

Artículo de investigación

Determinants of sustainable consumption in high and low involvement product categories

Determinantes del consumo sostenible en categorías de productos de alta y baja participación

Determinantes do consumo sustentável em categorias de produtos de alto e baixo envolvimento

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Written by:

Kamran Khan (Corresponding Author)¹⁶⁴Dr. Irfan Hameed¹⁶⁵**Abstract**

The aim of this research is to explore the determinants of sustainable consumption with respect to Goal-Framing theory. The study has adopted high and low involvement product categories to identify which motivational factor is more relevant in each of the categories. This is a validation and extension to the Goal-framing theory conducted in the context of developing nation settings. There are three motivational factors, gain, hedonic and normative motivations taken as a predictor to consumer intentions to adopt sustainable products. The integrated effects of the motivational factors were also determined to have a comprehensive study on them with respect to sustainable consumption. The study follows a quantitative research method technique and gathered the data using an adapted questionnaire. For both the samples, different sample sizes were acquired as per their nature, PLS-SEM technique was used to test the measurement and structural models. For both the samples, different results are obtained and suggestions are given accordingly. The study provides insights to the policymakers and practitioners. Further areas of research in the area are also suggested.

Keywords: Sustainable consumption, Goal-Framing theory, high and low involvement product categories, motivational factors.

Resumen

El objetivo de esta investigación es explorar los determinantes del consumo sostenible con respecto a la teoría del Marco de Objetivos. El estudio ha adoptado categorías de productos de alta y baja participación para identificar qué factor motivacional es más relevante en cada una de las categorías. Esta es una validación y extensión de la teoría de la estructura de objetivos llevada a cabo en el contexto de la configuración de una nación en desarrollo. Hay tres factores motivacionales, ganancias, motivaciones hedónicas y normativas que se toman como predictor de las intenciones de los consumidores de adoptar productos sostenibles. También se determinó que los efectos integrados de los factores motivacionales tenían un estudio exhaustivo sobre ellos con respecto al consumo sostenible. El estudio sigue una técnica de método de investigación cuantitativa y recopila los datos mediante un cuestionario adaptado. Para ambas muestras, se adquirieron diferentes tamaños de muestra según su naturaleza, se usó la técnica PLS-SEM para probar la medición y los modelos estructurales. Para ambas muestras, se obtienen diferentes resultados y se dan sugerencias en consecuencia. El estudio proporciona información a los responsables políticos y profesionales. También se sugieren otras áreas de investigación en el área.

Palabras claves: Consumo sostenible, teoría del marco de objetivos, categorías de productos de alta y baja participación, factores motivacionales.

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Resumo

O objetivo desta investigação é explorar os determinantes do consumo, com respeito à teoria do Marco de Objetivos. O estudo tem adotado as categorias de produtos de alta e baixa para identificar o fator motivacional e mais relevante em cada uma das categorias. Esta é uma validação e extensão da teoria da estrutura de objetivos configurados em um contexto no contexto da configuração de uma nação em desenvolvimento. Os fatores motivacionais, ganancias, motivaciones hedónicas e normativas que se apresentam como predictoras das intenções dos consumidores de produtos. Também se determinou que os efectivos integrados dos factores motivacionais são estipulosos exaustivos sobre os ellos com respeito a todo o consumo sostenible. El estudio sigue una técnica de method de investigación cuantitativa y recopila los datos mediante un cuestionario adaptado. Para fazer as muestras, fazer várias mudanças de modo a detectar a natureza, utilizar a técnica PLS-SEM para avaliar a medicação e os modelos estruturais. Para ambas as partes, consulte os resultados e as sugestões em consecuencia. O estudo da informação é dos responsáveis políticos e profissionais. Também são sugeridas áreas de investigação na área.

Palavras-chave: Consumo sustentável, teoria do marco de objetivos, categorias de produtos de alta e baixa participação, fatores motivacionais.

Introduction

The world has seen the negative consequences of unsustainable consumptions i.e. social and environmental problems by misusing or abusing natural resources, food, and energy (Rezvani, Jansson, & Bengtsson, 2018). Pakistan is among the top ten countries that are severely affected by the global warming caused due to global emissions and other problems despite having a low contribution to the world's global emission (Aslam, 2018). This change in the global environment has cost the country economically and also, have taken lives of hundreds of people in the 2010 floods and in the heat wave in 2015 (Chaudhry, 2017). In the field of consumer behavior and marketing, several studies have discussed the motivational factors and attitudes towards sustainable products to overcome environmental issues and in many studies, the attitudes of the people are found positive towards sustainable products (Barbosa & Pastore, 2015; Rezvani et al., 2018). However, the adoption of such products is slow and needs to be speed up (Bodur, Duval, & Grohmann, 2015; Rezvani et al., 2018).

