RESEARCH ARTICLE

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Assessing the impact of green consumption behavior and green purchase intention among millennials toward sustainable environment

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Abstract

Social media is playing a vital role in the promotion of green products by reshaping the millennial green purchasing intention and green consumption behaviors, resulting in progressive growth toward sustainable environment and lower carbon emission. Non-organic consumption among humans has increased the carbon emission in contrary risked environment; therefore, consumption behavior and purchasing intention are required to change for better sustainable environment. This study's goal is to determine the effects of social media in molding the consumption behaviors while considering eco-labeling, eco-branding, social norms, and purchase intensions among millennials to promote green consumption and lower carbon emission. It was decided to use a cross-sectional questionnaire survey to get information from the students of different faculties including social sciences, engineering, and bio-sciences. SPSS.V.22 and Smart-PLS were used to analyzed the data. Results indicated that social media has a profoundly good impact on molding and impacting youth behaviors regarding the green consumption, resulting in increasing intention toward sustainable environment which results in lower carbon emission. The results are in line with the predictions and contextual analysis, as the whole world is coming back toward natural life and is working for environmental protection and sustainability specially to lower the carbon emission. Therefore, students are molding themselves toward green consumption. The study recommends that future research may be conducted to study more contextual variables, who has influence on the green consumption among the general public regarding green consumptions and lowering carbon emission and stepping toward the sustainable environment.

Keywords Social media · Green purchase intention (GPI) · Green consumption behaviors (GCB) · Sustainable environment · Carbon emission

Introduction

Humans by their nature are naturalists and environmentalists. They love to remain in a natural and heuristic environment (Cheung and To 2017). They explore different horizons that is also in their nature, explore different avenues, sometimes prefer artificial life, but by nature they come back to their basics (Turi et al. 2018). On the other hand, growing urbanization and population pushed the human exploring the way behind naturalism so they drilled deeper beneath the earth and sea for oil energy and non-organic consumption

products resulted in serious risk to the environment (Ahmad et al. 2019). Socially and psychologically, humans are affected with the artificial life and they want to live the life which was lived by their forefathers centuries back (Sivapalan et al. 2021; Zafar et al. 2021). More people are forcing and reshaping to have a more organic and natural life rather than consuming modified or planned lifestyle by the human of which the ultimate effect is a negative lifestyle (Alfahad et al. 2022). This is not limited to some specific area, but contextual studies conducted in different parts of the world proclaim that humans are forcing themselves to adopt pragmatic behaviors, which bring them nearer to naturalism (Joo et al. 2020; Testa et al. 2021). Mohsin et al. (2019) referred to it as a movement, and is greatly affecting and changing human (consumer) behaviors and they are pealing for environmental preservation, protection, and sustainability. Among many other practices, processes, and habits, one

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major area is the green consumption and production, via which humans are coming back to their basic, simple, and green lifestyle (Ullah et al. 2021; Yue et al. 2021a).

Especially, since the COVID-19 outbreak, people and especially millennials have started focusing on maintaining futurism, environmentalism, naturalism, and sustainability and consuming more organic and naturally green products (Ikram et al. 2019).This effect can be observed at micro-level also, where individuals have developed their aptitude regarding green production and consumption in their daily routine, as reported in the surveys of the daily news, websites, and other media channels (Xia et al. 2022). Various research papers showed that a sudden increase can be seen in green consumption and people are stopping their selves from fast food and other meat-related products (Zhang et al. 2021).

Considerable reports are proclaiming that long-term use of fast food and red meat can cause diabetes, cardiovascular disease, and colorectal cancer. Therefore, an unorganized movement can be seen in the human behaviors individually and socially toward green consumption and consumers getting awareness sustainability, naturalism, and environmentalism are moving toward nature preservation (Mohsin et al. 2020).

These efforts on an individual and collective levels indicated that environment preservation, sustainability, and its development has been the prime concern of the individuals, groups, and organization, and also of researchers and practitioners. This environmental activism (environmentalism) is shifting the preferences of the individual and groups to develop, grow, and consume a green product that helps in development and environmental protection (Mohsin et al. 2021). In China, abrupt changes of behavior of the youth toward the green consumption has been noticed and almost 70% green consumption has increased (Agyekum et al. 2021).

There are different factors, which are impacting and influencing consumers' behaviors. Print media, electronic media, and social media are playing a major role in reshaping the purchase intentions and behaviors. Social media is using eco-labeling and eco-branding for harmonizing and developing green purchase intentions and, finally, the green consumption behaviors among end-user. Social media has penetrated into the people's lives specifically the most common use among the millennial shows like an essential need of life for them where an average individual spend about 6 h a day on social media. Thus, studies recommend that social media influencing impact on the green consumption behavior among the millennial need to be empirically studied (Iqbal et al. 2019). Social media has developed into a significant platform for exchanging information, sharing ideas, and creating content. Social media has

transformed how customers and businesses, especially those selling green products, communicate, enabling customers to have a more engaging shopping experience (Asbahi et al. 2019).

