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Article

Corporate green washing behaviour and consumers' green purchase intention: An empirical study of food and beverage companies in the kingdom of Saudi Arabia

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Abstract: Problem statement: An environmentally conscious consumer's perspective can shift as they look for things that are gentler on the planet. Conversely, businesses engage in greenwashing when they try to cover up their lacklustre environmental initiatives. The current research was used the theory of rational choice behaviour to examine a model that connects corporate green washing and consumers' green purchase intentions via the mediating roles of perceived risk, green trust and green confusion about food and beverage brands in Saudi Arabia. **Research motivation:** Sustainable business practices have been developed and adopted by corporations in response to the growing interest in environmentally friendly lifestyles and green products. However, green washing has become increasingly common as a means for businesses to give off the impression that they care about the environment when they really don't. **Research methodology:** The online survey was used to obtain data directly from consumers about their views on green washing by corporations. Primary data was analysed using appropriate statistical tools and techniques in SPSS, AMOS and SmartPLS software, such as Correlation, Regression, Structural Equation Modelling (SEM), etc. **Results:** In terms of perceived greenness and confusion, the results showed that green wash mediates the relationship between green purchasing intention and greenness. There is a two-way correlation between consumers' intentions to buy environmentally friendly products and their levels of green perception, and green confusion. The findings of this study were broadening our understanding of the consequences of green washing. **Conclusions:** All things considered, the study was encouraging more research on the subject and be a useful tool for academics, corporate managers, and students interested in environmental sustainability, product innovation, and green branding. According to the results, businesses can improve their green purchasing intentions by cutting down on green washing and focusing instead on building a positive reputation for their brand and encouraging customer loyalty. Corporate performance and social environment sustainability can both benefit greatly from this paper's expansion of knowledge regarding the processes of individual customer psychological effects after perceptions of corporate greenwashing behaviour.

Keywords: green washing behaviour; green purchase intention; green food; green marketing

1. Introduction

Green washing: Making exaggerated statements about a product or service's sustainable development in an effort to increase market share is known as "green washing. Green washing occurs when a company falsely advertises its product as environmentally friendly by claiming it is made from recycled materials or helps

consumers save money on their energy bills.

Green Marketing: Promoting goods and services as ecologically conscious is known as "green marketing." Other names for it include environmental marketing and sustainable marketing.

Sustainable business practices are attracting companies' attention since eco-conscious marketers are always looking for innovative methods to promote their products. Considering green marketing has emerged as a key strategy for attracting customers who care about the environment, numerous companies are looking to develop a green brand image to set themselves apart from the competition with their green products (Junior et al., 2019). "Green wash" refers to the dishonest use of green PR and green marketing to make a company's products and services seem more environmentally friendly than they actually are (Chen et al., 2016). Considering consumers frequently rely on businesses' marketing efforts to make decisions, green washing would decrease their intention to buy from the advertisements. Customers cannot make green purchases if they do not believe the companies' green claims.

The green marketing and environmental preservation movement over the last few decades has led to shifts in consumer preferences and practices. People are becoming increasingly interested in eco-friendly lives because they want to do their part for the planet and they also believe that green items would provide them with tangible benefits (Ghassani et al., 2022). Campaigns to lessen their environmental impact are under way across a wide range of industries, including green energy, groceries, travelling, packaging, fashion, architecture, government, and green construction. The concept that green washing (i.e., appearing to be green) is all talk and no action has led some corporations to modify their green business strategy (Chen et al., 2016). These companies' environmental claims are vague, leading consumers astray about their true impact on the planet. A number of significant causes account for the widespread occurrence of green washing. It's crucial to remember that not every company has the means to use green marketing strategies. Additionally, green cleaning helps companies save money, build their reputation, and reap potential rewards. Stakeholders may even apply pressure in the event of green washing (Bibi, 2019). Thus, it indicates that many firms wrongly market themselves as green when they are not.

Demand and behaviour among consumers have shifted in the last several decades due to the green marketing and environmental conservation movement. More and more people are looking for ways to live greener lives, and that's because they care about the environment and want to reap the benefits of green products for themselves. Green energy, food, tourism, packaging, style, design, administration, and green structures are just a few of the numerous green projects that are available. But other corporations have shifted their green business tactics around the belief that greenwashing is all rhetoric and no action. These corporations have deceived customers with vague environmental promises and greenwashed their operations. There are a number of important causes that contribute to the widespread greenwashing tactics. A lot of businesses just don't have what it takes to implement environmentally friendly advertising campaigns. In addition, businesses might save money, improve their reputation, or receive potential benefits by engaging in

greenwashing. In addition, stakeholders may exert pressure in response to greenwashing. Consequently, it appears that a lot of businesses portray themselves as environmentally conscious, even though they aren't.

Businesses are concentrating on sustainable development as a means to find green marketing alternatives that will help them sell more items to the community. A number of studies have shown that green marketing is an effective strategy for appealing to environmentally conscious consumers and building a positive reputation for environmentally friendly products (Chang, 2011; Chen and Chang, 2013; Wu and Lin, 2016). Law enforcement, strategic advantage, stakeholder pressure, and programs run by senior leadership are some of the reasons why businesses are going green (Chen, 2008). Developing a green image to demonstrate ecological awareness and social responsibility is becoming increasingly important for corporations as they face intense competition and public pressure (Marchi et al., 2013). Concerned about environmental issues, "green consumers" will base their purchasing decisions on such factors (Iles, 2008). Al-Majali and Tarabieh (2020); Chen and Chai (2010); Chen et al. (2017); Tarabieh (2018) all state that many companies are now launching environmentally conscious marketing campaigns in an effort to gain an advantage over their competitors. During the ecological time, businesses are hoping to sell their products by discovering new solutions.

Customers are becoming more worried about environmental issues as a result of increased awareness of global warming. According to Mangini et al. (2020), they are more inclined to choose eco-friendly products. In order to boost their brand perceptions and increase client loyalty, many businesses are using green wash to give the impression that they are eco-friendly (Sun and Shi, 2022). The seven flaws of green washing—the sin of hidden the compromise, the sin of insufficient evidence, the sin of ambiguity, the sin of worshipping false labels, the sin of meaninglessness, the sin of lesser of two wickedness and the sin of fibbing—are allegedly committed by many green claims, according to Tarabieh (2021). In order to create a green image, businesses frequently use "green wash" to expose only the positive aspects of their products' environmental qualities while keeping the bad ones hidden. Customers are consequently becoming less convinced of businesses' deceptive green washing (Nguyen et al., 2019). Businesses must lessen their green wash practices and provide consumers with sufficient information to lessen their scepticism about the companies' green claims in order to improve brand image, customer loyalty, and buy intention (Ghassani et al., 2022). Therefore, companies should not only claim to be green, but also give more clues regarding the reality of their green products.

