# Environmental Knowledge and Premium Price on Green Purchase Behavior; Testing through Advanced Statistical Approach, Smart Partial Least Squares

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## Abstract

*The aim of the research was to quantify the contribution of environmental knowledge and premium pricing in transforming green purchase behavior towards consumption of organic chicken. The research utilized structured questionnaire survey forms to gain responses form respondents. Questionnaires were distributed amongst 450 individuals selected via purposive sampling technique to grasp perception of employed constructs. A total of 300 completed and usable questionnaire were received. The study developed two research hypotheses in order to achieve research objectives. Smart PLS 3.0 was used to facilitate the process of testing hypotheses and generating reliable results. The findings demonstrate to have a statistically significant relation in determining changes in green purchase decision. This is the first study in Azad Jammu and Kashmir (AJK) and it could become a baseline for future researchers.*

***Keywords:*** environmental knowledge, premium pricing, green purchase behavior, Pakistan

## Introduction

In the course of last decade, consumer consumption patterns have shifted towards green. Ken Peattie (2010) defines consumptions as a physical, social, and economic process while explaining that these parameters influenced by geography, cultural laws, and infrastructure within a society. Non-green based consumption in Pakistan has raised concerns for future sustainability. Pagiaslis and Krontalis (2014) emphasize on this non-green consumption risk and has made the point that consumer knowledge and pricing of product influences consumers towards green consumption. Green consumption is also identified in terms of ecologically friendly consumption, this means consumer purchase product that have a green supply chain with minimal carbon footprint. When utilizing it generates positive impact on environment, and product disposal doesn't generate waste which causes long-term damages (Haws, Winterich, & Naylor, 2014). Green means "Environmentally Beneficial" where Haws et al. (2014) defines Green from consumers perspective as "less harmful to the

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environment". Some examples are biodegradable bags, solar bulbs, recycled fabric clothes and organic or herbal products. It is also important to know that consumer purchase behavior is a decision-making process which involves attitudes, inclinations, and personal beliefs. However, study Wu and Chen (2014) shows some interesting findings that demonstrated attributes regarding green purchase behavior are different from what they actually practice. Another study conducted shows 67% of the consumers showed willingness to purchase organic food as part of their primary consumption habit however, only 4% complied and actually purchased organic food (Hughner, McDonagh, Prothero, Shultz, & Stanton, 2007). This gap is known as "Attitude-Behavior Gap" as consumers have intent but not action. Hence, this increases the importance of exploring impact of environmental knowledge and price on determining consumer green purchase behavior.

Today food has been industrialized where industrialized practices are moving towards automation (Vringer, Heijden, Soest, Vollebergh, & Dietz, 2017). It is understood that industrialized techniques help in mass production making them cost effective yet in long term it causes pollution and environmental harm (Vringer et al., 2017). Olson (2017) explains difference in mass production and organic food, where organic food is one that is produced without using toxic material, chemical fertilizers, antibiotics and hormones. Organic Chicken also falls in the organic food category where the industry has also been gravely impacted by industrialized mass production. During mass production of Chickens antibiotics and toxic materials are used increasing the risk of food poisoning, cancer risk and antibiotic-resistance within humans who consume it.

Exploring the history and culture of Pakistan, it can be safely said that organic chicken husbandry and consumption has been through domestic framing through a natural process in almost every household. Poultry framing developed/transformed into an industry where introduction to mechanized procedures to breed broiler chicken happened. As consumers in Pakistan lacked adequate knowledge regarding industrial practices being adopted in mass productions of organic chicken, they quickly shifted due to pricing and ease of use offered by broiler chicken. The poultry industry achieved high market share in less time overtly rendering organic chicken out of competition. Presently, due to rising environmental and health concerns people are trying to return to organic chicken. In Pakistan, people were used to the consumption of organic food

as well as organic chicken. With the growth of industrialization in Pakistan, poultry production has been changed since 1980's. Chicken supplier started using all the methods to breed broiler chicken. This help to fulfil the needs of large number of consumers' in short time being cost efficient. This production of broiler chicken is not sustainable, different antibiotics and hormonal injections are used in this process. Consumption of broiler chicken has opened a whole new series of diseases for humans. It has increased antibiotic resistance, arsenic exposure, cholesterol content and E. coli contamination. But in recent years' consumers are getting aware about the side effects of broiler chicken and they are moving back towards the consumption of organic chicken. During literature review it was found that there is a gap of research between the favorable attitude toward the purchase of organic chicken and actual buying behavior. It was further monitored this actual purchase behavior was driven by environmental knowledge and price. Since, lack of statistical studies to quantify influence of IVs on consumer green purchase behavior necessitates this study to conduct an empirical study.