Social media's impact on consumers' behavior and purchase intention has been widely studied by several scholars, including in the food market. However, the present study aims to study social media role in shaping consumer opinions, influencing factors such as eco-labeling, eco-branding, green purchase intention, and green consumption behaviors among the university students in China. The current study will fill the gap in the literature by examining the impact of social media on consumers' altruistic and egoistic motivation, attitude, and subjective norms toward green consumption, as well as outlining the antecedents of consumers' purchasing intentions. This study proposes a research model based on the Theory of Planned Behavior with the prediction of green consumption behavior as the central element. The study's novelty is in examining how social media influences purchase consuming behavior by playing an influential and directing function of social media eco-labeling, eco-branding, purchase intention, and consumption behavior.

Literature review

Green consumption definition has not been developed by the theorists and researchers, but almost all agree that the concept is more related to notion of sustainable development or sustainable consumer behaviors. It includes consumptions, which is compatible with the safety of the environment and its development. This concept forces the human to adopt those behaviors, which can help in preservation of the natural resources for the next (coming) generations. However, the current study identifies what constitutes "green consumption" as follows: in addition to performing their fundamental duties, they work to safeguard the environment, reduce pollution, responsibly use renewable resources, and safeguard the well-being and species of animals. Iqbal et al. (2022), Sun et al. (2020), and Mohsin et al. (2021) argued that there could be different forces which are driving humans toward the purchase of the green products. According to the literature analysis, world consumable resources are being used at a higher speed (Ikram et al. 2019) and the environmentalists are preaching for its preservation, and focusing on developing alternative sustainable resources (Hwang et al. 2020).

Iram et al. (2020) proclaimed that green consumption has been getting more attention among the youth, because they are more realistic and assessing to lower carbon emission (Hansen et al. 2018).

Green consumption and carbon emission

There are different driving forces for green consumption behaviors. The major concern came from the health of the end-users. Similarly, environmentalism and futurism are also major a contributing concern besides sustainability. Moreover, cheaper rate and easy availability of the green products are the economic concerns toward green purchase intention and green consumption behaviors. Furthermore, subjective and normative beliefs, and many other internal and contextual elements, need to be considered for the green purchase intentions and green consumption behaviors. According to socio-psychological theories and many research findings, social norms are the more influencing factors in shaping and changing purchase intentions and consumption behaviors.

According to the economic survey, in developed and developing countries, 54% of people have shifted their eating habits toward green consumptions (Sun et al. 2021). This pro-environmental attitude is leaving a beneficial effect on environmental sustainability (Iqbal et al. 2019) preservation, and production. According to research studies, altruism or altruistic motivation has a substantial positive impact on altering consumers' motivation toward green consumptions, which has emerged among youth because of the use of social media (Mutum et al. 2021; Bulut et al. 2021; Gong et al. 2021). According to Mainardes et al. (2020), altruistic motivation can better create intrinsic motivation for caring and preserving the nature and environment. In the same way, according to Tan et al. (2018), social media can be the best force and stimulus in changing, convincing, and developing pragmatic attitudes and behavior toward green consumptions. Consumers are highly motivated by the blogs and posts of the peers, fellows, and friends and also of the statesmen noble, and the companies are bitterly using their stances for promoting green consumption after the ultimate nature threats to lives, and according to media and research reports, a major shift can be observed in the behaviors, attitudes, and consumption trends and tests of the consumers (Shuzhang et al. 2021; Turi et al. 2018; Mutum et al. 2021).

In the same way, egoistic motivation or egoism is a social phenomenon, believing in sharing, disseminating, and sharing ideas and information (Dhir et al. 2021; Bashir et al. 2019a, b). Humans, by very nature, keep and share that information, which helps them best in keeping their selves firms and active and convince their circle to come toward those attitudes and behaviors which help them best (Park et al. 2015). They share information according to their likes and dislike on all possible forums to get all their friends, fellows, and family members on board. The forums can be physical discussions or gatherings, but the best forum can be social media including but not limited to Instagram, Facebook, and LinkedIn, where at the click of a button, you can pull information to a large audience (Moon et al. 2018; Bulut et al. 2021).

Recent research proclaims that more than 73% of social media followers follow, accept, and get convinced on the opinions of the peer, which indicates social media significantly affects consumer attitude and behaviors (Sivapalan et al. 2021). Likewise, as cited above, the world is coming back to basics; most of the users are proclaiming and preaching for green consumption, which has created awareness among the general public regarding green purchasing and green consumption (Turi et al. 2018; Ulker-Demirel and Ciftci 2020).

Green purchase intention

Formation of attitude and purchase intentions are based on expected positive or negative experiences and expectations that may be due to personal internal, or external, social pressures (Kumar and Smith 2018; Zafar et al. 2021). Like purchase intention among the consumers is extensively studied using Theory of Planned Behavior (TPB), a similar concept is driven for the green purchasing intention as well (Tan et al. 2018). Consumers are more conscious regarding their health, nature, and environment while selecting green food products among so many so other products (Taufique and Vaithianathan 2018). According to the research finding regarding generation Z, the main concern regarding purchasing green products is the ecological and health concern. After COVID-19, consumers are more concerned with preserving the environment (Yang et al. 2017; Yan et al. 2021); however, Dhir et al. (2021) stated TPB has a tremendous impact on consumers' purchase intentions. According to the Technology Acceptance Model, the users of all ages and groups have been using machine and digital gadgets for accessing information. However, during COVID-19, an increase in frequency can be observed in how users interact with digital and social media (Joo et al., 2020). During COVID-19, people were more conscious regarding health, nature, and the environment (Mutum et al. 2021).

