

# Effect of Social Norms and Psychological Factors on Consumer Green Buying Intentions: The Mediating Role of Personal Norms an Entrepreneurial Perspective

**Yawar Abbas**

*Institute of Business Management Sciences, University of Agriculture, Faisalabad, Pakistan*

**Tasawar Javed**

*Institute of Business Management and Administrative Sciences, The Islamia University of Bahawalpur, Pakistan*

[tasawar.javed@iub.edu.pk](mailto:tasawar.javed@iub.edu.pk)

**Aemin Nasir**

*The Business School, RMIT University, Ha Noi, Vietnam*

[aemin.nasir@rmit.edu.vn](mailto:aemin.nasir@rmit.edu.vn)

Corresponding: [yawarsandhu1977@gmail.com](mailto:yawarsandhu1977@gmail.com)

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## ARTICLE INFO

### Article History:

Received: 11 Sep, 2023

Revised: 19 Nov, 2023

Accepted: 20 Feb, 2024

Available Online: 29 Feb, 2024

### DOI:

<https://doi.org/10.56536/jebv.v4i1.85>

### Keywords:

Personal norms, descriptive norms, injunctive norms, purchase intention, consideration for future consequences.

### JEL Classification:

M01, K12

## ABSTRACT

The prime concern of the present study entails exploring the various factors that relate to the social and psychological perspectives that derive from personal norms and influence the behaviour of consumers towards the purchase of products and the adoption of green services and products that address environmental concerns. This research effort contributes to creation of knowledge with mediation effect of consumer personal norms among samples from developing countries. The data was collected cross-sectionally from consumers of Dolmen Mall Karachi, Pakistan. The researcher approached 330 individuals under probability sampling, and data was collected through questionnaire in malls. This research paper utilized PLS-SEM for the analysis of collected data. The entrepreneurial perspective has the tendency to influence the behavior of consumers and employees. The firms strive to incorporate innovative initiatives for business operations from the entrepreneurial perspective. The firms face a number of issues, problems, and challenges and find the solution in an entrepreneurial approach that firms incorporate in their strategic management. Similarly, it has been argued that the entrepreneurial approach enables the firms to devise innovative solutions and has the tendency to influence the green buying intentions. The results found that personal norms predict buying intentions, and formerly descriptive social norms, injunctive social norms, and biospheric values directly predict consumer personal norms. However, consideration of future consequences could not show any influence on personal norms. The results supported the mediating role of personal norms between descriptive social norms, injunctive social norms, biospheric values, and buying intentions. The results of this study provide important insights to green product researchers, marketers, and policymakers. Marketers can get guidance to design effective marketing strategies by focusing on consumer-related descriptive and injunctive social norms and biospheric values. The study also highlights its implications and limitations as well as the suggestions for future research.

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## INTRODUCTION

The concept of organizational sustainability is gaining recognition as an important business goal in various organizations worldwide for the reason that climate change has made people aware of their choices regarding the preservation of the environment. They are now more focused on and viewing the organization's products and brand keeping in view the sustainable performance of the company or the brand. As there has been a rise in the environmental problems in several countries,

their customers, ministries, government, and all indirect stakeholders now have made it mandatory for businesses they adopt those proper practices which may enhance their firm's sustainability (Souza & Alves, 2018). Sustainability is not only useful for the business, but it helps to improve the environmental conditions and grow the economy. This is mainly because sustainability causes the firms to continuously grow and make sure that their positive contribution exists to the environment and society as a whole. Considering the value and importance of sustainability, the literature contains a large number of research and studies explaining how sustainability may contribute towards the achievement of the organizational goals, increasing the pace at which it can grow and ultimately contributing to organizational sustainability e.g. (Joy et al., 2012; Kumar et al., 2012; Latan et al., 2018). In addition to this, there exist other related factors too. For instance, innovation is a very important factor as it entails the organization to be consistent in finding new ways and methods for achieving competitive advantages, developing innovative products and services, satisfying the firm's stakeholders, reducing the costs related to the environment, and making sure that it positively contributes to the betterment of the environment. So, the manufacturing firms must increase their investment in research so that they can improve the activities related to innovation within the organization (Kim & Park, 2017; Yu et al., 2018).

Literature has identified "continuous improvement" as an important outcome of innovation for businesses, greatly contributing to organizational success because continuous improvement will help the organization to continuously discover new and innovative ways to improve their product quality and services. In doing so, they will be able to control their cost, improve their business processes, maintain strict control of their firm's activities negative environmental impacts and hence attract a large base of customers through Innovation (Jurburg et al., 2018; Medne & Lapina, 2019). But, it is important to mention that the role of continuous improvement on Organizational Sustainability is largely reliant on the industry revolution (Gabriel & Pessl, 2016; Stock & Seliger, 2016), implying that the influence of innovation, continuous improvement and industry 4.0 together is important in the attainment of Organizational Sustainability.

Sustainability development is a key concern for the businesses in the manufacturing sector as these companies look forward to various techniques, different methods, new strategies, and effective behaviors through which their goal of Organizational Sustainability can be fulfilled. Innovation, itself, is a great tool for achieving the OS but unfortunately, several manufacturing companies in Pakistan lack of innovation, which is a vital component in the modern business world. The lack of innovation in the firms in the manufacturing sector of Pakistan is unable to achieve their sustainability goals for the same. Hence, the management literature indicates the necessity of sustainability for success in the business world (Gabriel & Pessl, 2016; Garcia-Sabater & Marin-Garcia, 2009). Despite this, many manufacturing firms in Pakistan lack of innovativeness, which has declined their standards and has caused lesser profits and hence, poor Organizational Sustainability. However, this problem is not only restricted to the manufacturing firms in Pakistan but also in, many other sectors of the developing nations, that lack OS in need of higher levels of R&D and required innovation. The main cause for the declining levels of OS includes stagnant innovation, outdated technology, and no improvements in the

manufacturing industry (Gabriel & Pessl, 2016; Garcia-Sabater & Marin-Garcia, 2009; Jurburg et al., 2018). Therefore, the global and domestic conceptualization of this challenge requires robust research so that a final solution could be found as the previous scholarship lacks this issue.