## Literature Review and Hypotheses Development

### Green Purchase Behavior

Green purchase behavior of consumer is mostly assessed as their willingness to purchase sustainable product. The products are sustainable when their sourcing techniques are green, supply chain emits minimum carbon emissions, product packaging is decomposable, and product disposal itself is eco -friendly as it may not increase waste. To understand user preferences the research, explore Theory of Reasoned Action (TRA). Theory of Reasoned Action (TRA) was first introduced by Fishbein and Ajzen (1975) explaining behavior of consumer is formulated by intentions, integrated with attitude and subjective norms. TRA further elaborated and transformed into Theory of Planned Behavior (TPB) the theory is developed by including perceived behavioral control and it also measures attitudes and norms of individual to explain purchase behavior.

Jaiswal and Kant (2018) argued that consumers do not focus only on the ecological standard of the product but also concern about how their purchase behavior for green products will be associated with the environmental consequences. Intentions to purchase are primary factor in measuring green purchase behavior. Moreover, to measure intentions attitudes and norms come in to play hence, theory of planned behavior effectively guides to measure how to understand the concepts and factors to select when measuring consumer purchase behavior (Joshi & Rahman,

2015). Since the concept is similar to measuring green purchase intention, the concept can be built on two broad factors influencing green purchase behavior includes, Individual factors which further include (Knowledge, perceived behavioral control, and attitude) and Situational factors which are those forces which either support or oppose the adoption of green purchase behavior (price, product availability, brand image etc.). The two vital sets of reason that motivate consumers' green purchase behavior are high involvement for environmental and social problems, and beneficial attributes of green products (Joshi and Rahman (2015).

Acebrón, Mangin, and Dopico (2000) conducted a research on consumer purchasing behavior. The purpose of the research was to analyze the effect of past involvement of purchasing behavior of fresh food, especially mussels. Use of structural equation model to discover the relationship between habits and past experience on consumers purchasing behavior is an effective way to gauge consumer intentions. The results from structural equational modeling illustrates that personal habits of consumer and past experience directly affect the purchase behavior. They further found that product image has a major impact on purchasing decision, so it should be enhanced continuously. Consumer behavior is about human reactions in business world (Solomon, Bamossy, Askegaard, & Hogg, 2010). Solomon et al. (2010) said that individuals consume things and further use and purchase products according to their needs, desires and purchasing power. Moreover, Solomon et al. (2010) shows that consumer behavior includes the psychological methods that consumers experience in recognizing needs and discovering ways to resolve these requirements, through forming purchase decisions.

*Environmental Knowledge*

Over past decades' environmentalism has turn into critical issues because of natural harm brought by products, their manufacturing process and ecological disasters (Brown, 2003). The 1960s might be portrays as a period of "awakening" for consumers', the 1970s as a "make a move" time, the 1980s as a "responsible" period and finally 1990s as a "control in marketplace" era (Makower, 1993). Through these era's consumers seems to have become conscious of the facts that the earth is more delicate than they once accepted and there are cutoff points to the utilization of natural resources (Krause, 1993). In consumer research, knowledge is perceived as a characteristic that impact all stages of decision process. As indicated by (Alba & Hutchinson) knowledge is an important and applicable construct that influence how consumer collect and manage

information, and how they use that information in decision making (Brucks, 1985) and how consumers evaluate product and services (Murray & Schlacter, 1990). (Bartkus, Hartman, & Howell) stated that ecologically conscious consumers always attempt to protect environment through various ways, for instance by engaging in recycling tasks or purchasing green products only.

Ken Peattie (2010) informs environmental knowledge has often been considered as a major motivator for individuals to adopt Green Consumer Behavior. Behavioral literature studied dictates that there is a positive relationship between knowledge and behavior. Behavior that intentionally tries to limit the negative impact of ones' activities. Environmental knowledge has three dimensions. First dimension is system knowledge that covers natural processes inside ecosystems. The second dimension is individual's behavioral towards environmental problems. Finally the third dimension is effective knowledge allowing individuals to evaluate impact of choices they make when choosing amongst purchase (Kaiser, Roczen, & Bogner, 2008; Roczen, Kaiser, Bogner, & Wilson, 2014). Fryxell and Lo (2003) relates environmental knowledge with degree to which an individual is aware of the ecological problems and its causes and consumer role in facilitating positive change. In the literature, researchers have used different ideas of environmental knowledge to presume consumers' green purchase behavior as in Subjective and Objective knowledge.

