

Linking Perceived Greenwashing with Brand Credibility: An Empirical Evidence from Pakistan

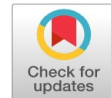
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Abstract: Undoubtedly, the rise in eco-friendly or sustainable products has gained immense attention across all disciplines due to its most promising contributions to the environment. However, it has also initiated the greenwashing phenomena by which companies deliberately communicate the ecological or green attributes of their offerings. Drawing on attribution theory, this study aims to fill a gap in knowledge by examining the relationships between perceived greenwashing and brand credibility. Convenience sampling methodology was employed to collect the data from 422 Pakistani consumers. Data were gathered via self-administered questionnaire and analyzed using AMOS, and SPSS respectively. The results revealed that perceived greenwashing is negatively related to brand credibility. The present study provides novel insights by unfolding the negative relationship between perceived greenwashing and brand credibility, especially in Pakistan's context. The study findings imply that decreasing greenwashing practices can decrease consumers' perception of greenwashing and thus, the brand credibility can be improved. Moreover, the study findings highlight the risks that perceived greenwashing carries for the business companies; the companies' pretentious claims can harm the credibility of a greenwashed brand can ultimately put their survival at threat and harm their long-term success. In addition, the study findings suggest that policymakers should avoid communicating deceptive environmental benefits of their offerings, rather they should focus on finding possible ways to comply with environmental performance standards so that their brand credibility can be enhanced. The current study contributes to greenwashing literature by exploring how perceived greenwashing influences brand credibility. In closing, the theoretical and practical implications of these findings are discussed in detail.

Keywords: Greenwashing, Perceived greenwashing, Brand credibility, Attribution theory, Pakistani consumers

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INTRODUCTION

Over the last few decades, consumers became more concerned about sustainability and environmental issues (Szabo & Webster, 2021). Consumers' enhanced concern is due to long-lasting damage to the environment and society in general (Han & Kim, 2010). These environmental concerns changed consumers' behavior accordingly (Buerke, Straatmann, Lin-Hi, & Müller, 2017), such as the majority of consumers became eager to use green products (Ayuningrat, & HadiwidjojoGoh, 2016). The growing concern for environmental protection has also led companies to adopt green marketing to demonstrate their contributions to the greater good (Szabo & Webster, 2021). In this vein, companies started to position their brands as green or eco-friendly with the use of different green labels and trademarks (Delmas & Toffel, 2008; Berrone, Fosfuri, Gelabert, & GomezMejia, 2013). However, consumers may perceive green marketing as greenwashing (Dahl, 2010). Consumers believe that companies overstate their environmental contribution(s) to differentiate themselves in the environmental era, thus engaging in greenwashing practices. Greenwashing refers to a company's deliberate deceptive tactics to mislead or misguide consumers regarding the company's products or services' eco-benefits (Chen, Huang, Wang, & Chen, 2018). Consumers' perception of deceptive product claims (i.e. perceived greenwashing) develop doubts, which consequently undermine green trust, purchase intention, and word-of-mouth (Chen & Chang, 2013; Leonidou, & Skarmeas, 2017).

Past research has made valuable contributions to greenwashing literature by exploring its detrimental consequences for consumers, companies' offerings, and the company itself, such as reduced consumers' trust and loyalty, brand value, brand image (Chen, Lin, and Chang, 2014), purchase intention (Leonidou & Skarmeas, 2017), green trust (Chen & Chang, 2013), green purchase intention (Chen, Huang, Wang & Chen, 2020), organizational

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credibility, perceived company performance (Nyilasy, Gangadharbatla, & Paladino, 2014), and market value of the company (Du, 2015). In addition, greenwashing also contributes to enhancing risk perception, consumer confusion (Chen & Chang, 2013), and information-seeking behavior (Leonidou & Skarmeas, 2017). Given its detrimental consequences for consumers, companies, and their offerings as well, it has become one of the central themes in green marketing. Although prior studies have made significant contributions to greenwashing literature, however empirical research in examining greenwashing consequences is still limited (e.g., De Jong, Harkink, & Barth, 2018). Additionally, prior researchers have also noted that greenwashing has received considerably little research attention (Aji & Sutikno, 2015; Rahman, Park & Chi, 2015; Berrone, Fosfuri, & Gelabert, 2017; De Jong, Harkink & Barth, 2018; Zhang, Li, Cao, & Huang, 2018). Prior research has largely ignored how consumers' perception of greenwashing may affect the credibility of a greenwashed brand despite being potentially crucial to organizational success. Considering the importance of brand credibility for gaining sustainable competitive advantage in the face of increasing consumers' awareness of environmental-friendly products (Park & Lee, 2013), it is important to fill this research gap. Importantly, given the strikingly high prevalence of greenwashing in the current market and the harmful consequences of greenwashing on brand credibility, this study attempts to address the issue. Thus, the study aims to contribute to greenwashing literature by examining the effect of perceived greenwashing on brand credibility. Perceived greenwashing diminishes consumers' trust as well as brand perception (Buck, Anderson, Chaudhuri, & Ray, 2004). Resultantly, consumers develop a perception that a particular greenwashed brand is incapable to fulfil its promises, and thus, the credibility of a brand is negatively affected. Brand credibility determines the relationship between brand and consumers and, also helps to maintain this cordial relationship (Park & Lee, 2013).