For this problem, the study has developed the research objectives, as follows:

To analyze the impact of Innovation on Organizational Sustainability in manufacturing firms of Pakistan.

To analyze the impact of innovation in the continuous improvement of manufacturing firms in Pakistan.

To assess the influence of continuous improvement in achieving organizational sustainability in the manufacturing firms of Pakistan.

Is there any mediating effect of continuous improvement between the innovation and OS of manufacturing firms of Pakistan?

To explore how continuous improvement has a mediating role between the innovation and OS of manufacturing firms of Pakistan.

To explore how Industry 4.0 has a moderating role in the above relationship

The past studies found in the literature about sustainability are of great significance, but they lack the explanation efficiently, as there are other important factors, such as the industrial revolution, and continuous improvement, which have a great role in sustainability. Few studies in the literature have explained the role of both continuous improvement and innovation in achieving sustainability goals. As an example of few studies (Ghobakhloo et al., 2021) can be shown. Researchers suggest a roadmap explains the complex precedence relationships among the 11 sustainable innovation functions of Industry 4.0. They also offer important implications for businesses that seek to leverage Industry 4.0 sustainability implications and manage sustainable development. However, the studies on innovation and continuous improvement for OS are limited and scanty. Moreover, the effect of the industry revolution and particularly industry 4.0 is underexplored. Therefore, this study is the first one to assess these variables in a single, unique and integrated research model. Furthermore, a study by Varela et al. (2019) has also called the future scholars to see how industry 4.0 plays its role. Therefore, this is justified and new research.

The current section of the study contains the study context problem and significance of the study; in the next section, a researcher will back the study with prior research and develop the hypotheses. The third section of the study described the methodological approach and proposed analysis techniques for the study. In section four, the researcher briefly presents the study's empirical findings and discusses the results aligned with prior studies. At end of the manuscript, the researcher elaborates on the study implications and concludes the while research with the study conclusion.

## LITERATURE REVIEW

Improvement in the understanding of green consumer intentions and behavior is critical for environmental and business reasons. An environmental perspective, sorting out solutions for controlling and reducing the adverse effects of human consumption to realize sustainable development purposes for the globally expanded communities (Nguyen et al., 2023). A rise in awareness regarding environmental problems has been observed among consumers. A recent poll suggests that almost 83% of individuals are worried about environmental issues (Nielsen, 2022); furthermore, they even demanded organizations to produce their products in a green way (Almohammadi & Abdulghaffar, 2022). Responding to consumer demand, organizations have started offering product assortments with no or minimum damage to the environment and people's health (Patwary, 2023). Such offering commonly known as green products includes organic food, electronic equipment, green energy, solar or electric cars etc (Bulsara & Trivedi, 2023). However, consumer preferences for green products are not visible on the sales counter (Sandhu et al., 2019). Hence, mere availability of green products is not enough to change the environmental situation prevailing; it is imperative to understand what constitutes the consumer's intentions to buy such products. Intentions provide the probability that one will buy the product in the future (Ajzan, 2008; Hagger et al., 2022).

The entrepreneurial approach has grabbed the attention to academic research scholars as in previous decades, the sustainability-oriented entrepreneurial approach enhances societal well-being and environmental stewardship. The prior literature has embarked on the need for taking initiatives for devising corporate strategy while keeping in view the phenomenon of sustainability through an entrepreneurial approach and to ensure the sustainable entrepreneurial perspective for long-term objectives accomplishment (Ranville & Barros, 2022; Sarwar et al., 2023). It has been reported that entrepreneurship has the tendency to influence societal betterment and play a crucial role in the improvement of society. Modern entrepreneurship is considered a form of social activity that ensures the engagement and interaction for entrepreneurial relationships. Entrepreneurship is widely acknowledged as the primary process for initiating novel business ventures. Entrepreneurship has a significant influence on the generation of employment and creates further opportunities, increases income and societal value, and ultimately fortifies economic conditions (Bosma et al., 2021; Javed et al., 2023).

The prior literature has explored middle-class entrepreneurship from multiple perspectives, and the aim is to contribute to social and economic factors. Previous studies have revealed that prospective entrepreneurs found to be a members of a specific age groups, education and awareness play an important roles in an entrepreneurial mindset and encourage them to establish their own businesses (Otar et al., 2024). Another research study has been conducted that reported that entrepreneurship and entrepreneurial perspective of any business initiatives enable the firms to solve the issues and problems and respond to the challenges (Keim et al., 2024).

