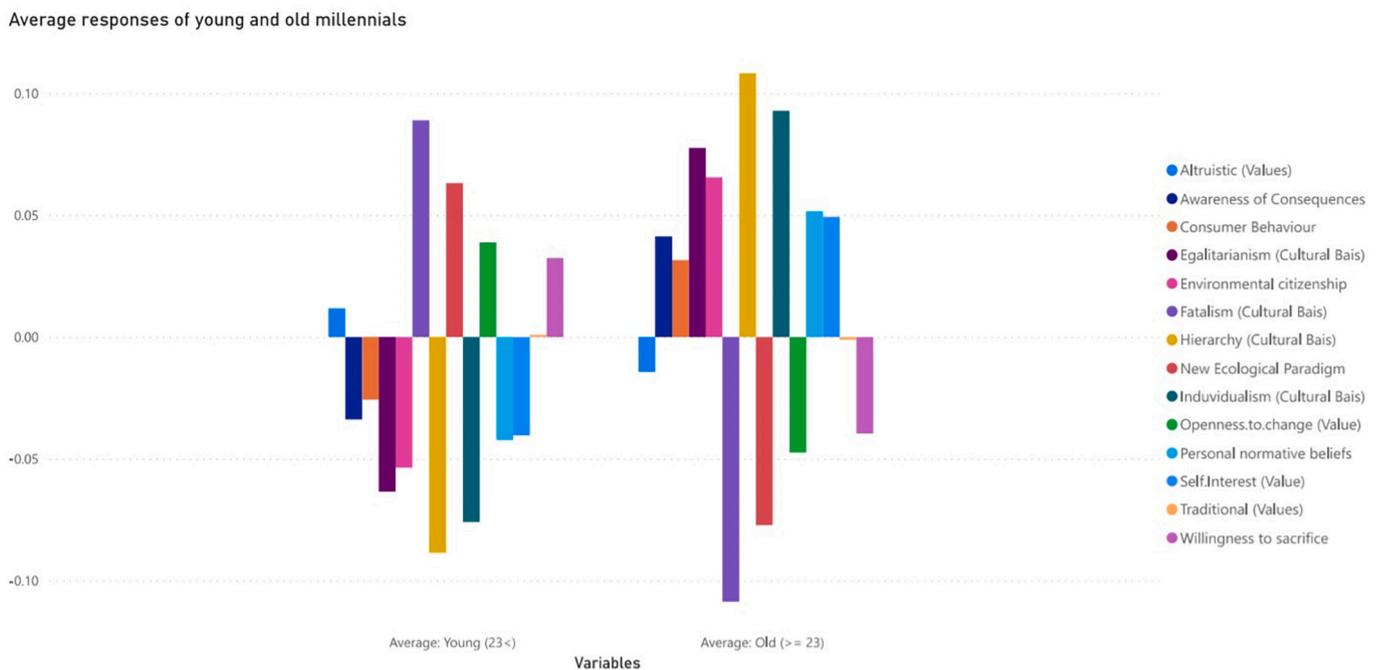


Fig. 11. Average responses of young and old millennials.

environmentally conscious than their urban counterparts.

However, when responses are clubbed by age groups, it reveals some noteworthy trends (Fig. 11). It is found that the young and old millennials differ across variables, especially in their biases. It emerges that relatively young consumers have a liberal world view, and are more aware of the new ecological paradigm, more altruistic, and open to change. However, they showed lesser sustainable consumer behaviour than their older counterparts.

This part of the findings can be compared with the findings of other similar scholarly pieces. According to a study (Debevec et al., 2013),

younger millennials (18–26) are less engaged in sustainable behaviours than relatively older millennials (27–31). It can be the result of the older millennials having higher spending power than the younger ones.

The final set of findings reveal the presence of stark contrasts in the behavioural trends of average male millennials and female millennials. Males showed a greater inclination to all factors but fatalism, awareness to consequences, environmental citizenship, and consumer behaviour, though the scale remains to be very small. The females showed exact opposite inclinations to the preference of male millennials.

