Do Price and Experience Matter? Perceptions of Egyptian Generation Z Towards Green Buying Behaviour

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المستخلص

هدف البحث الي دراسة سلوك الشراء الأخضر لجيل Z المصري، والعوامل المؤثرة على هذا السلوك. تُعرف المنتجات الخضراء انها سلسلة من المنتجات المستدامة المصممة لتقليل تأثيرها على البيئة خلال دورة حياتها. تركز هذه المنتجات بشكل أساسي على تعظيم استخدام الموارد وتقليل النفايات، كما يعرف الجيل Z على أنه المجموعة الديموغرافية التي تلي جيل الألفية وتسبق جيل ألفا. ورغم أن خصائص جيل Z المصري ما زالت غير معروفة تمامًا، فإن هذا البحث يهدف إلى دراسة وعيهم البيئي وتصوراتهم وسلوكهم الشرائي الأخضر.

كما هدف البحث أيضا الي تحديد العلاقة بين القيمة السعرية للمنتجات الخضراء وتصورات جيل Z تجاه الشراء الأخضر بالإضافة الي استكشاف التأثير المعدل لقيمة السعر على العلاقة بين الشراء الأخضر والخبرة.

منهج البحث: اعتمدت الدراسة على توزيع استطلاع رقمي باستخدامGoogle Forms علي 469 مشاركا وتم اختبار الفرضيات باستخدام برنامجSmart-PLS

أظهرت نتائج البحث: وجود تأثير إيجابي كبير لـــــــــكل من وعي العلامة التجارية الخضـــراء والثقة في العلامة التجارية الخضراء بالإضافة الي صورة العلامة التجارية الخضراء والمزايا المدركة للمنتجات الخضـراء على تصورات جيلZ تجاه الشراء الأخضر. كما أظهر البحث تأثيرًا إيجابيًا كبيرًا لـ خبرة المنتج الأخضر على سلوك الشراء الأخضر. لكن لم يوثر او يُدعم الدور المعدل للقيمة السعرية.

يقدم البحث رؤى مهمة للمسـوقين والأفراد والممارسـين كما يوفر البحث دليلاً تجريبياً على دراسـة تصـورات جيل زد تجاه الشراء الأخضر في السوق المصري.

الكلمات الرئيسية: جيل زد – سلوك الشراء الأخضر – تجربة المنتج الأخضر – قيمة السعر –الوعي بالعلامة التجارية الخضراء– الفوائد المدركة للبيئة– ثقة العلامة التجارية الخضراء– صورة العلامة التجارية الخضراء– مصر.

Abstract

This research delves into the green buying behaviour of Egypt's Generation Z, a demographic with evolving environmental awareness and purchasing habits. We explore the potential of "Green Products," a sustainable product line, to resonate with this generation. Green Products minimize environmental impact throughout their lifecycle, prioritizing resource efficiency and waste reduction. The research investigated the link between Gen Z's perception of green products' value proposition (including price) and their inclination towards eco-friendly purchases. Furthermore, it examines whether this value perception moderates the relationship between green buying and past experiences with such products. Employing a cross-sectional design, the study gathered data through a digital survey on Google Forms, reaching 469 respondents. Smart-PLS software was then used to analyze the proposed hypotheses. The findings reveal a significant influence of factors such as green brand awareness, trust, image, and perceived benefits on Gen Z's green buying behaviour. Additionally, positive experiences with green products directly encourage further eco-conscious purchases. Interestingly, the study did not find evidence that price value moderates this relationship. This research offers valuable insights for a variety of stakeholders. Marketers, consumers, and industry practitioners can benefit from this knowledge. Significantly, the study provides the first empirical evidence of Gen Z's perceptions towards green buying behaviour within the Egyptian market. This information equips marketing managers in Egypt to refine their target audience and develop green products specifically tailored to their Egyptian customers' preferences.

1. Introduction

The increasing number of consumers becoming aware of the significance of sustainability has led to the development of various actions and products that have been designed to help minimize the environmental impact. This has also led to the emergence and appearance of green products. In this line, (Sheth, 2021) explores the possibility that generations will have a higher propensity for such realities, and what factors can increase consumers' willingness to spend more on eco-friendly goods. Researchers can get a deeper understanding of how different generations share cultural, economic, and political values by utilizing generational partners.

Although each has its unique characteristics, they all seem to share a common concern about the environment, especially the z generation (Casalegno et al., 2022; Ham et al., 2022)

More studies are needed to gain a deeper understanding of the environmental concerns of the Z Generation. This will allow marketers to identify which generation can benefit from their marketing efforts and which products should be developed for specific generations (Prayag et al., 2022). The term Generation Z refers to individuals born from 1997 to 2012 following the millennials. They have grown up in a digital age, where they spend most of their time using social media and the internet. According to a study conducted by (Kovacs,2021) found that most Generation Z consumers prefer to spend on sustainable brands, and they're also more likely to buy products that are aligned with their principles and values. In addition, it noted that they are more likely to purchase goods and services based on hedonic principles. Even though there has been massive exposure to Generation Z, only a few studies have been conducted on their environmental concerns. They're mainly focused on practical issues such as how much people are willing to spend on eco-friendly products.

