PalArch's Journal of Archaeology of Egypt / Egyptology

THE IMPACT OF GREENWASH ON CONSUMER GREEN PURCHASE BEHAVIOR: MODERATING ROLE OF GREEN BRAND LOYALTY

Saeed Khan¹, Kamran Iftikhar², Dr. Saba Farooq³, Rashid Mehmood⁴

¹Lecturer, National University of Modern Languages, Islamabad, Pakistan.

²MS (Marketing), Capital University of Science and Technology, Islamabad, Pakistan.

³Data Analyst, Creative Business & Social Research (CBSR), Pakistan.

⁴Department of Economics and Business Administration, Division of Management and Administrative Science, University of Education, Lahore, Pakistan.

Saeed Khan, Kamran Iftikhar, Dr. Saba Farooq, Rashid Mehmood, The Impact Of Greenwash On Consumer Green Purchase Behavior: Moderating Role Of Green Brand Loyalty, Palarch's Journal Of Archaeology Of Egypt/Egyptology 18(10), 869-880. ISSN 1567-214x.

Key Words: Greenwash, Consumer, Brand Loyalty, Purchase Behavior, Moderating Role.

Abstract

Greenwash is an action of misleading consumers with reference to a firm's environmental behavior and benefits of products or services to the ecosystems. It corresponds to the advertisements and promotions of products which lead to cheating on consumers about the environmental attributes and features of products or services. While, customers' intention of buying a product is the awareness of a consumer to make an effort to buy a specific brand. It also tells the feeling or perceived behavior of buying a product which is advertised and shows the level of loyalty. Consumer buying behavior plays a vital role while buying any product. Consumer behavior tells about the individuals' decision what, when, where, how and from whom to buy goods and services. A consumer's preference/ commitment to purchase a product, service or brand in the market repeatedly represents the loyalty of the consumer. The current study is carried out to explore the moderating effects of consumer brand loyalty between greenwash of firms and consumers' purchase behavior. The design of the study was causal-comparative and a

cross-sectional survey method was opted to collect the data. The population in this study was all customers of hypermarkets like Carrefour, Hyper Star, Metro Cash and carry in Lahore. Whereas the researcher used convenient sampling technique to selected the sample of 250 participants. To measure the greenwash, brand loyalty and purchase behavior questionnaire was adapted from previous researches of Chen and Chang (2013), Chaudhari & Holbrook (2001), andChang, Chen, Yeh, and Li (2021). The findings helped to conclude that there is significant but negative impact of greenwash on consumer purchase behavior while brand loyalty plays moderating role between these variables. It is suggested that companies plan to advertise different opportunities through their advertisement to propagate brand loyalty among their customers, which is why they increase customer purchase behavior. By considering this research as reference, researchers may conduct future researches in different localities of Pakistan to identify the trend of impact of greenwash on consumer purchase behavior by utilizing different research methodologies.

Introduction

Green marketing and environmental protection have changed the behavior and demand of consumers in recent decades. Many companies are focusing on green marketing strategies to win this new competition (Al-Majali & Tarabieh, 2020; Tarabieh, 2021). Firms are trying to find new strategies in the ecological period to enhance the promotion of new products in the market. Green marketing is the vital part of targeting sustainable consumers for this process (Chen & Chang, 2013). Now the consumers take much interest in environmentally friendly lifestyles because they consider themselves responsible for the environment and want to get advantages of green products (Biswas & Roy, 2015). There are initiatives in areas like green energy, packaging, tourism, food, government, architecture, fashion and green buildings(Leonidou & Skarmeas, 2017). However, some organizations have adjusted their business strategies by using the greenwash idea in talking only not in practice (i.e., pretending to be green)(Siano, Vollero, Conte, & Amabile, 2017). This type of wrong and false communication leads to the negative effects of brands, hence also affecting the selling of their products and services. They have also provided environmental claims and convinced consumers about such practices(Chen, Huang, Wang, & Chen, 2020).