Polonsky (2011) say knowledge is of two kinds it can be general, or it has to be specific. Furthermore, he analyzes association of the two kind to explain how they actually contribute to formulate behavior. Cherian and Jacob (2012) investigated the association and specific environmental knowledge and constructed that environmental knowledge about specific product had notable impacts on green purchase intention, while little impact was measured of general environmental knowledge. He further argued that environmental knowledge either it is subjective or objective, possibly relates to different behaviors of consumer. On the basis of above research literature as environment knowledge has a strong association with purchase behavior so, the research has used environmental knowledge about organic chicken in questionnaire and following hypothesis is postulated for the research.

*Hypothesis 1*

Environmental Knowledge has positive impact on consumer green purchase behavior of Organic Chicken.

*Premium Price*

Price has indicated its consequential impact on consumers' assessment of product alternatives and their ultimate buying decision (de Medeiros, Ribeiro, & Cortimiglia, 2015; Li, Lu, Zhang, & Liu, 2016; Musgrove, Choi, & Chris Cox, 2018). When consumer evaluates alternative purchase options, product price renders two critical meanings, first as measure of "sacrifice" which mean amount of money consumer can spend and second as an informational cue that refer to the status and quality of the product. This consumers' negative role is related to sacrifice needed to make while quality and status is associated with positive role. In this way, consumers' willingness to pay for organic food is relay on the solidity of positive and negative role.

Many studies have concluded that lower income enhances price search behavior and price awareness. Price knowledge research proves that customers have comparatively moderate price information (Eberhart, 2016) and they usually tend to overrate prices (Wang, Yuen, Wong, & Teo, 2018). This is why consumers interpret prices as high. Due to price awareness lower income consumers may not purchase organic products, however higher income consumers may not purchase organic product because of overestimated prices (Evanschitzky, Kenning, Vogel, & Management, 2004).

Price also create a distinct product image that communicates strong value in the minds of consumers creating a need for purchase (Aschemann & Zielke, 2017). Furthermore, price is a major factor to influence consumers to consider price judgements about different brands and competing brands, selecting between these brands and formats, evaluating brands on the basis of attractive promotional advertising and revamping or decreasing price search and contrast behaviors (Dickson & Sawyer, 1990).

Green products are costly than the traditional products because of the staggering expenses brought about in the production procedure (Srivastava & Lurie, 2001). Therefore, price has been recognized as an essential barrier to green consumption (Gleim, Smith, Andrews, & Cronin Jr., 2013; Ling, 2013). Price play a vital part in purchase decision making, it is even more important (Nasir & Karakaya, 2014). A few studies from developed countries show that ecologically concerned people are price insensitive and cost does not affect their green purchase behavior (Chaudhary & Bisai, 2018; Grankvist & Biel, 2001). According to Cronin Jr, Smith, Gleim, and Ramirez (2011) environmentally concerned

consumers are often supposed willing to pay premium for eco-friendly products to not harm the environment. A premium price is characterized as extra amount that is paid over normal cost and the standards of products and services represents improvement as well. Discovering willingness of consumers to pay premium price can have huge impact on profits and revenues. Willingness to pay precisely predicts consumers' buying behavior and eventually help organizations to build up their pricing strategies.

Price is the basic component of marketing mix, it's the cost paid for a Product (Ferraro, Uchida, & Conrad, 2005). If there is a perception of extra product value, most consumers will might pay a premium price for that product (Mahmoud, 2018). This product value is evaluated on the basis of function, performance, design, taste or visual appeal (Kalama, 2007). Ecological considerations are typically an added plus yet will be the integral factor between products of similar value and quality (Sharma, 2011). Before charging a premium price all these facts should be considered in Green Marketing (Singh, 2013). Price Premium is the price that is overhead the average price (Bukhari, 2011). According to Roberts (1996) few individuals were willing to pay 15 percent premium for eco-friendly products and they were highly concerned about environmental issues. Many consumers of organic food were willing to accept premium price not higher than 30% of non-organic similar products, while some consumers were willing to pay 50% premium price as compared to non-organic food. Income of a family is also an essential factor for effecting organic purchase decision. Based on the literature and the logics formulated with the help of facts the following hypothesis was created.