Consumers buying intentions towards products, particularly from an environmental perspective, depend upon moral values and personal norms (Stern et al., 1999; Vatn et al., 2022). The research scholars have expressed personal norms as the motivational perspective of an individual and the sense of moral obligation that encourages an individual to develop a sense of responsibility to perform an action (D'Arco, Marino, & Resciniti, 2023). Consumer response is driven by internal rather than external processes, and choices are made in favor of the public good rather than self-interests (He, 2023). Similarly, consumer inherited values-based literature signifies the important role of consideration of future consequences (CFC) (Shi, Li, Chen & Tang, 2023; Enzaler, 2015; van Dam & Fischer, 2015) and biospheric values (Ribeiro et al., 2023; Nguyen, Lobo, & Greenland, 2016; Shin, Fan, Tang, 2023), in the instigation of green buying. These studies assert that biospheric values encourage a person to act in an environmentally friendly way, and personality characteristics of considering future consequences for current action make a drive within him or her to choose green products (Shin, Fan, Tang, 2023). Simultaneously, the scholars also endorse the vitality of injunctive social norms (Doran & Larsen, 2016; Chaudhary, Polonsky, McClaren, 2023) and descriptive social norms (Goldstein, Cialdini, & Giskevicius, 2008; Lipsey & Losee, 2023) to create buying intentions. Descriptive norms describe the info about prevailing appropriate conduct and behavior in the society dependent on the apprehension regarding the actions of people usually be done (Ryoo & Kim, 2023). Injunctive norms, on the other hand, reflect beliefs about how one ought to act based on expectations of what other people would morally approve or disapprove of (Hansen et al., 2018). Doran and Larsen (2016), as well as Lipsey and Losee (2023), suggested that descriptive social norms and injunctive social norms both activate and promote buying intentions toward green products. The past literature shows a direct link of personal norms and social and psychological factors with buying intentions towards green products. However, there are limited studies showing mechanisms that make the relationship most effective (Ryoo & Kim, 2023). The present study proposes that social and psychological factors though produce buying intentions, yet this relationship is not instinctive and needs to be bridged by intrinsically activated moral motivation because environmentally friendly buying is driven by moral drive, not the rational drive (Vatn et al., 2022). Therefore, personal norms need to be activated first by social and psychological factors, and then promotes green buying intentions (D'Arco, Marino, & Resciniti, 2023). Understanding these links will help green product marketers have better apprehension about what contributes to consumers' green product buying intentions.

Based on the literature on social, and psychological factors, and personal norms' contribution towards green buying intentions, this study proposes a theoretical framework linking descriptive norms, injunctive norms, CFC, biospheric values, personal norms, and buying intentions. Based on norm activation theory (NAM), it is argued that descriptive norms, injunctive norms, CFC, and biospheric values cognitively activate moral personal norms, and these stimulated personal norms generate buying intentions towards green products. Where personal norms act as mediators between descriptive norms, injunctive norms, CFC and biospheric values, and buying intentions. This study contributes to the literature on personal norms by investigating its mediating influences between descriptive norms, injunctive norms, the consequences of future perspective and biospheric values, and the intention of

consumers to buy green products instead of normally available goods. In terms of managerial contributions, marketer offering green products can effectively customize their promotional campaign, fostering personal norms in consumers, which, in turn, enables individuals to buy green products.

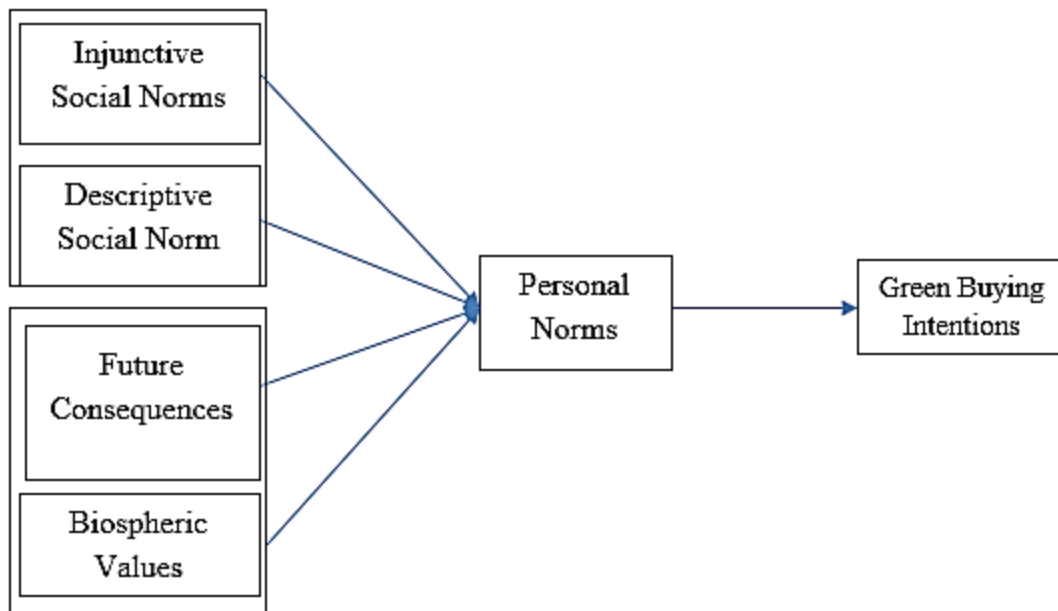


Figure 1. Framework of Study

**Theoretical foundation and literature review**

The study’s proposed theoretical framework is underpinned by norm activation theory (NAM). The theory proposes that behavioral intentions are the result of activated personal norms, whereas personal norms are activated by a person’s specific environmentally friendly beliefs (Han et al., 2019; Song et al., 2023). However, an individual’s beliefs must activate personal norms first, then these norms generate buying intentions. Further, this theory endorses the significance of both social and psychological factors for personal norm activation and subsequent buying intentions.