This study deals with the underlying consumer motivations for sustainable products. Sustainable consumption can be increased by making the right business and marketing strategies that are aligned with consumer motivations (Rezvani et al., 2018). Various perspectives have discussed to identify consumer's sustainable purchase behavior i.e. economic perspective, social perspective, and psychological perspective. However, Rezvani et al., (2018) have taken three motivational factors, gain motivations, normative motivations and hedonic motivations

and discussed them in the environmental psychology perspective. The concepts are borrowed from the famous Goal-Framing theory (GFT) (Lindenberg & Steg, 2007). The theory has established the role of these three motivations in affecting consumer sustainable purchase behavior directly. However, Steg, Bolderdijk, Keizer, & Perlaviciute (2014) have provided a conceptual model on the integrated effects of these motivations on sustainable consumption. The direct and integrated concepts were tested in the sustainable consumption context by Rezvani et al., (2018) using electric vehicles which are considered as high-end or high involvement products. This paper has made several contributions to the field. One, it has further extended the integrated effects of motivational factors and their impact on sustainable consumption. Secondly, the study is applied in the socio-demographics of a developing nation which is significantly different from a developed nation. Finally, the study is applied to high and low involvement products. The purpose was not to compare those two extremes but to highlight what motivational factors contribute the most in different product categories. This was to help the practitioner and the policy makers to identify the kind of motivations that is required to be promoted in the country to get instant results.

Literature review

- **Consumer intentions to purchase sustainable products**

Zeithaml, Berry, & Parasuraman, (1996) have stressed to monitor the behavioral intentions and

termed as signals to actual purchase. The use of the purchase intentions in the marketing literature are frequent and it continues to be an important variable in the published literature (Morrison, 1979). They are considered as self-instructions when there is a certain behavior is to be performed or to get a certain outcome (Triandis, 1979). They are measured by asking intentions to perform a certain behavior or goal which indicates the commitment of the individual that how much effort will be exerted to get the relevant outcome (Ajzen, 1991; Webb & Sheeran, 2006). Thus, they capture the motivational factors that affect behavior (Ajzen, 1991). There are several environmental studies that have considered the role of consumer intentions in various contexts (Rezvani et al., 2018; Ho, Liao, & Rosenthal, 2015; Schuitema, Anable, Skippon, & Kinnear, 2013). This study took consumer intentions to purchase sustainable products as an endogenous variable to consumer motivational factors.

- **Gain motivations**

GFT terms gain motivations as “to guard and improve one’s resources” (Lindenberg & Steg, 2007, p. 119). When such goals are active, people get sensitive about their personal resources. The time for gain goals may last from the middle to long term. In these goals, one tries to minimize the potential loss or to increase the efficiency in the resources such as saving money or increasing income. GFT has taken the concept from the theory of planned behavior (TPB) (Ajzen, 1991). The TPB believes that intentions are the predictor of behavior and several factors affect the intentions including attitudes. Attitudes are the overall evaluations to engage in a certain behavior and are based on the cost and benefits of a behavior. GFT suggests that the attitudes are successfully explaining behaviors in sustainable contexts because if people feel that benefits are exceeding the cost, they are more likely to engage in such behaviors. Rezvani et al., (2018) have constructed a hypothesis to check the direct impact of gain motivations and consumer intentions to adopt electric cars. Moreover, the study has also taken hedonic motivations as a mediator between gain motivations and

consumer intentions to adopt such cars. It was argued that positive attitudes may lead to positive anticipation that affects behavior. The study reported that the direct relationship between gain motivations with intentions was found significant and positive, the association of gain motivations with hedonic motivations was also found significant and positive in affecting consumer intentions. The study, therefore, hypothesized that:

H1. Gain motivations positively affect consumers’ intentions to purchase sustainable products