Subjective norms

Taking the subjective aspects of the green consumption behaviors, end-users (consumers) take pride in taking healthy and energetic food products (Yang et al. 2017). Subjective norms are concerned with the individual and social engagement in specific behaviors due to specific expectations and specific results (Miller 2017). Subjective norms not only talk about personal but also social concern while adopting or rejecting certain behaviors and attitude (Park et al. 2015). According to research, subjective norms and customer purchase intentions have a positive link. Consumers are more concerned about ecology (Si et al. 2020). They

want to maintain and preserve the environment and nature and, therefore, are opting for green productions and consumption (Tan et al. 2018).

Social media

The digital transformation age, social media, and Internet of Things have penetrated in our social corners of daily life and heavily impacted. According to Google survey, there were 4.33 billion social media active users around the world at the start of 2021, equating to more than 55% of the world population (ShuZhang et al. 2021; Taufique and Vaithianathan 2018). During COVID-19, youths were more focused and engaged on social media, with more Facebook users and others on social media blogs and channels (Sivapalan et al., 2021). Social media Facebook has been graded as one of the most influential media sources, which is affecting, influencing, and changing youths' behaviors (Gong et al. 2021; Verm and Chandra 2018). Therefore, different governments, social welfare organizations, and groups use social media (Facebook, Twitter, WeChat, Instagram, etc.) for convincing and motivating youth to adopt healthy practices, improve their immune system, and come toward naturalism, futurism, and environmentalism (Sivapalan et al. 2021).

Social media has become the greatest source of information regarding all life matters. It is the most accessible and most influencing stimuli, which are molding individual, organizational, and social behaviors (Park et al. 2015). Due to its acceptability among users of all levels, ages, and groups, many companies have also used it as a source of spreading and spending information among all age groups (Tan et al. 2018). National and international companies are using social media including but not limited to Facebook, Instagram, and LinkedIn and many others for convincing, persuading, and engaging their stakeholders and user (Hansen et al. 2018; Bashir et al. 2019b).

Eco-branding and eco-labeling

Different companies and production houses are using eco-labeling and eco-branding to attract customers and end-users toward green consumption. Eco-labeling and eco-branding are complementary approaches and synergizes one another (Tan et al. 2018). Eco-branding is a marketing approach, which focus on environmental and sustainability. Many companies are using phrases like "environmentally friendly," "eco-friendly," "recycled," and "low energy consumption" which are motivating youths and also the general public toward green purchasing and green consumption (Khurram et al., 2018). Similar to this, an eco-label designates goods or services within a given product or service category that have been shown to be generally more environmentally friendly. The iron has been made hot by the contextual situations of

COVID-19, where the general public and youth are rushing toward green purchasing and green consumptions.

Eco-labeling and eco-branding have created altruism among social groups regarding consumption and daily intakes. Altruism can be referred to and described as a selfless act, a different behavior, to forgo their wishes and desire for the fast, cooked hot and spicy foods. In the current pandemic-hit area, consumers shifted their behaviors toward green and energetic consumption; therefore, a drastic increase in vegetable consumption and production can be seen (Shuzhang et al., 2021; Ullah et al. 2021).

Theory of Planned Behavior

The most popular theory is the Theory of Planned Behavior (TPB) which is a cited and accepted socio-cognitive model when researchers talk about certain expected behaviors, based on certain expectations and developed or controlled contextual phenomenon (Farah et al. 2018; Cheung and To 2017). TPB thoroughly discusses the different concerns of the buyers regarding purchasing any product. We can find some supporting theories, which support change in human behavior according to the change in environment and circumstance (Moon et al. 2018).

Behaviorism talks about the change in behavior of the consumer with the change in circumstances, environment, and any internal or external factors. Similarly, social exchange theory states that people exchange and adjust behaviors according to their needs and requirements (Taufique and Vaithianathan 2018; Verm and Chandra 2018).

TPB, however, best explained the phenomenon under study. Moreover, it comprehends all contributing factors influencing the behaviors of the consumers (Yuriev et al., 2020). According to Farah et al. (2018), the main variables are attitude and the social norms; this influences consumer intentions to purchase certain green product productions, purchase, and consumption. Besides this, social media among other electronic sources is the most widely used (surfed) media, strongly reshaping and changing consumer behaviors (Zhang et al. 2017; Miller 2017). Moreover, among social media, Facebook, Twitter, Instagram, and WeChat are the most influential, which are successful even in moving mobs and individual behaviors toward certain concerns (Hoshin et al. 2019; Wang et al. 2021).