Moreover, drawing upon attribution theory (Kelley, 1967; Kelley & Michela, 1980; Harvey & Weary, 1984), the present study avers that consumers' perception of greenwashing negatively influences brand credibility. Attribution theory is considered the most suitable theoretical framework to explain the psychological processes involved in understanding an individual's perception of green claims, and their consequences (Weiner, 2000). It is argued that if an individual attributes a certain event as negative, it results in a negative attitude or behavior (Friestad & Wright, 1994). Thus, drawing on the attribution theory paradigm, it is reasonable to assume that when consumers confront green information about product(s) and may perceive it as deceptive aimed to promote products' green benefits (which are not actually). Resultantly, consumers attribute this event as negative, which ultimately results in negative outcomes such as low brand credibility.

The current study contributes to greenwashing literature in the following ways. The current study addresses the theoretical gap by exploring how perceived greenwashing influences brand credibility. The study has developed a theoretical case of the relationship between perceived greenwashing and brand credibility to seek empirical evidence of the relationship. Moreover, by applying attribution theory as a theoretical framework in the relationship between perceived greenwashing and brand credibility, the present study expanded the attribution theory in greenwashing literature specifically. The study findings highlight the risks that perceived greenwashing carries for the business companies; the companies' pretentious claims can harm the credibility of a greenwashed brand can ultimately put their survival at threat and harm their long-term success. Importantly, as prior research has been widely conducted on green marketing in Western settings (Coşkun, Vocino, & Polonsky, 2017), this study contributes to understanding Pakistani consumers' perception of greenwashing and its effects. Specifically, this research contributes to the knowledge of consumers' perception of green marketing particularly greenwashing in a developing country like Pakistan.

Study Objectives

Given the high prevalence of greenwashing, especially in emerging economies like Pakistan, this study attempts to examine the Pakistani consumers' perception of greenwashing and its effect on brand credibility. In specific, the key study objective of this research is to examine the effect of perceived greenwashing on the brand credibility of a specific brand(s).

LITERATURE REVIEW

The Phenomenon of Greenwashing

Greenwashing refers to the companies' deliberate deceptive tactics to mislead or misguide consumers regarding their offerings' eco-benefits (Chen, Huang, Wang, & Chen, 2020). The term "greenwashing" was first introduced

back in 1980 and gained an immense reputation with the use of deceptive and exaggerated environmental claims as a tactic to gain market share (Dahl, 2010). To compete in the green market, companies are continually striving to differentiate their offerings by highlighting their key features, such as their products' environment-friendly attributes (Nabilla, 2019; Szabo & Webster, 2021). In this vein, green marketing has become a vital tool for advertising green and/or sustainable products. In doing so, companies engaged in deceptive communication by exaggerating their products' eco-friendly attributes which eventually gave a significant rise to greenwashing. Many companies have been found engaged in greenwashing activities. For instance, the Coca-Cola company claimed that it has reduced its water footprint by reducing water usage significantly (4 percent annually). However, the company could not verify its claim and was awarded a "greenwashing award" by the Polaris Institute (Lyon & Montgomery, 2013). Consumers' purchase decisions are often based on corporate advertising and therefore it is considered of strategic importance. If a consumer finds a company involved in greenwashing, it tends to decrease their confidence in the company's products (Hamann & Kapelus, 2004). Even though various companies are well aware of greenwashing's consequences such as damaging the company's reputation, however companies still engage in deceptive tactics to gain a competitive advantage by labeling their products safe for the environment (Laufer, 2003; Parguel, Benoît-Moreau, & Larceneux, 2011). Importantly, enhanced pressure from stakeholders (Testa, Boiral, & Iraldo, 2018), potential benefits in terms of financial performance (Jonsen, Galunic, Weeks & Braga, 2015), and reputational capital (Aras & Crowther, 2011) encourage organizations to engage in greenwashing. Researchers have confirmed that consumers' perception of greenwashing results in destructive consequences such as it negatively affecting consumer's trust and loyalty, brand value, brand image (Chen et al., 2014), purchase intention (Leonidou & Skarmeas, 2017), green purchase intention (Chen et al., 2020), and so forth. This clearly shows that deceptive claims about products undermine the consumers' trust in the company and its offerings which eventually diminishes green marketing. Considering the detrimental consequences of perceived greenwashing, researchers are striving to investigate its consequences that may endanger green marketing.