**Green buying intentions**

The intention of an individual consumer to purchase environmentally friendly products is due to a greening perspective that has less impact on the environment and ensures environmental protection (Jaiswal, 2018). The environment can be secured through ensuring the purchasing of green products and environmentally friendly products that reduce the negative emissions and reduce the damages to the environment due to its specific ingredients and operational efficiency. The green behavior of consumers plays an important role in reducing the negative impact on the environment through effective and efficient utilization of natural resources and ensure to adopt such practices that save the environment and reduce devastating practices (Simiyu & Kariuki). It has been observed and reported in the prior literature that the attitude of consumers towards the adoption of green products influences

the green buying intention due to inclined awareness of green products for environmental protection (Huang et al., 2014; 2023; Hoang & Hoang, 2023; Zheng et al., 2020). Gutjar, Kowald (2023) expressed that consumer that emphasized on the environment found and expected to be eager towards the sensible spending that consider the protection of natural resources and effective utilization of such natural resources. Ogiemwonyi et al. (2023) has identified that role of personal values, perception of consumers towards effectiveness, collectivism and sensible environmentally friendly approach that explains the consumption pattern in India among consumers. The study of Riaz, Gul, and Lee (2023) reported the influential factors that predict the green purchase behavior in Korean context. Another research study of Alswidi et al. (2014) reported that consumer behaviour plays important and crucial role in assessing the intention of consumers towards green product purchase. Previously, most of studies incorporated Theory of Planned Behaviour (TPB) to study consumers green buying intentions (Yazdanpanah & Forouzani, 2015; Ahmed et al., 2020; Bhardwaj et al., 2023; Ogiemwonyi et al., 2023), however, few studies investigated buying intentions through moral perspective and incorporated norm activation theory (Shin et al., 2018; Sandhu et al., 2019; Marvi et al., 2020).

### **Personal norms**

An individual's urged intrinsic motivation is known as personal norms, that relates to the morality of an individual's stance towards performing an action (Costa et al., 2014; Mahasuweerachai & Suttikun, 2023). Personal norm is referred as the feelings and moral obligation of an individual for performing a certain act (Aprile, & Fiorillo, 2023). According to norm activation theory, moral personal norms stimulate a sense of moral responsibility among a personal encouraging one to perform him or her in environmentally friendly way (Stern et al., 1999 as cited by Ostertag, 2023). These moral norms links to self-concept and let the one experience feelings of intrinsic obligation to behave in environmentally friendly manners (Fenitra et al., 2023). Behavioural outcomes are routed through inherited value system not dependent on external cues (Jang, & Kim, 2023), where personal norms are realised based on elaborating logics and reasoning indifferent to expectations of the society and self-interests (Mahasuweerachai & Suttikun, 2023). The compliance in accordance with personal norms brings sentiments of pride among the practicing one, whereas the act of dejection result in effect of guilt (Onwezen et al., 2013). Past studies in energy-efficient products and green transportation have reported the positive affect of moral personal norms on consumers' green buying intentions (Moser, 2016). Research in environmental background endorse the fact that individuals with feelings of moral responsibility towards environment protections are likely to reduce their personal car usage (He et al., 2023), showing intentions to travel through public transportation (Bamberg et al., 2007) and purchasing organic food (Khan et al., 2023). D'Arco, Marino and Resciniti, (2023) analysed the sample of generation Z regarding pro-environmental behaviours in situation where they were at home or at vocations. The study found that the people being on vocations feel less morally obliged to preserve the nature as compared to when at home. Whereas another study reported positive relationship between feeling a moral obligation towards environmental protection with environmentally friendly behaviour whether people at home or vocations (Zhang & Dong, 2023). Personal norms are proved to be strong predictor of green buying intention in comparison of other

psychological constructs i.e. attitude, values and beliefs (Stern et al., 1999 as cited by Aprile, & Fiorillo, 2023).

*H1. The personal norms positively influence the buying intention for green products*

### **Descriptive norms**

Descriptive norms describe the info about prevailing appropriate conduct and behaviour in the society dependent on the apprehension regarding action of people usually be done (Cialdini et al., 1990 as cited by Lipsey & Losee, 2023). For instance, individual forbid to spread littering on a tourist spot which seems clean and tidy because it reembarks that other folks have also been trying to evade strewing. Past studies have reported the positive relationship of descriptive norms of society that play role in engaging in environmentally friendly behaviour (Reese et al., 2014; Chaudhary, Polonsky, McClaren, 2023; Demeter, Fechner, & Dolnicar, 2023). However, Bohner and Schlüter (2014) found no link between descriptive social norms and pro-environmental behavioural intentions and consequent behaviour. Goldstein et al. (2008) conducted a study on hotel guest, where they investigated the effectiveness of pro-environmental motivational messages encouraging guests in hotel to reuse their towels. It was found that guests were highly likely to reuse towel when information communicated that there is evidence of reuse of same products. In the similar way, study on hospitality industry Wang et al. (2023) empirically found a personality profile variation for influencing energy saving behaviour. Further they rolled out the habits of customers staying at hotels at vacation determined their energy saving scenario. A study on Pakistani consumers living at sea site found that descriptive social and injunctive social norms led individuals considering it was their moral responsibility to reduce littering (Chaudhary, Polonsky, & McClaren, 2023). Hence, it is theorised that descriptive norms would entice buying greening goods and incline the intention of green consumption of resources.