Consumers are more aware of environmental sustainability green consumption, and green production (Hwang et al. 2020; Zou et al. 2021). During pandemic period, consumers have changed their attitudes, aptitude, and behaviors, and they are considered that green consumption can the major source of sustainability, environmentalism, and naturalism (Ahmad et al. 2020;

Dhir et al. 2021). Even with an unorganized manner but conscious movement, consumer consumption and new patterns and trends can be seen in consumption patterns and behaviors (Sun et al. 2021). The above-cited contextual discussion, research findings, and suggestions direct us to the next research hypotheses:

H1: Social media has substantial impact on green purchase intentions.
H2: Social media significantly affects social norms.
H3: Eco-labeling moderates link between social media and intentions to make green purchases.
H4: Eco-branding moderates link between social media and intentions to make green purchases.
H5: Eco-labeling moderates relationship between social media and social norms.
H6: Eco-branding moderates relationship between social media and social norms.
H7: Green purchase intentions have a significant influence on green consumption behaviors.
H8: Subjective norms have a significant influence on green consumption behaviors.
H9: Social media positively influences the green consumption behaviors.

Figure 1 shows the conceptual model framework.

Material and method

Research design

In order to achieve the study's stated goal, a questionnaire from previous studies was adopted, which was distributed among the respondents using online social media platform WeChat because of the COVID-19 restriction; therefore, ethical consideration was not required because the individual was free to decide if they were willing to answer to the questionnaire. The target population was university students in China. Individual respondent was kept as a unit of analysis. Cross-sectional data were collected from the respondent. Almost 358 respondents were contacted, and 328 questionnaires were received back; Jiangxi University of Finance and economics (96), Nanchang University (167), and Nanchang Institute of Science and Technology (65) took part in this study. During the screening process, the questionnaire was removed due to missing values, because according to research if more than 10% missing values are coming in the questionnaire, those need not be considered. Similarly, 30 questionnaires were removed due to anomalies, redundancies, and outliers. SMART PLS and SPSS were applied to analyze the results.

Results and discussion

Data analysis and findings

SPSS and Smart-PLS were used to screen and analyze the data according to the research protocols; the first demographic was assessed and analyzed followed by the descriptive analysis. Demographics are given in Table 1. According to the data, 328 students participated in the survey. Most of the students were from Bachelor of Sciences (BS) with 52.74%, Master's level 33.23%, and also the Ph.D. level 14.02%. Moreover, the demographic Table 1 also contains the age and experience using social media. Furthermore, good efforts were made to balance the participation of the students from different faculties, like social sciences, medical sciences, and engineering sciences.
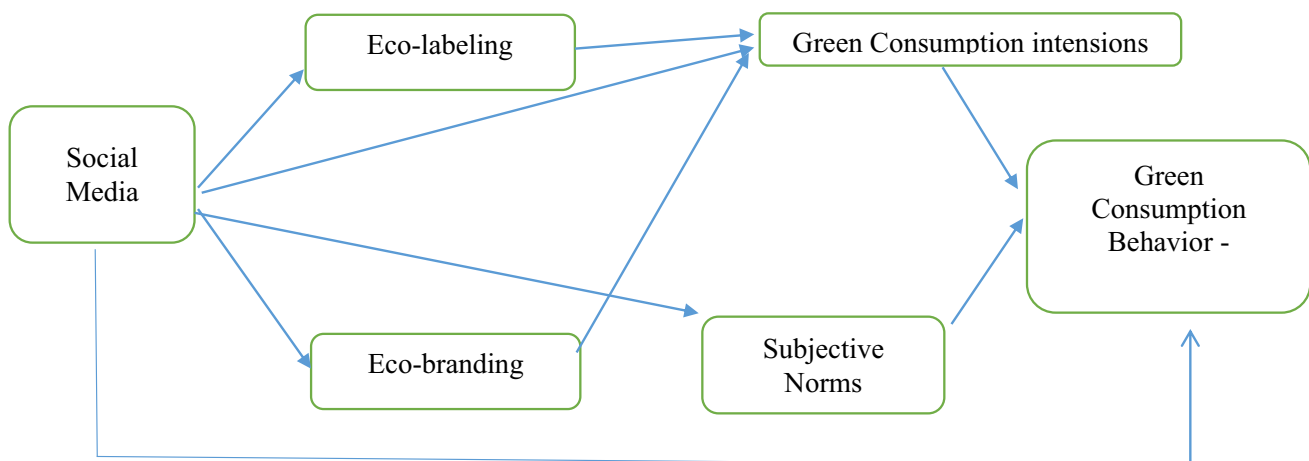

Fig. 1 Conceptual model (source: author's proposed model)

Table 1 Respondents demographic

Items		Frequency	Percentage (%)
Qualification	BS	173	52.7
	MS	109	33.2
	PhD	46	14.0
Gender	Male	193	58.8
	Female	135	41.2
Age	20–25 years	103	25.6
	26–30 years	189	46.0
	31–35 years	36	28.9
Faculty	Business and management	139	51.3
		102	18.2
	Engineering Sciences Medical Sciences	87	30.4
Experience using social media	1–5 years	163	49.6
	6–10 years	110	33.5
	11–15 years	55	16.7
Using social media hours per day	1–5 h	189	57.6
	6–10 h	105	32.0
	11–15 h	35	10.6

$N = 328$

Assessment of the measurement model

The measuring model's internal consistency, reliability, and convergent validity were examined. Composite reliability (CR) and Cronbach's alpha (CA) were assessed and calculated for measuring internal consistencies as shown in Table 2, and factor loading is shown in Fig. 2. CA and CR values fell in the recommended values' brackets (Dhir et al. 2021). The range was 0.72–0.84, which indicates that all the items were having good internal consistency among the constructs. Moreover, the results were supported by the CR values ranged from 0.830 to 0.896, which seconds the values of the CA. Furthermore, factor loading (FL) $54,321 = -0987$ was calculated for convergent validity utilizing average variance extracted (AVE), where each AVE result is greater than 0.5, which are a good signal for the model and can be used for further data analysis and deployment.

