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Article

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MARKETING | RESEARCH ARTICLE

Organic food adoption motivations for sustainable consumption: moderating role of knowledge and perceived price

Kamran Khan^{1*}, Sobia Iqbal¹, Kashif Riaz² and Irfan Hameed³

Abstract: The household spending of Pakistani consumers on sustainable food consumption has continued to remain low. Hence, the present study used the goal-framing theory to explore the consumer's motivational factors that derive sustainable consumption of organic food. Drawing on survey data of 488 respondents, the findings show that gain and hedonic motivations significantly affect purchase intentions; however, normative has an indirect role. In addition, the knowledge and perceived price significantly moderate the motivational factors. The study provides invaluable insights for policymakers and practitioners in identifying the motivational factors, and the means of guiding the right behaviors for sustainable consumption.

Subjects: Urban Theory; Environmental Psychology; Consumer Psychology; Marketing

Keywords: sustainable food consumption; goal-framing theory; gain motivations; hedonic motivations; perceived price

1. Introduction

The area of sustainable consumption has become a major factor globally, reflecting a concern for society and nature (Kim et al., 2013). The race to achieve better and better economically has pushed for growth, especially through industrialization which leads to overconsumption, environmental degradation (water, soil, and air), natural resources deterioration, etc. (Khan & Mohsin, 2017). Advisor to Prime Minister Pakistan stated that the climate change has been disastrous for the country which leads to affect the daily life, security and social risk and costing around 8% to the GDP (Aslam, 2018). These negative impacts on the environment have made customers conscious of consumption patterns as it is also related to human health. Issues like the use of pesticides, bird flu, mouth and food epidemics, mad cow disease, and artificial methods to increase production have created anxiety among consumers about the consumption of such food and its impact on the environment and their health (Rahnama, 2017). Aertsens et al. (2009) highlighted that consumers generally hold a positive attitude towards organic food but the purchase of such food regularly is still on the lower side (Moser, 2015). Hughner et al. (2007) also stated that the remarkable growth of organic food had made consumers and marketers react to the popular call regarding the environment and the consumer attitudes regarding the environment have to be sufficiently captured. Honkanen et al. (2006) noted that the market for organic food is promising in European countries. Teng and Wang (2015) discussed that this food is healthy, safe, and nutritious, and hence it is eco-friendly. Consumers are even ready to pay a premium for better quality, taste, and certification of its safeness (Chen & Lobo, 2012).

Asian regions have shown an exponential increase in organic producers during the period 2015 to 2016; this is expected to be increased by 370% in the next 10 years (FIBL, 2018). The Table represents the growth of organic food production in regions in the last 10 years. Pakistan is located

in South Asia, having a 20% contribution to the GDP by the agricultural sector. The country has a cultivation area of 22.68 million hectares but contributes only 0.1% to the global organic sector (FIBL, 2018; Pakistan Bureau of Statistics, 2019). Despite spending half of the household income on food products, the adoption of organic food remains low (Raza et al., 2019). The other worst is that the spending is on food that is unhealthy instead of spending on healthy food that can prevent non-communicable diseases (NCDs) is a sort of behavioral issue in the country (Agencies, 2018; NEWS DESK, 2015). This is done in the name of fun, enjoyment, and recreational experiences (Yahya, Zafar, & Shafiq, 2013). This puts pressure on the health sector, where 60% of total deaths are caused by health issues, cancer, diabetes, and hypertension (Akbar et al., 2019). Hence, there is a need to increase in home market effect (the effect that shows growth in the size of a market of exporting nation compared to an importing nation; Graessley et al., 2019). The above-mentioned statistics in the area suggest that there is a must need to identify the factors that might be promoted so that the level of sustainable consumption of organic food in the country is achieved.

Regions	10 year growth (%)
Africa	89.4%
Asia	140.5%
Europe	64.8%
Latin America	10.0%
North America	47.5%
Oceania	195.4%

Source: FIBL (2021)

Given the rapid growth of sustainable consumption (Hameed et al., 2019), and the dynamic consumer decision-making process (Popescu & Ciurlău, 2019), it is imperative to identify the important personal and motivational factors affecting consumer behavior that may help promote the right behavior to achieve the sustainable consumption (Waris & Hameed, 2020a) and organic food targets by the policymakers, governments and marketing practitioners. Numerous studies have investigated consumer motivations to buy organic food (Aertsens et al., 2009; Hameed & Waris, 2018). However, this research has based itself on the Goal-Framing Theory (GFT; Lindenberg & Steg, 2007). The theory holds that three motivations affect sustainable consumer behavior (Lindenberg, 2001). These are gain motivations, hedonic motivations, and normative motivations (Khan & Hameed, 2019a). The concept of GFT is empirically tested by a few authors only; for example, Rezvani et al. (2018) has taken into account the direct and integrated effects of consumer motivations and checked consumer adoption of electric cars. Chakraborty et al. (2017) have conducted a study with different integration effects on higher education students. Miao and Wei (2013) have taken into account the direct effects of GFT factors on consumers' pro-environmental behaviors and compared household settings with hotel settings. Hameed and Khan (2020) have used motivational factors as direct and indirect and discussed them in the context of home appliances. Khan et al. (2022a) have used motivational factors and discussed them extensively with regard to social norms. Khan et al. (2022b) have used motivational factors to explain motivations with regard to the sustainable consumption of hybrid cars. However, there are further elaborations required to explain the role of organic food in order to be successful in a market like Pakistan. For example, the price premiums in a struggling economy like Pakistan are a serious issue. If the price of a product is comparatively higher than a normal product in a similar product category, it might downplay the relationship of motivational factors, i.e. gain motivations or even normative motivations (Diekmann & Preisendörfer, 1998). Moreover, the product category used in the study is organic food, it will be interesting to see the behavior of prices in the market like Pakistan. The knowledge aspect is also relevant, which creates a positive impact on sustainable consumption (Khan et al., 2022b). Furthermore, the gain motivations are used as a mediator between normative motivations and intentions. Prior studies in the area have not discussed the role of normative motivations this advanced as it is believed that normative motivations are not much