*H2. There is a positive relationship between descriptive norms and consumers' personal norms towards green products.*

### **Injunctive norms**

The social norms of the society reflected by the injunctive norms, this concept is referred as the degree of acceptable behaviour of individual, specifically the behaviour towards the green products to be preferred for purchase. It has been reported that decision-making receives impact by social norms that shows that acceptable behaviour has the tendency to influence the green production and adoption of environmentally friendly products Becerra, Carrete and Arroyo (2023). Further, it has been reported that social norms have the influential capabilities that impact the social perspective and encourage to purchase the green products that has the significant influence on higher awareness towards utilization of green product for the purpose of environmental protection and preservation of natural resources. The research studies have embarked on the need to being green for environmental protection, the individual's behaviour has been observed that norms play important role in buying green products and also influences the people in surrounding to purchase the environmentally friendly products to rescue



the damaging environment (Han and Yoon 2015; Baumgartner, Valkenburg, & Peter, 2011). Goldstein, Cialdini, and Griskevicius (2008) conducted a series of social experiments to observe the normative influence on hotel guests and found that injunctive norms influence pro social and environmentally friendly behaviour. A study on Pakistani consumers living at sea site found that descriptive social and injunctive social norms led individuals considering it was their moral responsibility to reduce littering (Chaudhary, Polonsky, & McClaren, 2023). After a comprehensive literature review of consumers motives behind buying green apparels the researchers found that the injunctive social norms had a significant contribution towards moral personal norms and subsequent purchasing environmentally friendly apparels (Khan et al., 2023). Meng et al. (2023) suggested that normative influences personal norms, combined with intrapersonal characteristics, influence green consumer behavioural intentions. In the same way, the social dilemma theory posits and suggest to provide additional and deep insight of motivation that define consumer actions (Miranda-Rodríguez et al., 2023).

*H3. There is a positive relationship between injunctive norms and consumers' personal norms towards green products.*

### **Consideration of future consequences (cfc)**

People plan out the goals they want to accomplish in the future, consider the future consequences of their activities and take active measures to bring out the desired results (Kim, Ju, & Kim, 2023). According to Pokharel et al., (2023), the individuals can be classified on the basis of intensity to which they consider the future consequences of their behaviours. The term has been coined as 'consideration of future consequences' that referred as the prescribed individual difference and the propensity for considering the future and long-term outcomes out of current behaviour and influence to gain the potential benefits (Strathman et al., 1994 as cited by Schumacher et al., 2023). According to the best knowledge of the author, this research is the first attempt to investigate the influence of consequences on personal norms and green consumer behaviour; However, this construct has been used in many studies among different research fields, i.e., environmental psychology, sociology, and health sciences (Adams et al., 2023; Ahmad & Nasir, 2023; Wang, Thier, Lee, & Nan, 2023; Olivera-Figueroa et al., 2023). Măirean and Diaconu-Gherasim (2023) argue higher scoring individuals more eager for well-being. Shi et al. (2023) found in their transportation study in China that (CFC) high scoring Chinese are likely to select environment-friendly mode of transportation i.e., public transport instead of a car, then those who scored low on CFC. Moreover, Haney-Caron et al. (2023) reported in their study relevant to the incorporation of social values and consideration of future consequences in the norm activation model found that high scorers in the CFC scale feel a moral obligation to act pro-environmentally; hence future orientation effect green consumption. Therefore, it is hypothesized that,

*H4. The future consequences influence the consumers' norms for buying green products*

## **Biospheric values**

Schwartz (1977), as cited by Zeiske et al. (2021), defined values as guiding principles in an individual's life. Biospheric is an altruistic value in which people care and protect not only the environment and nature but all living beings on the planet (Sampene et al., 2023). The biosphere is defined as the space between the earth's outer crust and an inner layer of the atmosphere around the globe, where all living beings exist. Whereas biospheric values are considered as an individual's firm belief about the safety and concern about the biosphere irrespective of the benefit the humans can seek from it (Wang, Zhang, Wong, & Wang, 2023). The people endorsing biospheric values find it important to protect the quality of nature and the environment which is an important and consistent predictor of various pro-environmental behaviors. In recent years biospheric values have received increasing attention from researchers on the avenues of green consumer behavior research, e.g. (Ribeiro et al., 2023; Nguyen, Lobo, & Greenland, 2016). According to Steg et al. (2014), the people who strongly adhere to biospheric values are more likely to preserve and care environmental along with consciously avoiding any act that may harm nature and the environment. Zeiske et al. (2021) conducted an empirical study on French citizens to study their energy-saving behavior, and the research found that the people who scored higher on biospheric values were subject to create self-identity with nature turning consequently into a moral obligation to save energy. Hence, biospheric values are related to an individual's intrinsic motivation to protect nature, which translates into a moral imperative to act pro-environmentally. Therefore, it is hypothesized that,

*H5: There is a positive relationship between biospheric values and consumers' norms towards green products*

Further, previous literature supports the mediation effect of personal norms between descriptive norms (Wang et al., 2023; Doran & Larsen, 2016), injunctive norms (Becerra, Carrete, & Arroyo, 2023; Matthies et al., 2012; He & Zhang, 2018), consideration of future consequences (Shi et al., 2023; Joireman, Kees & Sproot, 2010), biospheric values (Steg et al., 2014; van der Werff, et al., 2013; Zeiske et al., 2021) and buying intentions. On the basis of this discussion, it is hypothesized that,

*H6: Consumer descriptive social norms and buying intentions towards green products are positively mediated by personal norms.*

*H7: Consumer injunctive social norms and buying intentions towards green products are positively mediated by personal norms.*

*H8: The personal norms mediate the relationship between consideration of future consequences and buying intention for green products*

*H9: Consumer biospheric values and buying intentions towards green products are positively mediated by personal norms*