In developing countries, green products are the most sustainable means of addressing the environment. The value of such goods has a significant impact on both the environment and people's development. This is one of the reasons why the sustainable development goals were launched in 2015. One of these aims is to ensure that by 2030, all sectors of the economy are expected to adopt sustainable production and consumption patterns (Nam, 2017).

 Due to the increasing number of people becoming conscious about their actions, many consumers have started to explore the various advantages of using eco-friendly products. However, despite the growing number of people becoming aware of green products, the level of awareness in emerging markets is still low (Siddique,2018). Moreover, there have been many studies on the various aspects of green brands, but they did not find sufficient evidence to provide a complete understanding of how to increase customers' intention to use these products in Egypt. Also, the market is becoming more concentrated on addressing environmental issues with an intensified emphasis on the customer market.

Furthermore, some studies have investigated the various aspects of green brands, such as green brand awareness, green brand trust, and green brand image. However, they did not find sufficient evidence to provide a comprehensive understanding of how to increase the customers' intention to use these products. (Chen, 2010) suggested that the three dimensions of green brands should be applied to increase the customers' green consumer behaviour. However, the study (Ahmed& Mourad,2012) investigated the green perceived value. Furthermore, several studies have examined these four dimensions together (Doszhanov,2015). However,

neither of them has focused on green brand dimensions and the moderating role of price value towards green buying behaviour. In addition to the role of green product experience towards green buying behaviour. This is the literature gap and literature review for this study. Consequently, the research questions for this research are as follows:

- **To what extent do Egyptian Generation Z engage in green product buying behaviour?**

- **Does Price value have a moderating effect on Egyptian Generation Z's perceptions of green buying behaviour?**

- **How does green product experience affect Egyptian Generation Z's perceptions towards green buying behaviour?**

This research aims to explore the moderating effect of Price value on green buying behaviour. Also, the moderating effect of price value on green product experience. Moreover, the perceptions of Egyptian Generation Z toward green buying behaviour will also be analyzed.

This research has been structured in a way that starts with the literature review which explores the theoretical background of signalling theory and its integration with green and environmental concerns, green branding, the dimensions of green branding, the perceptions of Generation Z towards green products, factors affecting green buying behaviour, and the moderating role of price value on green products. It also covered the research methodology, with the analysis of the data collected following. The discussion and implications, as well as the conclusions and limitations of the research, are addressed in the section. and future areas of research.

2. Literature review

2.1 Signalling theory

This theory states that people can emit information to persuade others that they have certain qualities, but this information is not visible or perceived. This implies that a signal must be reliable so that the receiver will not reject the information and will exchange it with the individual who provided it. Individuals with the desired qualities are more willing to pay for the signal if it is reliable (Berger, 2019).

In this line, Studies have shown that people are more willing to pay more for green products due to the signalling Theory. This concept was first applied to the consumption of luxury goods, which is characterized by high social status and wealth. However, other authors believe that this theory can be applied to other types of consumption (Ki and Kim, 2022). According to the

theories presented by (Berger, 2022) individuals who consume green products indicate that they are willing to pay more for their environmental benefits.

In green consumption, the higher the price of a product, which indicates that one is willing to pay more for something that is pro-social or cooperative, can also signal one's social status, as well as pro-environment values. (Urban, 2023) stated that consumers who care about the environment are more likely to adopt green lifestyles because they are concerned about the global issue and future vision (Urban, 2018). According to studies conducted by (Lockie et al., 2002; Michaelidou and Hassan, 2008; Pickett-Baker and Ozaki, 2008), the perception of green products as being of superior quality and having health benefits motivates consumers to purchase them. Self-interests are also signalled by the willingness to pay more for such products.

2.2 Rational choice theory

The behaviour of consumers toward sustainability is influenced by their individual preferences and opportunity costs. This is why it is important to understand the factors that influence green purchasing decisions. The rational choice theory can help us identify the factors that influence these decisions. The rational choice theory states that people should be able to make educated decisions that have the best possible outcomes based on their goals and preferences (Paternotte, 2019). The rational choice theory is based on the idea that individuals make decisions based on their assumptions when it comes to making decisions. This theory can help predict social outcomes by showing how decisions are made.

Rational choice theory is widely used in various fields, such as economics and social interactions, and it is a suitable choice for this study due to its versatility. It also assumes that people are rational when it comes to making decisions, and this theory can help predict outcomes. By understanding the pro-environment and individual purchasing habits, rational choice theory can provide a deeper understanding of sustainability goals. In addition, it can help identify the connection between people's actual purchases and their stated preferences (Krstic & Krstic, 2016). According to the rational choice theory, the knowledge, attitudes, and values of consumers can influence their purchasing behaviour. By understanding how people shop for sustainable products and services, companies can develop effective strategies.

In this line, the study of (Chen et al., 2021) revealed that consumers are more likely to buy eco-friendly products due to their positive attitudes toward them. Nevertheless, Paradox for companies that market sustainable products: The gap between the actual and perceived behaviour of consumers can make it hard for them to offer effective and profitable services. By

utilizing the rational choice theory approach, organizations can gain a deeper understanding of how consumers make decisions and how their preferences are matched to their design strategies. Certain factors, such as value assessment, product knowledge, and rating, can influence green purchasing intentions (Wang et al., 2022). The choice of products and services that can help the environment is one of the most important factors that businesses consider when it comes to their sustainability.

