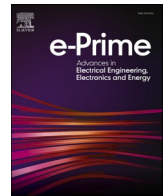




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## Exploring generation Z consumers' purchase intention towards green products during the COVID-19 pandemic in China

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### ABSTRACT

China's Generation Z consumers are gradually developing an awareness of environmental issues and a willingness to purchase green products. Meanwhile, the COVID-19 pandemic has affected various traditional industries worldwide. This study aims to explore the factors that influence the purchase intention of green products among Chinese Generation Z consumers after the pandemic. This research utilizes the Theory of Planned Behaviour as a theoretical framework to discuss the effects of epistemic factors including attitude, subjective norms and perceived behavioural control as well as non-cognitive factors including anticipated positive emotion and personal moral norms on Generation Z consumers' purchase intention of green products under the circumstance of COVID-19 pandemic. We collected primary data from 259 Chinese Generation Z consumers through an online questionnaire collection platform. This research shows that anticipated positive emotion is the most important affecting factor of Chinese Generation Z consumers' green product purchase intention under the circumstance of COVID-19 pandemic, followed by perceived behavioural control, personal moral norm, attitude, and subjective norm, respectively.

### 1. Introduction

In recent years, many scholars have investigated and studied the rise of green product consumption behaviour [1]. By purchasing green products, consumers can achieve the goal of reducing global pollution and protecting the global environment in self-values [2]. At the same time, the outbreak of COVID-19 has indirectly promoted the popularization and spread of green product consumption behaviour. Due to COVID-19, most countries have implemented quarantine policies such as lockdowns and working from home to limit the spread of the virus [3], which indirectly promotes the change in consumer behaviour patterns [4]. Various existing literature have investigated the impact of COVID-19 on consumer behaviour patterns, including shopping behaviour, travel behaviour, and sports behaviour [5]. However, there is a lack of research on the impact of COVID-19 pandemic on consumers' green product consumption behaviour, especially among Generation Z consumers in China. Therefore, this study will answer the key research question of what are the key determinants that influence Generation Z consumers' purchase intention toward green products during the

outbreak of COVID-19 pandemic in China by extending the theory of planned behaviour model. Before and after the outbreak of the COVID-19 period, the development of the green product industry on a global scale was different. Before the outbreak of COVID-19, the development of the Green Product industry showed a gradual development every year. The sales revenue of green products and services in the UK showed an overall slow growth trend from 2010 to 2018, until 2019, the sales revenue increased to 15 billion pounds, with a year-on-year growth of about 50 %. Meanwhile, the overall growth trend of UK ethical clothing sales from 2014 to 2020 and sales revenue of UK ethical cosmetics from 2007 to 2020. The sales revenue of ethical clothing rose from £29 million in 2015 to £57 million in 2020, and by 2020, the revenue of ethical cosmetics was about £976 million. Additionally, UK consumers' consumption of ethical food and drink products has also shown an overall upward trend since 2016, with all categories reaching new highs in 2020 except the category of sustainable fish, especially the category of rainforest alliance earning the highest consumer spending. After the outbreak of COVID-19, the behaviour of global consumers to buy green products has been improved from the original basis. Due to

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the impact of COVID-19, about 83 % of consumers surveyed in China in 2021 believed that brands should offer more sustainable ways to buy, and about 60 % of consumers said the government has an important role to play in promoting sustainable consumption development. Moreover, according to a survey in Japan in 2020, nearly one-third of the respondents said that the outbreak of COVID-19 had brought about increased moral awareness and more ethical consumption, but only about 6.5 % of them made actual behaviour changes. In general, the outbreak of COVID-19 has intensified the growth of the green product industry, which has been increasing year by year, and made more consumers realize the importance of buying green products.

There are three main rationales for this study, which are the uncertainty of the new virus COVID-19, the connection between the pandemic and green products, and the preference of Generation Z for green products. Firstly, COVID-19 is recognized by scholars around the world as a world-changing pandemic [6]. The COVID-19 pandemic has been described as having perhaps the biggest negative impact on the world economy since the great depression of the 1930s [7]. Due to the high infection rate and high fatality rate, countries around the world have enacted corresponding policies to curb the spread of the pandemic, which indirectly leads to changes in people's lifestyles and brings different opportunities and challenges to various industries [3]. Meanwhile, Taleb and Chandler [8] found that people cope with events that transform their culture and lifestyle by rationalizing them and drawing predictable patterns from the events to avoid similar negative impacts in the future. Therefore, considering that COVID-19, as an event that can affect marketing, might have a negative or positive impact on consumers' behaviour patterns in the green product industry, this aspect will be investigated in this study.

Secondly, COVID-19 is supposed to accelerate the growth of the green product industry on the basis of its original positive development and make more consumers worldwide aware of the importance of green products. Besides, the high infection rate and high mortality rate of the COVID-19 pandemic will increase people's fear and increase people's health concerns, which will lead to an increase in consumers' willingness to buy green and healthy products [9,10]. In the situation where COVID-19 brings opportunities to the green product industry, it is necessary to explore the factors that can affect the cognitive attributes of consumers, contributing to summarizing the methods to win consumers in the fierce marketing competition [11].

Thirdly, Generation Z has become the main target customer group of marketers because of its strong purchasing power and nonnegligible market influence [12]. In the meantime, Nguyen and Nguyen [13] believed that Generation Z consumers have received better education compared with other generations, leading to the result that this generation might pay more attention to green products and environmental protection issues. Therefore, it is necessary to make Generation Z the main research object of this research, in order to explore which factors will affect the purchase intention of Generation Z consumers on green products under the circumstance of the outbreak of COVID-19.

After identifying the research rationales above, this research focuses on exploring Generation Z consumers' intention to purchase green products under the circumstances of the COVID-19 pandemic. The research aim is to explore Chinese Generation Z consumers' intention toward green product buying behaviour after the outbreak of the COVID-19 pandemic through the method of extending the Theory of Planned Behaviour (TPB). To accomplish the research aim, this study first investigates whether the existing variables in TPB, including attitudes, subjective norms and perceived behavioural control, will affect the purchase intention of green products of Chinese Generation Z consumers under the circumstance of the COVID-19 pandemic. The theoretical model will then also include the two additional variables of anticipated positive emotion and personal moral norm to strengthen TPB's capacity for explanation. More specifically, the following research objectives are designed to fill the research gap found in this study: (1) to explore the factors related to Chinese Generation Z consumers' intention

to buy green products in the context of COVID-19 pandemic; (2) to identify the variable among existing variables that have the greatest impact on the green products purchase intention of Chinese Generation Z consumers; (3) to extend the model of the Theory of Planned behaviour and increase its reliability by adding the extra variables; and (4) to identify the variable among extra added variables that have the greatest impact on the green products purchase intention of Chinese Generation Z consumers.