acceptable in low-cost product categories (De Groot & Steg, 2009). This was negated by Khan et al. (2022a). Therefore, it is imperative to study the extensive relationship of normative motivations in the motivational factor and with regard to the moderation of prices. The conceptual and empirical models are by far tested in advanced societies. It will be an excellent addition to the theory and the knowledge of sustainable consumption if the conceptual and empirical models are tested and validated in southern societies like Pakistan. Moreover, the applications of GFT in the low-cost or low-involvement product categories are not too many. Hence, this study is unique in way that it will bring a little diversity to the GFT literature. Moreover, in addition to validation, the study extended GFT theory by taking the positive moderating role of knowledge and the negative role of perceived price in sustainable contexts. Both roles are adapted to check their influences in the presence of motivational factors. Moreover, this study also aims to provide insights to the policymakers and the governments who are involved in or intend to promote organic food in the country. The direct or interplay of the motivational factors in the developing market settings and that too for a low-cost/involvement product category is checked for better promotional/communication strategies.

2. Literature review

2.1. Intentions to purchase sustainable products

Behavioral intentions were defined as “the person’s subjective probability that he will perform the behavior in question” (Fishbein & Ajzen, 1975, pp. 12-13). A more simple and recent study defined intentions as “a person’s intention to perform behaviors” (Spears & Singh, 2004, p. 55). The concept has been widely studied in the consumer behavioral context, and several theories have discussed this concept; for example, the theory of planned behavior (TPB; Ajzen, 1985) has taken intentions as a predictor of behavior and several factors affect the intentions as well. A famous value-belief-norm theory (VBN) has taken intentions as a consequence of several factors, such as personal norms (Stern et al., 1999). Chan (2001) have discussed the sustainable consumption among Chinese citizens. Anyone has a goal intentions may execute his/her action to achieve the goal (Bagozzi & Dholakia, 1999). This study takes the concept of GFT as a predictor to consumer intentions to purchase sustainable consumption. In sustainable contexts, the intentions are widely discussed with regard to TPB and GFT (Bagozzi & Dabholkar, 1994). Rezvani et al. (2018) have used it as an endogenous construct to the motivational factors. Hameed and Khan (2020) have mixed the TPB and GFT theories to identify sustainable intentions.

2.2. Hedonic motivations

As discussed, the theory terms hedonic goal is “to feel better right now”. Such goals enable one or more sub-goals to improve the feeling at a particular situation, for example, seeking pleasure, avoiding effort and uncertainty and self-esteem. Such goals make people sensitive about the increase and decrease in their pleasure that is related to their state. GFT believes that such factors are discussed in the theories on affect and their influence on behavior is well established. A study conducted by Smith et al. (1994) found that the effect was significant with the behavior. Mirica (2018) noted that consumer emotions are an important factor of consumers’ buying behavior. Rezvani et al. (2018) found hedonic motivation as a true predictor of sustainable behavior. When taken in a comparative study between the hotel and household settings, such goals were found to be more relevant in the hotel settings (Miao & Wei, 2013). The authors found that consumer moods derive the sustainable consumption while traveling and require a sacrifice of comfort and joy during travel. A study on positive and negative attitudes was conducted by Rezvani and Jansson (2016), who concluded that positive emotions are to be highlighted than the negative emotions since they influence more on sustainable consumption. Given the conceptual framework of Steg et al., (2014) this study used hedonic goals as indirect construct between gain and normative motivations, and purchase intentions. Schuitema et al. (2013) in their study on electric vehicles have also used hedonic motives as indirect construct to instrumental values and behavior. The study reported that positive gain goals lead to high anticipations that affect intentions.

Moreover, a study conducted by Rezvani et al. (2018) confirms that consumer emotions are the primary motivations for behavioral intentions, even when other motivations are present. The second mediating role of hedonic motivations was proposed between normative motivations and consumer intentions (Hameed & Khan, 2020). Onwezen et al. (2013) stated that normative motivations are the evaluations of sustainable consumption, which may result in anticipated emotions. The author further added that when personal norms and behavior are coherent, hedonic motivations can be produced, influencing the intentions. Their study revealed that anticipated emotions mediate the relationship between personal norms or normative motivations and intentions in the organic food context. Rezvani et al. (2018) have adopted a similar mediation model and found that hedonic motivations mediate the relationship between normative motivations and consumer intentions. The study conducted by Khan et al. (2022a) used hedonic motivations as mediators to gain and hedonic to predict sustainable intentions, their study found that the hedonic construct is one of the strongest motivational factors that leads to sustainable consumption. Moreover, the study of Khan et al. (2022b) used a hedonic construct in the hybrid cars' context, they have also found this construct relevant and important. Hence, it is proposed that