*Hypothesis 2*

Premium Price has positive influence on consumer green purchase behavior of Organic Chicken

## Research Methodology

The main objective of this research was to determine the influence of premium price and environmental knowledge on green purchase behavior of organic chicken in Mirpur Azad Jammu and Kashmir. Mirpur Azad Kashmir is a prosperous city and due to its increasing median income primarily through remittances from Europe a strong inclination exists within the populace to shift to organic consumption hence it is a This research is cross sectional and quantitative in nature. The empirical data were gathered through structured questionnaire to test the proposed

research hypotheses. The questionnaire survey has attached in the annexure 1. The targeted respondents were selected through purposive sampling technique from 25 sectors of Mirpur. The questionnaire survey forms were distributed personally to the head of the family's member, the one who makes purchase decision for a family or consume chicken on weekly basis. A total of 450 questionnaires were distributed while 300 feedbacks were respondents with the percentage of 66.66% which is considered as adequate.

## Results

Smart PLS 3.0 a multivariate technique was used to evaluate the measurement model and structural model. Smart PLS 3.0 is extensively used for data analysis (Crane & Clarke, 1994). Measurement model is widely used to test the reliability and validity of the unobserved constructs. Structural model is used to test the hypothesized relationship and test the proposed research hypotheses. Bootstrapping (resamples 500) was used to examine the loadings and path coefficients significance. In this study, bootstrapping method (500 resample) was applied to examine the significance levels for the loading, path coefficient, and weights was calculated.

*Measurement Model*

In Smart PLS 3.0 Goodness-of-fit test for measurement model involves three measures, namely convergent validity (CR), discriminant validity, and reliability. Moreover, convergent and discriminant validity are considered as the sub-types of construct validity. Generally, convergent validity of measurement model is determined by taking an examination on Factor Loading values and AVE (Average Variance Extracted) values. The recommended values for loading are set at > 0.6, the AVE should be >0.5 and the CR should be > 0.7(Hair, Ringle, & Sarstedt, 2011; Khalique, Hina, Ramayah, & Shaari, 2020). The findings showed that the values of convergent validity of employed constructs met the thresholds suggested (Fornell & Larcker, 1981) Chin, 1998; C. Fornell & Larcker, 1981). The empirical evidence showed that the constructs have adequate reliability and convergent validity.

***Table 1: Results of the Measurement Model***

| Constructs | Items | Loading | AVE | CR | α |
|---|---|---|---|---|---|
| Environmental Knowledge | EKQ2 | 0.692 | 0.514 | 0.841 | 0.764 |

| | | | | | |
|---|---|---|---|---|---|
| | EKQ3 | 0.723 | | | |
| | EKQ4 | 0.728 | | | |
| | EKQ5 | 0.663 | | | |
| | EKQ6 | 0.775 | | | |
| Premium Price | PPQ1 | 0.765 | 0.518 | 0.841 | 0.762 |
| | PPQ2 | 0.822 | | | |
| | PPQ3 | 0.792 | | | |
| | PPQ4 | 0.625 | | | |
| | PPQ5 | 0.560 | | | |
| Green Purchase Behavior | GPQ1 | 0.692 | 0.537 | 0.890 | 0.866 |
| | GPQ2 | 0.730 | | | |
| | GPQ3 | 0.755 | | | |
| | GPQ4 | 0.664 | | | |
| | GPQ5 | 0.713 | | | |
| | GPQ7 | 0.791 | | | |
| | GPQ8 | 0.776 | | | |

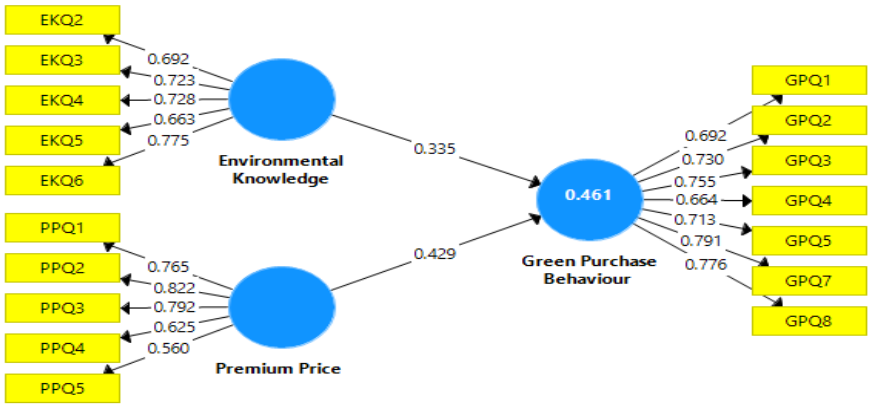

**Figure 1: The Measurement Model**

*Discriminant Validity*

In Smart PLS 3.0 the discriminant validity was confirmed when AVE is greater than its correlation with all the employed constructs. Fornell- Larckers criteria is widely used as a threshold (Fornell & Larcker, 1981). Results reported in Table 3 showed a satisfactory level of discriminant validity as squared correlation coefficient for each construct is less than the square root of AVE. Subsequently, the overall findings reported that the measurement model of this research is ascertained.