## RESEARCH METHODOLOGY

Data was collected from walk-in consumers in Dolmen Mall Karachi, Pakistan, through questionnaires by using the mall intercept method in line with Sudman (1980). The questionnaires in English were randomly distributed among the respondents. Pakistan is a developing country with a population of 220 million. Whereas, Karachi is the largest city in Pakistan, population of around 20 million. Organic food is the green product that is mostly available in grocery stores, supermarkets, and specialized shops (Sandhu et al., 2018). Moreover, consumers are familiar with organic food as an environmentally friendly green product (Rani et al., 2018). The awareness about organic food benefits for people's health and the environment is on surge among the people in the country (Alswidi et al., 2014). Therefore, this study collected data from consumers where data was collected through the mall intercept method. The selected respondent's ages were 18 years and above, and they were handed over the questionnaire when they were shopping in the mall (Dolmen Mall). Among 330 distributed questionnaires, 240 were collected back. Whereas, among those 10 were found incomplete; hence, eliminated for further analysis. Therefore, 230 questionnaires were found valid, which included 85 females (37%) and 145 males (63%).

This study adapted the scales from previous studies to measure the constructs. Green buying intentions were measured by a six-item scale (Wee et al., 2014). A six-item scale was used to measure personal norms (Sandhu et al., 2019). Five items were used to measure injunctive social norms (Sandhu et al., 2019). Descriptive social norms were measured using a five-item scale by Doran and Larsen (2016). Consideration of future consequences was measured by five items adapted by Joireman, Kees, and Sproot (2010). Biospheric values were calculated by four items adapted from deGroot et al. (2012). The items were measured against a 5-point Likert scale, 1 for strongly disagree, and 5 for strongly agree.

## RESULT AND DISCUSSION

The usable data was first analyzed through SPSS, where missing vale was analysed. After analysis, no missing value was found. Moreover, data was found within the range of responses 1 to 5. After data cleaning, the characteristics of respondents were identified, as shown in Table 1.

**Table I: Profile**

Characteristics		Frequency	Proportionate %
Gender	Male	145	63
	Female	85	37
Education	No formal education	3	1.3
	Senior Secondary School	25	10.9
	Bachelor	104	45.2
	Masters	95	41.3
	PhD	3	1.3
Income	0-25000	35	15.2

	25001-50000	75	32.6
	50001-75000	59	25.7
	75001-100000	41	17.8
	100001-125000	14	6.1
	125001 and above	6	2.6
Age	18-25	54	23.5
	26-35	83	36.1
	36-45	65	28.3
	46-55	19	8.3
	above 55	9	3.9
Residential Place	Urban	183	79.6
	Rural	47	20.4
Occupation	Government Employee	15	6.5
	Private Job	84	36.5
	Self Employed	78	33.9
	Student	52	22.6
	Retired	1	0.4
Family Members	2-3	23	10
	4-5	83	36.1
	6-7	101	43.9
	8 and above	23	10

Afterwards, to test the scale's convergent validity and reliability, the study used the SmartPLS-SEM (Rady et al., 2023). In the first step, the study's outer model was analyzed. Table 2 shows the factor loading of all items, AVE, and composite reliability of all the constructs. The items lower factor loading to 6 were deleted (Rady et al., 2023). Whereas, all constructs' composite reliability and AVE were found well above the limits 0.70 and 0.50 respectively. Hence, it proves the convergent validity of the scale.

**Table. II: Measurement items, factor loadings, and composite reliability**

<b>Factors/Items</b>	<b>Loading</b>	<b>CR</b>	<b>AVE</b>
<b>Buying Intentions</b>		0.817	0.529
Purchase organic food	0.789		
Purchase organic food on a regular base	0.727		
Organic food for health	0.610		
Organic food is safe	0.637		
Organic food is environmentally friendly	0.748		
Organic food is concerned with animal safety	0.590		
<b>Personal Norms</b>		0.756	0.509
Personally, organic food rather than non-organic food	0.741		
Organic food usage makes me like a good person	0.580		
Consume organic food rather than non-organic	0.714		
Use organic food is contributes to environment safety			
I prefer to buy organic food regardless of what people do	0.683		
I feel guilty if I purchase harmful products	0.520		
I feel like a good person when I buy organic items	0.560		
<b>Injunctive Social Norms</b>		0.76	0.513
My family also prefer organic food items	0.540		
My friend zone is also inclined towards organic good purchase	0.580		
People around me also prefer to buy green products	0.718		
The society also prefer to encourage the persons to buy organic food	0.751		
Important people around me also like when I buy organic food items	0.679		
<b>Descriptive Social Norms</b>		0.753	0.505
The people pay higher amounts for green and organic food for environmental protection	0.716		
Important people around me make an effort to purchase environmentally friendly products	0.758		
People around me purchase environmentally friendly products even the price is higher	0.655		
People around me buy organic food even these items are more expensive	0.550		
The majority of the people important for me strive for food options that protect the environment	0.560		

<b>Consideration of Future Consequences</b>		0.814	0.593
I pay attention to the future, which is influenced by day-to-day behavior.	0.782		
I engage in behavior for the achievement of outcomes that may not result or take many years	0.590		
I prefer to sacrifice immediate happiness for long-term well-being and future	0.570		
I pay attention to negative outcomes seriously, even it may not occur for many years	0.755		
It is more important to perform behavior for consequences than behavior with less important and immediate outcomes	0.772		
<b>Biospheric Values</b>		0.785	0.548
I prefer to reduce pollution	0.550		
I respect the earth	0.764		
I prefer to care nature	0.733		
I prefer to protect environment	0.725		

After successfully identifying convergent validity, discriminant validity of the scale is analysed through the Fornell and Larker criterion (1981), as cited by Sandhu et al. (2019). As shown in Table 3, The square root of AVE is indicated in bold for each construct; it is greater than its highest correlation with any other construct. Hence, discriminant validity was established.