H₁: Hedonic motivations effects consumers' intentions

H₂: Hedonic motivations mediate gain-intentions relationship

H₃: Hedonic motivations mediate normative-intentions relationship

2.3. Gain motivations

Gain frames are sensitive and related to the personal resources of the individuals. The time horizon is middle to long term as the criteria here are either to improve or prevent the decrease in resources. When such goals are active, i.e., to save money, improve financial security, increase income, other goals dealing with personal norms, or normative goals are pushed back as the struggle here is to have the efficiency in the resources (Lindenberg & Steg, 2007; Lindenberg & Steg, 2013). Several theories are related to this goal to protect personal resources such as cost and benefit, i.e., the theory of planned behavior (TPB; Ajzen, 1985). The TPB assumes that self-interest of the individuals motivates them and they engage in the cost and benefits of alternatives (Waris & Hameed, 2020b). Moreover, the behavior is a result of intentions and several factors affect intentions. One of them is an attitude, which is a positive or negative evaluation, i.e., cost and benefits. Several sustainable studies have successfully proven that attitude contributed significantly to the behavior or intention (Yadav & Pathak, 2016; Khare, 2015; Rana & Paul, 2017; Jaiswal & Kant, 2018). GFT believes that people tend to engage in sustainable behaviors when benefits are more than the cost. The goal frame here is the gain goal.

Moreover, Steg et al. (2014) have provided an integrated framework and this study undertakes gain motivations as a mediator to normative motivations and consumers' intentions. Klöckner (2015) has reported that favorable conditions may be considered if the respective behaviors and personal values are in line; moreover, attitude is a mediator between intentions and part of moral norms. Rezvani et al. (2018) found significant direct and indirect roles of gain motivations; however, their study concluded that promoting gain motivations and ignoring normative motivations may bring hypocrisy. This might result in preventing the consumers from continuously selecting sustainable products. A study on recycling conducted by Botetzagias et al. (2015) reported no indirect effects of attitude between normative motivations and intentions. However, the effects from norms to attitudes and norms to intentions were found to be significant. The authors reported that this might be due to the change in items of attitudes. Yuan et al. (2016) have taken attitude as a mediator in their study on kitchen waste behavior between moral norms and behavior. The study reported that attitude was statistically significant in predicting the mediation relationship between moral norms and behavior. In the home appliances context,

gain motivations were found to be significant and positive with regard to sustainable intentions (Hameed & Khan, 2020). Khan et al. (2022a) used gain in various roles, the study also recognizes its role in predicting sustainable intentions. Considering the discussion above, this study proposed the following hypotheses:

H₄: Consumers' intentions to adopt organic food is affected by gain motivations

H₅: Gain motivations mediate normative-intentions relationship

2.4. Normative motivations

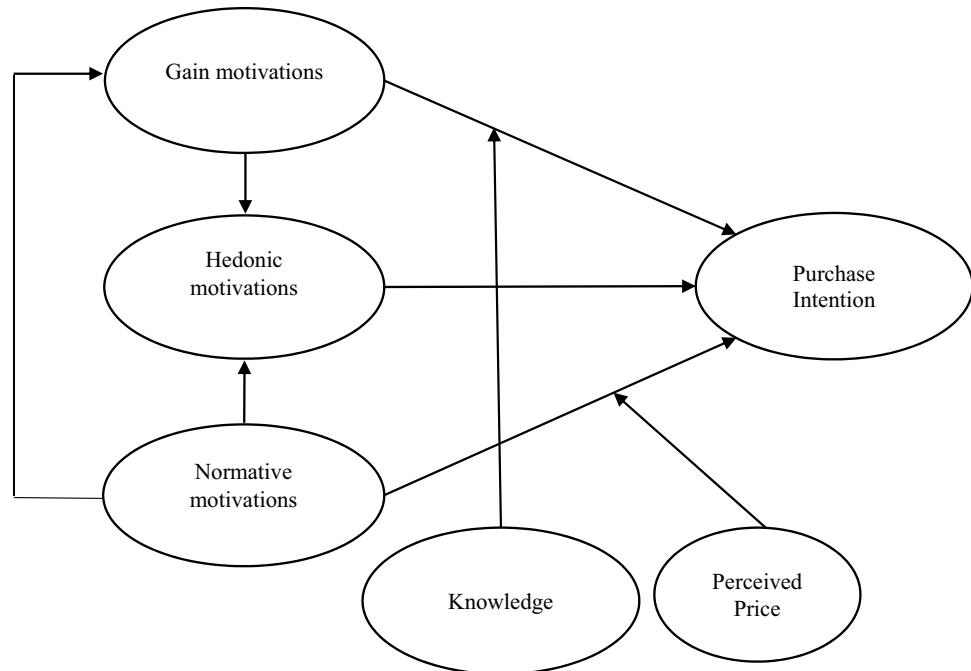
GFT describes this motivation to act appropriately. The theory explains that people with high normative goals consider environmental consequences and vice versa. The theory extended its arguments that high environmental concerns are related to acting more for sustainability. The concept was taken from the famous norm-activation model (NAM; Schwartz, 1977; Schwartz & Judith, 1981). As per NAM, the behavior is a result of personal norms, i.e., moral obligations and feelings. Hence, GFT used this construct as normative goals or normative motivations (Khan et al., 2022a). Carrigan et al. (2004) noted that in sustainable studies, behavior is often affected by personal or moral norms. Several studies have confirmed the relationship between personal moral norms or normative motivations and behavior (Khan & Hameed, 2019b). For example, Rezvani et al. (2018) have used direct and integrated effects of normative motivations and intentions. The study reported that the findings align with the literature that personal morals are the vital predictor of sustainable behavior. Moreover, a similar study conducted on higher education also confirmed the significant relationship between normative motivations and intentions (Chakraborty et al., 2017). Miao and Wei (2013) reported in a comparative analysis of household and hotel settings that normative motivations are more relevant in household settings than in hotel settings while predicting consumer behavior towards sustainable consumption. Steg and Vlek (2009) noted that personal moral norms are more relevant in low-cost product categories like organic food than in high-cost product categories. This was negated later in the studies of high-cost product categories (Hameed & Khan, 2020; Rezvani et al., 2018). Khan et al. (2022b) reported that consumer normative motivations are the key to predicting the intentions to purchase hybrid cars. It was also noted that normative motivations not only lead directly to the actual behavior but also it has an indirect relationship through hedonic motivations to the intentions. Khan et al. (2022a) also reported its important relationships as a direct and indirect entity in the low-end product category. It is therefore hypothesized that