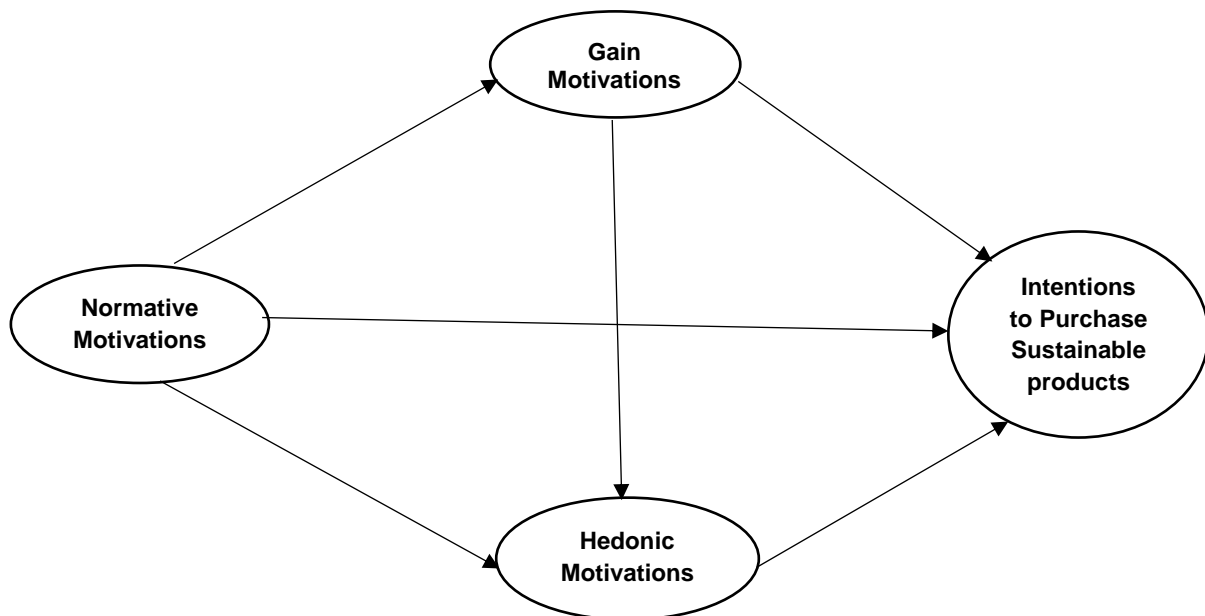
H2. Gain motivations and intentions are positively mediated by hedonic motivations

- **Hedonic motivation**

Hedonic goals are termed “to feel better right now” in the GFT (Lindenberg & Steg, 2007, p. 119). The purpose of such goals is to have pleasure, self-esteem, and excitement and to avoid any effort, uncertainty or negative thought. The time frame of such goals is very short as these goals are directly linked with the moods of the individual. When hedonic frames are active, people tend to improve their feelings and gets sensitive to the factors that affect their energy level, atmosphere, and moods. The GFT related this construct with emotions and affect. Smith, Houghtvedt, & Petty (1994) have found that affect is significantly related to sustainable consumption. A recent study conducted by Rezvani et al., (2018) have taken the direct impact of hedonic motivations on intentions. The results supported the hypothesis and proved that positive anticipated emotions are the primary predictors of sustainable intentions. Another recent study conducted by Miao & Wei (2013) have also found that hedonic motivations are positively associated with sustainable behaviors. Hence, the following hypothesis is formulated:

H3: Hedonic motivations are positively associated with consumer intentions to purchase sustainable products

Figure 1. Proposed model for both samples



- **Normative motivations**

Normative goals are termed as “to act appropriately” by the GFT (Lindenberg & Steg, 2007, p. 119). The concept of normative motivations was borrowed by GFT from the famous norm-activation model (NAM) (Schwartz, 1977). The model focuses on normative concerns and was successfully applied in the sustainable contexts (Hopper & Nielsen, 1991; Thøgersen, 1999). The NAM believes that behavior is the result of personal norms and moral norms activated when people are aware of the negative consequences about others or to the environment. Thøgersen, (1999) reported that the selection of sustainable packaging by the consumers is linked with the normative concerns. The study of Rezvani et al., (2018) have taken the direct relationship between normative motivations and consumer intentions to adopt electric vehicles. The results of the study reported that normative motivations in high involvement product category were found positive and significant. Moreover, their study has also taken the indirect relationship between normative motivations and intentions through hedonic motivations as mediator. The results also supported that the hedonic motivations mediate the said relationship. The study of Miao & Wei (2013) has taken a direct impact of normative motivations on sustainable behavior. The results reported that normative motivations are the positive and significant predictor to sustainable behaviors in a household setting. Klöckner (2013) in his study reported that if consider anything favorable, it is also taken into account if

the relevant behavior is in accordance with personal values. The author suggested the mediation of attitude between personal moral norms and consumer intentions to purchase sustainable products. The study of Fang, Ng, Wang, & Hsu (2017) have taken the indirect relationship between normative beliefs and intentions through attitudes, the results supported the mediation relationship that attitudes are related to normative beliefs and consumer intentions. Considering the discussion above, the following hypotheses for this study are developed:

H4: Normative motivations are positively associated with consumer intentions to purchase sustainable products

H5: Normative motivations and intentions are mediated by hedonic motivations

H6: Normative motivations and intentions relationship is mediated by hedonic motivations