Purpose of the study: Previous research has touched on the issues of purchase objectives in general, but no survey has examined consumers' intentions to buy in relation to environmental concerns from the perspectives of greenwashing, confusion, perceived risks, and trust. Consequently, our study is requesting that the research gap be closed. Additionally, the effects of green uncertainty, green perceived risk, and green trust as mediators are examined in this research. In order to further develop green marketing research and increase the Green Intention of Customers to purchase their goods and services, this study develops a new greenwash structure that follows the green pattern.

Many industries, including energy, transportation, banking, hospitality, education, electronics, etc., have been the focus of past research on the causes, classification, and repercussions of green washing practices. However, research on green washing practices in the food business is sparse, especially in the Kingdom of Saudi Arabia (Bowen and Aragon-Correa, 2014). We were unable to find any quantitative research that looked at the connection between green washing and consumers' intentions to make eco-friendly purchases. Therefore, the purpose of our research is to attempt to partially address this void.

Scope of the study: The findings of this study were broadening our understanding of the consequences of green washing. All things considered, the study will encourage more research on the subject and be a useful tool for academics, corporate managers, and students who are fascinated by environmental sustainability, product innovation, and green branding.

Research Gap: Previous research has touched on the issues of purchase objectives in general, but no survey has examined consumers' intentions to buy in relation to environmental concerns from the perspectives of greenwashing, confusion, perceived risks, and trust. Consequently, our study is requesting that the research gap be closed. Additionally, the effects of green uncertainty, green perceived risk, and green trust as mediators are examined in this research. In order to further develop green marketing research and increase customers' green intentions to purchase their goods and services, this study develops a new greenwashing framework that follows the green pattern.

Research methodology: Using a non-random sampling technique, specifically the judgemental sampling methodology, primary data for this study was collected from Saudi Arabian clients via online and offline surveys. Customers in Saudi Arabia who have purchased or are considering buying these environmentally friendly food and drink companies were the primary focus of the study. In order to meet the minimal sample sizes required by SEM, our research incorporates 21 sample variables and 448 effective observations. The sample sizes presented here are significantly larger than the ones mentioned earlier. Additionally, we have conducted the analysis of the mediating function using the bootstrap confidence intervals method. SmartPLS-4 completed the data analysis.

Research Results: This study demonstrates that in Saudi Arabia, consumers' perceptions of green washing have an indirect impact on food and beverage companies' green purchasing intentions via perceived risk, green confusion, and green trust. In addition to green wash, the research model incorporates other aspects like green confusion, perceived risk, and trust. Businesses in the food and drink industry may feel influenced by all of these factors when deciding how environmentally conscious to shop. The finding revealed there is mediating relation between green wash and green purchase intention with respect of green perceived, green confusion and green trust. Three is also direct relationship between green perceived, green confusion and green trust with respect of green purchase intention. The findings of this study were broadening our understanding of the consequences of green washing.

2. Review of literature

The use of eco-friendly advertising has grown rapidly in popularity over the past several years. Green washing is used to give the impression that a firm is environmentally conscious and healthy in order to attract more customers. To paint a more positive picture of themselves in the eyes of the public, some companies resort to green washing, a deceptive marketing approach, as described by (Ruiz-Blanco et al., 2022). The company's wares have a reputation for being environmentally friendly and sustainable. In order to conceal less than eco-friendly components, green washing makes misleading claims about those components (Shahrin et al., 2017). A customer's dedication to a specific environmentally friendly product increases the likelihood that they will really complete the transaction. As a result, the way consumers feel about eco-friendly products may affect their purchasing decisions.

Since consumers now have more options to shop from around the world, they have a heightened interest in eco-friendly goods and services. People often prefer to buy goods that pose the least risk to health and the environment. Companies are trying to embrace environmentally friendly processes and procedures as customer demand shifts toward "green" products. The demand for environmentally friendly goods is rising rapidly. Conversely, consumers have a favorable impression of businesses that are known for their commitment to sustainability. Green washing is when a company deliberately misleads its customers about its commitment to sustainability. Green washing is a catchall phrase that can be better understood by examining its historical use (Balluchi et al., 2020).

Two characteristics define green washing. The first is an inherently undesirable quality, the opposite of honesty (Parguel et al., 2015). The second is a method of expression (characters, tools for misleading or confusing people). Green washing can be broken down into two distinct categories: macro and micro. At the macro level, green washing refers to the actions of businesses and how they affect the bottom line, micro level, green washing is when people try to get people to change their behaviour by using incorrect or misleading assertions. Green washing occurs when a business or brand presents itself in a positive light in regard to its social and environmental performance, but in reality, it falls short in these areas (Bibi, 2019). Because of this, stakeholders and customers may lose faith in a company or brand if they discover that it has engaged in green washing over claims of environmental responsibility and the use of environmentally friendly products (Self et al., 2010).

In the end, consumers are sceptical of green marketing campaigns (Chang and Chen, 2014). As a result, businesses are facing increasing financial consequences for making deceptive environmental claims. Concern for the planet has been on the rise, and with it, consumers' awareness of environmental issues (Chen, 2008b; Chen and Chang, 2012). Products that are good for the environment are what they're after (Chang and Chen, 2014). In an attempt to boost good word-of-mouth (WOM) and improve their green image, some companies engage in greenwashing (Parguel et al., 2011). Greenwash is more prevalent as a result of the increased demand for environmentally friendly products, as companies take advantage of green incentives (Horiuchi et al., 2009). A growing number of people, even environmentalists and

members of the general public, see environmental initiatives as little more than PR stunts (Lyon and Montgomery, 2015). Therefore, our interdisciplinary analysis of greenwashing research shows that it encompasses a wide range of behaviours, from slight exaggeration to outright fabrication, that extend well beyond the dissemination of information.

The production and consumption of food has been a key contributor to environmental degradation around the world in recent years (Nguyen et al., 2019). However, not every company has made environmental issues an integral part of their core principles despite the fact that the food industry has begun implementing numerous ecologically responsible programs (Han et al., 2021). In order to conceal their true operations, several businesses claim to engage in environmentally beneficial initiatives. In order to create an overly favourable corporate image, Lyon and Maxwell define "green washing" as the practice of revealing positive information about a company's social or ecological sustainability without fully exposing any adverse details on those aspects (Bowen and Aragon-Correa, 2014).

Most individuals aren't aware of the various certifications that exist in the food industry. For instance, USDA Organic, Humane Farm Animal Care, MSC, Salmon-Safe, Bird Friendly, and Welfare of Animals Approved. Authors have observed that companies' conflicting environmental claims and marketing strategies leave consumers confused and open the door for green washing (Tarabieh, 2021). It is commonly held that a company can avoid the appearance of green washing by having its claims validated in accordance with externally specified standards. While product- and company-level authorizations do help with limiting green washing, they are not enough to stop the practice entirely. Corporations want to push for the adoption of a third-party eco-labelling system or more stringent labelling regulations (Ruiz-Blanco et al., 2022). Dishonest producers may pose a problem for product-level Eco labels since they can be easy targets for counterfeiting (Shahrin et al., 2017). Due to these factors, consumers are sceptical about green food's environmental benefits. While green washing has been studied in many sectors in advanced economies, its impact on the developing world's food industry has received very little attention.