H₆: Normative motivation is a predictor of consumer's intentions to purchase sustainable products

2.5. Knowledge

The study intends to explore the role of knowledge as a moderator to the gain-intentions relationship. Knowledge of sustainable products like organic food creates awareness and increases the interest of the consumers in the purchase of organic food that can protect the environment (Suki, 2016). Lack of knowledge or information about sustainable products has an inverse relationship with sustainable consumption. Therefore, people tend to accept health-related information to improve their health conditions (Padel & Foster, 2005). Some studies in the sustainable consumption area have noted that positive attitudes (gain motivations) toward sustainable consumption may influence purchase intentions (Chang & Wu, 2015; Laroche et al., 2001; Waris & Hameed, 2020c) and the attitudes (gain motivations) discussed here are developed from the knowledge an individual has about the product (Wang et al., 2019). Another study confirmed that knowledge about sustainable products like organic food positively impacts the development of attitudes (Smith & Paladino, 2010). Wang et al. (2019) have taken the moderating role of knowledge between attitudes and consumer intentions. The study found a positive and significant interaction

Figure 1. Proposed model.



role of knowledge between the attitude and intentions relationships for organic food. Khan et al. (2022a) found the positive moderation role of consumer knowledge. Their study reported that the factor is relevant to the socio-economic conditions of the societies like Pakistan. This study thus proposes the following hypothesis:

H₇: Gain motivations and consumer intentions to purchase relationship is moderated by knowledge

2.6. Perceived price

It is a monetary cost that is to be paid by the consumer (Jocoby, 1977). Price is the only P of the marketing mix where the companies get revenues, but it also has significance for consumers and decision-making. Consumers' moral norms related to sustainable consumption can be converted into reality if this cost is lower (Aronson & Stern, 1984). The cost of sustainable food, i.e., organic food, is higher compared to normal or conventional food around the globe. He and Zhan (2017), in their study in Chinese settings, have proposed a negative hypothesis that the perceived price of electric cars may disturb the moral obligations and the adoption of such car's relationship. Their study confirmed that when consumers perceived the higher cost, the relationship between moral norms and intentions to adopt is weakened. Moreover, studies discussed above in the area of motivational psychology have not created the role of prices in predicting sustainable intentions (Hameed & Khan, 2020; Khan et al., 2022a, 2022b; Rezvani et al., 2018). Therefore, this study proposed this hypothesis to better identify the role of pricing between motivational factors and intention as:

H₈: Normative motivations and consumer intentions to purchase are negatively moderated by perceived price

Based on the review of the literature, this study proposed a framework in Figure 1. The next section discussed the methodology adopted to explore the findings related to the framework proposed.