Perceived Greenwashing and Brand Credibility

Brand credibility is defined as "the believability of the product position information embedded in a brand, depending on consumers' perceptions of whether the brand has the ability and willingness to continuously deliver what has been promised" (Erdem & Swait, 2004, p. 192). It is argued that a credible brand comprises two characteristics: ability (i.e., expertise) and willingness (i.e., trustworthiness). Taken together, these characteristics make a brand credible by fulfilling its promises (Erdem & Swait, 2004; Erdem, Swait, & Valenzuela, 2006). It is argued that the relationship between brand and consumers can be better understood with brand credibility such that if a brand is credible in terms of fulfilling its promises, the relationship is strong, and vice versa. Thus, brand credibility helps to develop and maintain cordial relationships with consumers (Park & Lee, 2013). These relationships lie in trust between brands and consumers which eventually ensures companies' survival in a dynamic business environment with a competitive advantage. Marketing literature has documented numerous positive consequences of brand credibility such as low perceived risk, high perceived quality, purchase intention (e.g., Baek, Kim, & Yu, 2010), brand commitment, and increased consumer confidence (Kemp, 2011).

A consumer with the perception of greenwashing (i.e., a company deliberately deceives by overstating their product's eco-benefits) tends to develop negative views of the company and its offering that negatively affect a brand's credibility. Erdem and Swait (1998) provided a framework of brand credibility which has been later used in numerous studies (Wang & Scheinbaum, 2018). The brand credibility framework claimed that consistency, brand investment, and clarity together predict Brand credibility. Consistency represents the company's efforts in maintaining and delivering consistent products over time; brand investment encompasses companies' efforts in improving brand performance to fulfill its promises and clarity refers to the clear brand signal (i.e., no ambiguity in the product information) (Erdem & Swait, 1998). Thus, as per the brand credibility framework, these three characteristics together contribute to predicting the credibility of a brand. When consumers perceive that a specific brand has deceived them by overstating their products' eco-benefits, indeed it violates all these three characteristics – consistency, brand investment, and clarity – of brand credibility. In the context of greenwashing, consumers' perception that the company has failed to provide product attributes consistently – consistency, the company isn't investing in its products to provide or to enhance brand performance – brand investment, and the company deliberately conveys ambiguous information about their products – clarity, negatively affects the credibility of a

specific brand. Moreover, consumers who perceive green claims as deception weakens their trust in a brand and thus spoil brand perception (Buck et al., 2004).

Moreover, the basic tenant of attribution theory (Kelley, 1967; Kelley & Michela, 1980; Harvey & Weary, 1984) contends that when an individual is exposed to an event and attributes it as negative, it results in a negative attitude or behavior (Friestad & Wright, 1994). Based on such thinking, the present study argues that perceived greenwashing tend to develop negative attributions in consumers' mind which thus results in negative outcomes (Friestad & Wright, 1994) such as low brand credibility. Put it another way, when consumers confront green information about product(s) and perceive it as fake or deceptive, they attribute such events as negative which ultimately results in negative outcomes such as low brand credibility. Based on the above discussion, it is evident to infer that consumers' perception of deceptive green claims – greenwashing – negatively affects the credibility of a greenwashed brand.

H1: Perceived greenwashing negatively influences brand credibility.

The theoretical model

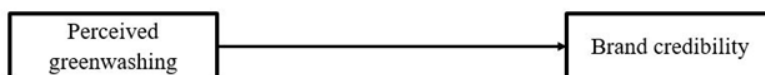


Figure 1: Conceptual framework

RESEARCH METHOD

Data Collection and Analysis

In line with the study objectives, the current study was conducted in Pakistan, using a quantitative approach based on a cross-sectional research design. The questionnaire survey is consistent with prior studies examining the consequences of greenwashing perceptions (e.g., Chen et al., 2014; Zhang et al., 2018). Data were gathered from Pakistani consumers. The current study used a convenience sampling technique (non-probability sampling technique). The targeted population – consumers – is too large due to which it is impossible to include each individual. The other reason to use a convenience sampling technique is that it is fast, inexpensive, and easy.