## 2. Literature review

Green products refer to environmentally friendly products that cause less harm to the ecological environment such as water, minerals, land, and air during the process of production and consumption. Typical green products recognized by society include electric cars, energy-saving light bulbs, energy-efficient appliances, organic food and so on [14]. Green consumption behaviour is a kind of social behaviour that is different from ordinary consumption behaviour and can provide timely sense of achievement and satisfaction [15]. It usually refers to the predictive behavioural considerations of individual consumers in terms of environmental hazards when purchasing products or receiving services [16]. According to Paul, Modi and Patel [17], green purchase intention is an indicator which can measure the probability that consumers are prepared to purchase a certain green good or service in the future. It has been confirmed that there is a positive correlation between consumers' green purchase intentions and actual green purchase behaviour [18,19]. Meanwhile, consumers' purchase intention can be analysed by two theoretical models that have been widely used, the Theory of Reasoned Action and the Theory of Planned Behaviour (TPB), as shown in Fig. 1, respectively [20]. In order to prove that consumers' purchase behaviour is controlled by the individual's volition, Madden, Ellen and Ajzen [21] proposed the Theory of Reasoned Action (TRA) in the study for the first time. In other words, the research pointed out that consumers' purchase intention is not affected by external factors except the individuals' volition. Besides, this theory predicts consumers' behaviour based on the consumers' volition toward a particular behaviour, rather than the consumers' attitude toward a product or service [22]. The accuracy of the prediction results of this theory on consumer decision-making process and intention toward buying behaviour in different environments has been confirmed by the research of Davis, Bagozzi and Warshaw [23]. The Theory of Planned Behaviour (TPB) is a better theoretical framework which optimizes the limitation of TRA and extends the boundary of TRA [20]. A new and non-volitional variable, perceived behavioural control (PBC), was added to the TRA framework making it become TPB [24]. The existence of the variable of PBC will not affect the original relationship between intention and behaviour, but only play a role when consumers' behaviour is out of control [24]. As demonstrated in Fig. 2, consumers' intention on a particular behaviour can be predicted by analysing the attributes of attitudes, subjective norms and perceived behavioural control [20]. Additionally, this theoretical framework has proved to be reliable in several literatures on green purchase intention [25,26].

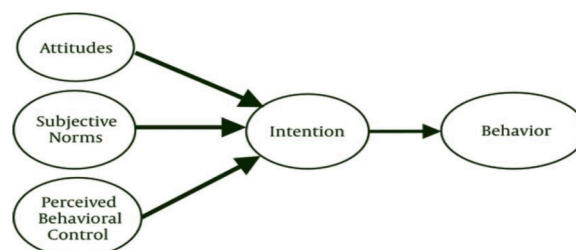


Fig. 1. Theory of planned behaviour [20].

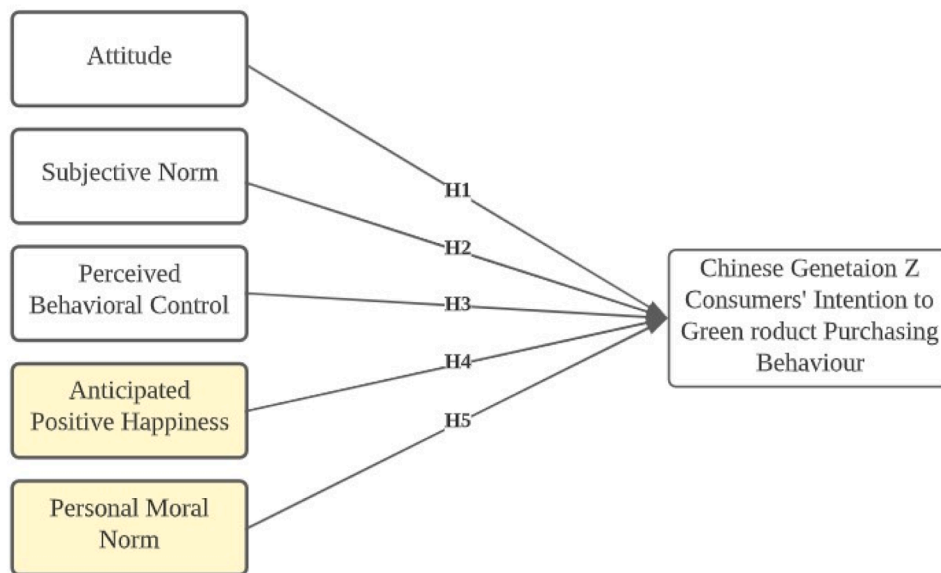


Fig. 2. Conceptual framework with hypotheses [20].

### 2.1. Attitude

Attitude refers to an individual's subjective cognitive perception of satisfaction or dissatisfaction with a certain behaviour [20]. Armitage and Christian [27] added that attitude includes an individual's judgment of the outcome of an upcoming behaviour, and based on that, decides whether or not to act on the behaviour. The predictive function of this construct cannot be ignored in TPB [28]. There is supposed to be a positive relationship between the positive psychological emotion generated by the subjective evaluation of consumers and the intention to act on a certain behaviour [25]. To be more specific, various empirical literatures have verified that a positive relationship between consumer attitudes and purchase intention toward green products existed [17,25,26]. For example, Paul, Modi and Patel [17] found that if consumers hold a positive attitude toward environmental responsibility, the willingness to buy wine with environmentally friendly packaging will increase. Chen and Tung [25] pointed out that the willingness of consumers to choose green hotels and their attitude toward protecting the environment were positively correlated. However, in the context of this research, there is still a lack of empirical research on whether the COVID-19 outbreak will affect consumers' attitudes toward green product purchase intention, especially for Chinese Generation Z. Therefore, the following hypothesis is proposed.

**H1.** *Chinese Generation Z consumers' attitude is positively related to green product purchase intention.*

### 2.2. Subjective norms

Subjective norms refer to the pressure individuals feel from important social reference groups before deciding whether to perform a particular behaviour [20]. Significant social reference groups are also defined as significant others, including families, partners and tutors [28]. While individuals receive positive expectations and pressures from significant others to act in a certain behaviour, the intention to behave in that behaviour is higher [29]. Compared with other products, green products have unique environmental attributes, therefore, while facing pressure from social groups, consumers will make easier decisions to support or reject green products. In the context of consumer behaviour, several empirical research has verified the important role of subjective norms in predicting purchase intention related to environmentally friendly goods [25,30,31]. For instance, Ha and Janda [30] revealed a

positive relationship between subjective norms and organic food purchasing intentions. Park and Lin [31] pointed out that a positive relationship between subjective norms and consumers' intention to purchase recycled products existed. Therefore, despite the lack of research on COVID-19 in this field, it is expected that Chinese Generation Z consumers will increase their intention to purchase green products. The following hypothesis is proposed.