Greenwashing practices have been accounted for many reasons. It has been observed that all firms do have not adequate capabilities to practice greenwashing marketing strategies(Nguyen, Yang, Nguyen, Johnson, & Cao, 2019). Greenwashing may help the companies get reputational capital and potential benefits or lessen cost(Chen et al., 2020; Nguyen et al., 2019; Tarabieh, 2021). In addition, greenwashing can also even trigger pressure from stakeholders(Chen & Chai, 2010). Hence, many firms act to be green firms which in fact, they are not. Many green companies possess at least one of the seven sins of greenwashing likesin of hidden trade-off, sin of no proof, sin of worshiping false labels, sin of lesser of two evils, sin of vagueness, sin of irrelevance and sin of fibbing (Chen & Chai, 2010).

Companies practice greenwashing ideas to convey positive messages as environmental friendly products to increase their sales in the market(Hameed, Hyder, Imran, & Shafiq, 2021). They portray as green trend by showing positive information while the reality is different. This is known as greenwashing. This is problematic because it affects the trust of customers about the company's image and its environmental activities(Papadas, Avlonitis, & Carrigan, 2017). Now the terms 'environmental friendly', 'earth friendly' and 'sustainable' have become new well-known terms in respect to 'green' or 'eco'. Therefore, many logical statements on these eco-friendly aspects become untrustworthy. Hence, this type of green claims must be reliable and

true (Durmaz & Yaşar, 2016). One most important factors of green purchase behavior is the understanding of consumer's personal behavior (Zahan, Chuanmin, Fayyaz, & Hafeez, 2020). It means that if consumers do not bother about their choices, it will affect the idea of purchasing eco-friendly products. Hence, greenwashing affects buying intention of consumers who want to buy green products and their choices would also affect the environment.

Firms have to modify the strategies of their business in response to consumers' green demands. These companies misuse pesticides in agriculture(Wertheim-Heck & Spaargaren, 2016), use contaminated water, fertilizer, and soil(Chau et al., 2014), use contaminated washing water post-harvest(Ha et al., 2008), and improperly use food additives(Le et al., 2017). While many younger consumers are concerned about environmental issues and psychological health (Nguyen et al., 2019), there is also a large number who have limited and superficial perceptions of green products (Zahan et al., 2020). Environmental protection faces difficulties due to limited greenwashing regulations and their uncertain practice. There is lack in the practice of national regulations on organic and green labels for food products(Hong & Guo, 2019). Hence many firms show the unusual practice of greenwashing just to pretend to be eco-friendly. For this reason, green products demand expects to be increased but consumers still confuse about image and reality. They do not trust the claim to be green. Empirical findings showed the negative effects of greenwash on the consumers' buying behavior that have much knowledge about buying than the consumers who have less knowledge(Hameed et al., 2021; Tarabieh, 2021).

Consumers who have knowledge can differentiate between real products and greenwash products. These types of consumers will not prefer to buy green products after getting greenwashing practice. Consumers who have brand loyalty are involved in the eco-friendly consumption of goods. Therefore, consumers would have great expectations from environmental friendly products. If consumers lack trust in differentiating between green advertising and firms' performance, they will suffer problems in accepting that product (Nguyen et al., 2019). Recent research shows the positive association between attracting and retaining customers while practicing environmentally friendly sound strategies and policies. This trend is increasing as consumers are now more concerned about individual and organizational environmental activities. This type of attitude of organizations directly affects the financial conditions of firms that reduce the possibility of forming a strong bonding and competitive advantage (Chen & Chai, 2010; Chen et al., 2020; Zaidi, Yifei, Bhutto, Ali, & Alam, 2019).

In order to promote green products, firms focus on the preferences and decision-making of consumers (Biswas & Roy, 2015). All consumers have different preferences towards buying green and eco-friendly products and it is also related to their demographic characteristics. Hence, this differentiating behavior of consumers makes it hard to sell products for marketers(Tezer & Bodur, 2020).