According to the study by (Joshi and Rahman, 2015) revealed in the rational choice theory, consumers can make informed decisions by analyzing the various factors that influence their environmental behaviour. Besides being able to make sound decisions, other factors such as social and cultural factors can also affect the likelihood of individuals engaging in sustainable actions.

These elements can be utilized by companies to encourage and motivate consumers to adopt green purchasing habits. By aligning their offerings with consumers' values and preferences, businesses can build a stronger brand identity, increase their consumer loyalty, and contribute to society's sustainability (Gelderman et al., 2021). Given the importance of rational choices in green purchasing, businesses must consider these factors to improve their environmental sustainability.

2.3 Green branding (GB)

Consumers in today's eco-conscious society increasingly consider a brand's commitment to sustainability and environmental responsibility before making a purchasing choice. Comprehensive research released by (Deloitte, 2021) highlights the growing influence of sustainability concerns on consumer buying decisions. As consumers become more aware of the environmental impact of their purchasing choices, are more inclined to prefer businesses that demonstrate a strong commitment to sustainability (Chen, 2011).

 Green branding, also known as eco-branding or sustainable branding, is a marketing strategy that focuses on highlighting a company's commitment to sustainability and environmental responsibility (Khanna, 2010). In addition to (Van der Pol,2011) it involves integrating environmental considerations into all aspects of an organization's operations, such as product development, sourcing, packaging, and marketing. Green branding, as defined by (Kotler, 2020) may be accomplished through several means, such as employing sustainable packaging materials, minimizing energy usage, and endorsing environmental initiatives.

According to (Prakash, 2008), a corporation may improve its reputation and attract consumers who value sustainability by implementing green branding. while (Hartmann, 2008) found that

customers who align with a business's environmental ideals are more likely to cultivate a strong feeling of loyalty toward it. (Ottman, 2011) asserts that businesses may get a competitive advantage in the market by using green branding strategies, especially when targeting environmentally sensitive consumers.

(Sheehan, 2006) claims that businesses may exert a beneficial influence on the earth and alleviate their environmental footprint via the adoption of sustainable practices.

Green branding has numerous benefits, but it also has some drawbacks. As stated by

(Delmas and Burtraw, 2009) businesses may safeguard themselves from accusations of greenwashing if they make sure their environmental claims are truthful, transparent, and supported by evidence. As (Dey, 2014) claimed sustainable methods may require upfront investments that don't always pay off. (Prakash, 2014) asserted that communicating with clients in a way that is both clear and consistent is essential if you want them to understand how devoted your company is to preserve the environment.

2.4 Green brand awareness (GBA)

According to the definitions given by (Keller,1993) and (Sen and Bhattacharya, 2001), a customer may identify and remember an ecologically conscious brand. (Chen, 2008) stated that green brands are those recognized for their commitment to environmental conservation and sustainability. (Dawkins, 2007) defined GBA as the extent to which customers recognize and retain a brand's commitment to environmental sustainability. (Laroche et al, 2001) asserted that it is a crucial factor that influences consumers' aspirations to purchase ecologically friendly items. Furthermore, it refers to the extent to which customers see a brand as being environmentally aware and dependable, as described by (Kang et al., 2014).

Cultivating green brand awareness offers a multitude of advantages for companies. Firstly, consumers are more likely to trust brands perceived as environmentally responsible, fostering deeper connections and brand loyalty (Chen, 2008; Lin, 2013). Secondly, showcasing a brand's commitment to environmental practices can elevate its image and garner respect from a wider range of stakeholders, including customers, employees, and investors (Chen, 2008; Lin, 2013). Furthermore, research suggests that consumers may even be willing to pay a premium for products from companies perceived as contributing positively to the environment (Chen, 2010; Pelotomaki, 2009). By demonstrating its environmental consciousness, a brand can establish trust, loyalty, an enhanced reputation, and potentially even command higher prices.

According to the researchers' understanding, we can conclude that:

Green brand awareness" refers to the degree to which customers know and understand that a certain company cares about the environment. This knowledge includes how well consumers can recognize and remember a company's ecological actions, goods, and programs. Promoting a green brand is crucial in today's eco-conscious market to draw in and keep customers who value long-term sustainability. Therefore, the following hypothesis is formulated:

H1: Green brand awareness affects Z-generation perceptions towards green products.

2.5 Green brand trust (GBT)

Green brand trust pertains to the tendency of customers to depend on and buy environmentally sustainable products or services, influenced by their views of a company's environmental commitment, transparency, and integrity (Keller, 200 9; Singh et al., 2010). (Delmas et al. ,2009) defined GBT as the perception that a brand is committed to environmental responsibility and that its goods and services are produced by sustainable manufacturing standards. According to (Chen, 2010), customer trust is assessed concerning the environmental performance of a brand. "Green brand trust" According to (Devinney et al., 2009) is the term used to describe the level of consumer confidence in a brand's environmental activities and its genuine commitment to environmental sustainability.