Women are found to be more environmentally conscious with their

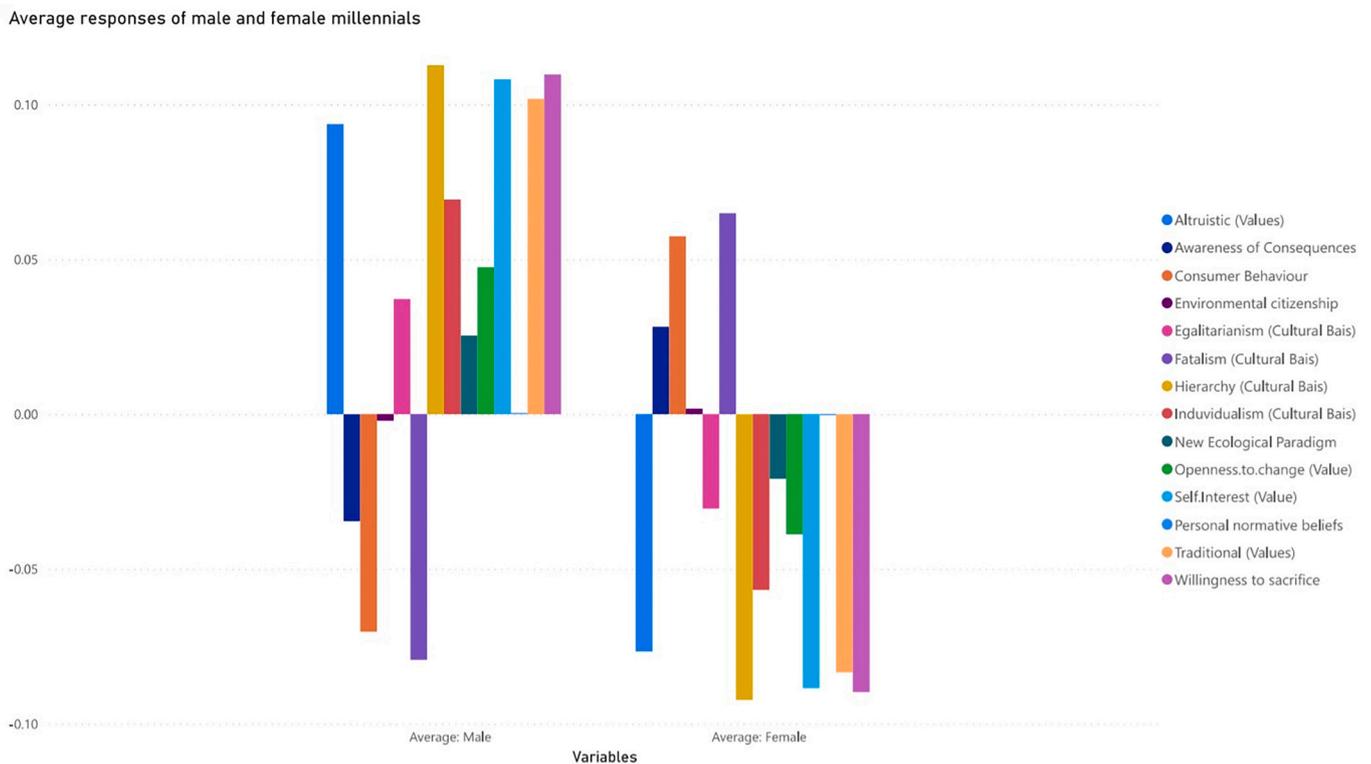


Fig. 12. Average responses of male versus female millennials.

attitudes and behaviours (Fig. 12), similar to findings as observed in the study (Jain and Kaur, 2008). The results here indicate female millennials have higher inclinations on awareness to consequences, consumer behaviour, and environmental citizenship than their male counterparts. During personal interviews, it also emerged that women who are about to be mothers are conscious consumers and they tend towards purchasing more eco-friendly and sustainable products. They also introduce alternative products to their family, and this supports the findings of high on sustainable consumer behaviour and environmental citizenship.

5. Concluding remarks

The study explored the consumer behaviour of Indian millennials using the Value Belief Norm (VBN) framework and applied the same in the Indian context in its modified form. It draws upon the concept of sustainable consumption from existing scholarly literature and, emphasises factors such as information and demographics influencing sustainable consumption. It is built on the existing literature gap where sustainable consumption has been examined and assessed through the lenses of environmental implications, without giving due emphasis to social and economic angles. Hence, we explored the dynamics of social and economic impacts along with the environment on sustainable consumption behaviour. It emerged from our study that Indian millennials are relatively more aware of the environmental impacts of their consumption behaviour and are less conversant with the social and economic impacts of such consumption behaviour.

The study interestingly can group millennials based on consumer behaviour patterns. It classifies them into five different categories such as aware consumers, conscious consumers, consumers under transition, unwilling consumers, and rejecters respectively. A similar classification can be observed in the WBCSD study (WBCSD, 2008). Such a classification helps to map the heterogeneities present among the Indian millennials in their consumer behaviour.

Findings across cities unfold that the awareness of current environmental problems is found to be the highest in larger Indian cities,

compared to smaller cities. The awareness levels are found to be positively correlated with higher literacy rates and cities having higher pollution levels. However, surprisingly millennials from big cities are found to be less engaged in sustainable consumption and have a lower willingness to sacrifice compared to millennials from smaller cities. Besides, it is also observed from our study that younger millennials are aware of the environmental implications of consumption, whereas the elder millennials engage more with sustainable consumption. In addition, gender segregation and their consumption behaviour indicate that women tend to be more conscious of their consumer behaviours than their male counterparts.

All these have clear policy implications in terms of policymaking at different layers of governance such as urban and rural. It also emerges from the study that there is a greater need to create awareness and sensitise people about the social and economic implications of sustainable consumption, along with environmental implications. This would be a win-win case for a country like India, which is striving hard to achieve SDGs. The need for green financing could further facilitate the uptake of sustainable consumption in the country too (Sarangi, 2018).

However, given the thrust of the study, there exist further scope of research in this direction, to understand the gap between attitude and behaviour of the millennial population while also expanding the sample to the rural areas of India.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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