**H2.** *Chinese Generation Z consumers' subjective norm is positively related to green product purchase intention.*

### 2.3. Perceived behavioural control

PBC refers to the degree to which an individual perceives that a particular behaviour is difficult or easy to perform [20]. In other words, the perception of difficulty in obtaining specific nonmotivational external factors, such as knowledge, resources and opportunities, will affect an individual's intention to perform a certain behaviour [32]. In this study, PBC represents the perceived accessibility of green products by Chinese Generation Z consumers in terms of price, disposable income, and access to green products under the COVID-19 pandemic. Various empirical literatures have documented the positive relationship between PBC and behavioural intention in the area of organic food [30], green hotels [25] and recycled products [31]. In terms of the uncertainty caused by the circumstance of COVID-19 pandemic, PBC's prediction of purchase intention toward green products needs to be verified. Therefore, the following hypothesis is proposed.

**H3.** *Chinese Generation Z consumers' perceived behavioural control and green product purchase intention are positively correlated.*

### 2.4. Extra constructs of the extended TPB

Although the TPB framework has been verified by a large number of empirical literatures, the limitations of the model have been criticized by corresponding literatures as well [1]. According to the research conducted by Bertoldo and Castro [33], the TPB model is regarded as a self-interested forecasting model because it pays excessive attention to individual rational predicting variables and ignores irrational factors. Additionally, the research on the TPB framework conducted by Ajzen [20] pointed out that the predictability and practicability of TPB models could be implemented by adding extra constructs, which made the

theoretical model more widely applicable. In the meantime, specific requirements have been set up for extra constructs to comply. The requirements refer to the newly added constructs that are supposed to be acceptable, reliable and valid, contributing to enhancing the TPB model which can be better applied to behaviour prediction in different fields or circumstances [28]. In the context of this research, adding additional constructs to TPB models may help not only the green product industry but also other industries around the world to deal with the opportunities and challenges posed by the COVID-19 pandemic. The new constructs of *anticipated positive emotion* and the *personal moral norms*.

As criticized by Hummel and Maedche [34], uncontrollable emotions or irrational factors set in advance by individuals will affect the accuracy of the TPB model in forecasting behavioural intention. Besides, the outbreak of COVID-19 may cause consumers to get emotions of fear, which might lead to more environmentally friendly behaviours [35]. Moreover, consumers' negative emotions including regret, disappointment and dissatisfaction could have a greater impact on intention than volition factors including attitude, subjective norms and PBC (Li et al., 2019).

Emotion is defined as the positive or negative reaction of an individual in response to an event or action, and consumers will preinstall the upcoming emotional results in advance while taking action [36]. To be more specific, when a consumer preinstalls the anticipated positive emotion for a certain consumption behaviour in advance, it will increase the probability of the consumer activating the related behaviour, conversely, when anticipated negative emotion arises, the consumer is supposed to not act the related consumption behaviour [28]. There are several empirical research which have shown the relationship between anticipated positive emotion and environmentally friendly behaviour. In sum, according to the theoretical and empirical research on the construct of anticipated positive emotion discussed above, this construct can be used as an extra predictor for the TPB model. In the context of this research, before consumers purchase green products during the COVID-19 pandemic, consumers might pre-perceive anticipated positive emotions including relaxation, excitement and pride to offset the negative emotions brought by COVID-19 including fear and fright, thereby promoting the Generation of behavioural intention to purchase green products. Therefore, the following hypothesis is proposed.

**H4.** *Chinese Generation Z consumers' anticipated positive emotion is positively related to green product purchase intention.*

### 2.5. Personal moral norms

TPB model has been criticized for excessively exaggerating the predictive role of the construct of subjective norms and ignoring the role of the personal moral norms [37]. Though the predictive functions of subjective norm and personal moral norm are similar in the prediction of collective behaviour, the personal moral norm is more vital in the behaviours related to environmental protection [38]. Ajzen [20], the proposer of the TPB Model, also put forward that in addition to considering the social pressure from significant others received by individuals, the individual moral norm judgment of a certain behaviour also needs to be discussed. Some scholars also proposed that the analysis of personal moral norms could be added to the theoretical framework of TPB as supplementary materials [39]. Personal moral norm refers to the fact that an individual will judge the feasibility of a certain behaviour according to the accumulated moral norms and social responsibilities before deciding to activate on the behaviour [40]. Besides, personal moral norm mainly makes use of consumers' own internal binding force to influence behavioural intention, while subjective norm focuses on taking advantage of the pressure exerted by significant external reference groups to push the Generation of behavioural intention [41]. As is known to all, COVID-19 has posed a serious threat to human society, which will slow down the development process of human beings in adopting overall environmental protection strategies to some extent

[42]. In terms of this research, faced with the challenges brought by COVID-19, the personal moral norm of Chinese Generation Z consumers can be realized by taking the initiative to act more pro-environmentalism consumption behaviours, including purchasing green products, thus indirectly accelerating the development of environmentalism. Moreover, Kumar, Garg and Singh [43] demonstrated that by adding the extra predictor of the personal moral norms to the TPB model, the prediction of consumers' intention to purchase environmental clothing was enhanced. Therefore, in order to test the predictive role of the personal moral norms in the context of this research, the following hypothesis is proposed.

**H5.** *Chinese Generation Z consumers' personal moral norms is positively related to green product purchase intention.*

## 3. Methodology

In the context of this research, the green product purchase behaviour of Chinese Generation Z consumers is more of an individual behaviour and independent of social actors [44]. Therefore, this research will utilize objectivist ontology to explore and investigate the common patterns existing in the purchasing behaviour of green products, instead of focusing on the social construction process of this behaviour. In consideration of the independent nature of green purchasing behaviours of Chinese Generation Z consumers and the objectivist ontology determined in the last part, this research will adopt positivism as the epistemology part. This research will adopt the deductive method by building on theories that have already been proposed by other researchers [45]. Firstly, the theory of the TPB model is discussed with relevant hypotheses. Then, the hypotheses are tested through data analysis, contributing to summarizing the factors affecting the green product purchasing behaviour of Chinese Generation Z consumers. Through quantitative analysis of the collected primary data, a theoretical framework suitable for analysing the impact of COVID-19 on the purchase intention of green products of Chinese Generation Z consumers is summarized.

This research uses a non-probability sampling method to select the respondents who meet the requirements. In particular, in view of the limited time and funding available to the authors, convenience sampling will be used in this research. Convenience sampling in non-probability sampling allows researchers to get participants' responses quickly and easily [46]. Considering that some of the collected sample data may be incomplete, this research plans to collect 300 sample data.