***Table 2: Discriminant Validity (Fornell and Larcker Criteria)***

| Constructs | Environmental Knowledge | Green Purchase Behaviour | Premium Price |
|---|---|---|---|
| Environmental Knowledge | .717 | | |
| Green Purchase Behaviour | .581 | .733 | |
| Premium Price | .574 | .621 | .720 |

Notes: *The off-diagonal values are the correlations between the latent constructs and diagonal are square; values of AVEs

***Table 3: Heterotrait-Monotrait Ratio (HTMT)***

| | Environmental Knowledge | Green Purchase Behaviour | Premium Price |
|---|---|---|---|
| Environmental Knowledge | | | |
| Green Purchase Behaviour | .705 | | |
| Premium Price | .732 | .751 | |

*Structural Model*

After validation of measurement model, a structural model was examined with the help of Smart PLS 3.0. Structural model is widely used to test the proposed research hypotheses. The proposed research hypotheses were confirmed by considering the path coefficient and "t" value. T-statistics values are widely used to infer the findings. In output if the value of the t statistic is greater than 1.96, it shows the hypothesis is significant with confidence level of 95%., and if values of t statistic are greater than 2.58, it reflects that the hypothesis is significant with confidence level of 99%. In this research the path coefficients were calculated with bootstrapping (resamples 500 were generated from 300 cases). The findings of this study showed that the $R^2$ value is 0.461 which stated that 46.1% of total variance explained by these two constructs

namely environmental knowledge and price premium on Green Purchase Behavior of Organic Chicken in Mirpur Azad Jammu and Kashmir.

Table 4 reported that the outcomes of the proposed research hypotheses. In this research the path coefficients along with their *t*-values reported evidence of the hypotheses accepted or rejected. In Table 3 the results reveal that the path coefficients between environmental knowledge and Green Purchase Behavior of Organic Chicken was significant ($\beta = 0.335$, $t = 5.499$, $p < 0.05$) and price premium with Green Purchase Behavior of Organic Chicken was also significant ($\beta = 0.429$, $t = 6.866$, $p < 0.05$). Therefore, the proposed two research hypotheses were supported. The empirical findings of research hypotheses are shown in Table 4.

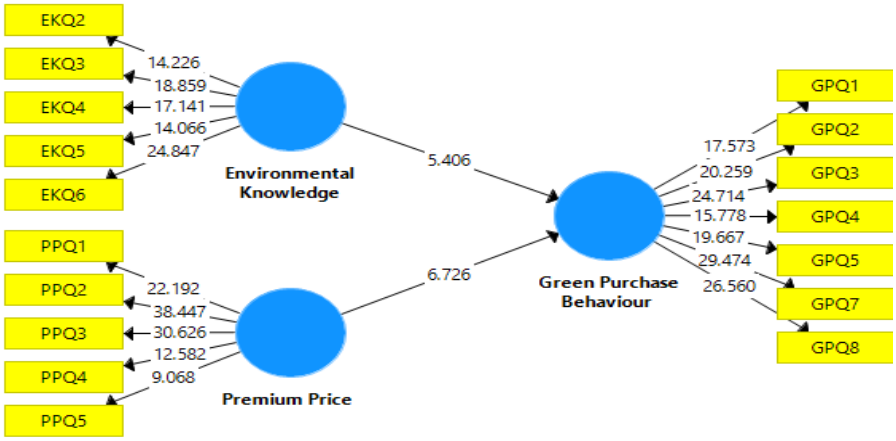


**Figure 2: The Structural Model**

**Table 4:** ***Results of Hypotheses Testing***

| No. | Relationship | | | $\beta$ | t-Values | Supported |
|---|---|---|---|---|---|---|
| H1 | Environmental Behaviour Knowledge | → | Green Purchase | .335 | 5.406 | Yes |
| H2 | Premium Price Behaviour | → | Green Purchase | .429 | 6.726 | Yes |

Note: Significant at $p, 0.05$.