Relevance of the Research: New evidence suggests that companies' greenwashing practices influence consumers' perceptions of the veracity of green food claims, which in turn affects their propensity to make environmentally conscious purchases. Thus, businesses should expand their green operations while maintaining a solid green reputation. A more credible greenwash can be mitigated if companies make their green claims more credible (Chen et al., 2013). Without credible evidence, it is difficult for businesses to convince consumers of their green promises. Notifications should be sent to customers by companies so that their green claims are not misunderstood (Chen et al., 2016). As a result, companies should back up their claims of greenness with evidence of their environmentally friendly goods. Customer confusion and risk would be reduced by these policies. The likelihood of companies engaging in environmentally friendly procedures and making environmentally friendly claims will increase, and the intention to buy green food will improve.

Past Research limitation and Gap: In light of the prevalence of greenwashing

and the two factors that contribute to customers' scepticism about such practices: lack of information and lack of understanding, the present research examines a theoretical model that fails to explain why businesses cannot influence consumers to make more environmentally conscious purchases. Previous studies may have used one-criteria evaluation methods, which fail to account for the significance of consumers' information and knowledge when it comes to environmentally friendly items (e.g., specifics regarding different features, labelling, and advantages). The one-dimensional nature of the construct under study could not be adequately expressed or addressed by using these assessment methods. Company brands, ownership type, cultural setting, and product category are additional variables that have not been adequately examined in previous research about the effects of greenwashing on consumer reactions in **Table 1**.

Table 1. Statements with respect of construct of concerned authors.

Factors	Statements	References
Green washing		
1	The surroundings of this advertisement use words to deceive.	(Chen and Chang, 2013)
2	This alert used images to distort the surrounding environment.	
3	There is no clear or confirmed green claim in this advertisement.	
4	This advertisement displays the green features in an exaggerated or misleading light.	
5	The green claim is exaggerated since important details are either left out or concealed in this advertisement.	
Perceived risk		
1	It is anticipated that this product would have extremely inaccurate environmental performance.	(Chen and Chang, 2013)
2	Environmental damage would result from using this commodity.	
3	Going green with this product will be a disaster for my credibility.	
4	I could be responsible for causing harm to the environment or paying a fine if I use this product.	
5	It is possible that this product will not function properly due to its environmental design.	
Green confusion		
1	This item's environmental characteristics are more elusive.	(Ghassani et al., 2022)
2	It is not easy to understand the differences between products in terms of environmental aspects.	
3	I don't know what eco-friendly items to purchase.	
4	When it comes to this item's environmental characteristics, I never have enough information.	
5	I don't know enough about the item's surroundings to make an informed decision.	
Green trust		
1	I have faith in this brand's environmentally conscious initiatives.	(Chen and Chang, 2013)
2	As a general rule, I have faith in this brand's environmental performance.	
3	Generally speaking, I believe this brand's environmental argument to be true.	
4	Your expectations are met by this brand's environmental sensitivity.	
5	In keeping with its claims and commitments, this brand takes environmental conservation seriously.	
Green purchase intention		
1	In the future, I may think about buying eco-friendly things since they won't be as bad for the planet.	(Chen and Chang, 2013)
2	To enhance safety, I will transition to environmentally sustainable green items.	
3	I would contemplate acquiring eco-friendly things for others.	
4	I intend to purchase eco-friendly products in the near future.	

Research questions:

1) What is the concept of green washing behaviour and green perceived risk?
2) What is the perception of green trust towards corporate green washing practices?
3) What is the relationship between green confusion and green washing?
4) What is the effect of green washing on green purchase intention of consumers?

Research objectives:

1) To cognize the concept of corporate green washing and green perceived risk.
2) To study the corporate Green washing and green trust.
3) To examine the corporate Green washing and green confusion.
4) To analyze the corporate Green washing and green purchase intention.

3. Hypothesis development

3.1. Corporate green wash and perceived risk

Green wash is the practice of certain businesses just making irrational and inaccurate claims about the green aspects of their products. Customers' mistrust of green products or services has been demonstrated to increase as a result of such actions (Balluchi et al., 2020). As a result, green wash may increase customers' risk perception at the expense of the green market overall. Because green products evoke positive emotions and some customers feel happier when they hear that green items are being used, they can also be tricked into adopting green. However, green wash negatively affects consumers' perceptions and actions. It creates perceived risk and encourages green scepticism (Parguel et al., 2015).

Perception of risk enables the buyer to be uncertain about his purchasing decision. Because green makeup tends to enhance consumer decision errors, green wash is positively associated with consumer perplexity and perceived risks when purchasing green products. On the other hand, if the company exhibits green wash, it is detrimental since consumers lose faith in the product or brand. Green washing would lower consumers' environmental satisfaction by improving their perception of risk (Self et al., 2010). Thus, this study comes to the conclusion that green wash can lead to perceived green dangers and suggests the following:

H01: Corporate Green wash has a significant positive impact on green perceived risk.

H05: Perceived risk creates significant mediating effect between Corporate Green wash and green purchase intention.

3.2. Corporate green wash and green trust

Green washing is a technique used to present a company's favourable image and reassure the public that it does not sell any dubious goods, hence preventing unfavourable reviews. As a result, consumers are becoming less convinced about green products from businesses. Given how common green wash has become recently, it would negatively impact environmental content if consumers are unable to discern the veracity of green claims. According to (Nguyen et al., 2019), green wash has a negative impact on the marketing sector as a whole and on all forms of green advertising. Green wash would hinder green branding since it would increase

the number of people who mistrust environmental claims. Customers find it challenging to discern the effectiveness of green initiatives since green wash is a barrier to green marketing (Han et al., 2021). Customers now know that many businesses regularly defraud consumers and don't fulfil their environmental pledges (Chen and Chang, 2013). Should this trend continue, this would undermine significant green investment in companies and harm consumer confidence in green products? According to this study, green wash negatively affects green trust and suggests the following environmental management hypothesis:

H02: Corporate Green wash has a significant positive impact on green trust.

H06: Green trust creates significant mediating effect between Corporate Green wash and green purchase intention

3.3. Green wash and green confusion

In order to establish a green brand, businesses usually use green wash to provide positive environmental data about their products without revealing negative details. Green wash would be detrimental to the entire green marketing endeavour (de Freitas Netto et al., 2020). In the end, consumers can't trust green advertisements from companies. Because of this, consumers are becoming more wary of businesses that use opportunistic green washing (Chen and Chang, 2013). According to (Yang et al., 2020), green wash also causes consumers to become annoyed and perplexed by corporate responsibility claims. Green wash will bombard consumers with information and change how they evaluate the product. Customers may become confused by green promises as a result of such a green wash. In a similar vein, (Ghassani et al., 2022) assert that consumers may become wary of green products due to misleading claims. The following research hypotheses are put out in this study, which explores how green wash can positively impact green consumer confusion:

H03: Corporate Green wash has a significant positive impact on green confusion.