3. Methodology

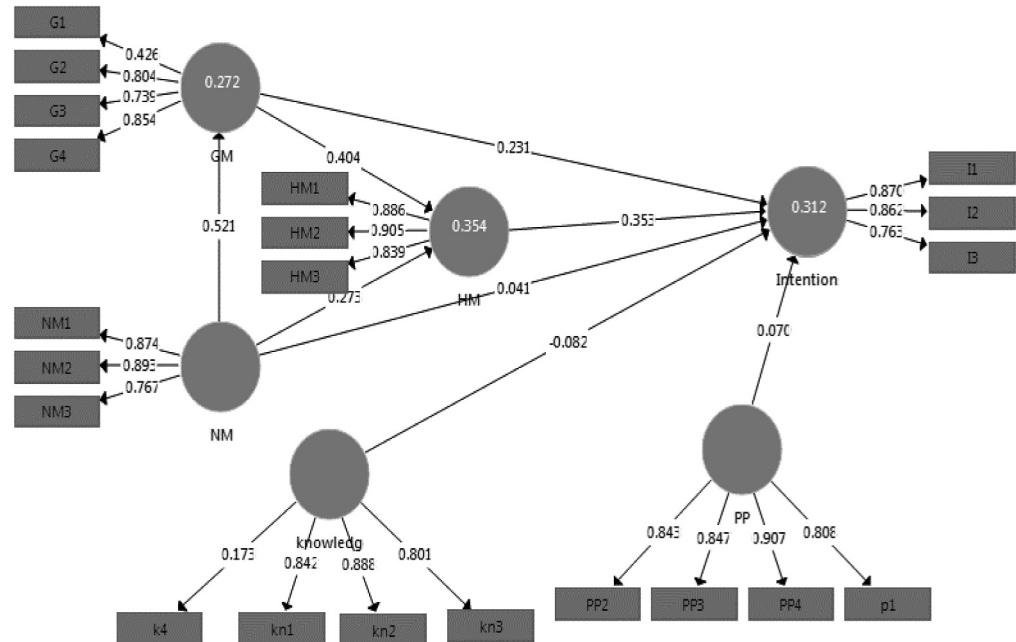
This study is focused on organic food consumption; hence, the sample drawn here is only those who consume organic food regularly. This study has applied a convenience sampling technique but tried to cover the limitations of the sampling technique by broadening the scale of the study to online and offline mediums. The offline respondents were the consumers of supermarkets and were selected based on our convenience. The data was collected in Karachi, the biggest city in Pakistan, which has all ethnic and income-group diversities available. In an offline medium, a total of 600 questionnaires were distributed, and for online mediums, a link was developed using Google Forms and distributed to Facebook friends and Whatsapp contacts and groups. The online form was shared with around 330 people. The total responses received from online mediums were 123, whereas, from an offline medium, a total of 495 responses were received. The responses from online mediums remain low; however, we received good responses during our visits to the supermarkets. Having a low response from the online sample may be due to the fact that the study only invited samples that are involved in the purchase of organic food, and random distribution, therefore, did not work properly. It was also clearly written at the top of the instrument. In the offline context, we briefed the respondents first about the nature and objectives first and then invited the responses. There are several stores available in Karachi which are considered category killers or super stores that offer a wide range of products available related to this study, i.e. Imtiaz Superstore, Chase-up, Carrefour, Naheed supermarket, Metro cash and carry Pakistan, and so on. Hence, gathering data offline was not an issue. The only difficulty we faced while collecting the physical record was visiting these stores based in various locations. The study finalized the sample of 488 out of 618. Hence, the statistical requirements to finalize a sample are met adequately (Cohen, 1992). A total of 172 responses were rejected due to incomplete, invalid responses or because of their normality issues. The study used Microsoft Excel to identify the missing and invalid values and SPSS for normality issues. For the statistical analysis, PLS-SEM was applied to the data using SmartPLS software to obtain the measurement and structural model results. For the reliability and validity, several indicators were used under the measurement model, i.e. outer loadings, Cronbach's alpha and composite reliability were the tools to establish the reliability. AVE was used to see convergent validity, and for discriminant validity, Fornell-Larcker and HTMT methods were deployed (Hair et al., 2017; Khan et al., 2022b).

The study has six latent constructs. The data of the observed variables was taken from the demographic part of the instrument, and a five-point scale has been developed for the latent constructs. The study has adopted four questions (Schuitema et al., 2013) for the construct gain motivations; the sample item includes "Compared to a normal food, organic food is similar to a normal food in most respects". The construct normative motivations has three items adapted from Harland et al. (1999); the sample item includes "I would feel guilty if I didn't use sustainable products". The three items of hedonic motivations were adopted from Schuitema et al. (2013). Before answering the hedonic motivations questions, the statement "What emotions do you anticipate you will feel from owning organic/sustainable food?" adopted from Rezvani et al. (2018) was also asked from the respondents to be sure about the answers of hedonic motivations. For the construct, consumer intentions to purchase sustainable products, three items were adopted from Chan (2001). For knowledge, the scale was adopted from the study of Wang et al. (2019). The study operationalized the perceived price construct using four items (He & Zhan, 2017).

4. Results and analysis

The results show that most of the respondents are male, while females also have a significant presence. The age of most of the sample is between 21 and 40 years. The household income tends to be on the higher side and the majority of the respondents are degree holders. The study also found that respondents have significant work experience. The study first checked the reliability and validity of the data collected. Considering the reflective-reflective nature of the model, the study has applied a consistent PLS algorithm to check the results of the measurement model. The results of the model suggested that a few items are below inter-item reliability thresholds (0.70). Hair

Figure 2. Measurement model.



et al. (2016) suggested that people take factor loadings from 0.4 to 0.7 if these loadings do not disturb the convergent validity and construct reliability. Therefore, for this research, it was decided to take the values which may be less than 0.7 but do not affect the construct reliability and convergent validity Figure 2

After fixing the issues of outer loadings of the measurement model, the next step was to establish the construct reliability and convergent validity. Table 1 of the study reported several measures of reliability and validity. All the reliability values are found to be greater than 0.7. The standard threshold accepted here was 0.7 and above (Hair et al., 2016).

The AVE of the constructs is above 0.5, which is higher than the standard thresholds, this means the constructs explained the maximum variance, and the errors in the data are explained less, and, therefore, the AVE values are accepted. To check the multicollinearity issues in the data, VIF has been used. All the values suggested that there is no issue of multicollinearity as they are lesser than the standard threshold, which is 5 (Hair et al., 2016). The Standardized Root Mean Square Residual (SRMR) value in Table 4 suggests that the value is less than the threshold which is 0.8 (Hair et al., 2016) and for some authors, it is 0.1. It is, therefore, said the model is fit to predict the results. There are two endogenous variables; therefore, the study has two R squares as mentioned in Table 1. Both the values of R squares are greater than 0.2. For hedonic motivations, the R square is 0.354, which may be considered a strong model, whereas the main endogenous variable reported 0.312, which may be considered a moderate value (Hair et al., 2016).