Consumer's eco-friendly behaviors play a vital role and interest among academicians and practitioners. With the passage of time, 'greenwash' side effects have been developed. Dishonest marketing affects the impact of the environment of a product or a service. There is no survey or study on the buying intentions from a greenwash; hence there is confusion, perceived risk and trust factor in the environmental concerns. Hence, this research is considered to fill this gap. If we look at the earlier researches, there are studies which have focused on the causes, taxonomy and results of greenwashing behaviors of consumers in several industries like gas(Kim & Lyon, 2015),

(Nelson & Robertson, 2010; Kim & Lyon, 2015), automobile industry (Siano, Vollero, Conte, & Amabile, 2017), finance industry (Yang, Nguyen, Nguyen, Nguyen, & Cao, 2020), hospitality industry (Chen, Bernard, & Rahman, 2019), education industry(Jones, 2012), electronics industry(Chen et al., 2020), etc. Therefore, there are some researches on greenwashing and green consumer behavior in developing countries (Nguyen et al., 2019). Earlier researches were done in western countries on greenwash and green buying behavior of consumers (Chen & Chang, 2013; Guo, Tao, Li, & Wang, 2017). Before this research, there was less quantitative study on the association between greenwash and consumer buying behavior, incorporating the moderating variable as brand loyalty in emerging countries. It is considered that size and effectiveness of individual's brand loyalty is the striving factor of the strength of any company or firm. Loyalty is known as an individual's company friendship, support and belief in that organization, its products and services and hence positive feelings towards them. There are some characteristics towards brand loyalty to suit the customers(Bilgin, 2018). It also affects the greenwashing idea of the companies, in order to strengthen one's brand and to form a public image of being ecofriendly (Lin, Lobo, & Leckie, 2017). Hence, this research is an effort to partly fill the gap and add value in the literature by studying the association between greenwash and consumer purchase behavior while brand loyalty is a moderator.

The objective of the current study is to explore the moderating effects of consumer brand loyalty between greenwash of firms and consumers' purchase behavior.

The Theory of Purchase Behavior (TPB)

Human has complex behavior. It is a tough concept to clarify. Being particular, purchase behavior is repeatedly related with purchase intention. The intention is the core driving force which pointers to a particular behavior. The utmost popular and effective model for enlightening it is Ajzen's Theory of Purchase Behavior(Jaiswal & Kant, 2018). TPB has been used in several sociology, psychology, and social psychology studies to enlighten human behavior. Researchers like (Maichum, Parichatnon, & Peng, 2016; Paul, Modi, & Patel, 2016)also used this theory in their studies for enlightening green purchase behavior.

The theory of planned behavior was in fact established from the Theory of Reasoned Action (TRA), which is broadly employed to study behavioral intentions and actual purchase behavior(Paul et al., 2016). The key difference among both theories is the variable of perceived behavioral control (PBC). PBC can be well-defined as the perception of behavioral control and its influence on a customer's purchase intentions and actions. The original TRA model states that the intentions are prejudiced positively by the approach of a person towards behavioral and subjective norms, whereas TPB diverges from the theory as it contains perceived behavioral control (Hussain, Rahman, Zaheer, & Saleem, 2016). Thus, TPB put forward three different predictors of intentions, i.e. attitudes towards behavior, subjective norm and perceived behavioral control. Rendering to this theory, perceived behavioral control and intention can be straightly used to forecast purchase behavior.

The theory of planned behavior (TPB) is suitable for estimating and understanding different cognitive factors linked to consumers' purchase behavior (Nguyen et al., 2019). It has been productively applied amongst numerous studies. As an outcome, the theory of planned behavior is considered as the basic theoretical foundation in this study. It let us comprehend consumers purchase intention to a green brand in an improved way. The TPB states that different

individuals sort purchase decisions rationally and those rational decisions are built on individuals' knowledge about a definite product (Chen & Chang, 2013)

In current years, different scholars also have used the TPB model to search and clarify proenvironmental behavior. Such as Chen and Chai (2010) initiate that the theory of planned behavior is a valuable framework for clarifying consumers' recycling intentions. Klockner (2013) found that the TPB model is an apt theory for foreseeing the willingness of the consumers to accept new energy vehicles. Therefore, your attitude is generally an evaluation of personal behavior. It is beheld as an evaluation of purchasing green products in the perspective of predicting green purchase behavior (Klockner, 2013).