Pakistan is a developing country where numerous companies were found actively engaged in deceptive marketing (green marketing) tactics to attract potential customers. According to the Competition Commission of Pakistan (2014), numerous companies in Pakistan were found in using deceptive marketing tactics to promote or sell their products. Following prior studies (e.g., Akturan, 2018; Zhang et al., 2018), this study selected three products that portray as green or eco-friendly. For this study, consumers were presented with three brand options: Hybrid cars (e.g., Toyota Prius, etc.), electronic products (e.g., Inverter AC, etc.), and Organic food (e.g., desi ghee, brown sugar, etc.). Consumers were asked to choose any one of the three products from the given options that they have purchased and/or experienced. With the rise of environmental pollution particularly in Pakistan such as smog in the winter season, the trend of using hybrid cars is increasing as these cars are considered energy-efficient and environment friendly too. This sector was selected due to its concerns with greenwashing practices (Gillespie, 2008; Sajjad et al., 2020). Likewise, the electronic products selection is also consistent with prior studies (e.g., Chen & Chang, 2013). The respondents answered the questions keeping in mind one brand from the available brand choices (hybrid cars, electronic products, organic food).

To approach the decision-maker consumers who have used/experienced one of the three selected brands for this study, the researcher visited different shopping malls in Islamabad and Lahore to contact a diverse range of consumers. A brief orientation was given to the respondents about the study purpose, and greenwashing especially. Also, the respondents ensured that their responses will only be used for academic research purposes, and their identities will not be disclosed to anyone. The agreed respondents filled the questionnaire in hard copy at the mall. In sum, a total of 470 consumers confirmed their participation in the study. In total, 456 complete responses were

received. 34 questionnaires were discarded as those were not filled, and thus, the total sample remained of 422 respondents. Following prior studies (e.g., Shafique, Rajput, Javed, & Alnakhli, 2022), the questionnaire was designed in the English language as English is the official language and thus, consumers have a good understanding of the English language.

The final sample consists of 250 males (59.2%) and 172 females (40.8%). Of the total, 121 respondents' age was between 26-35 years, 221 respondents' age was between 35-45, and 80 respondents age was between 46-60 years. To analyze data, AMOS 23.0 and SPSS 23.0 were used.

Common Method Bias

As all the data were collected from the same respondents at a single point in time, the issue of common method bias may prevail (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). To rule out this issue, the study divided the questionnaire into different sections so that respondents can identify different concepts (i.e., study variables). Likewise, the study included different trap items (e.g., I like to watch cartoons daily) to check the respondents' attention while filling out the questionnaire. Moreover, to counter common method bias, the study conducted Harman single factor test. For this purpose, all the variables' items were loaded onto a single factor. The first factor explained 38% of the total variance, which is below the standard threshold of 50%. Hence, common method bias is not an issue for the study.

Measures

All the variables of the study were measured with validated scales and adapted with slight modifications to fit Pakistan's context. All the variables were accessed on a five-point Likert scale (e.g., 1 for strongly agree, 5 for strongly disagree).

Perceived greenwashing: Following prior studies (e.g., Akturan, 2018; Zhang et al., 2018), consumers' perception of greenwashing of a specific brand was measured with a five-item scale developed by Laufer (2003). Sample items include "this product misleads with words in its environmental features".

Brand credibility: A Seven-item scale was used to measure brand credibility (Erdem & Swait, 1998). Sample items include "This brand delivers (or would deliver) what it promises".

CONTROLS

Respondents' age and gender may influence the consumers' perception of greenwashing and brand credibility, and thus can confound the results. It has been noted that females are considered more concerned with the environment as compared to males (Eagly, 2013). However, respondents' age and gender didn't show a correlation between perceived greenwashing and brand credibility. Therefore, results were presented without any controls (Becker, 2005).

RESULTS

Measurement Model

The study employed confirmatory factor analysis (CFA) to analyze the measurement model. All the items of the variables were loaded onto their respective construct. Model fit indices (χ^2 (50) = 134.23, χ^2/df = 2.68, GFI = .96, IFI = .97, TLI = .97, CFI = .98, and RMSEA = .06) demonstrated satisfactory fit.

Correlations, Means, and Standard Deviations

Descriptive statistics such as mean, standard deviation, and correlations are presented in Table 1. The values of Cronbach Alpha (α) are also presented in Table 1.

Table 1: Descriptive statistics, cronbach alpha(α), and correlations

Construct	Mean	SD	α	1	2	3	4
1. Age	-	-	-	1			
2. Gender	-	-	-	-.022	1		
3. Perceived Greenwashing	3.4681	.96756	.911	.065	-.033	1	
4. Brand credibility	2.5832	.94191	.902	.076	.009	-.147**	1

Note. $n = 422$. * $p < .05$. ** $p < .01$ level (2-tailed). SD = Standard deviation. Gender: 1 = male, 2 = female.

Mean is an arithmetic mean and SD is the standard deviation.