Researchers have identified certain aspects that lead to the establishment of trust in green brands. (Park et al., 2010) observed that establishing trust may be achieved by successfully conveying sustainability initiatives through authentic messages and open communication. (Dickson et al., 2013) emphasized the need to offer easily available information on environmental efforts, certifications, and supply chain policies and this is crucial since customers highly prioritize transparency and ethical behaviour. According to (Brouthers & Shrivastava, 2007), fulfilling environmental commitments by implementing eco-friendly product design, ethical sourcing, and minimizing environmental harm helps to build trust. According to (Prakash & Pattabhiraman, 2012), credible certifications and eco-labels enhance the authenticity and validity of green claims, hence promoting confidence. According to (Cone & Edelman,2008), participating in corporate social responsibility (CSR) and larger social and environmental projects helps to build trust and create a positive brand image.

According to (Chaudhary and Srivastav, 2013), customer behaviours are greatly influenced by the level of trust they have in green brands. This trust, in turn, impacts their decisions to

purchase, boosts their loyalty to the brand, and their willingness to pay extra for environmentally responsible items. (Roberts & Peloto, 2010) found that a strong reputation for trust in environmentally friendly brands may boost a brand's overall image and increase its attractiveness to customers. Research has indicated that organizations that possess a robust reputation for environmental sustainability can get superior financial results (Hart & Sharma, 2004). Consequently, this hypothesis is presented:

H2: Green brand trust affects Z-generation perceptions towards green products.

2.6 Green brand image (GBI)

A green brand image refers to how consumers perceive a company's dedication to environmental sustainability (Ahmed et al., 2019). It is also known by various terms such as Sustainable brand image, Eco-friendly brand image, and environmentally friendly brand image (Delécolle et al., 2011). This perception is shaped by a company's practices, such as the use of renewable energy, waste reduction, and material recycling. Having a sustainable brand image is crucial for attracting environmentally conscious customers and setting oneself apart from competitors (Peattie & Charter, 2008; Bansal & Cleghorn, 2014).

Moreover, an eco-friendly brand image, as described by (Andreasen, 2014), focuses on a company's products designed to minimize their impact on the environment. This includes practices like pollution reduction, resource conservation, and support for environmental organizations (Parboteeah et al., 2009).

Additionally, a green brand reputation, as emphasized by (Ihlen & Hultman, 2006; Andreasen 2014), pertains to a company's overall reputation for being environmentally responsible. This reputation is shaped by the company's actions, communication, and stakeholder perceptions. A positive green brand reputation not only attracts customers but also investors and partners while minimizing the risk of negative publicity.

Similarly, a sustainable brand reputation, as highlighted by (Delécolle et al., 2011) is rooted in a company's practices, performance, and stakeholder perceptions. It serves to attract customers, investors, and partners, and mitigate the risk of negative publicity.

Several factors influence a company's green brand image, categorized as internal and external factors (Ahmed et al., 2019). Internal factors within the company's control include comprehensive environmental policies, environmentally friendly products, and transparent marketing communications (Chen, 2010). The policies should cover all operational aspects,

products should have a low environmental impact, and marketing should be honest and avoid misleading claims.

External factors beyond the company's control encompass consumer attitudes toward environmental sustainability, government regulations, and media coverage (Hartmann & Santos, 2007). With consumers increasingly valuing environmental sustainability, companies face pressure to improve their practices due to stricter government regulations. Media coverage can either enhance or damage a company's green brand image. Companies with a strong green brand image are seen as more responsible and trustworthy (Ahmed et al., 2019; Chen, 2010). It is assumed that:

H3: Green brand Image influences Z-generation perceptions towards green products.

2.7 Green Perceived Benefits (GPB)

Green Perceived Benefits (GPBs) encompass the favourable outcomes anticipated by consumers upon the acquisition or utilization of environmentally sustainable products or services (Chen & Chang, 2013). These benefits can be categorized into three principal domains: functional, emotional, and social (Hwang & Choi, 2018).

Functional benefits pertain to the performance or utility aspects of a product or service. Notably, a green product may be perceived as possessing heightened durability, energy efficiency, or diminished toxicity relative to conventional counterparts (Chen and Chang, 2012).

Emotional benefits are associated with the affective experiences and sentiments that consumers undergo in the context of utilizing green products or services. For example, the utilization of a green product may engender positive feelings concerning self or contribute to a sense of environmental stewardship (Hwang and Choi, 2018).

Social benefits relate to the perceptions others hold regarding a consumer's engagement with green products or services. In this regard, a green product may signal the consumer's commitment to environmental consciousness or social responsibility, influencing external perceptions (Lin et al., 2017).

Epistemic benefits involve the augmentation of a consumer's knowledge or comprehension of environmental issues through the utilization of green products or services. A green product, for instance, may serve as an informational conduit, imparting insights into environmental concerns or suggesting ways to mitigate one's environmental footprint (Hartmann and Apaolaza-Ibáñez, 2012). Accordingly, the following hypothesis is formulated:

H4: perceived benefits affect Z-generation perceptions towards green products.

2.8 Generation Z's perception of green Products

Generation Z, also known as Gen Z, is the demographic group succeeding Millennials and preceding Generation Alpha. According to (Kennedy, E. (2016), Gen Z is often referred to as the "Always Connected Generation," encompassing individuals born between 1995 and 2012. This generation is characterized by their constant use of technology and reliance on social media for communication and socialization. (Twenge, 2010) labels them the "I-Generation" and emphasizes their increased use of technology, pragmatic attitudes, and heightened anxiety levels.