Hereafter to inspire the green purchase behavior amongst the consumers, it is essential to measure their level of environmental consciousness. Consumers who are very environmental conscious make additional green purchase decisions than those who have low level. Here, the concept of environmental consciousness mentions firm psychological factors linked to individuals' tendency to be involved in pro-environmental behavior (Hameed et al., 2021; Zahan et al., 2020). A multi-dimensional and behavior-oriented description of environmental consciousness also includes other factors or psychological constructs such as beliefs, values, attitudes, and knowledge. These variables were exposed to drive the consumer choice with regard to purchasing environmentally friendly products. This paper study's how environmental consciousness inspires green purchasing intention. Though, with regard to the relation amongst green purchase behavior and environmental knowledge different studies had been accompanied. Mainly, knowledge was set up to be associated with how the consumers gather, organize, and evaluate green products, therefore closing to be a significant predictor of environmental-friendly behavior (Jaiswal & Kant, 2018).

Theoretical Framework:

Following is the frame work and hypotheses for the study:

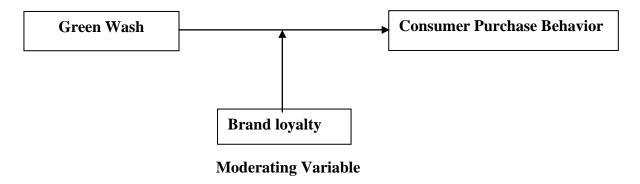


Figure-1

This framework shows the association between greenwash and consumer purchase behavior of consumers. It also shows the moderating effect of brand loyalty on the relationship of greenwash and consumer purchase behavior of consumers.

It is considered that green marketing activity would be affected negatively by greenwash(Y.-S. Chen et al., 2020; Tarabieh, 2021). Organizations usually use greenwash to show beneficial facts of environmental facts and figures about the products without showing harmful details in order to

form a green identity(Tarabieh, 2021). As the firms do not communicate the truth about their products and services, showing green products while in reality it is not. Hence, consumers do not trust the green advertisements of the products by firms or companies (Chen et al., 2013). This type of greenwash practice would affect the feelings of customers as they get frustrated and puzzled by the false statements of the companies. These false statements would make the consumers having doubt green products. It affects the intention of consumers to buy a specific product or a service. The consumers then avoid or even make some alternative buying decisions due to such type of unethical behavior of companies or firms (Chen & Chai, 2010).

Consumers prefer to buy green brands or products. Trust has played an important role in developing loyalty among customers. Loyalty would affect the buying behavior of consumers. It requires the emotional attachment between the customers and brands or products(Bilgin, 2018; Lin et al., 2017). Panda et al. (2020)have explored the effects of brand loyalty on the sustainable development of environmental friendly products. This type of awareness has been increased in the consumers; hence their preferences have been changed about the products or services for the service providers (Jaiswal et al., 2018). Thus, this study has focused on the effects of brand loyalty on the relation between greenwash and consumer purchase intention behavior.

Companies are interested in green marketing to compete for green advantages as the need of green products in market is changing the world. Although it has been observed that environmental claims of green products must be transparent and true, greenwash is still very famous in market (Chen & Chang, 2013). Hence, greenwashing has significant impact in the green market progress and green strategies have contribution to enhance corporate image. Intention to purchase is considered as specific or behavioral attitude(Biswas & Roy, 2015). This type of attitude shows that consumers are ready to buy a product after its evaluation. The intention to buy and actual buying behavior can be used interchangeably. The intention to purchase green products is actually the appreciation of buying green products(Tarabieh, 2021).