Methodology

As discussed in the introduction, the study has two different product categories i.e. organic food and hybrid cars. The method of data collection for organic food was both online and offline medium as the products in this segment are widely available in the country. For hybrid cars, only printed copies were distributed among those respondents who are using such cars. The convenience sampling technique was applied for organic food customers and for hybrid cars sample, the purposive sampling method was employed. The number of items for both the

studies was equal, however, for several constructs, i.e. gain motivations, hedonic motivations, normative motivations, intentions and behavior, the items were changed as per the product category requirements. For organic foods, online and offline, both mediums were used to collect the data, a large number of questionnaires were distributed using both mediums and is done due to the nature of the product category and get the final sample size of 488 after removing incomplete, invalid and inconsistent responses. However, the hybrid car sample was difficult to find, several contacts were established to reach out to the final consumers, and therefore, a less sample was acquired than the organic food. The demographic profiles of the respondents were checked using SPSS, however, the normality issues were identified using AMOS. Microsoft Excel was used to delete the invalid and incomplete responses from the study. There were several direct and indirect effects in the study, hence, the statistical technique used here was structural equation modeling (SEM) using SmartPLS. This study is not about the comparison of results of the two different product categories, therefore, the correlations were obtained using the SEM technique. SEM is a two-staged approach, and this study followed the same approach. The first stage deals with the measurement model, where for both the samples, reliability, validity, model fitness, R square and VIF values were acquired. Whereas, in the second stage, the structural model was used to test the hypotheses.

Results

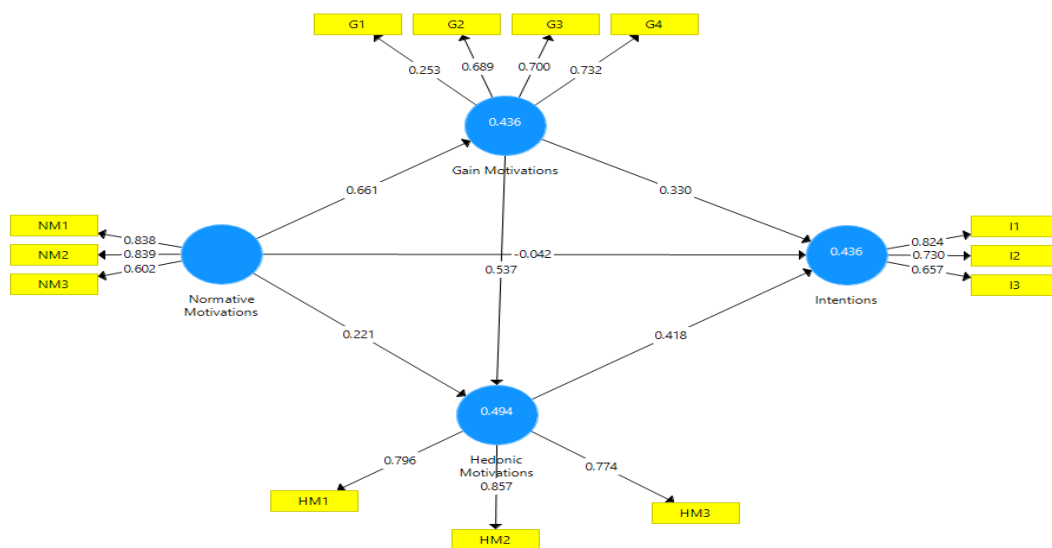
Organic Food Sample

- **Demographics**

Before getting to the statistical inference, the demographic profile of the organic food sample was obtained. The results of the demographic profile revealed that 66% of the final sample were male and 34% of the total sample were females. The contribution of this female population is considered significant. The second demography taken in the study was age, the majority of the respondents were found from 21 till 40 years, and however, above 40 years, 51 respondents in the study were found. The next demography was household income, where most of the respondents have shown the household income more than 65000. This is significant, as it is easier to buy organic food products if the income is higher. The profile of the sample has shown that a great majority of has a bachelor degree and above, however, a total of 119 respondents were without a university degree. The last demography was taken was experience, where it was found that the majority of the sample population has got more than 1 years of experience. Therefore, it may be said that they might have better knowledge about environmental products.

- **Measurement Model for organic food sample**

Fig. 2 Measurement model for organic food sample



Before proceeding to test the hypotheses of the study, validity, reliability, model fitness, and

other measures were acquired. There were four constructs in the study and some of the outer

loadings of the model were not found at the standard level of 0.7 as seen in figure 2. Therefore, items with low outer loadings were deleted that were affecting the construct reliability and convergent validity (Hair, Hult, Ringle, & Sarstedt, 2017).