**Table. III: Fornell and Larker Criterion**

	BI	BioV	CFC	DSN	ISN	PN
BI	<b>0.727</b>					
BioV	0.387	<b>0.741</b>				
CFC	0.413	0.248	<b>0.77</b>			
DSN	0.464	0.438	0.233	<b>0.711</b>		
ISN	0.458	0.311	0.33	0.294	<b>0.716</b>	
PN	0.485	0.551	0.286	0.52	0.408	<b>0.713</b>

BI- Buying Intentions; PN- Personal Norms; DSN- Descriptive Social Norms; ISN- Injunctive Social Norms; CFC- Consideration of Future Consequences; BioV- Biospheric Values

**Direct and indirect relationships**

The researcher utilized Smart-PLS bootstrapping method to analysis the sample of 230 cases, the values of result obtained from Smart-PLS has been demonstrated in the table 4 (Hair et al., 2016). Out of the total 5 direct hypotheses, 4 hypotheses were supported, while 1 hypothesis was not supported, as shown in Table 4. The results show that consumer personal norms positively impact green buying intentions ( $\beta = 0.175, t = 2.475, p < 0.05$ ). Therefore, hypothesis 1 is supported. On the other hand, Table 4 shows that descriptive norms ( $\beta = 0.297, t = 5.236, p < 0.01$ ), injunctive social norms ( $\beta = 0.191, t = 3.432, p < 0.01$ ), and biospheric values ( $\beta = 0.346, t = 5.996, p < 0.01$ ) have a positively significant effect on personal norms. Thus hypotheses 2, 3 and 5 are supported. However,

consideration of future consequences ( $\beta = 0.057, t = 1.188, p > 0.05$ ) is found to have no significant effect on personal norms. Thus, hypothesis 4 is not supported and, hence, is rejected.

**Table. IV: Direct Relationships**

	B	SD	t-value	p-value
PN -> BI	0.175	0.071	2.475	0.007
DSN -> PN	0.297	0.057	5.236	0.000
ISN -> PN	0.191	0.056	3.432	0.000
CFC -> PN	0.068	0.057	1.188	0.117
BioV -> PN	0.346	0.058	5.996	0.000

BI- Buying Intentions; PN- Personal Norms; DSN- Descriptive Social Norms; ISN- Injunctive Social Norms; CFC- Consideration of Future Consequences; BioV- Biospheric Values

Further bootstrapping results in table 5 show that the norms found to be significant mediator for buying of organic food and descriptive social norms and intention to buy green products ( $\beta=0.052, t=2.175, p<0.05; LL=0.014, UL=0.092$ ); intention for purchasing green products and injunctive norms ( $\beta=0.033, t=1.910, p<0.05; LL=0.008, UL=0.064$ ); biospheric values and intention to buy green products ( $\beta=0.061, t=2.360, p<0.05; LL=0.017, UL=0.102$ ). Hence, hypotheses 6, 7, and 9 are accepted. However, consumers’ norms are insignificant mediators between future consideration and consequences to explain the intention of buying green products ( $\beta=-0.012, t=1.012, p>0.05; LL=-0.004, UL=0.034$ ). Therefore, hypothesis 8 rejected.

**Table. V: Mediation Relationships**

	Original Sample (O)	SD	T Statistics	P Values	Confidence interval 5%	Confidence interval 95%
DSN -> PN -> BI	0.052	0.024	2.175	0.015	0.014	0.092
ISN -> PN -> BI	0.033	0.018	1.910	0.028	0.008	0.064
CFC -> PN -> BI	0.012	0.012	1.012	0.156	-0.004	0.034
BioV -> PN -> BI	0.061	0.026	2.360	0.009	0.017	0.102

BI- Buying Intentions; PN- Personal Norms; DSN- Descriptive Social Norms; ISN- Injunctive Social Norms; CFC- Consideration of Future Consequences; BioV- Biospheric Values