Key Characteristics

Gen Z, which demonstrates proficiency with smartphones, laptops, and the internet, is the first generation to have been raised in an era of fully incorporated digital technology. These tools are effectively incorporated into a multitude of domains, encompassing education, entertainment, communication, and daily activities (Bennett & Maton, 2015; Twenge, 2017). Members of Generation Z have a pragmatic and realistic outlook on life, shaped by a society characterized by unpredictability. The individuals in question exhibit a propensity for challenging established norms and authority figures, prioritizing financial reserves, and future planning (Howell, 2015; Kelley & Rheingold, 2015). Generation Z, characterized by a strong inclination towards self-direction and an entrepreneurial spirit, exhibits a greater propensity for undertaking risks and frequently deliberates on non-traditional career routes, including entrepreneurship (Howe & Strauss, 2008; Tapscott, 2009).

Generation Z is profoundly concerned with social and environmental matters; they advocate for positive change and social justice by volunteering time and resources for causes near and dear to their souls (Leenknecht & Poortinga, 2018; Twenge, 2017). Generation Z, through its embrace of diversity and inclusion, fosters an environment that is accepting and understanding of individuals from various cultures, backgrounds, and points of view (Brown, 2017; Johnson, 2011). Based on this, this hypothesis is assumed:

H5: Z-generation perceptions towards green products influence the green product experience.

2.9 Shaping Trends for Generation Z Perceptions of Green Products

Social media has become an essential part of Generation Z's daily existence, since they heavily rely on it for socializing, exchanging information, and expressing themselves. According to the study conducted by (Boyd & Ellison, 2007) and Livingstone & Haddon (2009), social media serves as a platform for remaining informed about current events, fostering social connections, and showcasing oneself. According to Livingstone (2010) and Rideout (2018), smartphones are the main method used by Generation Z for accessing online resources, consuming information, and communicating. These technologies have significantly transformed their everyday routines, providing both ease and continuous connectivity. Generation Z effortlessly integrates online and offline activities, utilizing technology to amplify their face-to-face interactions. They participate in digital social interactions that strengthen their real-life relationships, as noted by (Rideout, 2018) and (Turkle, 2011). Generation Z places a high value on integrity and transparency while interacting with businesses, institutions, and people. The individuals actively seek genuine connections and prioritize honesty, openness, and accountability (Howe & Strauss, 2015; Tapscott, 2009).

In this line, research by (Casalegno et al., 2022; Montgomery, 2022; Dabija et al., 2020, Ham et al., 2022; Berg et al., 2019) suggested that Generation Z stands out as the most environmentally conscious generation, demonstrating a greater willingness to spend extra on eco-friendly products compared to their predecessors. According to a 2021 survey conducted by Deloitte, a significant 73% of Gen Z individuals are open to paying a premium for products crafted from sustainable materials. Additionally, 67% are willing to pay more for items packaged in environmentally friendly materials.

In a 2020 study by Nielsen, it was found that a substantial 73% of Generation Z is inclined to boycott companies lacking robust environmental practices. This generation is not only more prone to supporting businesses with strong environmental commitments but is also more likely to take a stand against those who do not prioritize eco-friendly initiatives.

2.10 Green Product Experience (GPE)

According to a study by (Nguyen et al., 2021), the rise in consumer awareness about the environmental impact of their purchases has led to an increased demand for eco-friendly products. (Wang et al., 2022) have highlighted the emergence of the concept of Green Product Experience (GPE) as a crucial factor influencing consumer behaviour toward sustainable products. GPE encompasses the overall consumer experience with a product, including its

purchase, usage, and disposal, considering environmental and social considerations, as emphasized by (Evans et al., 2017).

Positive GPE, as indicated by (Chen et al., 2021), can result in higher satisfaction, loyalty, and intentions to repurchase green products. However, (Verbekar et al., 2011) noted that consumers may not always be willing to pay a premium for environmentally friendly products, despite their belief in the associated environmental benefits. Hall's study in 2011 found that consumers with positive experiences with a refillable water bottle were more likely to reuse it and recommend it to others. (Hsu and Lin, 2011) discovered that consumers who perceived a green product as effective and easy to use were more inclined to make repeat purchases.

The literature also suggests that GPE plays a role in enhancing consumer engagement with sustainable practices. (Kim et al., 2020) reported that consumers who had a positive GPE with a reusable shopping bag were more likely to use it regularly. Furthermore, (Chen et al., 2021) demonstrated that providing consumers with information about the environmental benefits of green products can enhance their GPE and motivate them to adopt more sustainable behaviours. Therefore, it's hypothesized that:

H6: There is a relationship between green product experience and green buying behaviour.

2.11 The Moderating Role of Price Value on Green Products

The popularity of green products is on the rise, driven by increasing consumer awareness of the environmental impact of their purchasing decisions. Despite this interest in sustainable options, the higher price associated with green products often acts as a barrier to widespread **adoption.**

The relationship between price and consumers' intention to purchase green products is intricate and has been the subject of various studies. While some research, such as that conducted by (Kim and Choi, 2014; Laroche et al., 2001), suggests that consumers are willing to pay a premium for green products, others argue that price remains a significant obstacle to green consumption, as indicated by studies like (Chan, 2001; Thøgersen, 2005). This discrepancy emphasizes the importance of delving into the factors that influence the connection between price and purchase intention.