Hypothesis Testing

To test the hypothesis, the study used the regression method in SPSS. The results (Table 2) confirmed that perceived greenwashing negatively influences brand credibility ($\beta = -.143$, t -value = -3.34 , p -value = $.001$). Thus, hypothesis 1 is accepted.

Table 2: Hypothesis testing

	β	Std. error	t -value	p -value
Constant	3.079	0.154	19.979	0.000
Perceived greenwashing	-0.143	0.043	-3.340	0.001

$n = 422$, Outcome variable = Brand credibility, R square = 0.022, Adjusted R square = 0.020, F - value = 11.157, $p = 0.001$.

DISCUSSION

Nevertheless, greenwashing practices carry numerous destructive consequences for stakeholders. Realizing this, academicians are continually striving to bring to the fore potentially overlooked outcomes. To contribute to this domain, the present study examined the effect of perceived greenwashing on the brand credibility of a greenwashed brand in Pakistan's context. In doing so, the study drew on the attribution theory to demonstrate the negative impact of perceived greenwashing on brand credibility. The study results supported the hypothesis. The relationship between perceived greenwashing and brand credibility was hypothesized based on a literature review. Recognizing the global movement of sustainability, consumers became prone to engage in sustainability acts and also became more aware of green and eco-friendly products. The study findings confirmed that perceived greenwashing negatively impacts the brand credibility of the greenwashed brand. Indeed, these results are in line with prior studies examining the consequences of perceived greenwashing. For example, Hameed et al., (2021) found that greenwashing decreases positive outcomes, like green brand image, green brand love, green brand loyalty, and green purchase behaviour. Moreover, a recent study noted that consumers' perceptions of different types of misleading communication regarding environmental issues negatively affect stakeholders' perception of corporate environmental responsibility (Torelli, Balluchi, & Lazzini, 2020). Extending prior work, the current study examines the greenwashing effect on a potentially overlooked branding concept: brand credibility. Accordingly, the current study contributed to enhancing our understanding that how greenwashing perceptions instill a negative attribution in consumers' minds that a greenwashed brand is incapable to fulfil its promises, and thus, the credibility of the brand is negatively affected.

THEORETICAL CONTRIBUTIONS

This study contributes to the greenwashing literature in the following ways. By showing that consumers' perception of greenwashing negatively influences brand credibility, the study contributed to greenwashing literature and brand credibility literature. In doing so, the study contributed to this emerging, yet nascent research area of greenwashing that consumers with the perception of greenwashing realize that a specific brand has failed in fulfilling its promises, and thus diminishes its credibility. From a theoretical perspective, this study helps to better understand how consumers access green claims by engaging in psychological (cognitive) processes. Namely, attribution theory provides a deeper understanding of underlying processes involved in consumers' perception of green claims, and their ultimate effects. Lastly and most importantly, this study contributed to adding to the green marketing literature from a developing country perspective as a majority of prior studies were conducted in Western settings.

PRACTICAL IMPLICATIONS

The study carries important practical implications. The study findings showed that consumer perception of greenwashing damages brand credibility. This implies that decreasing greenwashing practices can decrease consumers' perception of greenwashing and thus, the brand credibility can be improved. A recent study contended that organizational efforts in communicating transparent information have significant implications for organizational strategies and social welfare (Wu, Zhang, and Xie, 2020). Therefore, the study suggests that organizations, and especially policymakers should avoid communicating deceptive environmental benefits of their offerings (Zhang et al., 2018) as it causes spillover effects (Wang, Ma, and Bai, 2019). Thus, it could be a useful recommendation for organizations to focus on finding possible ways to comply with environmental performance standards so that their brand credibility can be enhanced. A study proposed to mitigate greenwashing by using a mix of voluntary and mandatory initiatives employed by organizations (Gatti, Seele, and Rademacher, 2019). This strategy will eventually help in communicating effective CSR communications by limiting the rules for unrealistic rules of accomplishment. Especially, the organizations in Pakistan should be more careful when claiming their products' environmental performance. In doing so, companies can benefit from a win-win strategy in a way that reduced greenwashing practices would decrease consumers' perception of greenwashing (Szabo and Webster, 2021) which eventually contributes to flourishing credibility. Together, this would result in environmental and market performance (Rahman et al., 2015).

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Despite the study's significant contributions to the literature and marketing companies, it has some limitations that may limit its generalization. First, this study is based on a cross-sectional research design in which all the data were collected at the same time from respondents. Although the study employed certain techniques to rule out the common method variance suggested by Podsakoff et al. (2003), the study may lack causal inferences. To gain deeper insights, the study suggests researchers to use a time-lag research design in the future to better predict the causality. Moreover, future researchers are encouraged to collect data about other brands to gain deeper insights. As this study is the first to examine the effect of perceived greenwashing on brand credibility, there could be intervening mechanisms (e.g., cognitive dissonance) that may further help us in understanding the effect of perceived greenwashing on brand credibility.