Discriminant validity

Many approaches are followed by the researchers to assess and calculate the discriminant validity; however, many researchers prefer to assess it through Fornell Lacker and Hetr Train-Mono Trait (HTMT). It is regarded as the first standard for determining the discriminant validity. This processing rule states that the values of the inter-correlation between the constructs must be lower than the values of the square root of the AVE. The values of the discriminant validity are placed in Table 3. The square roots of fall construct values are higher than their equivalent inter-correlation values, which confirms that their values are holding

the recommended values; the measurement model holds the status to proceed for the further processes.

Additionally, Henseler et al. (2015) presented the heterotrait-monotrait ratio (HTMT) technique, which validates the discriminant validity between each pair of variables, with relation to discriminant validity. The HTMT values are below the 0.90 criterion, as shown in Table 4 (Henseler et al. 2015).

Assessment of the structural model

Six criteria have been put forth by numerous researchers to evaluate the structural model using PLS-SEM. In the first phase, it is recommended to address the multi-collinearity issue (Dhir et al. 2021); similarly, assessing the amount of impact size (f2), the level of effect size (R2), and the predictive significance of the structural model relationship is important for determining the relationship's importance (Q2). Furthermore, using bootstrapping with 5000 resamples, it is crucial to evaluate the corresponding t-values of the path coefficients. The evaluation of the relationship's impact sizes is crucial since, as Sullivan and Feinn (2012) pointed out, the p-value only informs us of the existence of an effect but not its magnitude. As a result, Table 5 contains all of the R-square, F-square, collinearity (inner VIF), and predictive relevance (Q-square) results.

The results in relation to our direct hypothesis are presented in Table 5, and according to the values and their given range, all values are following the acceptance range; therefore, all the hypotheses are accepted. The values of the UCL and LCL are positive and in the same way the P and T values are significant, as indicated in Table 6. These values indicate

Table 2 Factor loading

Constructs/items	F.L	CA	CR	AVE
Eco-labeling		0.828	0.884	0.655
EL1	0.693			
EL2	0.966			
EL3	0.589			
EL4	0.583			
Green consumption behaviors		0.740	0.837	0.562
GPB1	0.622			
GPB2	0.722			
GPB3	0.799			
GPB4	0.834			
Eco-branding		0.722	0.841	0.639
EB1	0.730			
EB2	0.639			
EB3	0.673			
Green consumption intentions		0.827	0.887	0.667
GCI1	0.709			
GCI2	0.597			
GCI3	0.592			
GCI4	0.671			
Social media		0.729	0.830	0.551
SM1	0.700			
SM2	0.556			
SM3	0.701			
SM4	0.554			
Subjective norms		0.845	0.896	0.684
SN1	0.717			
SN2	0.876			
SN3	0.745			
SN4	0.693			

FL factor loadings, *CA* Cronbach's alpha, *CR* composite reliability, *AVE* average variance extracted

that one of the sources that has the most influence is social media in changing the consumers' behaviors toward green consumption and this point has also been validated by the research findings cited in the literature.

Furthermore, the mediating effect was also assessed and the values support the findings of the direct hypothesis. This indicates that social media is making a positive contribution to managing and influencing end-user toward green consumption intentions and green consumption behaviors. In Table 6, the constructs show that social media is impacting and chaining altruistic motivation, and egoistic motivation, which are further impacting end-users' green purchasing intentions toward green consumption behaviors. As was stated in the literature analysis, the general public is coming back toward green consumption, especially after the COVID-19 pandemic; the same got supported by the data analysis also in the study.

Mediation hypothesis is accepted as their values fall in the accepting range and no one construct came with the negative value for the LL or UL, and also the *P*-value falls under the thresholds of the accepting range; therefore, it is confirmed from the study analysis that social media is playing its active role in modifying, impacting, and changing behaviors of the end-user, and they now prefer environmentally friendly consumption. Table 7 and Fig. 3 present the mediation analyses' findings.

Path coefficient (indirect effect) result

Furthermore, the results were reinforced by the factor loading, and convergent validity using average variance extracted (which is considered the first criterion for confirming discriminant validity). Compared to their comparable intercorrelation values, constructions are greater, whereas the measurement model holds the status to proceed for the further processes listed in Table 8.

Furthermore, the mediating effect was also measured while the findings of the direct hypothesis of the social media are playing a constructive role in consumption intensions and green consumption behaviors. Mediation hypothesis is accepted as their values fall in the accepting range consequently; it is inveterate from the study analysis that social media. The main outcomes of the study suggest that social media and digital transformation age, and the whole working and learning mechanism, have been changed, due to the COVID-19 pandemic. Social media platforms were used for convincing and influencing the general public promising to give new directions to the behaviors whereas an environmental concern has encouraged businesses to implement green business activities in the country. While the *p*-value indicates whether an effect exists, it is important to determine the relevance of the structural model relationship by assessing the level of variance explained of the dependent variable. This indicates that social media is one of the most influential sources in influencing consumer behaviors toward green consumption.