With the purpose of collecting appropriate primary data, an online survey using closed-ended questions is adopted in this research because questionnaire could quickly collect a large number of participants' responses and enhance the explanatory power of the survey results [47]. The questionnaire of this study are collected from the platform of Microsoft Forms and consists of two parts. The first part uses demographic questions to collect basic information about the respondents, including age, gender, employment status and education level. The second part of the questionnaire uses the descriptive statements to measure the consumers five factors, including anticipated positive emotion, perceived behavioural control, personal moral norm, attitude, and subjective norm, respectively. The statements use a 5-point Likert scale, in which the number 1 represents strongly disagree, the number 5 represents strongly agree and the number 3 represents neutral feelings.

The data analytics methods include descriptive analysis, exploratory factor analysis (EFA), reliability analysis, correlation analysis and regression analysis. Firstly, descriptive analysis is conducted on the collected demographic data. Secondly, the reliability and validity of the scales are evaluated through EFA and reliability analysis. For EFA, the metrics of KMO and Bartlett's test of sphericity are used to measure the validity of the six constructs in this research, including attitude, subjective norm, perceived behavioural control, anticipated positive emotion and personal moral norm [48]. For reliability analysis,



Cronbach’s alpha, a developed measurement standard, is used to determine whether the reliability of the six constructs is accepted [48]. Thirdly, the five factors (i.e., the approaches of correlation and regression analysis) are utilized to predict the relationships between the five variables in the TPB model discussed in the literature review and the green products purchasing intention of Chinese Generation Z consumers. In addition, the Pearson correlation coefficient and the coefficient of determination are used as a measure of the strength and significance of relationships.

The methodology chosen in this study also involves limitations. Firstly, due to the COVID-19 pandemic, the questionnaires are collected through the Internet, which means that there is a problem of low response rate caused by participants ignoring or not answering the questionnaire. Additionally, collecting questionnaires online can also lead researchers to collect false data. As a result, we spent more time and energy to re-recruit more participants to answer the survey. Secondly, due to the limitation of funds and time, the number of 260 questionnaire results collected in this research may not be enough for the goal of increasing the scope of application and interpretation of the TPB model. Thirdly, the convenience sampling in the non-probability sampling method used in this research has been criticized as the collected data are biased and thus not representative enough. Fourthly, this study only focuses on customer behaviour during the pandemic period, the behaviour before and after pandemic is not investigated. Lastly, this study didn’t use demographic or socio-economic factors as the control variables to moderate the relationship between TPB variables.

#### 4. Results

All hypotheses proposed in the literature review are tested through descriptive analysis, exploratory factor analysis, reliability analysis, correlation and regression analysis. A total of 300 Chinese participant data were collected through questionnaires in this research, but 38 of them were incomplete and could not be utilized for analysis. Meanwhile, considering that the target object of this research is China’s Generation Z consumer group, thus, this research only keeps the 259 data of those aged 18–25, and excludes the rest of the data of other ages. The demographic statistics of the data indicates that 61 % participants are male, and most of the participants’ occupation are student (94.59 %), while only 5.41 % of participants are in other occupational statuses, including paid employment, self-employment and unemployment. As for education level, most participants’ degrees are concentrated in undergraduate degree and postgraduate degree, which reach 84.56 % and 11.97 % respectively, while the remaining 3.47 % of participants’ degrees are concentrated in high school, primary school, technical school and prefer not to say. In addition, more frequency data related to participants’ characteristics are shown in Appendix 1.

A total of 24 items in the questionnaire were utilized to test the six constructs in this research, including attitude, subjective norm, PBC, anticipated positive emotion and personal moral norms. The descriptive statistics of each item were demonstrated in Appendix 2. Meanwhile,

Fig. 3 summarizes the metrics of mean, standard deviation, skewness, and kurtosis for the descriptive and inferential statistics of each construct [49]. Especially, the existence of skewness and kurtosis could show whether the collected questionnaire data is normally distributed [50]. According to Hair et al. [51], when the value of skewness data is between  $-2$  and  $+2$ , and the value of kurtosis data is between  $-7$  and  $+7$ , the collected data can be regarded as normally distributed. Since the values of skewness and kurtosis belonged to the above ranges, it could be seen that all constructs of the study were normally distributed. In addition, the skewness values were negative (1.993 to  $-1.095$ ) and the kurtosis value was positive (4.573 to 6.356), which mean that the distribution was skewness to right and had a shaper peak.

#### 4.1. Factor analysis

In terms of factor analysis, the approach of Exploratory Factor Analysis (EFA) was used in this research. Instead of directly attributing the validity of data and tracing it to the existing structures that have been verified, EFA aims to verify the validity and unknown structure of construct in the study by means of exploration [52]. At the same time, when the aim of the research is to test the connections between independent variables and dependent variables, as the factoring tool in EFA, principal axis factoring (PAF) could be used to explore the effectiveness and validity of constructs existing in each variable [53].

The first step in conducting EFA is to ascertain whether the data being analysed is meeting the standard. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) value of the dataset needs to be greater than 0.5. Besides, Bartlett’s Test of Sphericity value of the dataset needs to be smaller than 0.05 to prove that the relationships between constructs in the research are significantly different [50]. The KMO value and Bartlett’s Test of Sphericity value of the research data were 0.933 and 0, which reveals that the collected data is superb and significant. Moreover, Appendix 3 demonstrates the tables of commonalities, rotated factor matrix and total variance explained. Rotated factor matrix utilizes the Varimax with Kaiser Normalization method to generate six target factors for this research, and each factor has four loadings. The results of the remaining two tables indicate that all six constructs tested in this research are valid.

#### 4.2. Reliability analysis

The internal consistency of each construct in this research also needs to be checked, which could be carried out through the reliability analysis [50]. In the area of reliability analysis, Cronbach’ alpha value is the preferred detection index by many scholars. Therefore, in this research, Cronbach’s alpha was used to detect the internal consistency of the six constructs. Cronbach [54] proposed that the Cronbach’s alpha value of construct should range from 0 to 1.

Table 1 shows the Cronbach’s Alpha values of six constructs, which are distributed from 0.744 to 0.799. The coefficients of the constructs showed that all the constructs were at the acceptable level according to

Descriptive Statistics									
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Attitude_Total	259	1.50	4.75	4.2326	.47890	-1.611	.151	6.101	.302
SubjectiveNorm_Total	259	1.25	4.75	4.1573	.58328	-1.123	.151	5.614	.302
PerceivedBehaviouralControl_Total	259	1.25	5.00	4.1902	.55492	-1.917	.151	4.573	.302
AnticipatedPositiveEmotion_Total	259	1.00	5.00	4.2085	.55769	-1.351	.151	6.356	.302
PersonalMoralNorm_Total	259	1.50	5.00	4.1844	.57401	-1.095	.151	5.094	.302
Intention_Total	259	1.50	5.00	4.2008	.54961	-1.993	.151	4.808	.302
Valid N (listwise)	259								

Fig. 3. Descriptive statistics of constructs.