CONCLUSION

The present study provides novel insights by unfolding the negative relationship between perceived greenwashing and brand credibility, especially in Pakistan's context. In doing so, this study enhances the existing greenwashing literature by empirically establishing its link with brand credibility. Recognizing the importance of a perceived greenwashing relationship with brand credibility, the study offers valuable insights for organizations to mitigate deceptive communication aimed to sustain and nurture the credibility of their offerings. The study findings will help businesses achieve a competitive advantage by focusing on brand credibility, and the potential ways with which brand credibility can be enhanced to attract and retain consumers. Likewise, as findings revealed the negative effect of greenwashing on brand credibility, it evidently shows the negative repercussions of consumers' negative perceptions about green claims. Accordingly, the study results can be helpful for businesses and managers dealing with marketing strategies, especially advertising that how they can refrain using exaggerated or fake claims in advertising their products' characteristics and can enhance credibility of their offerings.

REFERENCES

- Aji, H. M., and Sutikno, B. (2015). The extended consequence of greenwashing: Perceived consumer skepticism. *International Journal of Business and Information*, 10(4), 433-468.
- Akturan, U. (2018). How does greenwashing affect green branding equity and purchase intention? An empirical research. *Marketing Intelligence and Planning*, 36(7), 809-824. <https://doi.org/10.1108/MIP-12-2017-0339>.
- Aras, G., and Crowther, D. (2011). *Governance and social responsibility: International perspectives*. London, UK: Macmillan International Higher Education.
- Ayuningrat, M. P., Noermijati., & Hadiwidjojo, D. (2016). Green product innovation's effect on firm performance

- of managerial environmental concern and green communication. *Journal of Administrative and Business Studies*, 2(2), 56-63.
- Baek, T. H., Kim, J., and Yu, J. H. (2010). The differential roles of brand credibility and brand prestige in consumer brand choice. *Psychology and Marketing*, 27(7), 662–678. <https://doi.org/10.1002/mar.20350>.
- Becker, T. E. (2005). Potential problems in the statistical control of variables in organizational research: A qualitative analysis with recommendations. *Organizational Research Methods*, 8(3), 274–289. <https://doi.org/10.1177/1094428105278021>.
- Berrone, P., Fosfuri, A., and Gelabert, L. (2017). Does greenwashing pay off? Understanding the relationship between environmental actions and environmental legitimacy. *Journal of Business Ethics*, 144(2), 363–379. <https://doi.org/10.1007/s10551-015-2816-9>.
- Berrone, P., Fosfuri, A., Gelabert, L., and GomezMejia, L. R. (2013). Necessity as the mother of ‘green’ inventions: Institutional pressures and environmental innovations. *Strategic Management Journal*, 34(8), 891–909. <https://doi.org/10.1002/smj.2041>.
- Buck, R., Anderson, E., Chaudhuri, A., and Ray, I. (2004). Emotion and reason in persuasion: Applying the ARI model and the CASC Scale. *Journal of Business Research*, 57(6), 647–656. [https://doi.org/10.1016/S0148-2963\(02\)00308-9](https://doi.org/10.1016/S0148-2963(02)00308-9).
- Buerke, A., Straatmann, T., Lin-Hi, N., and Müller, K. (2017). Consumer awareness and sustainability-focused value orientation as motivating factors of responsible consumer behavior. *Review of Managerial Science*, 11(4), 959–991. <https://doi.org/10.1007/s11846-016-0211-2>.
- Chen, Y.-S., and 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. <https://doi.org/10.1007/s10551-012-1360-0>.
- Chen, Y.-S., Huang, A.-F., Wang, T.-Y., and 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(1–2), 194–209. <https://doi.org/10.1080/14783363.2018.1426450>.
- Chen, Y. S., Lin, C. L., and Chang, C. H. (2014). The influence of greenwash on green word-of-mouth (green WOM): The mediation effects of green perceived quality and green satisfaction. *Quality and Quantity*, 48(5), 2411–2425. <https://doi.org/10.1007/s11135-013-9898-1>.
- Competition commission of Pakistan (2014). Annual report 2014. Retrieved from <https://bit.ly/3uFAqWB>
- Coşkun, A., Vocino, A., and Polonsky, M. (2017). Mediating effect of environmental orientation on pro-environmental purchase intentions in a low-involvement product situation. *Australasian Marketing Journal (AMJ)*, 25(2), 115–125. <https://doi.org/10.1016/j.ausmj.2017.04.008>.
- Dahl, R. (2010). Green washing: Do you know what you’re buying? *Environ Health Perspect* 118, a246-a252. <https://doi.org/10.1289/ehp.118-a246>.
- De Jong, M. D. T., Harkink, K. M., and Barth, S. (2018). Making green stuff? Effects of corporate greenwashing on consumers. *Journal of Business and Technical Communication*, 32(1), 77–112. <https://doi.org/10.1177/1050651917729863>.
- Delmas, M. A., and Toffel, M. W. (2008). Organizational responses to environmental demands: Opening the black box. *Strategic Management Journal*, 29(10), 1027–1055. <https://doi.org/10.1002/smj.701>.
- Du, X. (2015). How the market values greenwashing? Evidence from China. *Journal of Business Ethics*, 128(3), 547–574. <https://doi.org/10.1007/s10551-014-2122-y>.
- Eagly, A. H. (2013). *Sex differences in social behavior: A social-role interpretation*. New York, NY: Psychology Press.
- Erdem, T., and Swait, J. (1998). Brand Equity as a Signaling Phenomenon. *Journal of Consumer Psychology*, 7(2), 131–157. https://doi.org/10.1207/s15327663jcp0702_02.