Discussion

The study's findings show that social media has a substantial impact on changing, chaining, and influencing the consumption behaviors of their end-users. It is not surprising to mention that in the digital transformation age, the whole working and learning mechanism has been changed, and social media has been graded as one of the best companions of the youth in the days of the COVID-19 pandemic. Most of the countries use social media platforms for convincing and influencing the general public and especially the youth for adopting positive behaviors. Among others, one most promising success was the change in the eating habits of the
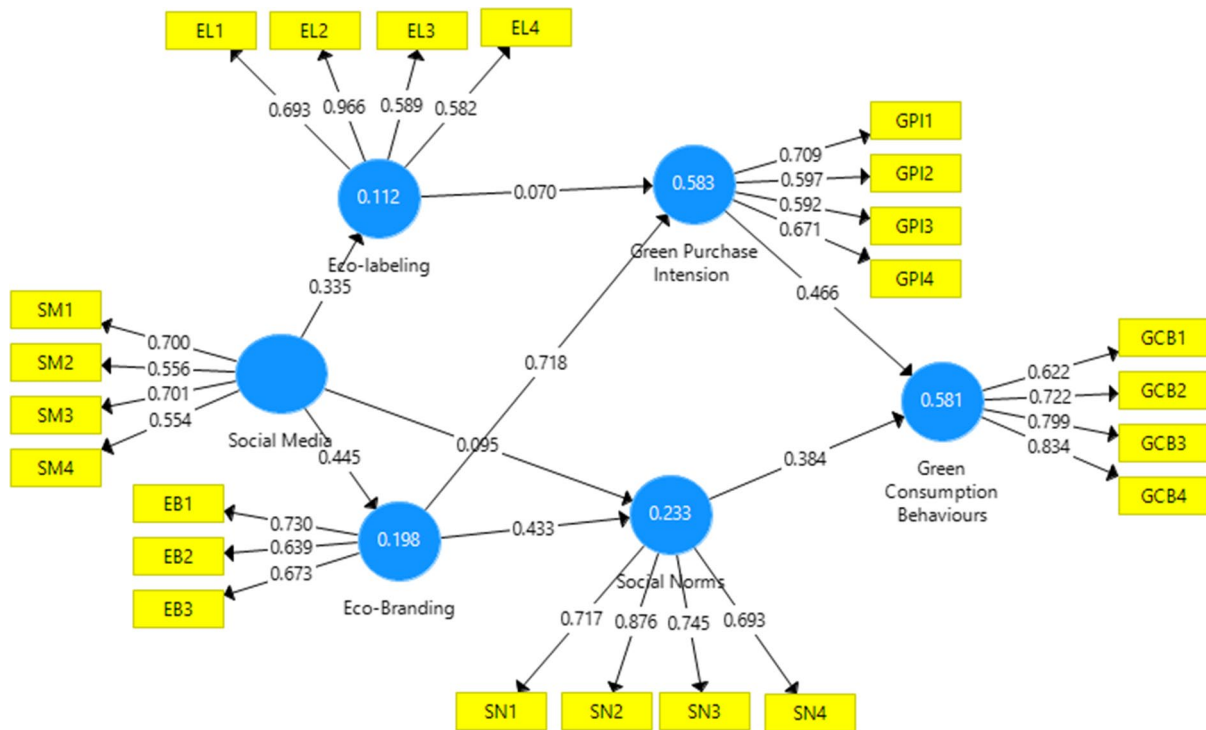
Fig. 2 Factor loadings, path coefficient, and R-square result (PLS-algorithm)

Table 3 Discriminant validity (Fornell Larcker)

Constructs	EL	GPI	EB	GCB	SM	SN
EL	0.810					
GPI	0.406	0.750				
EB	0.485	0.563	0.799			
GCB	0.526	0.552	0.558	0.817		
SM	0.274	0.538	0.339	0.177	0.742	
SN	0.263	0.477	0.377	0.575	0.216	0.827

EL eco-labeling, *GPI* green purchase intentions, *EB* eco-branding, *GCB* green consumption behaviors, *SM* social media, *SN* social norms

Table 4 Discriminant validity (HTMT)

Constructs	EL	GPI	EB	GPB	SM	SN
EL						
GPI	0.477					
EB	0.604	0.757				
GCB	0.600	0.707	0.728			
SM	0.366	0.732	0.427	0.259		
SN	0.290	0.602	0.471	0.670	0.276	

youngster and the university-age students. Due to pandemics, the general public is conscious regarding their health; therefore, with little effort, the whole world can be brought back toward basics. Environmentalism, naturalism, and sustained development can be insole in the practices, plans, and policies, and the whole world can be made a safe place for future generations.