Loyalty towards brands and products of consumers are very important when it comes to ecofriendly buying choices. Earlier studies have not focused on improving the green purchase behavior of the consumers in relation to greenwash practice. The current study has focused on the reduction of greenwash activities, which not only increase brands' loyalty of consumers but also their buying behaviors. Companies want to increase consumers' buying behavior and their loyalty towards brands. Firms can reduce their greenwash and increase consumers' brands loyalty to enhance buying behavior (Chen & Chang, 2013).

Following is the hypothesis of the current study:

H1: Brand loyalty play the moderating role in greenwash and consumer purchase behavior

Methodology

With the help of quantitative approach, this study was conducted by following the positivist school of thought. The study's design was causal-comparative and cross-sectional survey method was opted to collect the data to identify the relation between firms, greenwash and consumers' purchase behavior, to explore the moderating effects of consumer brand loyalty between consumersgreenwash of firms and consumers' purchase behavior. The population in this study was all customers of hypermarkets like Carrefour, Hyper Star, Metro Cash and carry in Lahore. As per the problem statement, the researcher couldn't obtain the list of all customers of hypermarkets. Therefore, the researcher used convenient sampling technique to selected the sample of 250participants. In this regard, the researcher visited Carrefour, Hyper Star, Metro and

Cash & carry for the purpose of data collection. The available customers were invited to participate in the study. Data was obtained to measure the impact of greenwash on consumer green purchase behavior and the moderating role of green brand loyalty.

The questionnaire consists of 3 factors and 14 items selected from previous research to ensure reliability and validity (Saunders & Lewis, 2012). Questionnaire items have been assessed by a Likert scale of five points between 1 and 5, from strong disagreement to strong agreement. Greenwash scale involves five items adapted from Chen and Chang (2013). This research aims to evaluate brand loyalty, including four items adapted from Chaudhuri and Holbrook (2001). The green purchase behavior (focused on customer viewpoint) questionnaire adapted from Chang et al. (2021) is employed.

The adapted items from the above-cited scales the questionnaire were framed. The demographic variables were added and the requesting appeal with the purpose of research and data confidently policy was also stated in the cover page of the questionnaire. The formatted questionnaire was presented to the language and filed experts for the validation of the questionnaire. They were requested to certify the questionnaire under two criteria: item mutually exclusive and measuring variables of the study. They certify the validity of the questionnaire, as far as the concern of reliability of the questionnaire was identified with the help of Cronbach Alpha and there value were .805 for greenwash, .839 for brand loyalty, and .867 for consumer purchase. After the expert validation of the questionnaire, the data was collected from the selected participants. The printed questionnaire was presented to the respondents with request appeal and the data confidentiality policy for their valuable responses. One month was consumed for this task and the researcher was successful in getting 97% responses from the selected respondents.

The descriptive analysis, inferential statistics, Pearson Correlation, Regression analysis and Hayes Process model evaluation, were used to interpret the collected data. The Likert scale with demographic variables (Gender, Age, Visit, Experience with Brand, Frequency of usage, etc.) with a continuous variable was used to finalize the analysis reports in this study.

Data Analysis of Results

Demographic Analysis:

The following tables represent the frequencies and percentages of different demographics of the 372 respondents.

Table 4.1

Demographic		Frequency	Percent
Gender	Male	222	59.7
	Female	150	40.3
Age	20 to 25 years	146	39.2
	26 to 30 years	143	38.4
	Above 31 years	83	22.3
Education	Intermediate	95	25.5
	Bachelor degree	178	47.8
	Master degree	99	26.6

The above table represents the gender of respondents, which is divided into two categories male and female. It reveals that 59.7 % of the research population is male while the 40.3% female took part in the research study as a research sample. It is very encouraging that many females took part in the study, which will highlight the gender related issues at the workplace. Similarly, table depicts that different age groups of people took part in the research study. Table shows the majority of the bank employees belong to 20 years to 25 years which is the 39.2% of the total research population, while the second largest group belongs to 26 to 30 years of age, which is the 38.4% of the sample size. The third age group belongs to 31 years; this group is 22.3% of the whole research population. This result shows that the sample size is more representative of young male and female employees. Table also highlights three level of educational group took part in the research study. According to the above mentioned table 25.5% employees including female employees have intermediate level of education, 47.8% having the bachelor degrees and 26.6% have mater degrees, results shows that, the major portion of the research population having the bachelor degree which 47.8% of the total respondents.