H07: Green confusion creates significant mediating effect between Corporate Green wash and green purchase intention

3.4. Corporate green wash and green purchase intention

A brand can use its product to promote its features, and since it embodies all of the customers' values and beliefs, they purchase it for its symbolic meaning and function. According to Mangini et al. (2020) the product's symbolic importance encompasses elements such as ecological sustainability, value, simplicity, credibility, and knowledge. Numerous scientific studies have revealed that consumers' moral convictions are the primary driver of their environmental protection.

Consumers may opt to avoid or even alter their buying habits when it comes to companies or countries that exhibit unethical behaviour, as global warming gains more attention, consumers' concerns about its effects on the environment are growing. They are more inclined to choose green products that are sustainable for the environment. Since all consumers like green purchases, businesses use them to draw clients and demonstrate to them that they are concerned about the environment.

According to (Nguyen et al., 2019) green washing has a negative effect on consumers' perceptions in addition to being an ethical issue. Even though buyers may not always be able to recognise the truth and the dishonest deed, green purchase intentions and perceptions of the brand are affected by this (Haider et al., 2024).

Chang (2013) discovered that a company's intense efforts to persuade consumers of a "green claim" can diminish the credibility of natural assertions and lead to more negative assessments. According to a study by (Khan et al., 2022), presenting a green image in a deceptive manner increases falsity and decreases customer trust. Customers become less interested as a result, and they are reluctant to make another buy. Purchase intentions are negatively impacted by this green washing. Because they desire to be socially and ecologically conscious, businesses invest a lot of money in green marketing in the hopes that this perspective would improve brand perceptions and purchase intentions (Khan et al., 2021). This relates to the hypothesis being developed for identification:

H04: Corporate Green wash has a significant negative impact on green purchase intention.

4. Research methodology

This study was employing a quantitative research methodology. "It is the procedure for collecting, analyzing, interpreting, and writing the study's findings". The acquired dataset was analyzed in this study utilizing a variety of statistical tools and methodologies (Khan et al., 2024). As the objective of this research is to evaluate the presented hypotheses and extend the findings to a larger population, quantitative methodologies will be incorporated into this investigation. Primary data for this study was gathered from Saudi Arabian customers via online and offline surveys using a non-random sampling strategy, specifically the judgmental sampling methodology. Customers in Saudi Arabia who have purchased or are considering buying these environmentally friendly food and drink companies were the primary focus of the study.

The study's respondents will be polled using a Likert-scale questionnaire to gauge public opinion on green washing in the Saudi food and beverage sector. This study employs a "five-point Likert scale", with responses of "(1) strongly disagreeing, (2) disagreeing, (3) being neutral, (4) agreeing, and (5)" being very much in agreement. Data will be collected in a single sitting via questionnaire/survey for this project, making it descriptive-cum-cross-sectional in nature (Khan et al., 2024).

Due to its usefulness in detecting multicollinearity among variables and ensuring that there is no major link between them, the Pearson correlation coefficient will be analyzed in this study (Haider et al., 2024). In order to meet the minimal sample sizes required by SEM, our research incorporates 21 sample variables and 448 effective observations. The sample sizes presented here are significantly larger than the ones mentioned earlier. Additionally, we have conducted the analysis of the mediating function using the bootstrap confidence intervals method. Finally, the data analysis was completed using SPSS version 23 and SmartPLS-4. This study will use the "Structural Equation Model (SEM)" as the instrument and the "Partial Least

Square (PLS)" analysis to examine the relationships between green washing behavior and green buying intention (Minhaj et al., 2024).

5. Finding and analysis's

5.1. Factor loading of different statements of the constructs

In **Table 2** we can see a summary of the replies according to the study's selected Statements of the constructs. Primary response provides the foundation of the data that is offered here.

Table 2. Factor loading of different statements.

Factors	Statements	Factor lording
Green washing		
1	The surroundings of this advertisement use words to deceive.	0.871
2	This alert used images to distort the surrounding environment.	0.911
3	There is no clear or confirmed green claim in this advertisement.	0.843
4	This advertisement displays the green features in an exaggerated or misleading light.	0.767
5	The green claim is exaggerated since important details are either left out or concealed in this advertisement.	0.801
Perceived risk		
1	It is anticipated that this product would have extremely inaccurate environmental performance.	0.876
2	Environmental damage would result from using this commodity.	0.850
3	Going green with this product will be a disaster for my credibility.	0.901
4	I could be responsible for causing harm to the environment or paying a fine if I use this product.	0.798
5	It is possible that this product will not function properly due to its environmental design.	0.811
Green trust		
1	I have faith in this brand's environmentally conscious initiatives.	0.778
2	As a general rule, I have faith in this brand's environmental performance.	0.832
3	Generally speaking, I believe this brand's environmental argument to be true.	0.811
4	Your expectations are met by this brand's environmental sensitivity.	0.865
5	In keeping with its claims and commitments, this brand takes environmental conservation seriously.	0.780
Green confusion		
1	This item's environmental characteristics are more elusive.	0.798
2	It is not easy to understand the differences between products in terms of environmental aspects.	0.811
3	I don't know what eco-friendly items to purchase.	0.904
4	When it comes to this item's environmental characteristics, I never have enough information.	0.891
5	I don't know enough about the item's surroundings to make an informed decision.	0.921
Green purchase intention		
1	In the future, I may think about buying eco-friendly things since they won't be as bad for the planet.	0.855
2	To enhance safety, I will transition to environmentally sustainable green items.	0.832
3	I would contemplate acquiring eco-friendly things for others.	0.819
4	I intend to purchase eco-friendly products in the near future.	0.919

On a five-point Likert scale, from 1 (strongly disagree) to 5 (strongly agree), the researcher recorded the participants' opinions. Factor loadings higher than the

specified threshold of 0.70 are present in each construct. Theoretically posited constructs are explained in detail in each statement.

5.2. Descriptive statistics of the constructs

Table 3 shows that when all the components of a specific concept have average values more than 3, it indicates a positive reaction in green washing, perceived risk, green trust, green bewilderment, and green purchasing intention.

Table 3. Descriptive statistics.

S.no	Construct	Mean	Std. deviation
1	Green washing	3.11	0.87
2	Perceived Risk	3.76	0.65
3	Green confusion	3.02	0,71
3	Green Trust	3.98	0.75
4	Green Purchase Intention	3.01	0.81

Test of Reliability and Validity of the questionnaire: Before moving further with any further validation analysis, it is essential to confirm the statistical reliability. The reliability of a scale is defined as its degree of dependability or consistency. Discrepancies will occur when the same object is measured using an inaccurate scale. Evaluating the validity and reliability of the questionnaire is a major focus of the main data inquiry. The questions' reliability was evaluated using Cronbach's Alpha.