**Table 1**  
Cronbach's Alpha value of constructs.

Construct Name	Number of Scales	The Value of Cronbach's Alpha	Results
Attitude	4	0.793	Acceptable
Subjective Norm	4	0.781	Acceptable
PBC	4	0.744	Acceptable
Anticipated Positive Emotion	4	0.762	Acceptable
Personal Moral Norm	4	0.777	Acceptable
Intention	4	0.799	Acceptable

Tavakol and Dennick's [55] criteria. This result indicates that the reliability of the survey data is acceptable and proves that the potential relationship between the questionnaire questions and the research objectives is acceptable as well.

4.3. Correlation and regression analysis

As mentioned in introduction section, the purpose of this research is to investigate how Chinese Generation Z consumers' behavioural intention for purchasing green products could be affected by the variables of attitude, subjective norm, PBC, anticipated positive emotion and personal moral norm under the circumstance of COVID-19 pandemic. Meanwhile, Pearson's correlation is one of the widely recognized tools in quantitative researches that can measure the existing association between variables [56]. The Pearson's correlation coefficient value could prove the positive and negative direction of the relationship between variables, and the classification criterion proposed. As shown below, Table 2 Pearson's correlation coefficient value among the variables involved in this research, and more detailed data have been demonstrated in Appendix 4. It was found that Chinese Generation Z consumers' attitudes, subjective norms, PBC and personal moral norms have strong and positive relationships with the intention to purchase green products under the circumstance of COVID-19 pandemic. In addition, there is a very strong and positive relationship between anticipated positive emotion and intention. Therefore, the positive relationships between these variables can prove that the proposed hypotheses in literature review are correct and acceptable. Particularly, refer to the research objectives in introduction, the objective of identifying the variables that have the greatest impact on green product purchase intention of Chinese Generation Z consumers among the existing variables and extra added variables have been resolved, which are PBC (0.777) and anticipated positive emotion (0.802) respectively.

4.4. Multiple linear regression analysis

Multiple Linear Regression (MLR) can verify whether the hypotheses proposed in the research are accepted and more accurately predict the

**Table 2**  
Results of correlation analysis.

Proposed Hypothesis	The Variables Being Tested	Pearson's Correlation Coefficient	Significance level	N
H1	Attitude and Intention	0.686	0.000	259
H2	Subjective Norm and Intention	0.773	0.000	259
H3	PBC and Intention	0.777	0.000	259
H4	Anticipated Positive Emotion and Intention	0.802	0.000	259
H5	Personal Moral Norm and Intention	0.768	0.000	259

relationship between independent variables and dependent variables [50]. In the context of this research, MLR is utilized to test the overall predictive ability of the new extended TPB model which aims to forecast the purchase intention of green products of Chinese Generation Z consumers. The overall MLR model summary is shown in Fig. 4, indicating that about 74 % of Chinese Generation Z consumers' green product purchase intention in this study can be effectively predicted by the 5 variables in the extended TPB model. Regarding the ANOVA analysis in Fig. 5, the result of significance level which is <0.001 indicates the MLR model plays a significant role in forecasting the Chinese Generation Z consumers' green product purchase intention,  $F(5,253) = 145.066, p < 0.001$ .

Fig. 6 shows the prediction degree of intention are significantly affected by the five independent variables in the extended TPB model, and Chinese Generation Z consumers' green product purchase intention =  $0.159 + (0.162 \times \text{attitude}) + (0.127 \times \text{subjective norm}) + (0.202 \times \text{PBC}) + (0.294 \times \text{anticipated positive emotion}) + (0.178 \times \text{personal moral norm})$ .

4.5. Conceptual framework with hypotheses

After analysing the collected questionnaire data, an enhanced version of the conceptual framework with coefficient values is demonstrated in Fig. 7. Compared with the conceptual model in the literature review, this model newly increases the coefficient value and significant level of each construct.

4.6. Verification results of hypothesis

Proposed Hypotheses	Statistical Evidence	Verification Results
H1: Chinese Generation Z consumers' attitude is positively related to green product purchase intention.	$p = 0.003$	<b>Supported</b>
H2: Chinese Generation Z consumers' subjective norm is positively related to green product purchase intention.	$p = 0.039$	<b>Supported</b>
H3: Chinese Generation Z consumers' perceived behavioural control and green product purchase intention are positively correlated.	$p < 0.001$	<b>Supported</b>
H4: Chinese Generation Z consumers' anticipated positive emotion is positively related to green product purchase intention.	$p < 0.001$	<b>Supported</b>
H5: Chinese Generation Z consumers' personal moral norm is positively related to green product purchase intention.	$p = 0.002$	<b>Supported</b>

5. Discussion and conclusion

According to the data analysis results in the previous section, five factors affecting Chinese Gen Z consumers' green product purchase intentions were identified as attitude, subjective norm, PBC, anticipated positive emotion and personal moral norm. In this section, this research finding will be discussed corresponding to the research questions proposed in the literature review and accompanied by the constructive theoretical and managerial implications.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.861 <sup>a</sup>	.741	.736	.28224

a. Predictors: (Constant), PersonalMoralNorm\_Total, Attitude\_Total, SubjectiveNorm\_Total, PerceivedBehaviouralControl\_Total, AnticipatedPositiveEmotion\_Total

Fig. 4. Summary of MLR.

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	57.781	5	11.556	145.066	<.001 <sup>b</sup>
	Residual	20.154	253	.080		
	Total	77.935	258			

a. Dependent Variable: Intention\_Total  
 b. Predictors: (Constant), PersonalMoralNorm\_Total, Attitude\_Total, SubjectiveNorm\_Total, PerceivedBehaviouralControl\_Total, AnticipatedPositiveEmotion\_Total

Fig. 5. ANOVA.

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	.159	.162		.981	.327
	Attitude_Total	.162	.054	.141	3.014	.003
	SubjectiveNorm_Total	.127	.061	.135	2.078	.039
	PerceivedBehaviouralControl_Total	.202	.060	.204	3.359	<.001
	AnticipatedPositiveEmotion_Total	.294	.062	.298	4.731	<.001
	PersonalMoralNorm_Total	.178	.056	.186	3.200	.002

a. Dependent Variable: Intention\_Total

Fig. 6. Coefficients.

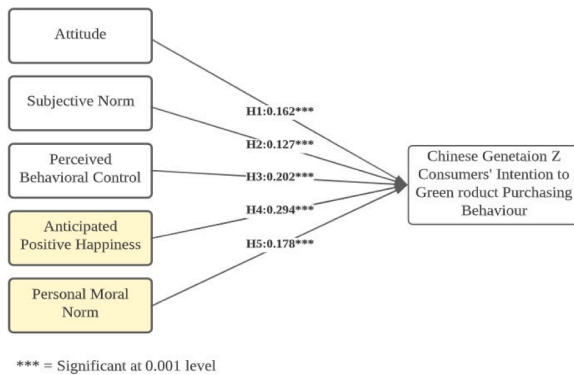


Fig. 7. Conceptual framework with coefficient values.