- Erdem, T., and Swait, J. (2004). Brand credibility, brand consideration, and choice. *Journal of Consumer Research*, 31(1), 191–198. <https://doi.org/10.1086/383434>.
- Erdem, T., Swait, J., and Valenzuela, A. (2006). Brands as signals: A cross-country validation study. *Journal of Marketing*, 70(1), 34–49. <https://doi.org/10.1509/jmkg.70.1.034.qxd>.
- Friestad, M., and Wright, P. (1994). The persuasion knowledge model: How people cope with persuasion attempts. *Journal of Consumer Research*, 21(1), 1–31. <https://doi.org/10.1086/209380>.
- Gatti, L., Seele, P., & Rademacher, L. (2019). Grey zone in–greenwash out: A review of greenwashing research and implications for the voluntary-mandatory transition of CSR. *International Journal of Corporate Social Responsibility*, 4(1), 1–15. <https://doi.org/10.1186/s40991-019-0044-9>.
- Gillespie, E. (2008). Stemming the tide of greenwash: How an ostensibly greener market could pose challenges for environmentally sustainable consumerism. *Consumer Policy Review*, 18(3), 79.
- Goh, S. K., and Balaji, M. S. (2016). Linking green skepticism to green purchase behavior. *Journal of Cleaner Production*, 131, 629–638. <https://doi.org/10.1016/j.jclepro.2016.04.122>.
- Hamann, R., and Kapelus, P. (2004). Corporate social responsibility in mining in Southern Africa: Fair accountability or just greenwash? *Development*, 47(3), 85–92. <https://doi.org/10.1057/palgrave.development.1100056>.
- Han, H., and Kim, Y. (2010). An investigation of green hotel customers' decision formation: Developing an extended model of the theory of planned behavior. *International Journal of Hospitality Management*, 29(4), 659–668. <https://doi.org/10.1016/j.ijhm.2010.01.001>.
- Hameed, I., Hyder, Z., Imran, M., & Shafiq, K. (2021). Greenwash and green purchase behavior: An environmentally sustainable perspective. *Environment, Development and Sustainability*, 23(9), 13113–13134. <https://doi.org/10.1007/s10668-020-01202-1>.
- Harvey, J. H., and Weary, G. (1984). Current issues in attribution theory and research. *Annual Review of Psychology*, 35(1), 427–459. <https://doi.org/10.1146/annurev.ps.35.020184.002235>.
- Jonsen, K., Galunic, C., Weeks, J., and Braga, T. (2015). Evaluating espoused values: Does articulating values pay off? *European Management Journal*, 33(5), 332–340. <https://doi.org/10.1016/j.emj.2015.03.005>.
- Kelley, H. H. (1967). Attribution theory in social psychology. *Nebraska Symposium on Motivation*, 15, 192–238.
- Kelley, H. H., and Michela, J. L. (1980). Attribution theory and research. *Annual Review of Psychology*, 31(1), 457–501. <https://doi.org/10.1146/annurev.ps.31.020180.002325>.
- Kemp, E. (2011). Healthy brands: Establishing brand credibility, commitment and connection among consumers. *Journal of Consumer Marketing*, 28(6), 429–437. <https://doi.org/10.1108/07363761111165949>.
- Laufer, W. S. (2003). Social accountability and corporate greenwashing. *Journal of Business Ethics*, 43(3), 253–261. <https://doi.org/10.1023/A:1022962719299>.
- Leonidou, C. N., and Skarmeas, D. (2017). Gray shades of green: Causes and consequences of green skepticism. *Journal of Business Ethics*, 144(2), 401–415. <https://doi.org/10.1007/s10551-015-2829-4>.
- Lyon, T. P., and Montgomery, A. W. (2013). Tweetjacked: The impact of social media on corporate greenwash. *Journal of Business Ethics*, 118(4), 747–757. <https://doi.org/10.1007/s10551-013-1958-x>.
- Nabilla, F. (2019). Advertising attitude, green purchase intention and environmental concern: Promoting functional versus emotional appeals. *International Journal of Business and Administrative Studies*, 5(2), 199–223. <https://dx.doi.org/10.20469/ijbas.5.10003-4>
- Nyilasy, G., Gangadharbatla, H., and Paladino, A. (2014). Perceived greenwashing: The interactive effects of green advertising and corporate environmental performance on consumer reactions. *Journal of Business Ethics*, 125(4), 693–707. <https://doi.org/10.1007/s10551-013-1944-3>.
- Parguel, B., Benoît-Moreau, F., and Larceneux, F. (2011). How sustainability ratings might deter 'greenwashing': A closer look at ethical corporate communication. *Journal of Business Ethics*, 102(1), 15–28. <https://doi.org/10.1007/s10551-011-0901-2>.