Correlation Analysis

Table 4.2.1

	GW	BL	CPB
Greenwash (GW)	1	339**	415**
Brand Loyalty (BL)		1	.104
Consumer Purchase Behavior (CPB)			1

^{**} Correlation is significant at the 0.01 level (2-tailed).

Table 4.2 displayed the correlation among aforementioned variables. The results of this table highlighted that there exist weak negative but significant correlation between GW and BL as $r=-.339^{**}$, and p<.01, in the same pattern the correlation between GW and CPB is significant and moderately negative relationship as $r=-.415^{**}$, and p<.01. Similarly, the correlation results pointed out the weak positive relationship between BL and CPB as r=.104 and p>.01. These findings of the above table reflected that one unit of GW will bring 33.9% and 41.5% positive change in BL and CPB respectively. Likewise, one unit of BL increase the CPB up to 10.4%.

Moderation Analysis

Moderation analysis was executed in SPSS 22 by using PROCESS. In process for the first GW is entered as X variable (ID), CPB as Y variable (DV) and BL as moderator variable (M). Model 1 was selected at 95 percent confidence interval while having bootstrapping sample number 372. The results of analysis are given in the following table.

Table 4.3 Brand Loyalty as Moderator to Greenwash and Consumer Purchase Behavior

Moderator: BL to GW and DV: CPB							
	β	S.E	t	P	LLCI	ULCI	
Constant	2.97	0.03	79.69	0.000	2.90	3.04	
GW	0.17	0.04	4.43	0.000	0.09	0.25	

BL	0.44	0.05	8.71	0.000	0.34	0.54
$GW \times BL$	0.10	0.05	2.13	0.004	0.01	0.20
F		43.15				

Note: DV=CPB, IV=GW, Moderator=BL.

Conditional Effect of Moderator between GW and CPB								
	Moderator: BL							
	Effect	S.E	t	P	LLCI	ULCI		
-0.962	0.35	0.07	4.94	0.00	0.21	0.48		
0.0000	0.44	0.05	8.71	0.00	0.34	0.54		
0.962	0.54	0.07	7.72	0.00	0.40	0.68		

The aforementioned table 4.3 highlighted that BL as moderator to GW to CPB (GW×BL) is significant for (β = 0.10, Δ R2 = .0101, p< 0.04) that green BL moderates the relationship between GW and CPB. Hence, these results support to accept the hypothesis "Brand loyalty plays the moderating role in greenwash and consumer purchase behavior".

Conclusion and Discussion

The findings and the results of the current study helped to conclude that there is significant but negative impact of greenwash on consumer purchase behavior while brand loyalty plays moderating role between these variables. These results align with the findings of the studies conducted by (Chen et al., 2020; Polonsky, Grau, & Garma, 2010). Such results helped to highlight the concept that the lesser the greenwash, the consumer purchase behavior; this relationship is moderated by the consumer green brand loyalty. This study adds information to the existing literature regarding greenwashing. It promotes the concept that companies should pay special attention to reducing the greenwash among their customers to flourish brand loyalty. Such circumstances overall helped to increase the customer purchase behavior. Therefore, it is also suggested that companies should also plan to advertise different opportunities through their advertisement to propagate brand loyalty among their customers that become the reason to increase the customer purchase behavior. By considering this research as a reference, researchers may conduct future researches in different localities of Pakistan to identify the trend of impact of greenwash on consumer purchase behavior by utilizing different research methodologies.