5.1. The results of original constructs

Regarding research question 1, the analysis of results gives a clear answer. It is verified that the original constructs of attitude, subjective norm and PBC all had strong positive effects on consumers' purchase intention of green products in the COVID-19 pandemic environment supported with high coefficient values. This finding is similar to previous research on green buying behaviour, such as the intention to choose green hotels [25], organic food purchases [30] and recycled product purchases [31]. As for the first construct in the original TPB model, it is found that if a Chinese Generation Z consumer has a positive attitude toward green product purchase behaviour, the intention to behave will be more likely to emerge, and this finding is mutually corroborating with the research result revealed by [17]. In other words, Generation Z believes it is important and wise to buy green products during the COVID-19 pandemic. In addition, this research finding is also consistent with the results of Chen and Tung [25] that favourable attitude has a positive impact on green hotel selection behaviour. Although the change of the external environmental factors of COVID-19 had an unknown influence on the previous research results, the findings of this study just fill the gap in this research field and propose a new TPB prediction model. However, Kamalanon, Chen and Le [57] proposed a variable of innovativeness which could generate a moderating effect on the relationship between attitude and green purchase behaviour. To be more specific, since green products are in the vast majority of cases the result of human green innovation in sustainable development strategy [58], thus, consumers with innovative spirit are more likely to have curiosity

and favourable attitude to try out innovative green products, contributing to accelerating the Generation of purchase intention. Therefore, the moderating effect of this variable was ignored in this research, which may increase the uncertainty of the research results. Secondly, in terms of the second variable of subjective norm, the strong positive relationship between it and purchase intention found in this research indicates that evaluation pressure from significant others in social relationships is important for Generation Z consumers in China. This finding is in the line with the research results of Park and Lin [31], which means that in the face of the socially damaging COVID-19 pandemic, Generation Z consumers in China are taking the advice of others around them to improve the social environment by purchasing green products. Meanwhile, this result is also similar to the collectivism theory found by Sivadas, Bruvold and Nelson [59] among Chinese consumers, which revealed that consumers in developing countries like China are more inclined to engage in team-based collective consumption behaviour in the face of social and public security incidents such as COVID-19.

However, this variable was also criticized for ignoring consumers' self-selective traits [60]. For instance, in the context of this research, Generation Z consumers are more assertive and favour green products than other groups, including significant others around [13], thus, these people are more inclined to independent choices and ignore the opinions of others when deciding whether to generate green products purchase intention. Therefore, further research is needed to solve this limitation. Finally, regarding the third construct perceived behavioural control (PBC), it was tested that when Chinese Generation Z consumers believe that green products are easy to obtain in terms of price, accessibility and quality during COVID-19 pandemic, the purchase intention toward green products is more inclined to be produced. This result is consistent with the finding of Chen and Tung [25] in the research on consumers' green hotel purchase behaviour.

Additionally, the findings of this study not only support the results of similar literature in the past but also increase the application scope of the theory and fill the new research gap under the influence of the newly emerged external environmental factor of COVID-19 pandemic. However, Webb and Sheeran [61] proposed a variable different from PBC in the research, proxy measure of actual control (PMAC). This new variable is proposed because consumers can only know the actual control degree of the behaviour after performing it, which is different from the concept advocated by PBC to measure the actual control degree of consumers before performing a certain behaviour [61]. In other words, when Generation Z consumers in China perceive the high cost of making a green product purchase behaviour, consumers are supposed to have more concerns when deciding whether to activate the behaviour the next time, which shows the importance of PMAC. Therefore, more in-depth research is needed on the difference between PBC and PMAC and the different effects of these two variables on intention in the future. Then comes to the second proposed research question which focuses on exploring which existing variable of the TPB framework has the largest impact on Chinese Generation Z consumers' purchase intention toward green products. And the answer is the variable of PBC, which is consistent with the research results found by Verma and Chandra [62]. As China's green product industry is in its infancy, consumers will focus more on whether real green products in line with environmental principles could be touched through normal channels to decide whether to make purchases during the COVID-19 pandemic. However, this finding is at odds with past research examining consumers' ethical and environmental purchasing behaviours [25,57,40]. This indicates that the variable PBC has become more important in the purchase intention of Generation Z consumers for green products due to the emergence of external factors such as COVID-19.

5.2. The results of extra constructs

Regarding the answer to the third and fourth questions in the research questions, the verification results of H4 and H5 give the



conclusion. Two additional constructs, namely anticipated positive emotion and persona moral norm, have strong relationships with green product purchase intentions among Generation Z consumers in China. At the same time, the academic approach that adds additional effective constructs to the TPB framework to improve the model's ability to predict and explain green product purchase intentions [57] were proved to be reasonable in this research. And this academic approach is consistent with the academic research framework suggested by Wang et al. [40] and Chen and Tung [25].

### 5.3. Anticipated positive emotion

As for the first extra construct of anticipated positive emotion, this research found that Generation Z consumers had anticipated positive emotion such as happiness, relaxation and pride about purchasing green products during the COVID-19 pandemic, and the intention to activate the behaviour was high. Particularly, Generation Z consumers in China could reduce the fear caused by the high death and diagnosis rates of COVID-19 by purchasing green products to ensure a better environment and a happier mood at the same time. Meanwhile, this finding is also consistent with the results verified by previous literature research, which points out that the variable of anticipated positive emotions could have a positive impact on consumers' environmental protection consumption behaviour [63–65]. Moreover, responding to the limitation criticized by Hummel and Maedche [34] in literature review, the research gap of ignoring the influence of individual uncontrollable positive or negative emotions on the predictive ability of the TPB model has been solved and supplemented by this research finding. However, in research on electricity-saving behaviour in urban households, Wang, Lin and Li [28] found that although there was a positive relationship between anticipated positive emotion and the saving intention, there was a negative relationship between the emotion and the actual action. This behaviour was criticized by Chen and Tung [25] for failing to consider the gap between consumers' intentions and actual actions. The relationship between the willingness to perform a certain behaviour and putting it into action will be influenced by other external factors, such as actual behavioural control and situational context [66]. According to the critical theoretical findings, although Chinese Generation Z consumers have anticipated positive emotions about green product purchasing behaviour, it is possible that the final action will not be taken. Therefore, further research on identifying the gap between behavioural intention and actual behaviour is necessary.