After deleting the items with low outer loadings, the model was retested. Table 1 of the study confirms that all the reliability and convergent

validity measures are not found satisfactory. Moreover, the VIF values also indicate that there is no issue of multicollinearity in the data of organic food. Since the model contains only one exogenous variable that is normative motivations, therefore, there were three r squares found in the study. The values of R square in the table 1 were greater than 0.34, which means that all the values are stronger and predict a good model.

Table 1. Measures of measurement model

Constructs	Items	Outer loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	R Square	VIF
Gain Motivations	G2	0.765	0.761	0.762	0.616	0.346	1.608
	G4	0.804					1.608
Hedonic Motivations	HM1	0.812	0.849	0.851	0.657	0.470	2.317
	HM2	0.868					2.471
	HM3	0.748					1.767
Intentions	I1	0.851	0.785	0.788	0.650	0.384	1.717
	I2	0.759					1.717
Normative Motivations	NM1	0.843	0.803	0.809	0.591		1.878
	NM2	0.844					2.057
	NM3	0.591					1.523

In tables 2 and 3, the discriminant validity was achieved using Fornell-Larcker criterion and Heterotrait-Monotrait ratio methods respectively. The diagonal values in table 2 are

having greater correlations than the value on their left and below. Hence, there is no issue of discriminant validity in the organic food sample.

Table 2. Discriminant validity through Fornell-Larcker Criterion

	Gain Motivations	Hedonic Motivations	Intentions	Normative Motivations
Gain Motivations	0.785			
Hedonic Motivations	0.640	0.811		
Intentions	0.514	0.595	0.806	
Normative Motivations	0.588	0.574	0.393	0.769

Table 3 also suggests that the values are less than both the standards of HTMT that are 0.90 and

0.85, hence, it may be said that the discriminant validity in organic food sample is achieved.

Table 3. Discriminant validity through Heterotrait-Monotrait Ratio (HTMT)

	Gain Motivations	Hedonic Motivations	Intentions	Normative Motivations
Gain Motivations				
Hedonic Motivations	0.642			
Intentions	0.516	0.595		
Normative Motivations	0.591	0.580	0.388	

The Standardized Root Mean Square Residual (SRMR) value in table 4 was found lesser than

0.08. This means that the model is an absolute fit to predict the results.

Table 4. Model Fitness

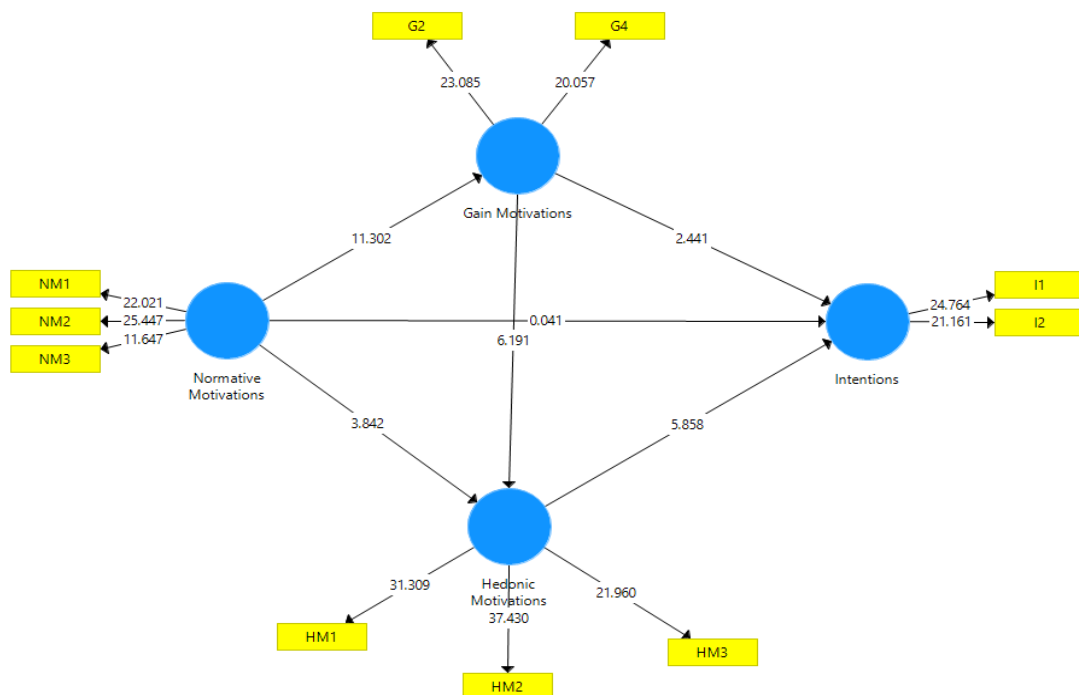
	Saturated Model	Estimated Model
SRMR	0.022	0.022
d_ULS	0.028	0.028
d_G	0.022	0.022
Chi-Square	54.862	54.862
NFI	0.975	0.975

• **Structural model for organic food sample**

To continue the analysis, the study has applied a consistent bootstrapping method using SmartPLS due to its formative-formative nature with 5000 subsamples as shown in figure 3 of the organic food sample. There were several direct and indirect relationships in this study. The direct

relationship of gain motivations with hedonic motivations and consumer intentions to purchase was found significant. The mediation of hedonic motivations between gain motivations and intentions were also found significant. Therefore, the study found partial mediation in this regard.