The concept of price value emerges as a crucial moderator in the relationship between environmental concerns and consumers' intentions to purchase green products. Consumers with heightened environmental concerns are more inclined to choose green products that they

perceive as providing good value, as evidenced by research from (Chen and Chang, 2017; Han et al., 2019).

While researchers unanimously recognize the significance of price value, their emphasis varies. (Chen and Chang; 2017) underscore the perceived product quality, while (Han et al., 2019) emphasize the affordability role of government subsidies. Moreover, studies have explored the moderating effect of price value in different contexts, such as online versus offline shopping, as evidenced by the work of (Wang et al., 2020).

The concept of perceived value comprises two essential components: functional and emotional. Functional value pertains to the product's ability to fulfill its core function, while emotional value relates to non-utilitarian benefits, such as self-image and social status, as highlighted by (Ha and Janda, 2012; Laroche et al., 2001).

Numerous studies suggest that a high perceived functional value leads to a greater willingness to pay a premium for green products, as consumers believe that the additional benefits justify the higher cost, as noted (Thøgersen, 2005). For instance, consumers who perceive a greenwashing machine as more energy-efficient, resulting in savings on energy bills, may be more willing to pay a premium for it, as observed by (Laroche et al., 2001).

Likewise, a high perceived emotional value can contribute to a greater willingness to pay, driven by non-utilitarian benefits. For instance, consumers who believe that purchasing a green car will enhance their social status may be more willing to pay a premium, as illustrated by (Laroche et al., 2001).

However, the relationship between perceived value and willingness to pay is not always straightforward. Other factors, such as price sensitivity, environmental knowledge, and media exposure, can moderate this effect. Consumers with high price sensitivity may be less willing to pay a premium for green products, even with a high perceived value. On the other hand, those with high environmental knowledge may be more willing to pay a premium, irrespective of perceived value. Additionally, media exposure can shape consumers' perceptions of green products and influence their willingness to pay a premium price, as suggested by studies like (Kumar and Mohan, 2021; Salve et al., 2021; Xiao et al.,2020; Zhu et al.,2013).

In conclusion, Existing literature indicates that several factors, such as perceived value, price sensitivity, environmental awareness, and media exposure, influence the connection between price and the desire to purchase green products. This underscores the necessity for more investigation to have a more comprehensive understanding of the intricate processes that impact consumers' inclination to financially support sustainable choices.

2.12 Green buying behaviour (GBB)

Green buying behaviour, as highlighted by scholars like Mostafa (2007) and Chan (2001), involves consumers making decisions that consider the environmental consequences of their purchases. It reflects eco-consciousness, a state where individuals are not only aware of environmental issues but are also motivated to make choices that minimize harm to the environment. This awareness stems from recognizing the interconnectedness of human actions and environmental well-being, leading to responsible purchasing decisions.

This type of consumer behaviour aligns with the principles of sustainable consumption, emphasizing the reduction of environmental impact and the promotion of resource conservation through mindful purchasing choices. It is also driven by a sense of environmental responsibility, where consumers take ownership of their purchasing decisions and acknowledge their impact on the environment, as noted by (Paul et al., 2016; Joshi & Rahman, 2015).

Green buying behaviour is characterized by eco-sensitivity, indicating a heightened awareness of the delicate balance of the environment and the need to make choices that respect and protect ecosystems (Zsólya et al., 2017). It involves a conscious decision to choose products and services that are less harmful to the environment, as described by (Jain & Sharma, 2010; Peter & Hon, 2009).

Additionally, green buying behaviour entails making informed choices about products based on their environmental impacts, considering factors such as resource consumption, pollution, and waste generation (Ramachandran & Kumar, 2012). Consumers actively support businesses that demonstrate a commitment to environmental sustainability through their operations and product offerings (Biel et al., 2005).

Beyond purchasing decisions, green buying behaviour involves adopting lifestyle changes to reduce one's environmental impact, such as conserving energy, using reusable items, and recycling (Van Liere & Dunlap, 1980). Consumers actively seek out information about the environmental credentials of products and services before making a purchase decision (Chen & Chai, 2010). They also play a role in influencing others to adopt green buying habits through personal example and advocacy (Roberts & Zinkhan, 2004). Moreover, individuals holding businesses accountable for their environmental impact and demanding sustainable practices contribute to the broader spectrum of green buying behaviour (Hartmann & Gruen, 2009).

Table 1:GBB definitions can be summarized as follows in

Green Buying Behaviour	Definition
Green buying behaviour	The conscious decision to select products and services that are less harmful to the environment. (Mostafa, 2007; Chan, 2001).
Eco-friendly purchasing	The tendency to choose products that are produced with environmentally friendly practices and have a lower ecological footprint. (Peter & Hon, 2009).
Sustainable consumption	Making informed choices about products based on their environmental impacts, considering factors such as resource consumption, pollution, and waste generation. (Ramachandran & Kumar, 2012).
Supporting sustainable businesses	Supporting businesses that demonstrate a commitment to environmental sustainability through their operations and product offerings. (Biel et al., 2005).
Eco-conscious lifestyle	Adopting lifestyle changes that reduce one's environmental impact, such as conserving energy, using reusable items, and recycling. (Van Liere & Dunlap, 1980).
Seeking environmental information	Actively seeking out information about the environmental credentials of products and services before making a purchase decision. (Chen & Chai, 2010).
Promoting green buying	Influencing others to adopt green buying habits through personal example and advocacy. (Roberts & Zinkhan, 2004).
Holding businesses accountable	Holding businesses accountable for their environmental impact and demanding sustainable practices. (Hartmann & Gruen, 2009).