## Discussion

The main purpose of this research was to determine the influence of premium price and environmental knowledge on green purchase behavior of organic chicken in Mirpur Azad Jammu and Kashmir. This study found that the environmental knowledge has positive impact on

green purchase behavior of organic chicken. It showed that the consumers are willing to make sustainable purchase decision to not harm their environment and health. Consumers know that earth resources are limited, and it need to be preserved. It supports the claim of (Fornell & Larcker, 1981) that the importance of sustainable consumption has been emerging to preserve our earth from deterioration. Through this research it has been concluded that consumers are aware of advocating and adopting healthy lifestyle which support the findings of (Liobikienė, Grincevičienė, & Bernatonienė, 2017; Phipps et al., 2013) that consumers are changing their life pattern toward environmental behavior and one of them is green purchase behavior. Also, propensity of consumers regarding green product has been rising and one of such green product is organic poultry (Minbashrazgah, Maleki, & Torabi, 2017). Consumers know about health problems created by broiler chicken and are switching toward organic chicken. Consumers' responsibility and obligation towards social and environmental problems have a positive influence on green purchase behavior (Johnstone, Yang, & Tan, 2014). Environmentally concerned consumers are relatively more engaged in green purchase behavior, environmental concerns motivate the purchase of organic food products. Environmental concerns were related with an individual's personal norm or ethical obligations and such knowledge and concern enhance attitude-behavior relationship (Doran, 2009; Makatouni, 2002).

## Conclusion

This research concludes that consumers in Mirpur will be environmentally concerned if they had enough environmental knowledge. This study support Joshi and Rahman (2015) claim that in green purchase behavior, environmental knowledge plays a mandatory role. This study also explored that the premium price strongly effects on green purchase behavior. Previous studies claim that the premium price is a barrier. However, in Mirpur Azad Jammu and Kashmir the study found that the consumers who are highly involved in environmental issues are willing to pay premium price for organic chicken. Many studies such as (Minbashrazgah et al., 2017; Mostafa, 2007) argued that some consumers are willing to pay premium price but not all consumers.

### *Implications*

This research gives practical implications to marketing executives and business owners to make sustainable strategies to promote green products. On the bases of this research consumers are involved in green

purchased behavior if they have environmental knowledge. Therefore, the concerned authorities may provide enough information about their products. They need to use green advertising to promote knowledge among consumers. There is a scope for organic chicken producers, because in Pakistan organic chicken is not as easily available as it should be. Therefore, there are business opportunities as well. In Pakistan there is a huge scope of businesses who are involved in green practicing because government is also taking part in activities of "Green Pakistan". Consumers are getting aware about greenness and their responsibility as citizens to purchase green products. To promote organic food consumption and knowledge marketing executives should involve consumers in production process it will help them to trust the brand. Moreover, organizations may use green labeling to gain trust of their consumers.

*Limitations and Future Directions*

Like other studies, this study has some limitations, which can be addressed in future research. The sample for this study was involved from Mirpur, so future research can be done in large level. As green purchase, behavior is an emerging trend in Pakistan, so in future research behavior can be studied with other green products like cosmetic etc. Green advertising, packaging and availability of products can be used as a mediator of green purchase behavior. Moreover, green purchase behavior can be measured using other independent variables like green purchase intention, social norms, environmental concern etc.

## References

Acebrón, L. B., Mangin, J.-P. L., & Dopico, D. C. (2000). A Proposal of the Buying Model for Fresh Food Products: The Case of Fresh Mussels. *Journal of International Food & Agribusiness Marketing, 11*(3) 75-96.

Alba, J. W., & Hutchinson, J. W. (1987). Dimensions of consumer expertise. *Journal of Consumer Research, 13*(4), 411-454.

Aschemann-Witzel, J., & Zielke, S. (2017). Can't buy me green? A review of consumer perceptions of and behavior toward the price of organic food. *The Journal of Consumer Affairs, 51*(1), 211-251.

Bartkus, K. R., Hartman, C. L., & Howell, R. D. (1999). The measurement of consumer environmental knowledge: Revisions and extensions. *Journal of Social Behavior and Personality, 14*(1), 129-146.

Brown, C. (2003). Consumers' preferences for locally produced food: A study in southeast Missouri. *American Journal of Alternative Agriculture, 18*(4), 213-224.

Brucks, M. (1985). The effects of product class knowledge on information search behavior. *Journal of Consumer Research*, 3(1),1-16.

Bukhari, S. S. (2011). Green Marketing and its impact on consumer behavior. *European Journal of Business and Management 3*(4), 375- 383.

Chaudhary, R., & Bisai, S. (2018). Factors influencing green purchase behavior of millennials in India, *Management of Environment Quality*, *29*(5),*798-812* .

Cherian, J., & Jacob, J. (2012). Green marketing: A study of consumers' attitude towards environment friendly products. *Asian Social Science, 8*(12), 117-129.