To establish the discriminant validity, the study has used Fornell and Larcker (1987) criterion and Heterotrait–Monotrait ratio (HTMT) methods. Table 2 suggests that all the diagonal values are greater than the other correlation values (Hair et al., 2016), meaning that the items adopted are explaining their own constructs rather than explaining other constructs.

The HTMT values presented in Table 3 are lesser than the criteria, 0.9 and 0.85. Hence, it may be said that discriminant validity is established in this study (Hair et al., 2016).

Table 1. Construct reliability and convergent validity

Items	Outer loadings	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)	VIF	Model fit	R squares
G1	0.426	0.691	0.808	0.526	1.101	0.062	0.272
G2	0.804				1.642		
G3	0.739				1.287		
G4	0.854				1.811		
HM1	0.886	0.849	0.909	0.769	2.317		0.354
HM2	0.905				2.471		
HM3	0.839				1.767		
I1	0.870	0.779	0.872	0.694	1.814		0.312
I2	0.862				1.868		
I3	0.763				1.406		
NM1	0.874	0.803	0.883	0.717	1.878		
NM2	0.893				2.057		
NM3	0.767				1.523		
PP1	0.808	0.891	0.914	0.726	3.086		
PP2	0.843				3.379		
PP3	0.847				2.409		
PP4	0.907				1.839		
Kn1	0.842	0.804	0.800	0.542	2.078		
Kn2	0.888				2.750		
Kn3	0.801				1.869		
Kn4	0.173				1.246		

We have used PLS predict to see the prediction of the model. Table 4 suggests that PLS model values of the Q square are greater than linear model values. The Q square values received are also positive, its also suggested that the prediction error is smaller in PLS than the prediction error of the mean values; hence, our model found better with regard to predictive performance (Shmueli et al., 2016).

For this study, a consistent bootstrapping approach was used because of its reflective-reflective nature. The subsamples selected to run the bootstrapping were 5000, as seen in Figure 3 and Table 5. The first relation proposed in the study was between hedonic motivations and intentions. We found in Table 5 that hedonic motivations have a strong positive effect on consumer organic food consumption ($p: 0.000$, $T: 7.581$, variance: 34.2%). The next two hypotheses were of the indirect roles of hedonics between gain and normative motivations and intentions. The hedonic mediation between gain-intentions found a 13.8% variance ($p: 0.000$, $T: 5.412$). The second hedonic mediation between normative intentions was also found to be positive and significant ($p: 0.000$, $T: 4.390$, variance: 0.093%). We have also found that the direct relationship between gain motivations and intentions was significant and positive and the variance of the relationship explained was 24.8% ($p: 0.000$, $T: 4.587$).

The study also proposed a mediation role of gain motivation. Interestingly, the gain was found to be the true mediator between normative and intentions ($p: 0.000$, $T: 4.459$, variance: 12.9%). This is important as the direct relationship between the normative and intentions was found not found significant ($p: 0.690$, $T: 0.399$, variance: 0.019%), which means that the true mediation was found to gain motivations. The results in Table 5 are also in accordance with the literature as it was found that between normative motivations and intentions, gain motivations have a role to play.

Table 2. Fornell–Larcker criterion

	GM	HM	Intentions	NM	PP	Knowledge
Gain motivations	0.725					
Hedonic motivations	0.547	0.877				
Consumer intentions	0.454	0.509	0.833			
Normative motivations	0.521	0.484	0.338	0.847		
Perceived prices	0.022	0.095	0.082	−0.003	0.852	
Knowledge	−0.087	−0.043	−0.098	−0.076	0.324	0.736

Table 3. Heterotrait–Monotrait ratio (HTMT)

	GM	HM	Intentions	NM	PP	Knowledge
Gain motivations						
Hedonic motivations	0.664					
Consumer intentions	0.597	0.622				
Normative motivations	0.660	0.580	0.416			
Perceived prices	0.068	0.086	0.079	0.094		
Knowledge	0.114	0.044	0.096	0.110	0.320	

The study proposed moderation of consumer knowledge between gain motivation and intentions. The results found true moderation of knowledge where the variance explained was 15.9% (p : 0.030, T : 2.170). Finally, the moderation of perceived price was also checked between the normative motivations and intentions relationship. The study found a significant and negative impact of perceived price between normative motivations and intentions (p : 0.021, T : 2.305, variance: −12.2%).

5. Discussion

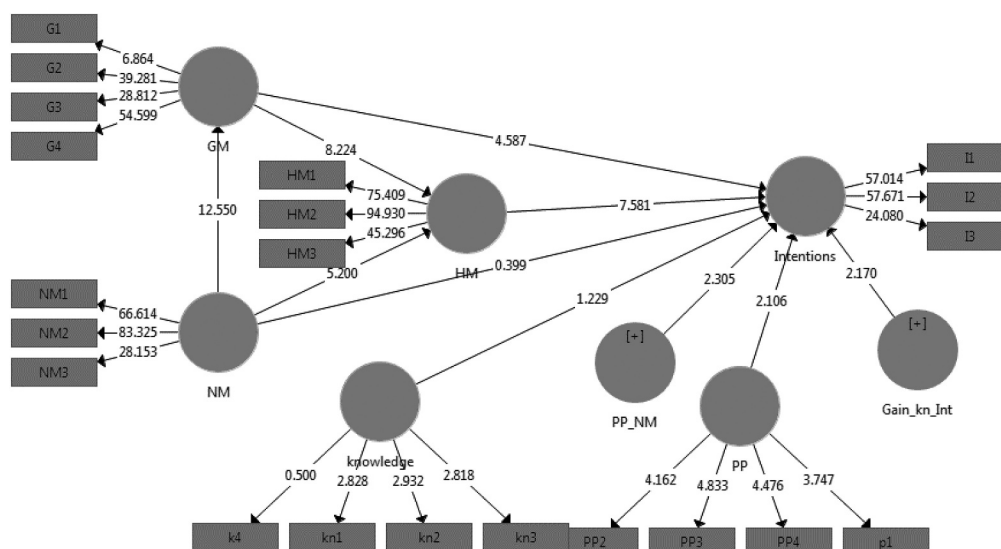
The study focused on exploring factors that influence consumers' intentions to purchase organic food in Pakistan. Factors of GFT were the main constructs used in direct and indirect roles. In addition, knowledge and perceived price were used as moderators. The results provided strong evidence of the motivational and other factors that influence consumers' intentions to purchase organic food in the developing market settings and have beneficial information for the industry and stakeholders who are involved in this business or intend to promote organic food in the country.