Fig. 3 Structural Model for organic food sample



The hedonic motivations were found positive and significant to consumer intentions to purchase organic food. Moreover, the direct relationships

of normative motivations with gain motivations and hedonic motivations were found significant.

Table 5. Hypothesis – Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Direct effects					
Gain Motivations > Hedonic Motivations	0.463	0.467	0.075	6.191	0.000
Gain Motivations > Intentions	0.225	0.224	0.092	2.441	0.015
Hedonic Motivations > Intentions	0.449	0.449	0.077	5.858	0.000
Normative Motivations > Gain Motivations	0.588	0.589	0.052	11.302	0.000
Normative Motivations > Hedonic Motivations	0.302	0.298	0.079	3.842	0.000
Normative Motivations > Intentions	0.003	0.004	0.076	0.041	0.967
Indirect effects					
Normative Motivations > Gain Motivations > Intentions	0.132	0.132	0.056	2.358	0.018
Gain Motivations > Hedonic Motivations > Intentions	0.208	0.210	0.052	4.027	0.000
Normative Motivations > Hedonic Motivations > Intentions	0.136	0.134	0.042	3.228	0.001

However, the direct relationship of normative motivations with intentions was found insignificant. The indirect relationships of normative motivations with intentions through gain motivations and hedonic motivation were

Hybrid Sample

- **Demographics**

For a hybrid car sample, a little change was done in the demographic details, where the minimum income was raised as this product category is expensive. The results stated that around 70% of the respondents were male. The maximum portion of the age of the respondents falls between 31 to 50 years. Moreover, a large majority of the respondents were middle or upper middle class with having income more than 140,000. The education was mixed, most of them were the degree holders however, around 110

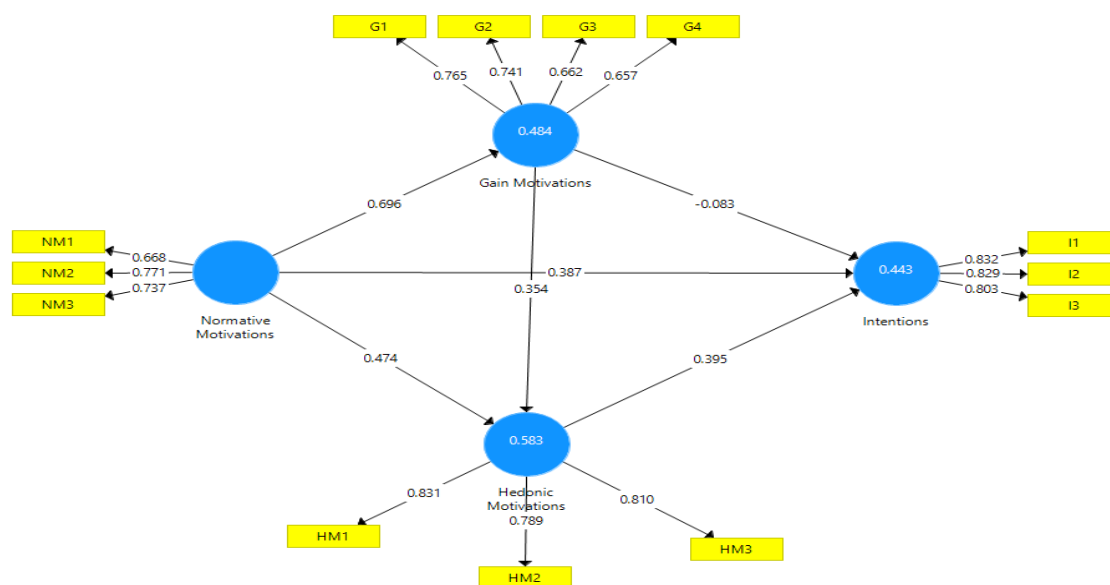
found significant. Therefore, it may be concluded that in normative motivation case, there is a true mediation found in the data of organic food sample.

people who were just intermediate. Such respondents were those who do their own businesses.