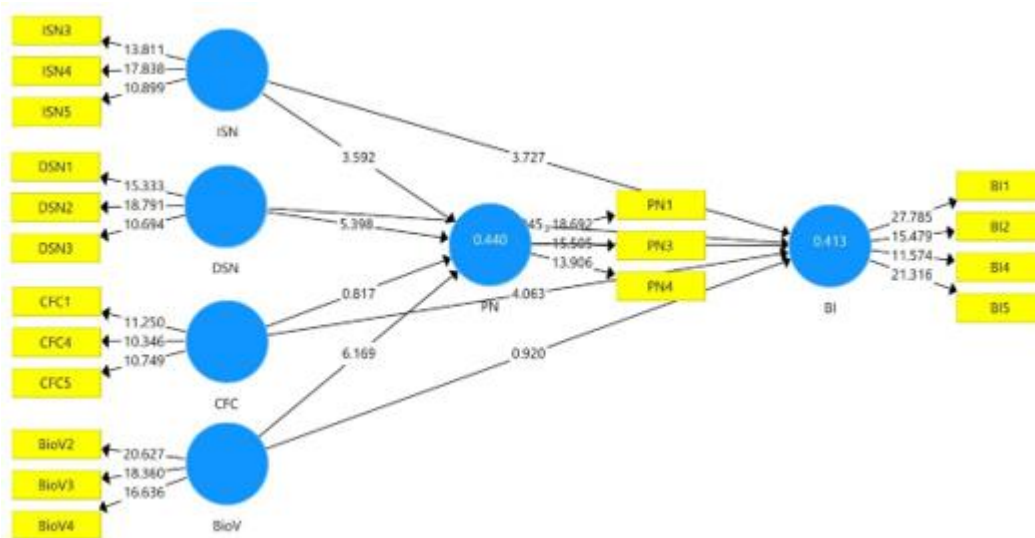


Figure 2 Output from Smart-PLS

## CONCLUSION AND IMPLICATION

Study findings suggest that moral personal norms create purchase intentions towards green products. This is consistent with Sandhu et al. (2019); the activated subjective norms produce a moral conviction among consumers that the environment is important for them and for overall society, and buying green products can contribute to this quest. The results also show that social and psychological factors are important to personal norm activation. Particularly descriptive and injunctive social norms stimulate intrinsic moral motivation, enforcing individuals to follow the norms of significant others, in terms of what they mostly do and the things they consider right to do, respectively trigger moral personal norms. It is consistent with Zeiske et al. (2021). Further, results show that intrinsically held biospheric values stimulate a strong attitude within a person that buying environmentally friendly product would be a contribution for wellbeing of society. Therefore, the individual considers buying green product a moral obligation. The result is in line with Steg et al. (2014). However, consideration of future consequences found unable to produce personal norms within consumers. This may be due to reason that green products are still new concept in Pakistan, so individuals are unable to link the future consequences of their current purchases with moral motivation to buy green products. This result is contrary to study assumptions, however, consistent with Joreman (2004).

The results further show that personal norms act as an important mediator between descriptive social norms, injunctive social norms, biospheric values and buying intentions towards buying green products. Descriptive social norms; the actions that significant others perform mostly, activated personal norms among consumers which consequently promoted buying intentions (Doran & Larsen, 2016). Similarly, injunctive social norms; the conduct which significant others approve right, triggered personal norms and consequent buying intentions (Sandhu et al., 2019). Further, moral obligation of consumers to buy green products were activated by their inherited biospheric values which further instigated buying intentions (van der Wreff et al., 2013). However, Consideration of future



consequences unable to activate consumers' personal norms, hence personal norms did not mediate between buying intention and future consequences.

### **Theoretical contribution of the study**

Within a theoretical standpoint, this study contributes towards green buying with a mediating effect of personal norms and social factors, psychological factors and purchase of green product buying intention. This study responded to the research call from Zeiske et al. (2021). In the green buying context, previous studies found the direct relationships of these factors with buying intentions and indirect relationship through attitude. The mediation of attitude was tested by using rational actor models. However, testing these links through a moral perspective was still lacking. The study findings highlight that social (descriptive social norms and injunctive social norms) and biospheric values create moral feeling among individuals where they assume responsibility to buy green products and consequently these moral assumptions produce buying intentions towards green products among those individuals. Biospheric values are an individual's inherited firm belief that environmental safety and preservation are vital for human survival on this planet and any act distorting the eco-system will be catastrophic, bringing humans to extinction. The results show that consumers show their zeal to protect and preserve the environment, and this conviction emerged a sense of moral motivation among them to buy green products. However, the results did not support consideration of future consequences as an activator of moral personal norms and consequent buying intentions. The consumers were unable to support and imagine the idea that their current purchases may have a link with the consequences supposed to happen in distant future. This trend shows that Pakistani consumers are immediate benefit oriented, not future focused. Therefore, marketers must promote immediate benefits of green products to consumers such as new technology, energy saving feature of green electronic products and natural taste of organic food.

Study findings are an important contribution towards moral personal norms and green buying intentions, since prevailing literature shows limited knowledge concerning the impact of social and psychological factors on intrinsic moral subjective norms and consequent buying intentions.

### **Practical contribution of the study**

The results contain essential information for business practitioners. Introduction of green products i.e., electric appliances, cars, packing material etc. in Pakistan have been welcomed by the consumers and the retailers, however, consumers are more concerned about the real impact of the product on the environment. Whereas, green product marketers are still interested in the knowledge how to increase the demand of green electric products among Pakistani consumers. This study offers practical insights for marketers and policy makers to increase consumers' requirement for green products. Firstly, the findings of the study assist in determining the intention of consumers towards buying green products and services, so therefore there is a need to incorporate such promotional messages that related to moral responsibilities and individuals to play a role in saving the environment by introducing the practices that reduce the degradation of the environment. The messages from these firms for attracting the consumers having concern for green products can contribute to the biosphere. It has been reported that

there are devastating impact of non-green products on the environment in future and saving biosphere for human existence. The marketers have to pay attention towards development of such greening perspective for development of products that play role in saving the environment that enable the firms to develop green products and save the environment. Consequently, the pro-environmental behavior is important in developing the such products that shape the behavior of consumers towards purchase these environmentally-friendly products that ensures the environmental safety.

### **Limitations and future study**

The study has gone through a rigorous process of investigation however, it is not without limitations. There are some limitations in our study. First, we collected data from one shopping mall Karachi Pakistan. Future studies can enrich existing knowledge of green buying intentions considering other shopping mall from different cities of the country. Moreover, a cross- cross-country comparison can also provide contribution towards green buying behavior literature. Second, the data was collected from the consumers shopping in a mall indifferent to their cultural, educational, and professional backgrounds. The specific consumer research from teachers, knowledge workers and in rural setting will contribute further towards the relationships between the factors that relates to social and psychological factors for determining the personal norms and buying intention for green products. Finally, future research can further explore how male versus female consumers may respond in terms of buying intentions considering these social and psychological factors. Whereas, previous studies acknowledge the fact that the cognitive process of handing information regarding males and females is different. It will further assist marketers of green products to promote green assortments.

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