Table 4. KMO and Bartlett's test.

KMO sampling adequacy		**0.802**
Bartlett's test of sphericity	Approx. Chi-Square	79816.1
	Df	404
	Sig	0.00

Sampling Adequacy using KMO and Bartlett's Test: The KMO test determines which of two partially correlated correlation values is higher. Therefore, KMO is greater than the "cut off value of 0.50" (0.802). Based on the sufficiency test results, it is clear that **Table 4** warrants additional examination due to the high degree of correlation between the underlying constructs.

Figure 1 show Green wash, green confusion, green trust, perceived risk, and green purchase intention were six components given in this study. Chen and Chang (2013) provide eight items that are used in green wash analysis. Chen and Chang (2013) and Aji and Sutikno (2015) have developed three questions to assess green confusion. This research attempts to do just that. Perceived environmentt risk was assessed using three items culled from Chen and Chang (2013). Chen (2010) was the three items source for the green trust questionnaire elements that centered on the customer's perspective. The six-item green purchase intentions measure developed by Chen and Chang (2013) and later used by Nguyen et al. (2019) was eventually implemented.

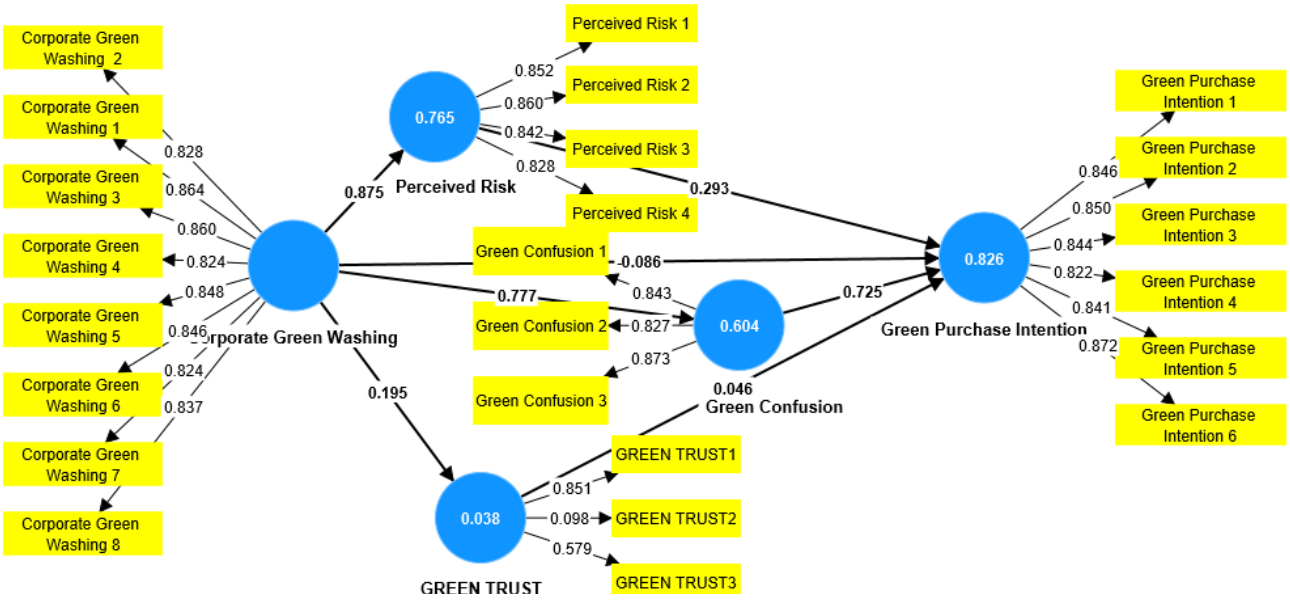

Figure 1. Measurement Model from SmartPLS 3.0.

Table 5. Convergent validity result.

Statements	Cronbach's alpha	Rho-A	Composite reliability (C.R)	Average variance explain (A. V. E)
Green washing				
The surroundings of this advertisement use words to deceive.				
This alert used images to distort the surrounding environment.				
There is no clear or confirmed green claim in this advertisement.	0.911	0.841	0.91	0.64
This advertisement displays the green features in an exaggerated or misleading light.				
The green claim is exaggerated since important details are either left out or concealed in this advertisement.				
Perceived risk				
It is anticipated that this product would have extremely inaccurate environmental performance.				
Environmental damage would result from using this commodity.				
Going green with this product will be a disaster for my credibility.	0.791	0.798	0.87	0.63
I could be responsible for causing harm to the environment or paying a fine if I use this product.				
It is possible that this product will not function properly due to its environmental design.				

Table 5. Convergent validity result.

Statements	Cronbach's alpha	Rho-A	Composite reliability (C.R)	Average variance explain (A. V. E)
Green trust				
I have faith in this brand's environmentally conscious initiatives.				
As a general rule, I have faith in this brand's environmental performance.				
Generally speaking, I believe this brand's environmental argument to be true.	0.851	0.860	0.920	0.713
Your expectations are met by this brand's environmental sensitivity.				
In keeping with its claims and commitments, this brand takes environmental conservation seriously.				
Green confusion				
This item's environmental characteristics are more elusive.				
It is not easy to understand the differences between products in terms of environmental aspects.				
I don't know what eco-friendly items to purchase.	0.769	0.789	0.812	0.711
When it comes to this item's environmental characteristics, I never have enough information.				
I don't know enough about the item's surroundings to make an informed decision.				
Green purchase intention				
In the future, I may think about buying eco-friendly things since they won't be as bad for the planet.				
To enhance safety, I will transition to environmentally sustainable green items.	0.865	0.871	0.931	0.734
I would contemplate acquiring eco-friendly things for others.				
I intend to purchase eco-friendly products in the near future.				

As shown in **Table 5**, all five constructs met the required standards limit, as their Composite Reliability (C.R) values were greater than 0.7 and their Average Variance Extracted (AVE) values were greater than 0.5 (Sarstedt et al., 2020). Internal consistency was confirmed by Cronbach's Alpha and rho-a values that were significantly greater than 0.7 (Adepoju and Adeniji, 2020). As a result, the concept of convergent validity was developed (Khanifar et al., 2012).

5.3. Structural equation model

. The presence of multicollinearity must be taken into consideration when analysing the structural model because it might greatly affect the dependability of the

results. According to the research done by Akinwande et al. (2015), the Variance Inflation Factor (VIF) values were found to be between 1.340 and 2.112, which indicates that the model does not have multicollinearity. After that, the hypothesis's relevance was evaluated by verifying the structural model with 5000 resamples using the bootstrapping approach.