- **Measurement Model for hybrid car sample**

To apply the measurement model, the consistent algorithm was applied due to the reflective nature of the model. The four constructs of the study were having 13 items in total as shown in figure 4. Some of them have shown less value than the desired 0.7 outer loadings. However, since they are not disturbing the construct reliability and convergent validity, the study has taken the items for further analysis.

Fig. 4 Measurement model for hybrid car sample



The outer loadings of the majority of items were greater than 0.7, therefore, there were no issues found in the Cronbach's alpha, composite reliability, and AVE. The VIF values also

indicated that the data is clear from the issue of multicollinearity. The values of R square in table 6 were greater than 0.443, which means that all the values are stronger and predict a good model.

Table 6. Measures of measurement model

Constructs	Items	Outer loadings	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)	R Square	VIF
Gain Motivations	G1	0.765	0.80	0.80	0.80	0.50	0.484	1.864
	G2	0.741						1.605
	G3	0.662						1.590
	G4	0.657						1.748
Hedonic Motivations	HM1	0.831	0.85	0.85	0.85	0.66	0.583	2.797
	HM2	0.789						2.276
	HM3	0.810						1.820
Intentions	I1	0.832	0.86	0.86	0.86	0.67	0.443	2.365
	I2	0.829						2.787
	I3	0.803						1.901
Normative Motivations	NM1	0.668	0.77	0.77	0.77	0.53		1.491
	NM2	0.771						1.722
	NM3	0.737						1.557

Again two measures Fornell-Larcker criterion and Heterotrait-Monotrait ratio methods are used to determined discriminant validity. The diagonal values in table 7 are having greater

correlations than the value on their left and below. Hence, there is no issue of discriminant validity in the organic food sample.

Table 7. Discriminant validity through Fornell-Larcker Criterion

	Gain Motivations	Hedonic Motivations	Intentions	Normative Motivations
Gain Motivations	0.708			
Hedonic Motivations	0.684	0.810		
Intentions	0.457	0.617	0.821	
Normative Motivations	0.696	0.720	0.614	0.726

The HTMT standard thresholds are 0.9 or 0.85, all the diagonal values of the table 8 are less than both the standard requirements, hence, it may be

said that the discriminant validity in hybrid car sample is also achieved.

Table 8. Discriminant validity through Heterotrait-Monotrait Ratio (HTMT)

	Gain Motivations	Hedonic Motivations	Intentions	Normative Motivations
Gain Motivations				
Hedonic Motivations	0.682			
Intentions	0.458	0.618		
Normative Motivations	0.702	0.721	0.611	

Table 9 is about model fitness of the hybrid car sample, the SRMR value found was significantly

lower than the required 0.08 value. Hence, the model is fit to predict the outcomes.

Table 9. Model Fitness

	Saturated Model	Estimated Model
SRMR	0.050	0.050
d_ULS	0.225	0.225
d_G	0.136	0.136
Chi-Square	191.976	191.976
NFI	0.895	0.895

- **Structural model for hybrid car sample**

Like organic food sample, the study has also used consistent bootstrapping methods with 5000 subsamples to run the model. As shown in figure

5 of the hybrid car sample. Since there was no item deleted in hybrid car sample, therefore, results are also found slightly different.