References

- Al-Majali, M. M., & Tarabieh, S. (2020). Effect of internal green marketing mix elements on customers' satisfaction in Jordan: Mu'tah University students. Jordan Journal of Business Administration, 16(2), 411-434.
- Bilgin, Y. (2018). The effect of social media marketing activities on brand awareness, brand image and brand loyalty. Business Management Studies: An International Journal, 6(1), 128-148.
- Biswas, A., & Roy, M. (2015). Green products: an exploratory study on the consumer behaviour in emerging economies of the East. Journal of Cleaner Production, 87, 463-468.
- Chang, T.-W., Chen, Y.-S., Yeh, Y.-L., & Li, H.-X. (2021). Sustainable consumption models for customers: Investigating the significant antecedents of green purchase behavior from the

- perspective of information asymmetry. Journal of Environmental Planning Management, 64(9), 1668-1688.
- Chau, H. L. Q., Thong, H. T., Chao, N. V., Hung, P. H. S., Hai, V. V., Le, V. A., . . . Akamatsu, M. (2014). Microbial and parasitic contamination on fresh vegetables sold in traditional markets in hue city, vietnam. J. Food Nutr. Res., 2, 959–964.
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty
- Journal of Marketing, 65(2), 81-93.
- Chen, & Chai, L. T. (2010). Attitude towards the environment and green products: Consumers' perspective. Management Science Engineering, 4(2), 27-39.
- Chen, H., Bernard, S., & Rahman, I. (2019). Greenwashing in hotels: A structural model of trust and behavioral intentions. Journal of Cleaner Production, 206, 326-335.
- Chen, Y.-S., & Chang, C.-H. (2013). Greenwash and green trust: The mediation effects of green consumer confusion and green perceived risk. Journal of business ethics, 114(3), 489-500.
- Chen, Y.-S., Huang, A. F., Wang, T.-Y., & Chen, Y.-R. (2020). Greenwash and green purchase behaviour: the mediation of green brand image and green brand loyalty. Total Quality Management and Business Excellence, 31(4), 194-209.
- Durmaz, Y., & Yaşar, H. V. (2016). Green marketing and benefits to business. Business Management Studies, 2(2), 64-71.
- Guo, R., Tao, L., Li, C. B., & Wang, T. (2017). A path analysis of greenwashing in a trust crisis among Chinese energy companies: The role of brand legitimacy and brand loyalty. Journal of business ethics, 140(3), 523-536.
- Ha, N. T., Kitajima, M., Hang, N. V., Matsubara, K., Takizawa, S., Katayama, H., . . . Ohgaki, S. (2008). Bacterial contamination of raw vegetables, vegetable-related water and river water in ho chi minh city vietnam. Water Sci. Technol, 58, 2403.
- Hameed, I., Hyder, Z., Imran, M., & Shafiq, K. (2021). Greenwash and green purchase behavior: An environmentally sustainable perspective. Environment, Development Sustainability, 23(1), 13113–13134.
- Hong, Z., & Guo, X. (2019). Green product supply chain contracts considering environmental responsibilities. Omega, 83, 155-166.
- Hussain, I., Rahman, S. U., Zaheer, A., & Saleem, S. (2016). Integrating factors influencing consumers' halal products purchase: Application of theory of reasoned action. Journal of International Food Agribusiness Marketing, 28(1), 35-58.
- Jaiswal, D., & Kant, R. (2018). Green purchasing behaviour A conceptual framework and empirical investigation of Indian consumers. Journal of consuming and Retailing, 41, 60–69. https://doi.org/10.1016/j.
- Jones, D. R. (2012). Looking through the "greenwashing glass cage" of the green league table towards the sustainability challenge for UK universities. J. Organ. Chang., 25, 630–647.
- Kim, E.-H., & Lyon, T. P. (2015). Greenwash vs. brownwash: Exaggeration and undue modesty in corporate sustainability disclosure. Organization Science, 26(3), 705-723.
- Klockner, C. A. (2013). A comprehensive model of the psychology of environmental behaviour: A meta-analysis. Global Environmental Change, 23(5), 1028-1038.
- Le, T. H. H., Nguyen, T. Q. H., Cao, S. T., Vu, T. T., Nguyen, T. L., Cao, V. H., . . . Nguyen, T. A. H. (2017). Screening determination of food additives using capillary electrophoresis