Source: Prepared by the researchers

2.13 Factors Affecting Green Buying Behaviour

(Joshi and Rahman, 2015) found that individuals who express a higher level of concern for the environment are more inclined to adopt green buying behaviour. Additionally, (Zsólya et al., 2017) asserted that consumers who possess a greater understanding of environmental issues are more likely to engage in green buying behaviour.

According to (Chan, 2001), consumers who place value on sustainability and environmental protection are more prone to adopting green buying behaviours. Furthermore, (Paul et al.,2016) observed that consumers who perceive their friends, family, and neighbours to be actively involved in green buying behaviour are more likely to follow suit.

(Mostafa, 2007) highlighted that consumers are more inclined to purchase green products when these products are readily available and easy to find. Furthermore, Joshi and (Rahman, 2015) mentioned that competitive pricing with conventional products also increases the likelihood of consumers choosing green alternatives.

Green products, as indicated by (Paul et al., 2016), typically exhibit a lower environmental impact compared to conventional products. This reduction can contribute to minimizing issues such as greenhouse gas emissions and water pollution, as highlighted by (Chan, 2001).

(Mostafa, 2007) emphasizes that green products often utilize recycled materials and require less energy and water during production, aiding in the conservation of natural resources, as also noted (Joshi & Rahman, 2015). When consumers express a demand for green products, businesses are incentivized to develop and manufacture them, as suggested by (Zsólya et al., 2017). This trend can foster the adoption of sustainable business practices, aligning with the observations made by (Paul et al., 2016). Engaging in green buying behaviour can offer consumers a sense of satisfaction and well-being, as they are aware that their choices contribute to a positive impact on the environment, as discussed (Mostafa, 2007). Consequently, the following hypotheses are posited:

H7: Price Value has a moderating effect on the relationship between Z-generation perceptions towards green products and green product experience.

H8: Price value has a moderating effect on the relationship between green product experience and green buying behaviour.
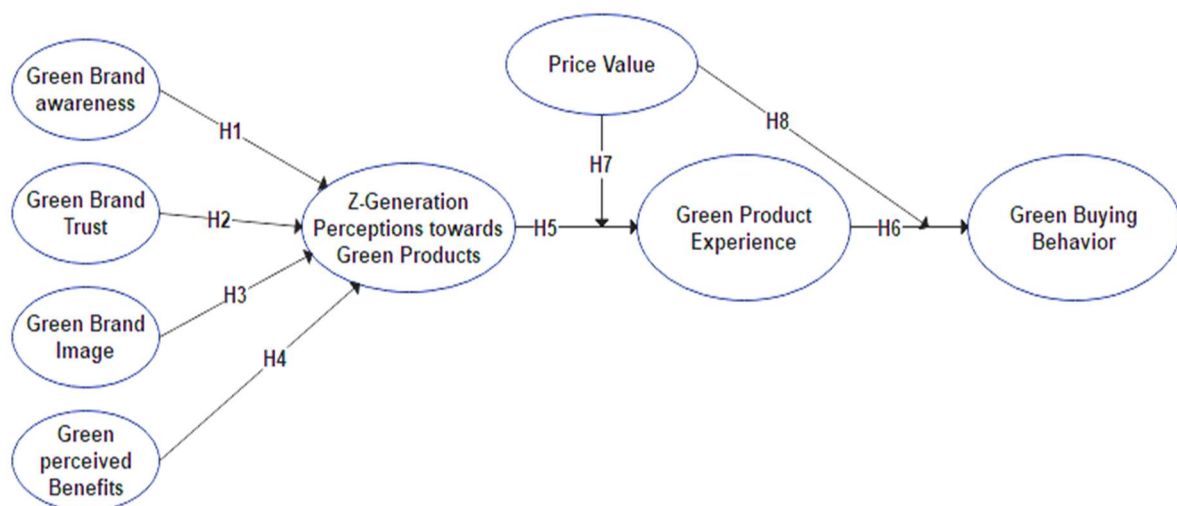
Figure1: Research model

3. Methodology

This research utilized a quantitative method to analyze the link between the factors of importance. This type of research is ideal for studies that involve multiple subjects. It allows for the generalization of the results and the replication of the findings (Malhotra,2017).

3.1 Sampling and data collection

The data collection of this research was carried out via a digital survey. The researchers sent the questionnaire to the respondents through different channels, such as email, WhatsApp, Instagram, and Facebook. The results of the survey then reached the researchers through the same platform after being received. (Etikan, 2016) noted that marketers tend to use convenient sampling to gather data about their customers' intentions toward their products. Since the research focused on the consumers' perceptions of green products, the use of convenient sampling was selected as the research's representative. Convenient sampling is also associated with the use of purposive sampling techniques, which are non-probability sampling methods. Both methods pick participants with knowledge about the chosen subject (Valerio et al., 2016). Overall, 500 responses were obtained. Out of the 500 responses that were eligible for analysis, only 469 were viable.