Massive attention to environmental issues has strengthened firms' adoption of green business methods. Understanding the factors influencing the acceptance of green

Table 5 Assessment of structural model

R-square	Endogenous variables	R-square	R-square adjusted	0.26: substantial, 0.13: moderate, 0.02: weak (Gong et al. 2021)
	GCB	0.363	0.350	
Effect size (F-square)	Exogenous variables		Green consumption	0.26: substantial, 0.13: medium effect, 0.02: small effect (Gong et al. 2021)
	EL			
	GPI		0.100	
	EB			
	GCB	0.035	0.109	
	SM	0.049	0.031	
	SN	0.002	0.008	
Collinearity (Inner VIF)	Exogenous variables		GCB	VIF ≤ 5.0 (Gong et al. 2021)
	EL	1.039	1.201	
	GCB	1.283		
	GPI	1.041	1.077	
	EB	2.097	2.200	
	SM	2.062	2.066	
	SN	2.093	1.137	
Predictive relevance (Q-square)	Endogenous variables	CCR $Q^2 (=1\text{-SSE/SSO})$	CCC $Q^2 (=1\text{-SSE/SSO})$	A value larger than o indicates predictive relevance (Gong et al. 2021)
	GPI	0.099	0.516	
	GCB	0.212	0.525	
	SN	0.183	0.517	

CCR constructs cross-validated redundancy, *CCC* constructs cross-validated communalities

Table 6 Path coefficient (direct effect) result

Hypotheses	Beta/OS	LL	UL	T	P	Decision
EL—>GPI	0.120	0.128	0.329	0.986	0.025	Supported
GPI—>GCB	0.441	0.140	0.676	3.192	0.002	Supported
EB—>GPI	0.377	0.074	0.632	2.494	0.013	Supported
SM—>EL	0.274	0.050	0.463	2.504	0.013	Supported
SM—>GPI	0.377	0.164	0.619	3.127	0.002	Supported
SM—>EB	0.339	0.007	0.525	2.856	0.004	Supported
SM—>GCB	0.146	0.375	0.107	1.239	0.016	Supported
SM—>SN	0.216	0.015	0.399	1.999	0.046	Supported
SN—>GCB	0.396	0.137	0.605	3.376	0.001	Supported

EL eco-labeling, *GPI* green purchase intentions, *EB* eco-branding, *GCB* green consumption behaviors, *SM* social media, *SN* social norms

Table 7 Mediation (indirect effect) result

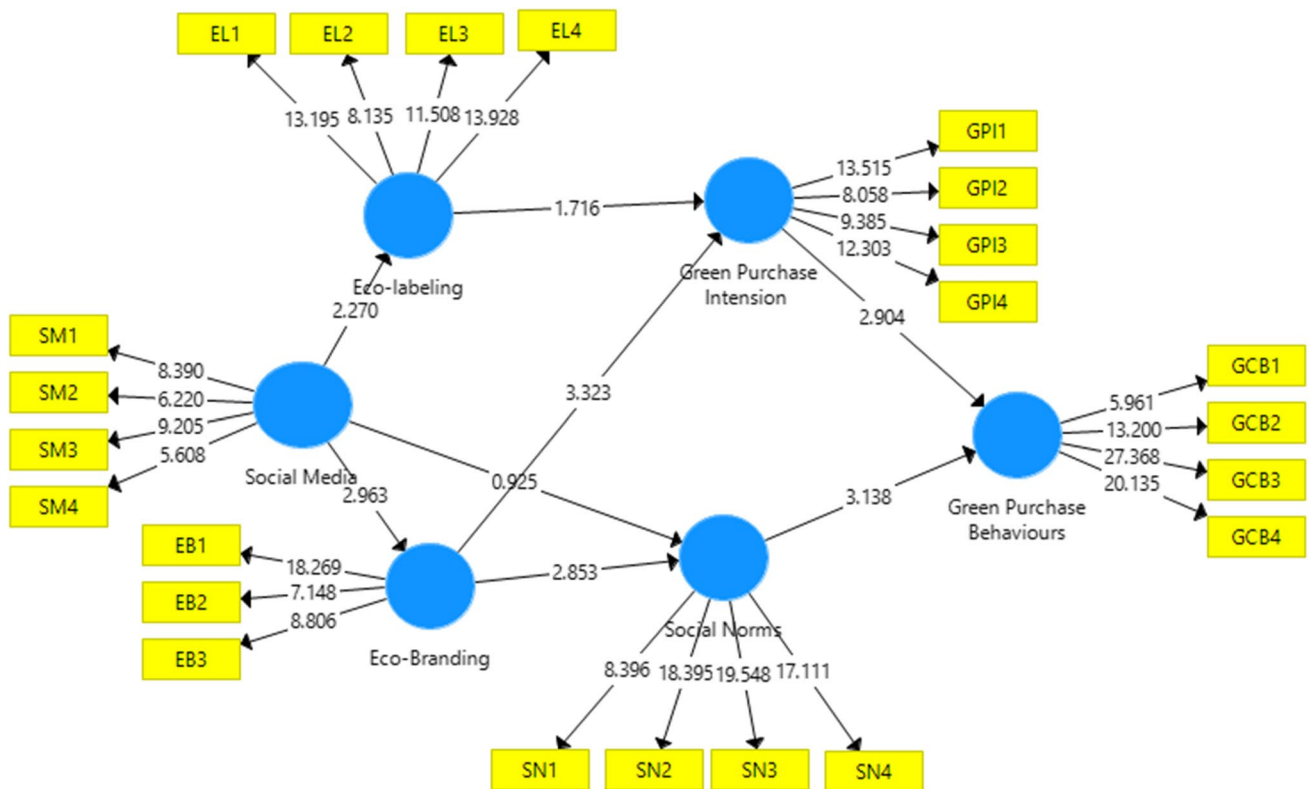| Hypotheses	Beta/OS	LL	UL	T	P
SM—>EL—>GPI	0.033	0.041	0.104	0.903	0.367
SM>EB—>GPI	0.128	0.003	0.283	1.593	0.112
EL—>GPI—>GCB	0.053	0.056	0.181	0.823	0.411
SM—>EL—>GPI—>GCB	0.014	0.017	0.059	0.745	0.457
EB—>GPI—>GCB	0.166	0.024	0.348	1.947	0.052
SM—>EB—>GPI—>GCB	0.056	0.001	0.154	1.272	0.204
SM—>GPI->GCB	0.167	0.056	0.379	2.094	0.037
SM—>SN—>GCB	0.086	0.002	0.193	1.828	0.068