- coupled with contactless conductivity detection: A case study in vietnam. Food Control 77, 281–289.
- Leonidou, C. N., & Skarmeas, D. (2017). Gray shades of green: Causes and consequences of green skepticism. Journal of business ethics, 144(2), 401-415.
- Lin, J., Lobo, A., & Leckie, C. (2017). The role of benefits and transparency in shaping consumers' green perceived value, self-brand connection and brand loyalty. Journal of Retailing Consumer Services, 35, 133-141.
- Maichum, K., Parichatnon, S., & Peng, K.-C. (2016). Application of the extended theory of planned behavior model to investigate purchase intention of green products among Thai consumers. Sustainability, 8(10), 1077.
- Nguyen, T. T. H., Yang, Z., Nguyen, N., Johnson, L. W., & Cao, T. K. (2019). Greenwash and green purchase intention: The mediating role of green skepticism. Sustainability, 11(9), 2653.
- Panda, T. K., Kumar, A., Jakhar, S., Luthra, S., Garza-Reyes, J. A., Kazancoglu, I., & Nayak, S. S. (2020). Social and environmental sustainability model on consumers' altruism, green purchase intention, green brand loyalty and evangelism. Journal of Cleaner Production, 243, 118575-118586.
- Papadas, K.-K., Avlonitis, G. J., & Carrigan, M. (2017). Green marketing orientation: Conceptualization, scale development and validation. Journal of Business Research, 80, 236-246.
- Paul, J., Modi, A., & Patel, J. (2016). Predicting green product consumption using theory of planned behavior and reasoned action. Journal of Retailing Consumer Services, 29, 123-134.
- Polonsky, M. J., Grau, S. L., & Garma, R. (2010). The new greenwash?: Potential marketing problems with carbon offsets. International Journal of Business Studies: A Publication of the Faculty of Business Administration, 18(1), 49-54.
- Saunders, M. N., & Lewis, P. (2012). Doing research in business & management: An essential guide to planning your project: Pearson.
- Siano, A., Vollero, A., Conte, F., & Amabile, S. (2017). "More than words": Expanding the taxonomy of greenwashing after the Volkswagen scandal. Journal of Business Research, 71, 27-37.
- Tarabieh, S. M. Z. A. (2021). The impact of greenwash practices over green purchase intention: The mediating effects of green confusion, Green perceived risk, and green trust. Management Science Letters, 11(2), 451-464.
- Tezer, A., & Bodur, H. O. (2020). The greenconsumption effect: How using green products improves consumption experience. Journal of Consumer Research, 47(1), 25-39.
- Wertheim-Heck, S. C. O., & Spaargaren, G. (2016). shifting configurations of shopping practices and food safety dynamics in hanoi, vietnam: A historical analysis. Agric. Hum. Values 33, 655–671.
- Yang, Z., Nguyen, T. T. H., Nguyen, H. N., Nguyen, T. T. N., & Cao, T. T. (2020). Greenwashing behaviours: causes, taxonomy and consequences based on a systematic literature review. Journal of Business Economics Management, 21(5), 1486-1507.
- Zahan, I., Chuanmin, S., Fayyaz, M., & Hafeez, M. (2020). Green purchase behavior towards green housing: An investigation of Bangladeshi consumers. Environmental Science Pollution Research, 27(31), 38745-38757.

Zaidi, S. M. M. R., Yifei, L., Bhutto, M. Y., Ali, R., & Alam, F. (2019). The influence of consumption values on green purchase intention: A moderated mediation of greenwash perceptions and green trust. Pakistan Journal of Commerce Social Sciences, 13(4), 826-848.