- Park, S.-Y., and Lee, S. W. (2013). Effects of a perceived brand crisis on product evaluation and purchase intention: The moderating roles of brand credibility and brand attachment. *Journal of Global Scholars of Marketing Science*, 23(2), 213–226. <https://doi.org/10.1080/21639159.2013.763488>.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., and Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
- Rahman, I., Park, J., and Chi, C. G. (2015). Consequences of “greenwashing” Consumers’ reactions to hotels’ green initiatives. *International Journal of Contemporary Hospitality Management*, 27(6), 1054–1081. <https://doi.org/10.1108/IJCHM-04-2014-0202>.
- Sajjad, A., Asmi, F., Chu, J., and Anwar, M. A. (2020). Environmental concerns and switching toward electric vehicles: Geographic and institutional perspectives. *Environmental Science and Pollution Research*, 27, 39774–39785. <https://doi.org/10.1007/s11356-020-08311-4>.
- Shafique, S., Rajput, A., Javed, U. and Alnakhli, H. (2022). Paving the path for retail salesperson’s adaptive selling behaviour: An intervening and interactional analysis. *Marketing Intelligence and Planning* (Just accepted). <https://doi.org/10.1108/MIP-12-2021-0446>.
- Szabo, S., and Webster, J. (2021). Perceived Greenwashing: The Effects of Green Marketing on Environmental and Product Perceptions. *Journal of Business Ethics*, 171, 719–739. <https://doi.org/10.1007/s10551-020-04461-0>.
- Testa, F., Boiral, O., and Iraldo, F. (2018). Internalization of environmental practices and institutional complexity: Can stakeholders pressures encourage greenwashing? *Journal of Business Ethics*, 147(2), 287–307. <https://doi.org/10.1007/s10551-015-2960-2>.
- Torelli, R., Balluchi, F., & Lazzini, A. (2020). Greenwashing and environmental communication: Effects on stakeholders’ perceptions. *Business Strategy and the Environment*, 29(2), 407-421. <https://doi.org/10.1002/bse.2373>.
- Wang, S. W., and Scheinbaum, A. C. (2018). Enhancing brand credibility via celebrity endorsement: Trustworthiness trumps attractiveness and expertise. *Journal of Advertising Research*, 58(1), 16–32. <https://doi.org/10.2501/JAR-2017-042>.
- Wang, H., Ma, B. and Bai, R. (2020). The spillover effect of greenwashing behaviours: An experimental approach. *Marketing Intelligence & Planning*, 38(3), 283-295. <https://doi.org/10.1108/MIP-01-2019-0006>.
- Weiner, B. (2000). Attributional thoughts about consumer behavior. *Journal of Consumer Research*, 27(3), 382–387. <https://doi.org/10.1086/317592>.
- Wu, Y., Zhang, K., & Xie, J. (2020). Bad greenwashing, good greenwashing: Corporate social responsibility and information transparency. *Management Science*, 66(7), 3095-3112. <https://doi.org/10.1287/mnsc.2019.3340>.
- Zhang, L., Li, D., Cao, C., and Huang, S. (2018). The influence of greenwashing perception on green purchasing intentions: The mediating role of green word-of-mouth and moderating role of green concern. *Journal of Cleaner Production*, 187, 740–750. <https://doi.org/10.1016/j.jclepro.2018.03.201>.