Crane, F. G., & Clarke, T. K. (1994). *Consumer Behavior in Canada:; Theory and Practice*. Canada: Dryden; 2nd edition.

Cronin Jr, J. J., Smith, J. S., Gleim, M. R., & Ramirez, E. (2011). Green marketing strategies: an examination of stakeholders and the opportunities they present. *Journal of Academy of Marketing Science*, 158–174.

de Medeiros, J. F., Ribeiro, J. L. D., & Cortimiglia, M. N. (2015). Influence of Perceived Value on Purchasing Decisions of Green Products in Brazil. *Journal of Cleaner Production*.

Dickson, P. R., & Sawyer, A. G. (1990). The Price Knowledge and Search of Supermarket Shoppers. *Journal of Marketing*, 42-53.

Doran, C. J. J. J. o. B. E. (2009). The role of personal values in fair trade consumption. *84*(4), 549-563.

Eberhart, A. K. (29016). Consumers' purchasing decisions regarding environmentally friendly products: An empirical analysis of German consumers. *Journal of Retailing and Consumer Services.*, 389-397.

Evanschitzky, H., Kenning, P., Vogel, V. J. J. o. P., & Management, B. (2004). Consumer price knowledge in the German retail market. *Journal of Product and Brand Management, 13*(6), 390-405.

Ferraro, P. J., Uchida, T., & Conrad, J. M. (2005). Price Premiums for Eco-friendly Commodities: Are 'Green' Markets the Best Way to Protect Endangered Ecosystems? *Environmental and Resource Economics*, 419–438.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research, 18*(1), 39-50.

Fryxell, G. E., & Lo, C. W. (2003). The influence of environmental knowledge and values on managerial behaviours on behalf of the environment: An empirical examination of managers in China. *Journal of Business Ethics, 46*(1), 45-69.

Gleim, M. R., Smith, J. S., Andrews, D., & Cronin Jr., J. (2013). Against the green: a multi method examination of the barriers to green consumption. *Journal of Retail.*, 44-61.

Grankvist, G., & Biel, A. (2001). The Importance of Beliefs and Purchase Criteria in the Choice of Eco-Labeled Food Products. *Journal of Environmental Psychology*, 404-410.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice, 19*(2), 139-152.

Haws, K. L., Winterich, K. P., & Naylor, R. W. (2014). Seeing the world through GREEN-tinted glasses: Green consumption values and responses to environmentally friendly products. *Journal of Consumer Psychology, 24*(3), 336-354.

Hughner, R. S., McDonagh, P., Prothero, A., Shultz, C. J., & Stanton, J. (2007). Who are organic food consumers? A compilation and review of why people purchase organic food. *Journal of Consumer Behaviour: An International Research Review, 6*(2-3), 94-110.

Hussain, J., Rabbani, I., Aslam, S., & Ahmad, H. (2015). An overview of poultry industry in Pakistan. *World's Poultry Science Journal, 71*(4), 689-700.

Jaiswal, D., & Kant, R. (2018). Green purchasing behaviour: A conceptual framework and empirical investigation of Indian consumers. *Journal of Retailing and Consumer Services, 41*, 60-69.

Johnstone, M., Yang, L., & Tan, L. (2014). *The attitude-behaviour gap: The development of a consumers' green perceptions scale.* Paper presented at the 2014 ANZMAC Annual Conference: Agents of Change.

Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *International Strategic Managemnet Review, 3*(1-2), 128-143.

Kaiser, F. G., Roczen, N., & Bogner, F. X. (2008). Competence formation in environmental education: Advancing ecology-specific rather than general abilities. *Umweltpsychologie, 12*(2), 56-70.

Kalama, E. (2007). Green marketing practises by kenya petroleum refineries: A study of the perception of the management of oil

marketing companies in kenya. Master Thesis, University of Nairobi.

Khalique, M., Hina, K., Ramayah, T., & Shaari, J. A. N. b. (2020). Intellectual capital in tourism SMEs in Azad Jammu and Kashmir, Pakistan. *Journal of Intellectual Capital, 21*(2), 333-355

Krause, D. (1993). Environmental consciousness: An empirical study. *Environment and Behavior, 25*(1), 126-142.

Li, Y., Lu, Y., Zhang, X., & Liu, L. (2016). Propensity of green consumption behaviors in representative cities in China. *Journal of Cleaner Production*, 389-397.

Ling, C. Y. (2013). Consumers Purchase Intention of Green Products: An Investigation of the Drivers and Moderating Variable. *Elixir Marketing Management*, 14503-14509.