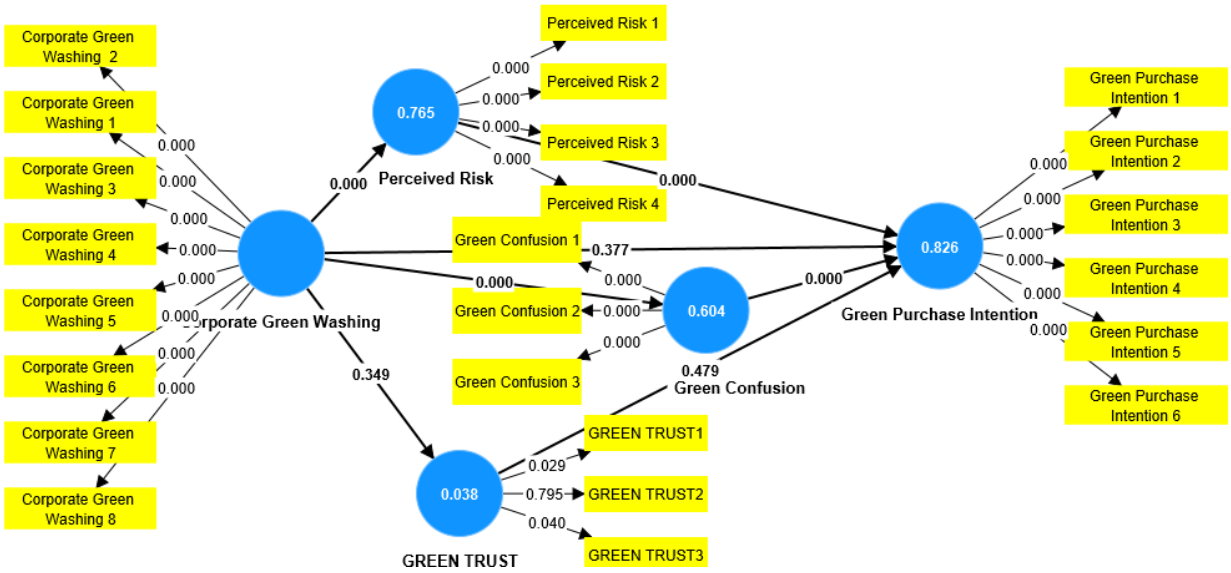

Figure 2. Structural equation model (SEM).

Figure 2 shows that anytime the t-values surpass the specified threshold of 1.96 for regression weights, every path demonstrates statistical importance at a significance level of 5% or more, according to the provided PLS-SEM model. As a result, the path parameter that is anticipated has some significance. The structural equation modelling (SEM) model was utilised, as shown in **Table 6**.

Table 6. Direct impact of green washing on perceived risk.

Hypothesis	**Path**	***B***	***t*-value**	***p*-value**	**Result**
H01	Green washing → perceived risk	0.875	5.89	$P \leq 0.001$	Supported

Table 6 indicates that hypothesis H01 was corroborated. Green washing is positively correlated with perceived risk ($\beta = 0.875$, t-value = 5.89, and $p < 0.001$).

Table 7. Direct impact of green washing on green trust.

Hypothesis	**Path**	***B***	***t*-value**	***p*-value**	**Result**
H02	Green washing → Green trust	0.195	0.349	$P \leq 0.001$	Not Supported

Results from testing H02 are shown in **Table 7**. With a $\beta = 0.195$, t-value = 0.349, and $p > 0.001$, Green washing is likewise not favorably and directly associated with green trust.

Table 8. Direct impact of green washing on green confusion.

Hypothesis	**Path**	***B***	***t*-value**	***p*-value**	**Result**
H03	Green washing → green confusion	0.777	4.765	$P \leq 0.005$	Supported

H03 was found to be supported, as shown in **Table 8**. Green washing is likewise favorably and directly correlated with green confusion ($\beta = 0.777$, t-value = 4.765, and $p < 0.001$).

Table 9. Direct impact of green washing on green purchase intention.

Hypothesis	**Path**	***B***	***t*-value**	***p*-value**	**Result**
H04	Green washing → Green purchase intention.	0.539	1.87	$P \leq 0.001$	Not Supported

Results from testing H04 are shown in **Table 9**. With a beta coefficient of 0.539, a t-value of 1.87, and a p-value more than 0.005, Green washing is likewise linked not positively to green purchase intention.

Table 10. Mediating or Indirect impact of perceived risk, green trust, and green confusion and hypothesis testing.

Hypothesis	**Path**	**B**	***t*-value**	***p*-value**	**Result**
H05	Green washing → perceived risk→ Green purchase intention.	0.765	3.621	$P \leq 0.005$	Supported
H06	Green washing → Green trust → Green purchase intention	0.064	0.478	$P > 0.005$	Not Supported
H07	Green washing → Green confusion → Green purchase intention	0.703	4.541	$P \leq 0.005$	Supported

Table 10 demonstrates that hypotheses H05, HO6, and H07 were supported. In the context of green washing, perceived risk has a mediated or indirect effect on green purchase intention ($\beta = 0.765$; t-value = 3.621; $p < 0.005$). When it comes to green washing, green trust impacts green purchase intention not indirectly ($\beta = 0.064$, t-value = 0.478, and $p < 0.005$). Likewise, when it comes to green washing, green confusion indirectly impacts green purchase intention ($\beta = 0.703$; t-value = 4.541; $p < 0.005$).

Table 11 was used to determine the statistical disparity between demographic characteristics using the "Whitney U Test" and the "Kruskal-Wallis H Test. In case of gender there was significance difference of perceived risk, and green trust but not green confusion.

Table 11. Whitney U test and Kruskal-Wallis H test—demographic profile.

Demographic profile		***P*-value**		
		Perceived risk	**Green confusion**	**Green trust**
Gender	Male Female	$P \leq 0.005$	$P < 0.075$	$P \leq 0.005$
Age group	Up to 20 21-30 31-40 40 and above	$P \leq 0.079$	$P \leq 0.061$	$P \leq 0.060$

Table 11. (*Continued*).

Demographic profile		*P*-value		
		Perceived risk	**Green confusion**	**Green trust**
Qualification	UG Graduate Post graduate Professionals	$P \leq 0.005$	$P \leq 0.023$	$P \leq 0.005$
Occupational status	Government employees Private employees Professionals Students	$P \leq 0.005$	$P \leq 0.041$	$P \leq 0.074$

In case of age group there were no significance difference of perceived risk, green trust and green confusion. In case of qualification there was significance difference of perceived risk, and green trust but not green confusion. In case of Occupational Status there was significance difference of perceived risk, but not green trust and green confusion with respect of Occupational Status.