Fig. 5 Structural Model for hybrid car sample

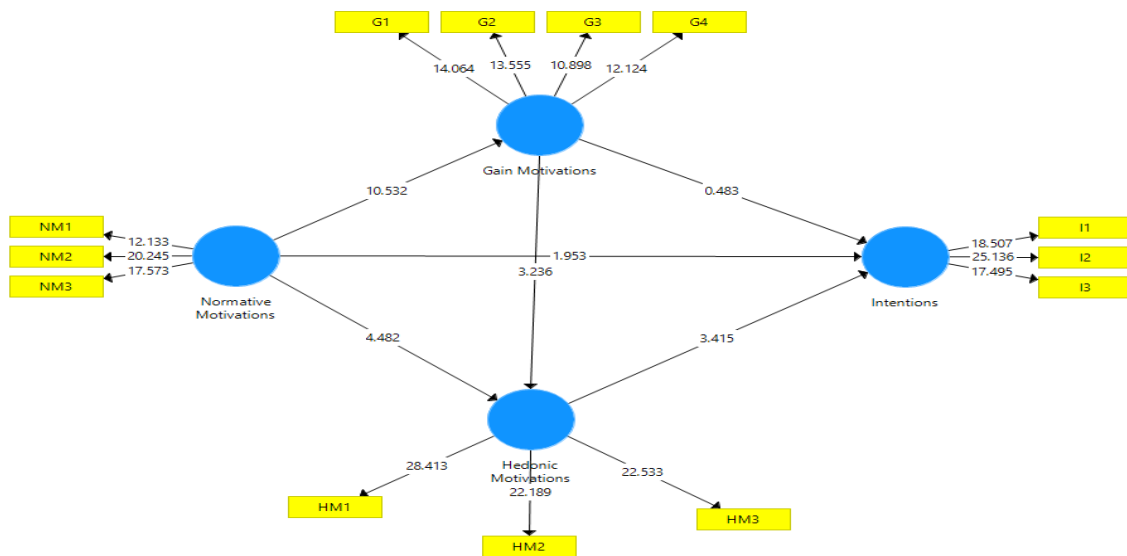


Table 10. Hypothesis – Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Direct effects					
Gain Motivations > Hedonic Motivations	0.354	0.348	0.109	3.236	0.001
Gain Motivations > Intentions	-0.083	-0.106	0.171	0.483	0.629
Hedonic Motivations > Intentions	0.395	0.392	0.116	3.415	0.001
Normative Motivations > Gain Motivations	0.696	0.696	0.066	10.532	0.000
Normative Motivations > Hedonic Motivations	0.474	0.483	0.106	4.482	0.000
Normative Motivations > Intentions	0.387	0.411	0.198	1.953	0.051
Indirect effects					
Normative Motivations > Gain Motivations > Intentions	-0.058	-0.081	0.128	0.448	0.654
Gain Motivations > Hedonic Motivations > Intentions	0.140	0.140	0.063	2.224	0.026
Normative Motivations > Hedonic Motivations > Intentions	0.187	0.187	0.066	2.821	0.005

The table 10 suggests that the direct relationship between gain motivations and intentions was found insignificant. The direct relationship between normative motivations and intentions was also found insignificant. Other direct relationships in the study were found significant, i.e. the direct relationships of gain and normative with hedonic were found significant, the role of hedonic in predicting intentions was also found significant. Moreover, the relationship between normative and gain motivations was also established.

From the three mediation relationship proposed, the role of attitudes was found insignificant in explaining normative motivations and intentions.

However, the role of emotions and effect was found significant in other two mediation models i.e. between gain and intentions relationship and between normative motivations and intentions relationships.

Conclusion

This research is conducted to check the influence of consumer motivations on consumer intentions to purchase sustainable products in high and low involvement product categories. For organic food sample, normative motivations were found most significant in affecting directly to other motivations and affecting intentions through gain motivations and hedonic motivations. The third

mediating model was from gain motivations to intentions through hedonic motivations. This was also found positive and significant but partial mediation was achieved here. All three motivations have shown that their influence on the intentions. Therefore, while making policies and targeting food sample consumers, it is suggested to promote normative motivations in the appeals because they have found better than the other two motivations to achieve the instant results among the Pakistani consumers in promoting the sustainable behaviors. Consumer emotions mediated both, consumer's gain intents and normative concerns, therefore, the role of affect and emotions in the local context should also be considered. Further, it would be better if the products are promoted or appeals are generated using more positives to the consumers, there are chances that the products or the appeals would be successful while promoting the low involvement products such as organic food.

The hybrid car category was taken as a high involvement product. The same model was applied to the sample. Due to the nature of the sample, the data collection was not that easy and available, therefore, the sample size was less than the food sample. The results also found the differences. There was true mediation found of consumer emotions between normative and gain motivations. That means, if moral norms are high and if a consumer has a better assessment of the products, that affect the mood or emotions, and that leads to the development of intentions to purchase products. However, the study didn't find any significance where attitudes were taken as a mediator to the normative motivations and intentions. Consumer normative motivation was found highly relevant in the local context, and it may be reported that companies and policymakers can target such motivations to get instant results while promoting sustainable behaviors in the country. The policy makes must also be sure that this study proved that consumer positive evaluations about the products affect both, emotions and intentions, therefore, this variable is important too as far as hybrid car sample is concerned.

Limitations

The study has several limitations, it provides correlations of two samples, and however, comparisons of two samples at the same time would be ideal. The behavior in high and low-cost situations can also be affected by situational cues, therefore, future researchers must consider other factors too along with motivational factors, i.e. psychological factors, economic factors, and

contextual factors. The sample of the study is collected using a cross-sectional method. The longitudinal nature would be better explaining the before and after the consequences of what was initial response before usage and the response after actual usage. The motivation and behavior study was conducted without the absence of variable *knowledge* about the environment and consequences. Further studies are advised to consider a must to this factor as well. The sample size of the high involvement product was less than the low involvement product due to its nature. However, the model may also be applied to several other industries and especially on the consumer appliances to identify the consumer sustainable behavior of the majority of people.

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