The main constructs of the study were three consumer motivations, i.e. gain, hedonic, and normative (Lindenberg & Steg, 2007; Steg et al., 2014). We have used them as direct and indirect roles in predicting the consumer's intentions (Hameed & Khan, 2020; Rezvani et al., 2018). It was noted that in both the roles, the motivational factors are found relevant in a low-cost or low-involvement product category like organic food (Rezvani et al., 2018). The results indicated that hedonic motivation was the strongest factor affecting the consumer purchase intentions of organic food. This is slightly different from the results obtained by Hameed and Khan (2020) where normative motivations were found to be strongest in the case of the adoption of home

Table 4. PLS predict

Indicators of Q2 predictors	PLS	LM
G1	0.020	0.019
G2	0.156	0.147
G3	0.179	0.178
G4	0.190	0.170
HM1	0.174	0.153
HM2	0.185	0.178
HM3	0.169	0.147
I1	0.081	0.071
I2	0.067	0.058
I3	0.073	0.048

Figure 3. Structural model.



appliances. This means that consumer moods are the primary motivations to form behavioral intentions (Schuitema et al., 2013). Moreover, the direct role of normative motivation was not established, but it was found that normative motivation has a true mediation through gain and hedonic motivations in affecting the consumers' intentions to purchase organic food. In the studies of Rezvani et al. (2018) conducted on electric cars and Hameed and Khan (2020) conducted on home appliances, current results are a little contrary as in both the prior studies, and there was partial mediation found, which means both, the direct and indirect relationships proposed, were accepted. However, we have found the true mediation of gain and hedonic motivations between normative motivations and intentions to adopt organic food relationships. Moreover, in the case of gain motivation, mediation was found in predicting the organic food purchase intentions. Chakraborty et al. (2017) have also found significant relationships between the direct and indirect roles of motivational factors in the context of higher education. Hence, it may be concluded that normative motivations have the power to influence the intentions through gain and hedonic motivations in study settings like Pakistan. Steg and Vlek (2009) argued that normative motivations are more active in low-involvement settings than in high-involvement product categories. For low-involvement products, the results of this study are evident in the relevance of normative motivations. It was also found that the role of knowledge is a key to developing the attitudes required to promote sustainable products. The results coincide with the available literature (Wang

Table 5. Direct and indirect paths

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Results
HM > Intentions	0.342	0.338	0.045	7.581	0.000	Supported
GM > HM > Intentions	0.138	0.137	0.026	5.412	0.000	Supported
NM > HM > Intentions	0.093	0.092	0.021	4.390	0.000	Supported
GM > Intentions	0.248	0.240	0.054	4.587	0.000	Supported
NM > GM > Intentions	0.129	0.125	0.029	4.459	0.000	Supported
NM > Intentions	0.019	0.022	0.049	0.399	0.690	Not supported
Gain_kn > Intentions	0.159	0.170	0.073	2.170	0.030	Supported
PP_NM > Intentions	-0.122	-0.122	0.053	2.305	0.021	Supported

et al., 2019). For perceived prices, the study gets the negative interactions; this means that higher prices weaken the relationships of normative motivations and intentions (He & Zhan, 2017).

5.1. Theoretical contributions

The study contributes to the area of environmental psychology in several ways. The study confirms the importance of all the motivational and other factors in the organic food context. The motivational factors of GFT are found to be important in the low-cost product categories like organic food. It confirms that all the motivational factors directly or indirectly are related to the consumer's sustainable consumption of organic food (Lindenberg & Steg, 2007; Steg et al. 2014). Consumer hedonic motivations continue to play an important role in motivational factors (Rezvani et al., 2018). We have found consumer emotions to be the strongest factor among motivational factors. Moreover, it validates the existing findings about the indirect roles of consumer emotions in between gain/normative and intention relationships (Hameed & Khan, 2020; Rezvani et al., 2018). A mediation of gain was proposed between normative motivations and intentions. The study found that in low-involvement settings, norms can influence the instrumental side of the motivations which then leads to developing the intentions. This is an important finding as prior literature in the area suggested that personal norms are not found positive and significant in low-cost product categories (De Groot & Steg, 2009). So, this was an important finding of this study. Consumer knowledge was proposed as a moderator of the gain-intention relationship, it was found that having awareness of sustainable products/organic food may also strengthen the motivational factors and intentions relationship. The national literacy rate in the country is not at par, especially in the villages; hence, promoting sustainability after providing the required knowledge, and awareness about sustainability would be key for the policymakers and the government. Doing this would help them improve the understanding of the people about the sustainability context. It is also imperative to know that a large number of the population is sensitive about religion; hence, the personal moral norms or normative motivations, which are key with regard to religion, are found to be strong and positive. Hence, this finding may be used with more intensity as compared to other societies. The study provided important insight about perceived price, that premium prices may weaken the relationship between motivation factors and intentions relationship (He & Zhan, 2017). For a country like Pakistan, it is an important finding, as this could be used to strategize the positioning of sustainable goods in the country.