### 5.4. Personal moral norms

Regarding the second extra construct of the personal moral norms, the results of H5 suggest that Chinese Generation Z consumers who have a corresponding self-ethical standard for purchasing green products during the COVID-19 pandemic are likely to have a high completion rate of this behaviour. In other words, this result suggests that the more Generation Z consumers in China perceive the harm caused by COVID-19 to the environment, the more motivations toward enhancing personal moral norms will be generated to promote the environment-friendly behaviour of purchasing green products. This research finding not only supports similar findings in the past [28,40,43], but also supports the self-congruence theory proposed by Sirgy [67]. Furthermore, according to the coefficient values of personal moral norms and subjective norms, the personal moral norm's value of 0.178 was larger than the subjective norm's value of 0.127, which showed that in the context of COVID-19 pandemic, the binding internal ethics of Chinese Generation Z consumers is more likely to promote consumers' intention to purchase green products than pressure from external reference groups. This result is similar to the research conclusion of Johnson et al. [41], who pointed out that consumers' personal moral norms is more able to inspire corresponding solutions when an emergency such as COVID-19 occurs, which poses a high risk to social and public security.

## 6. Implications

### 6.1. Theoretical implications

This research provides a theoretical basis for subsequent research from four aspects. Firstly, this research applied three constructs that already existed in the Theory of Planned Behaviour to the different scenarios which is China's green product market under the COVID-19 pandemic, and the prediction and interpretation abilities of the original TPB model were further verified. Secondly, the predictive ability of two additional variables, anticipated positive emotion and personal moral norm, on the intention of Chinese Generation Z consumers to purchase green products was verified in this research. Thirdly, the additional variables were combined with the existing three variables to form a new general prediction model, thus establishing a theoretical basis and helping to refine the goals of future research. Finally, as COVID-19 is a social event that has caused harm to different industries around the world, this research investigated the changes in Chinese consumers' consumption behaviour toward green products after the outbreak of COVID-19, contributing to providing background analysis for future research related to consumer behaviours.

### 6.2. Managerial implications

Based on the findings of this research, several managerial implications for China's green product companies are shown in Table 3.

After comprehensive academic research and investigation, this study successfully investigated the factors affecting the purchase intention of green products of Chinese Generation Z consumers during the COVID-19 pandemic and reached a reasonable conclusion. However, due to the restrictions of time and the word counts, this study has some limitation that cannot be ignored, and future research are needed to improve the research. First of all, in this research, only 300 questionnaires were collected in the section of data collection, which is far from enough for drawing research conclusions of universal significance. Moreover, in order to reduce the time and effort spent on the research, this study only surveyed Generation Z consumers aged 18–25 in China and ignored other groups with high spending power such as millennials and generation X. Thus, the research findings are only applicable to people aged 18–25 in the Chinese market and cannot be applied to the world and other consumer groups. Therefore, future research could further increase the number of questionnaires collected and cover the survey scope to consumer groups of other ages to increase the persuasiveness and general explanatory power of the research results. Particularly, it is recommended that future research could collect consumption data from consumers of the same age in different countries to explore whether regional differences alter the findings. Secondly, as mentioned above, the limitations of ignoring the moderating effect of the variable innovativeness, consumers' self-selective traits, PMAC and the gap between behavioural intention and actual behaviours have been presented. Therefore, future research is supposed to adjust the research focus to solve limitations, such as increasing a hypothesis to investigate innovativeness's moderating effect, checking the self-selective traits' effects on the subjective norms, exploring the essential differences between PBC and PMAC and identifying the factors that prevent consumers from making actual purchases. Thirdly, the extended TPB prediction model established in this research only considers the two external factors of anticipated positive emotion and personal moral norm, which the explanatory power of the TPB prediction model can be increased by adding other valid external factors. For instance, the extra variables of environmental concerns [5], environmental knowledge [57] and service quality and satisfaction [72] could be added.

### Research ethics

We further confirm that any aspect of the work covered in this



**Table 3**  
Managerial implications.

Finding	Managerial Implications
Chinese Generation Z consumers' attitude is positively related to green product purchase intention.	The marketing tool of advertising could be used by firms to effectively reach consumers and help consumers have a better understanding of the products and services, contributing to establishing a reasonable corporate image [68]. Therefore, green product companies in China can use this marketing tool to help Generation Z consumers perceive the benefits of using green products during the pandemic, thereby generating a positive consumer attitude.
Chinese Generation Z consumers' subjective norm is positively related to green product purchase intention.	Companies can indirectly boost consumption by influencing the significant others around Generation Z consumers in China. Wu and Zhu [69] pointed out that discount vouchers are the marketing approach that can attract the most consumers in a short time. Chinese green products companies can indirectly expand the access to Generation Z consumers by encouraging consumers to recommend the products to others around to get discounts.
Chinese Generation Z consumers' perceived behavioural control and green product purchase intention are positively correlated.	The way to reduce consumers' perceived difficulty in purchasing products can be to increase access and lower prices [70]. Therefore, green product companies could firstly sell the products on online and offline channels at the same time to increase the exposure rate of the products, and secondly, companies could launch regular marketing activities to release discounted products.
Chinese Generation Z consumers anticipated positive emotion is positively related to green product purchase intention.	Cheung, Lee and Rabjohn [71] proposed that user experience discussions in online communities about a product can help companies build positive online word of mouth and help other consumers to reference and build anticipation. Companies can help build the anticipated positive emotion of Generation Z consumers by building online communities about green products and gathering positive user experiences from those communities.
Chinese Generation Z consumers' personal moral norm is positively related to green product purchase intention.	Companies could launch a digital marketing campaign to show consumers the harm caused by COVID-19 pandemic and the positive changes brought by the usage of green products to the environment, leading to simulating consumers' personal moral norms through this comparison.

manuscript that has involved human patients has been conducted with

**Appendix 1**

*A1.1. Questionnaire statistics*

		What's your gender?	What's your current employment status?	What's your education level?
N	Valid	259	259	259
	Missing	0	0	0

*A1.2. Gender information*

the ethical approval of all relevant bodies and that such approvals are acknowledged within the manuscript

**CRedit authorship contribution statement**

**Jingshan han:** Conceptualization, Data curation, Methodology, Writing – original draft. **Guru Prabhakar:** Project administration. **Xiaojun Luo:** Validation, Writing – review & editing. **Hsiao-Ting Tseng:** Resources, Validation, Visualization.

**Declaration of competing interest**

The authors declare that they have no conflict of interest.

**Data availability**

The authors do not have permission to share data.