Fig. 3 Bootstrapping results with inner model *t*-values

Table 8 Path coefficient (indirect effect) result

Hypotheses	Beta/OS	LL	UL	*T*	*P*	Decision
EL—> GPI	0.119	0.131	0.355	0.574	0.024	Supported
GPI—> GCB	0.432	0.132	0.655	3.473	0.003	Supported
EB—> GPI	0.359	0.054	0.644	2.463	0.011	Supported
SM—> EL	0.247	0.044	0.484	2.372	0.013	Supported
SM—> GPI	0.384	0.176	0.549	3.1743	0.003	Supported
SM—> EB	0.332	0.021	0.483	2.473	0.005	Supported
SM—> GCB	0.155	0.343	0.132	1.475	0.013	Supported
SM—> SN	0.221	0.032	0.283	1.473	0.032	Supported
SN—> GCB	0.347	0.153	0.473	3.4736	0.002	Supported

consumption and being aware of the advantages of green production and consumption are important for producers. A model of green consumption that is sardonic and evocative is being developed as a result of this research, which is a crucial first step for any future profound comprehension. Despite having several limitations, it is anticipated that the researchers would be able to use the study's findings as a future guide for the context of green human resource management. They look at the influence of environmental management systems on the usage of ecological performance metrics by using a conceptual framework. A voluntary environmental plan is more likely to be based on efficiency

monitoring tools, according to the researchers' results. Foreign contextual elements are linked to internal aspects in approach creation and execution (Miller 2017; Park et al. 2015). Institutional measures are used to evaluate the execution of environmental management systems and environmental management systems.

These kinds of shareholder involvement are identified. The result is that environmental hazards are controlled by the majority of companies. In fact, EPFIs from industrialized nations are often recognized as recognized governments, i.e., nations with environmental and societal governance, legal systems, and administrative capability, according to the EP's

standards (Si et al. 2020). We assert that the extent to which environmental and socioeconomic management measures are put in place is influenced by their level of environmental and socio-economic assertiveness. As a result, an increasing number of financial institutions have recognized firms' environmental participation as part of their corporate social responsibility (Hu et al. 2021; Chu et al. 2022). Climate change denial is a third factor that encourages companies to engage in corporate social responsibility (Wang et al. 2021; Yan et al. 2021). Prior research, on the other hand, places a heavy emphasis on the business sector. As far as we know, this is the first research to look at environmental and socioeconomic management integration in the banking industry as a whole. There is also research that looks at other outcomes, such as environmental and socioeconomic performance, which are closely connected. The attitude toward the environment, the proactive approach, and organizational elements, for example, must all be linked in order to achieve competitive advantage.

Conclusion, limitations, and future recommendations

The growing trend toward green consumption and role of social media is examined in this study among the millennials in China. Contextual promising and pushing elements (constructs) were included in the study, which can better comprehend the green purchases intensions and green purchase behaviors. Besides, subjective norms, objective norms, and personal preferences and experiences can be added to assess the context of the green consumption intensions and green consumption behaviors. Further study can be conducted based on the limitations discussed in the earlier section; however, the study recommended testing the model in other developing and developed countries' organizational and governance settings. Similarly, artificial intelligence is an emerging field being utilized for green consumption behaviors. Therefore, comparative research can be conducted across various countries and cultural contexts that will provide a broader view and will enrich the constructs of green consumption. Lastly, the proposed model can be extended to include green CSR responsibility, competitive advantage, sustainability, and performance in future research.

Furthermore, the mediating effect was also measured as their values fall in the accepting range; subsequently, major outcomes of the study suggest that social media and digital transformation influence the general public promising to give new directions to the behaviors. It can be concluding that the social media is one of the most influential sources in influencing consumer behaviors toward green consumption whereas the values of the UCL and LCL are positive. Social media has a considerable influence on changing,

chaining, and influencing the consumption behaviors of their end-users. Various economies use social media platforms for convincing and influencing the general public; due to pandemics, the general public is conscious regarding their health. Considerable emphasis has been put into the environmental issues that strengthened firms' adoption of green business, and the model of green consumption is being developed as a result a crucial first step for any future profound comprehension. This led to institutional measures used to assess the execution of environmental management systems and environmental management systems.

Declarations

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