Liobikienė, G., Grincevičienė, Š., & Bernatonienė, J. J. J. o. c. p. (2017). Environmentally friendly behaviour and green purchase in Austria and Lithuania. *142*, 3789-3797.

Mahmoud , T. O. (2018). Impact of green marketing mix on purchase intention. *International Journal of Advanced and Applied Sciences*, 127-135.

Makatouni, A. J. B. F. J. (2002). What motivates consumers to buy organic food in the UK? Results from a qualitative study. *104*(3/4/5), 345-352.

Makower, J. (1993). *The E-factor: The bottom-line approach to environmentally responsible business*: Times Books New York.

Memon, N. A. (2012). Poultry: Country's second-largest industry. *Food Journal, 2*(6), 27-30.

Minbashrazgah, M. M., Maleki, F., & Torabi, M. J. M. o. E. Q. A. I. J. (2017). Green chicken purchase behavior: the moderating role of price transparency. *28*(6), 902-916.

Mostafa, M. M. (2007). Gender differences in Egyptian consumers' green purchase behaviour: the effects of environmental knowledge, concern and attitude. *International Journal of Consumer Studies, 31*(3), 220-229.

Murray, K. B., & Schlacter, J. L. (1990). The impact of services versus goods on consumers' assessment of perceived risk and variability. *Journal of the Academy of Marketing Science, 18*(1), 51-65.

Musgrove, C. F., Choi, P., & Chris Cox, K. (2018). Consumer Perceptions of Green Marketing Claims: An Examination of the Relationships with Type of Claim and Corporate Credibility. *Services Marketing Quarterly, 39*(4), 277-292.

Nasir, V. A., & Karakaya, F. (2014). Consumer segments in organic foods market. *Journal of Consumer Marketing*, 263-277.

Olson, E. L. (2017). The rationalization and persistence of organic food beliefs in the face of contrary evidence. *Journal of Cleaner Production, 140*, 1007-1013.

Pagiaslis, A., & Krontalis, A. K. (2014). Green consumption behavior antecedents: Environmental concern, knowledge, and beliefs. *Psychology & Marketing, 31*(5), 335-348.

Peattie, K. (2010). Green consumption: behavior and norms. *Annual review of environment and resources, 35*, 195-228.

Peattie, K. (2010). Green consumption: behavior and norms. *Annual review of environment and resources, 35*, 195-228.

Phipps, M., Ozanne, L. K., Luchs, M. G., Subrahmanyan, S., Kapitan, S., Catlin, J. R., . . . Simpson, B. J. J. o. B. R. (2013). Understanding the inherent complexity of sustainable consumption: A social cognitive framework. *66*(8), 1227-1234.

Polonsky, M. J. (2011). Transformative green marketing: Impediments and opportunities. *Journal of business research, 64*(12), 1311-1319.

Roberts, J. A. (1996). Green consumers in the 1990s: profile and implications for adverting. *Journal of Business Research*, 217-231.

Roczen, N., Kaiser, F. G., Bogner, F. X., & Wilson, M. (2014). A competence model for environmental education. *Environment and Behavior, 46*(8), 972-992.

Sahota, A. W., Bhatti, B. M., & Akhtar, L. A. (2003). Growth performance and carcass characteristics as influenced by different varieties of Desi chickens. *Pakistan Veterinary Journal Pakistan, 23(2), 97-99*.

Sharma, Y. (2011). Changing consumer behaviour with respect to green marketing–a case study of consumer durables and retailing. . *International Journal of Multidisciplinary Research.*, 152-162.

Singh, S. (2013). Green: the new colour of marketing in India. *Journal of Management*, 52-72.

Solomon, M. R., Bamossy, G., Askegaard, S., & Hogg, M. K. (2010). *Consumer behaviour: a European perspective.*: Essex: Pearson Education Limited.

Srivastava, J., & Lurie, N. H. (`2001). A Consumer Perspective on Price-Matching Refund Policies: Effect on Price Perceptions and Search Behavior. *Journal of Consumer Research*, 296-307.

Vringer, K., Heijden, E. V. D., Soest, D. V., Vollebergh, H., & Dietz, F. (2017). Sustainable consumption dilemmas. *Sustainability, 9*(6), 942-964.

Wang, X., Yuen, K. F., Wong, Y. D., & Teo, C.-C. (2018). It is green, but is it fair? Investigating consumers' fairness perception of green service offerings. *Journal of cleaner production, 181*, 235-248.

Wu, S.-I., & Chen, J.-Y. (2014). A model of green consumption behavior constructed by the theory of planned behavior. *International Journal of Marketing Studies, 6*(5),119-132.