Gender	Frequency	Percent
Man	159	61.4
Woman	100	38.6
Total	259	100

A1.3. Employment status

Employment status	Frequency	Percent
Paid employment	5	1.9
Self-employment	8	3.1
Student	245	94.6
Unemployed	1	0.4
Total	259	100.0

A1.4. Education level

Education level	Frequency	Percent
Doctorate	1	0.4
High School	1	0.4
Postgraduate	31	12.0
Prefer not to say	1	0.4
Primary school	1	0.4
Technical school	5	1.9
Undergraduate	219	84.6
Total	259	100.0

Appendix 2. Descriptive Statistics

		Minimum statistics	Maximum statistics	Mean statistics	Std. Deviation	Skewness		Kurtosis	
						statistics	Std. error	statistics	Std. error
Anticipated positive emotion	1	1	5	4	0.778	-1.047	0.151	1.913	0.302
	2	1	5	4.31	0.806	-1.299	0.151	2.019	0.302
	3	1	5	4.16	0.827	-1.38	0.151	2.82	0.302
	4	1	5	4.36	0.752	-1.371	0.151	2.782	0.302
Attitude	1	1	5	4.16	0.626	-1.087	0.151	4.191	0.302
	2	1	5	4.32	0.764	-1.563	0.151	3.945	0.302
	3	2	5	4.24	0.729	-0.827	0.151	0.706	0.302
	4	2	5	4.21	0.728	-1.011	0.151	1.585	0.302
Intention	1	1	5	4.04	0.767	-1.054	0.151	1.806	0.302
	2	2	5	4.3	0.726	-0.889	0.151	0.678	0.302
	3	1	5	4.18	0.787	-1.142	0.151	2.038	0.302
	4	1	5	4.29	0.75	-1.086	0.151	1.621	0.302
Perceived behaviour	1	1	5	4.02	0.844	-1.291	0.151	2.478	0.302
	2	1	5	4.25	0.785	-1.16	0.151	1.922	0.302
	3	1	5	4.17	0.836	-1.33	0.151	2.539	0.302
	4	1	5	4.31	0.72	-0.925	0.151	1.171	0.302
Personal moral norm	1	1	5	3.97	0.841	-1.193	0.151	1.81	0.302
	2	1	5	4.31	0.787	-1.386	0.151	2.609	0.302
	3	1	5	4.15	0.802	-1.287	0.151	2.852	0.302
	4	2	5	4.31	0.79	-1.171	0.151	1.218	0.302
Subjective norm	1	1	5	4.02	0.865	-1.306	0.151	2.452	0.302
	2	1	5	4.19	0.831	-1.109	0.151	1.429	0.302
	3	1	5	4.15	0.775	-1.173	0.151	2.584	0.302
	4	1	5	4.27	0.789	-1.274	0.151	2.584	0.302

Appendix 3. Communities

		Initial	Extraction
Attitude	1	0.274	0.267
	2	0.343	0.334
	3	0.297	0.355
	4	0.426	0.380

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		Initial	Extraction
Subjective Norm	1	0.528	0.562
	2	0.475	0.481
	3	0.483	0.588
	4	0.446	0.513
Perceived behaviour	1	0.576	0.540
	2	0.441	0.409
	3	0.420	0.490
	4	0.345	0.338
Anticipated positive	1	0.544	0.612
	2	0.443	0.417
	3	0.500	0.620
	4	0.443	0.402
Personal Moral Norm	1	0.594	0.693
	2	0.430	0.577
	3	0.354	0.380
	4	0.418	0.425
Intention	1	0.535	0.569
	2	0.519	0.697
	3	0.428	0.407
	4	0.437	0.530

Extraction method: Principal Axis Factoring

Rotated Factor Matrix<sup>a</sup>

		Factor					
		1	2	3	4	5	6
Anticipated positive emotion	1	0.685					
	2	0.676					
	3	0.684					
	4	0.675					
Perceived behaviour control	1		0.576				
	2		0.512				
	3		0.499				
	4		0.498				
Personal Moral norm	1			0.565			
	2			0.549			
	3			0.583			
	4			0.567			
Subjective norm	1				0.540		
	2				0.604		
	3				0.585		
	4				0.532		
Attitude	1					0.493	
	2					0.484	
	3					0.452	
	4					0.490	
Intention	1						0.685
	2						0.687
	3						0.677
	4						0.693

Extraction method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalisation.<sup>a</sup>

<sup>a</sup>Rotation converged in 8 iterations.

Total Variance Explained

	Initial Eigenvalues			Extraction			Rotation		
	Total	% of variance	Cumulative%	Total	% of variance	Cumulative%	Total	% of variance	Cumulative%
1	9.416	39.233	39.233	8.916	37.151	37.151	3.098	12.910	12.910
2	1.302	5.424	44.657	0.853	3.555	40.707	2.815	11.728	24.638
3	1.048	4.366	49.023	0.511	2.130	42.837	1.668	6.952	31.590
4	1.016	4.232	53.255	0.471	1.963	44.799	1.510	6.292	37.882
5	0.887	3.698	56.953	0.453	1.886	46.685	1.416	5.898	43.780
6	0.875	3.646	60.599	0.381	1.586	48.271	1.078	4.491	48.271
7	0.826	3.443	64.042						
8	0.797	3.322	67.364						
9	0.772	3.216	70.580						
10	0.714	2.974	73.554						

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	Initial Eigenvalues			Extraction			Rotation		
	Total	% of variance	Cumulative%	Total	% of variance	Cumulative%	Total	% of variance	Cumulative%
11	0.684	2.851	76.405						
12	0.654	2.725	79.130						
13	0.591	2.461	81.591						
14	0.575	2.394	83.986						
15	0.529	2.206	86.191						
16	0.497	2.071	88.262						
17	0.453	1.886	90.148						
18	0.423	1.762	91.909						
19	0.391	1.630	93.539						
20	0.371	1.547	95.086						
21	0.346	1.443	96.529						
22	0.319	1.331	97.860						
23	0.277	1.154	99.014						
24	0.237	0.986	100.00						

Extraction method: Principal Axis Factoring.

**Appendix 4. Correlations**

		Intention	Attitude	Subjective Norm	Perceived behaviour control	Anticipated positive emotion	Personal moral norm
Pearson correlation	Intention	1.000	0.686	0.773	0.777	0.802	0.768
	Attitude	0.686	1.000	0.620	0.680	0.677	0.651
	Subjective norm	0.773	0.620	1.000	0.792	0.821	0.776
	Perceived behaviour	0.777	0.680	0.792	1.000	0.762	0.772
	Anticipated positive emotion	0.802	0.677	0.821	0.762	1.000	0.763
	Personal moral norm	0.768	0.651	0.776	0.772	0.763	1.000
Sig. (1-tailed)	Intention	0.000	<0.001	<0.001	<0.001	<0.001	<0.001
	Attitude	0.000	0.000	0.000	0.000	0.000	0.000
	Subjective norm	0.000	0.000	0.000	0.000	0.000	0.000
	Perceived behaviour	0.000	0.000	0.000	0.000	0.000	0.000
	Anticipated positive emotion	0.000	0.000	0.000	0.000	0.000	0.000
	Personal moral norm	0.000	0.000	0.000	0.000	0.000	0.000

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