6. Discussion

This study demonstrates that in Saudi Arabia, consumers' perceptions of green washing have an indirect impact on food and beverage companies' green purchasing intentions via perceived risk, green confusion, and green trust (Chen and Chang, 2013). In addition to green wash, the research model incorporates other aspects like green confusion, perceived risk, and trust. Businesses in the food and drink industry may feel influenced by all of these factors when deciding how environmentally conscious to shop (Bowen and Aragon-Correa, 2014). The analysis takes into account the majority of the study model's hypotheses. When it comes to trust, perplexity, and perceived risk, green wash is a positive thing. Businesses in the food and drink industry see a decline in green trust, perceived risk, and green purchase intention as a consequence (Tarabieh, 2021). Lastly, the association between green wash and green buy intention is mediated by green trust, green confusion, and green perceived risk. These factors impact green purchase intention. To begin, one's impression of green wash influences their levels of green uncertainty, trust, and perceived risk.

Customers are particularly vulnerable to perceived risk and green wash perception because they are confused by companies' green claims. The results back up the claims made by (Ruiz-Blanco et al., 2022). These facts back up the study. Thus, the data demonstrate that people react negatively to environmentally friendly assertions that are believed to be unfounded and misleading. Businesses are particularly impacted by the results because of the high capacity to reflect unfavorable sentiments about consumption and buying behaviour (de Freitas Netto et al., 2020). Therefore, companies should cease making misleading, inaccurate, and untrue claims about the environment. Green trust, green perceived danger, and green bewilderment all have negative effects, according to the present research. Whenever

consumers are confused about whether food and drink companies are environmentally conscious, the credibility of these businesses' environmental management efforts will suffer. In line with the findings of (Han et al., 2021), this study's outcome confirms that green wash hinders trust-building efforts. According to (Yang et al., 2020), consumers who are aware of the potential dangers of green food are more inclined to seek out accurate information. Companies will simplify, clarify, and contextualise their environmental messaging in response to customer concerns about green promises. In addition, companies may do a better job of building trust by emphasising knowledge-based trust in their brands and the ways they create value and grow their brand image.

7. Practical implication

Persuading businesses of the negative aspects of greenwashing is the primary objective of this article. Green marketing would be more effective as customers are increasingly willing to believe green promises and greenwashing is becoming less common in the market. Businesses may do their part to reduce greenwashing by being more forthright and reliable with their environmental statements. Enhancing green trust, reducing perceived risk, and increasing green purchase intention can be achieved by eliminating the sources of greenwashing. Companies thoroughly assess the marketing of their green performances and also implement robust strategies related to such performances. In particular, trustworthy third parties should certify environmentally friendly projects. Businesses may also do well to disseminate environmentally friendly messaging to customers in order to gain their trust and prevent rivals from adopting similar practices. In this light, it is important for food producers to tell merchants on their production methods and environmental claims, as retailers serve as important intermediaries between producers and consumers. Policymakers, marketers, and social organisations should work together to create and execute education and information initiatives that educate consumers about the importance of green products and activities. Consumers' intentions to buy green food will rise as a result of these efforts, which will boost their environmental knowledge and ethical convictions, reduce their green confusion and perceived risk, and increase their green trust.

In order to sum up, we advise businesses to thoroughly assess the marketing of their green performances in addition to implementing robust tactics related to those performances. Particularly important is the certification of environmentally friendly projects by trustworthy and impartial bodies. Companies may do better to avoid competitors changing their green business practices and to gain consumers' trust by disseminating environmentally friendly information extensively. In this light, it is important for food producers to tell merchants on their production methods and environmental claims, as retailers serve as important intermediaries between producers and consumers. Policymakers, marketers, and social organisations should work together to create and execute education and information initiatives that educate consumers about the importance of green products and activities. As a result of these efforts, customers will have more information about environmental issues, stronger ethical convictions, less green scepticism, and more inclinations to buy

green food.

8. Implementation path strategies

Customers' faith in a brand takes a major hit if they think it's greenwashing, which in turn reduces the likelihood that they'll buy from that company again. When customers find out the truth, greenwashing might hurt the company's reputation in the long run. Brands with sincere environmental efforts may see a shift in consumer support as a result of consumers' perception of greenwashing as unethical. Green marketing efforts may lose some of their lustre if customers get more cognisant of greenwashing and begin to doubt the veracity of companies' environmental claims.

Strategic company decisions and consumer interaction are necessary to tackle corporate greenwashing. In order to keep consumers' trust and encourage them to make environmentally conscious purchases, businesses need to support their marketing promises with concrete, quantifiable sustainability initiatives, honest dialogue, and independent confirmation. Similarly, customers can make a difference by keeping themselves informed and backing businesses that show real dedication to sustainability. By combining corporate accountability, regulatory supervision, and educated consumer choices, we can reduce the negative impact of greenwashing and create a market that recognises and rewards companies for their genuine commitment to environmental sustainability.

9. Conclusion

Few studies have examined the psychological change mechanisms of consumers following exposure to firms' greening activities, despite the fact that this link has mostly been investigated at the firm level and concerns green washing perception and green purchase intentions. Consequently, this article delves into the psychological processes that occur when customers perceive a company's efforts to reduce its environmental impact. Specifically, it examines how consumers' perceptions of betrayal and environmental responsibility impact their green purchasing intentions in relation to green washing. The empirical study established that, firstly, green washing perception significantly negatively affects consumers' green purchasing intentions; secondly, the model that this paper builds based on psychological contract theory includes green trust, perceived risk, and green risk; and thirdly, the model shows that green washing perception acts on green purchasing intention through regression analysis of the collected questionnaire data.

Consumers' intents to buy environmentally friendly products decrease as the level of green washing impression rises. Green washing perception influences green purchasing intentions; however, perceived risk, green perplexity, and green trust partially mediate this effect. Customers are less likely to make environmentally conscious purchases when they feel that a company has broken their psychological bond as a result of green washing. A consumer's propensity to cut back on environmentally conscious purchases due to what they see as corporate green washing increases in direct proportion to their level of environmental concern and dedication. It is more probable that consumers' perceptions of green washing impact their intentions to purchase environmentally conscious products through feelings of

betrayal rather than direct influence, depending on the consumer's level of environmental commitment.

Through an eye towards expanding its customer base, the examined product boasts about its green marketing initiatives on the label and packaging. This view lends credence to what had to say about buying products with a green label. As noted by consumers are drawn to products with an eco-friendly appeal. However, it could be seen as dishonest to mislead consumers into thinking the product is environmentally sustainable when in fact it isn't.

10. Limitations and future scope

The aim of the study should be expanded in future research to cover how customers' perceptions of green washing affect their intentions to purchase green products or services from other companies in the industry, as well as their overall propensity to consume green. Additionally, future research could think about using an experimental method for measurement instead of distributing questionnaires to consumers and measuring all variables at once. This has certain limitations when it comes to verifying the causal and moderating relationships between variables. Lastly, expanding the research perspective to compare different cultures in different countries and dividing people into different types (e.g., sensitive and tonal) could allow future studies to examine how different perceptions of bleached green affect buyers' willingness to buy green and feelings of betrayal.