5.2. Policy recommendations

There are several recommendations for the government and for the marketing practitioners as well in this research. Since the study is focused on consumer motivations, therefore the government and marketing agencies should know what behavior should be promoted. The study highlighted that hedonic motivations come out to be the strongest factor affecting consumer behavior; therefore, this factor should be considered the most to get instant results in promoting sustainable behaviors in the country. However, other factors are relevant too, the other two motivational factors are also found to be significant, and therefore the policymakers may also take a reference. While designing a promotional message, a combination of hedonic and normative appeals would bring a positive response (Drugău-Constantin, 2018). Consumer normative motivations have been found to influence both, gain and hedonic, motivations that lead to sustainable consumption. Hence, having both goals into consideration will be useful for policymakers. Moreover, the knowledge was found to be significant, hence creating awareness in the message designs would bring positive for the companies and governments. Finally, the companies and the policymakers must also be aware that higher prices of such products may create hurdles in promoting sustainable behaviors. Hence, there is a need to rationalize the prices so that the maximum benefits could be achieved. Moreover, there must be a communication strategy to highlight or counter the effect of premium prices of organic food/sustainable products. The issue of premium prices could be minimized if the government encouraged the producers to increase the production of organic food in the country. For this purpose, the government can have technology transfer agreements from the developed world like Europe, the US, and China.

5.3. Limitations and recommendations

The study has several limitations. First, the sample selected is of lower thought products or low involvement products. Hence, applications in high-cost sectors, i.e. electric cars, may be questioned. Secondly, it is a cross-sectional study where the data was collected from a developing country. Hence, a different methodology is recommended for further studies in the area, i.e., a longitudinal study may also be conducted on the model presented, and the model can be checked on the developed countries' sample. An experimental design-based study on motivational factors may also give a different perspective. Thirdly, there are other factors that may affect consumer behavior. For example, Tanner and Wölfling Kast (2003) stated that there are other factors that may affect consumer behavior besides attitude, value, and individual factors such as situational factors. These factors may be used individually or in conjunction with the motivational factors that may inflate or deflate the motivational factors' relationship with sustainable consumption. Factors such as normative triggers (Han et al., 2017) and perceived complexity (He & Zhan, 2017) can further elaborate on the status of direct and interdependencies between motivational factors and sustainable consumption. Forth, the motivational factors are measured directly without operationalizing them. Therefore, operationalizing the motivational factors differently (especially in the context of organic food) might get a holistic picture. The construct of hedonic motivation can easily be operationalized using three dimensions: happiness, pleasure, and excitement (Gracia et al., 2011). Finally, this study used knowledge as a moderator between gain motivation and sustainable intentions and the moderation of knowledge is not used between normative motivations and intentions. Therefore, it is recommended that future studies use this moderation, especially in the context of developing economies, and explore the new dimension.

6. Conclusions

Consumption of organic food is a growing concept that needs full attention not only from the governments but also from the public to avoid health and environmental hazards. The aim of this research was to identify the factors that affect consumers' intentions to purchase organic food. For this, we have proposed a theoretical model based on the GFT to observe the sustainable consumption of consumers based in a developing market setting like Pakistan. For further investigation, the interplay among the motivational factors was proposed. The study also used two moderators, i.e. knowledge and perceived price, to see the effects of the relationship between motivational factors and sustainable consumption in the country. The data was collected from the users/consumers of organic food and for inferential statistics, SEM was employed using PLS. The

results verified that all the motivational factors and moderators proposed in the study were found relevant in predicting the sustainable consumption of organic food in the country.

The statistics of this study found that hedonic motivation is the strongest factor among the motivational factors that affect the consumers' intentions to purchase organic food. The construct was also the mediator between gain-intentions and normative-intentions relationships. The study found the mediation in both cases of low-involvement product categories, which is also a validation of the prior studies conducted on high-involvement product categories. The gain motivations were also used in two roles, direct and indirect. The construct was found to be significant and positive in both roles. The results of its direct role validate the findings of the prior studies. However, its indirect role in the normative-intentions relationship was freshly proposed. The study found that personal norms also have the power to influence consumers' instrumental attributes that leads to the purchase of sustainable products. Importantly, the direct role of normative motivations was found to be insignificant to the intentions. This finding may be carefully evaluated as both the indirect roles of the construct were found to be significant, and, hence, true mediation was observed in both cases. Moreover, the construct knowledge was proposed as a moderator between the gain and intentions relationship. The study found true moderating of knowledge. This means that awareness about sustainable products like organic food has a key role to play in a setting like Pakistan. It can weaken the governmental resolve in combating climate change or sustainable consumption issues and could also affect the promotional campaigns of the corporates. Perceived price negatively moderated normative motivations-intentions relationship. This sums up the issue of premium prices of sustainable products; hence, a comprehensive strategy by the government, policymakers, and corporates, even a collective effort is required to achieve the sustainability targets.

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