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References

Akinwande, M. O., Dikko, H. G., & Samson, A. (2015). Variance Inflation Factor: As a Condition for the Inclusion of Suppressor Variable(s) in Regression Analysis. Open Journal of Statistics, 05(07), 754–767. https://doi.org/10.4236/ojs.2015.57075

Balluchi, F., Lazzini, A., & Torelli, R. (2020). CSR and Greenwashing: A Matter of Perception in the Search of Legitimacy. CSR, Sustainability, Ethics and Governance, 151–166. https://doi.org/10.1007/978-3-030-41142-8_8

Bibi, A. (2019). Impact of Greenwashing Perception on Green Purchasing Intention : Mediating Role of Word of Mouth and Moderating Role of Environmental Knowledge. 89. https://thesis.cust.edu.pk/UploadedFiles/Asia Bibi-MMS171010.pdf

Bowen, F., & Aragon-Correa, J. A. (2014). Greenwashing in Corporate Environmentalism Research and Practice: The Importance of What We Say and Do. Organization and Environment, 27(2), 107–112. https://doi.org/10.1177/1086026614537078

Braga Junior, S., Martínez, M. P., Correa, C. M., Moura-Leite, R. C., & Da Silva, D. (2019). Greenwashing effect, attitudes, and beliefs in green consumption. RAUSP Management Journal, 54(2), 226–241. https://doi.org/10.1108/RAUSP-08-2018-0070

California management review. (1993). Journal of the American Dietetic Association, 93(1), 106. https://doi.org/10.1016/0002-8223(93)92170-3

Chen, Y.-S., Lee, Y.-I., Lin, C.-Y., & Lai, P.-Y. (2016). the Negative Impact of Greenwash on Green Purchase Intention. International Journal of Management and Applied Science, 2, 2394–7926.

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. https://doi.org/10.1007/s10551-012-1360-0

de Freitas Netto, S. V., Sobral, M. F. F., Ribeiro, A. R. B., & Soares, G. R. da L. (2020). Concepts and forms of greenwashing: a systematic review. Environmental Sciences Europe, 32(1). https://doi.org/10.1186/s12302-020-0300-3

Ghassani, M. K., Rahman, N. A., Geraldine, T., & Murwani, I. A. (2022). The Effect of Greenwashing, Green Word of Mouth, Green Trust and Attitude towards Green Products on Green Purchase Intention. Budapest International Research and Critics Institute-Journal, 5(3), 25508–25520. https://doi.org/10.33258/birci.v5i3.6598

Haider, A., Khan, M. A., Khoja, M., Alharthi, S., & Minhaj, S. M. (2024). payment and customer trust as a mediating factor using a structural equation modelling approach The role of e-banking, mobile-banking , and e-wallet with response to e- payment and customer trust as a mediating factor using a structural equation modellin. September. https://doi.org/10.24294/jipd.v8i9.6644

Han, J., Li, J., & Qiu, Z. (2021). An Empirical Study on Greenwashing and Consumers' Green Purchase Intention in Chinese Electrical Appliance Market Title: An Empirical Study on Greenwashing and Consumers' Green Purchase Intention in Chinese Electrical Appliance Market.

Khan, M. A., Alhumoudi, H., Alakkas, A., & Minhaj, S. M. (2024). The present scenario of artificial intelligence and machine learning in financial services: An empirical study The present scenario of artificial intelligence and machine learning in financial services: An empirical study. October. https://doi.org/10.24294/jipd.v8i11.8818

Khan, M. A., Husain, S., Minhaj, S. M., Ali, M. A., & Helmi, M. A. (2024). To explore the impact of corporate culture and leadership behaviour on work performance, mental health and job satisfaction of employees: An empirical study To explore the impact of corporate culture and leadership behaviour on work performance, mental. October. https://doi.org/10.24294/jipd.v8i11.6417

Khan, M. A., Hussain, M. M., Pervez, A., Atif, M., Bansal, R., & Alhumoudi, H. A. (2022). Intraday Price Discovery between Spot and Futures Markets of NIFTY 50: An Empirical Study during the Times of COVID-19. Journal of Mathematics, 2022, 1–9. https://doi.org/10.1155/2022/2164974

Khan, M. A., Roy, P., Siddiqui, S., & Alakkas, A. A. (2021). Systemic Risk Assessment: Aggregated and Disaggregated Analysis on Selected Indian Banks. Complexity, 2021. https://doi.org/10.1155/2021/8360778

Mangini, E. R., Amaral, L. M., Conejero, M. A., & Pires, C. S. (2020). Greenwashing Study and Consumers' Behavioral Intentions. CBR - Consumer Behavior Review, 4(3), 229. https://doi.org/10.51359/2526-7884.2020.244488

Minhaj, S. M., Rehman, A., Das, A. K., . V., Khan, M. A., Inkesar, A., khan, N., & Khan, M. J. A. (2024). Investor Sentiment And The Function Of Blockchain Technology In Relation To Digital Currencies: The Here And Now And The Future. Educational Administration: Theory and Practice, May. https://doi.org/10.53555/kuey.v30i5.3942

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 (Switzerland), 11(9), 1–16. https://doi.org/10.3390/su11092653

Parguel, B., Benoit-Moreau, F., & Russell, C. A. (2015). Can evoking nature in advertising mislead consumers? The power of 'executional greenwashing.' International Journal of Advertising, 34(1), 107–134. https://doi.org/10.1080/02650487.2014.996116

Ruiz-Blanco, S., Romero, S., & Fernandez-Feijoo, B. (2022). Green, blue or black, but washing–What company characteristics determine greenwashing? Environment, Development and Sustainability, 24(3), 4024–4045. https://doi.org/10.1007/s10668-021-01602-x

Self, R. M., Self, D. R., & Bell-Haynes, J. (2010). Marketing Tourism In The Galapagos Islands: Ecotourism Or Greenwashing? International Business & Economics Research Journal (IBER), 9(6), 111–126. https://doi.org/10.19030/iber.v9i6.590

Shahrin, R., Quoquab, F., Jamil, R., Mahadi, N., Mohammad, J., Salam, Z., & Hussin, N. (2017). Green "eco-label" or "greenwashing"? Building awareness about environmental claims of marketers. Advanced Science Letters, 23(4), 3205–3208. https://doi.org/10.1166/asl.2017.7713

Sun, Y., & Shi, B. (2022). Impact of Greenwashing Perception on Consumers' Green Purchasing Intentions: A Moderated Mediation Model. Sustainability (Switzerland), 14(19). https://doi.org/10.3390/su141912119

syed mohd minhaj, Altaf khan, S. (n.d.). The revolutionary impact of micro-finance and role of financial institutions on agriculture income of farmers: An empirical analysis's. International Journal of Business Innovation and Research. doi: 10.1504/IJBIR.2022.10052373

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, September, 451–464. https://doi.org/10.5267/j.msl.2020.9.022

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 and Management, 21(5), 1486–1507. https://doi.org/10.3846/jbem.2020.13225