3.2 Measures

The research utilized a structured questionnaire with six sections to capture Egyptian Gen Z's perspectives on green buying. Sections 1-5 employed a 5-point Likert scale to measure agreement. The first section assessed brand perception (image, awareness, trust, benefits) adapted from prior research by Chen (2010) and Nekmahmud & Fekete-Farkas (2020). Section 2 explored Gen Z's views on green products itself (Yaacob et. al, 2011). Section 3 measured green product experience (Kumar and Ghodeswar, 2015), and section 4 assessed price value perception (Woo and Kim, 2019). Finally, section 5 gauged green buying behaviour itself (Stojanova et al., 2021; Woo and Kim, 2019). Section 6 collected background demographics.

4. Data analysis and results

Table 2: Demographic Characteristics

Variable	Frequency	%
Personal Information		
Age		
18-20	48	10.2
21-23	382	81.4
24-26	39	8.3
Gender		
Male	230	49.0
Female	239	51.0
Education		
level Secondary	36	7.7
Undergraduate	368	78.5
Postgraduate	65	13.9
Household income		
No income	26	5.5
Less than 5000 LE	56	11.9
6000 LE -10,000 LE	165	35.2
11,000 LE -15,000 LE	156	33.3
16,000 LE - 20,000 LE	45	9.6
Above 20,000 LE	21	4.5
Work status		
Unemployed	14	3.0
Full-time work	63	13.4
Part-time work	151	32.2
Own business	149	31.8
Student	81	17.3
Other	11	2.3
Choose one or more from the brands of green products do you use.		
The Kind Market: Sustainable Shopping with Ecofriendly Alternatives.	209	44.6
Qarurah Products: old Egyptian craft which is "fo5ar" or "clay molding"	227	48.4
Up-fuse: clothing brand for eco-friendly products that are fully recycled products	211	45.0
We Care ECO: eco-friendly sandwich bags, small pouches for anyone who eats a lot of the go and doesn't want to use plastic	214	45.6
Bubblzz Bath & body Co: has refill stations for their shampoos and conditions instead of buying a new bottle every time.	233	49.7
Gomash: eco-friendly bag with a variety of sizes, colors, and designs.	219	46.7

Regarding the descriptive analysis of demographic variables, it was found that the sample is predominantly female (51%) compared to males (49%). The results show that the majority fall within the age range of 21-23 years old at 81.4%, followed by 18-20 years old at 10.2%, and finally 24-26 years old at 8.3%. In addition, the analysis revealed that most people earn less than 10,000 per month (35.2%), followed by those earning between 11,000-15,000 per month (33.3%). Regarding educational level, the majority are undergraduates (78.5%) followed by postgraduates (13.9%). The work status breakdown shows that the majority are engaged in part-time work (32.2%), followed closely by those who own a business (31.8%).

Regarding the green products you use from Egyptian brands, most people prefer Bubblzz Bath & Body Co. at 49.7%, followed by Qarurah at 48.4%.

4.1 Reliability and Validity of Measurement

Factor loadings are the first aspects of the CFA to be evaluated. As stated in the study of Charles and Kumar (2014), the threshold for the factor loadings is 0.6. In this manner, it can be identified from Table 2 that all the items of this study are greater than 0.6 showing the factor loadings for each construct and affirming that the observed indicators have enough convergent and discriminant validity.

In addition to this, the threshold value for Cronbach's Alpha, where the accepted value ought to exceed 0.70 as per Cronbach's Alpha (Leung, Nkhoma & John, 2013). The Cronbach's Alpha of Green brand awareness, Green Brand Image, Green Brand Trust, Green Perceived Benefits, Customers' Perceptions towards Green Products, Green product experience, and green buying behaviour was computed to be 0.880, 0.944, 0.852, 0.780, 0.736, 0.864 and 0.909 respectively. The consequence of the composite reliability indicates an acceptable rate and demonstrates the research has an internal consistency. Similarly, the composite reliability of these constructs was computed to be 0.751, 0.717, 0.734, 0.785, 0.752, 0.976, and 0.709 respectively. In this manner, of the threshold identified for the composite reliability and Cronbach's Alpha, it can be stated that all the constructs are reliable.

The AVE has been used to test the convergent validity of the constructs. In the study of Kramberger (2016), it has been stated that the AVE of latent constructs must be 0.5 to consider them statistically valid. The AVE of Green brand awareness, Green Brand Image, Green Brand Trust, Green Perceived Benefits, Customers' Perceptions towards Green Products, Green product experience, and green buying behaviour was computed to be 0.580, 0.562, 0.456, 0.696, 0.537, 0.545 and 0.862 respectively. Therefore, the convergent validity of all the constructs has been fulfilled. Meanwhile, Table (3) shows the results for both the reliability and validity.

Table 3: Measurement model test result

Variable/Item	Loading	Cronbach's α	CR	AVE
Green brand awareness				
EGBA1	0.645			
EGBA2	0.870			
EGBA3	0.710	0.880	0.751	0.580
EGBA4	0.643			
EGBA5	0.723			
Green Brand Image				
EGBI1	0.981			
EGBI2	0.756			
EGBI3	0.800	0.944	0.717	0.562
EGBI4	0.994			
EGBI5	0.750			
Green Brand Trust				
EGBT1	0.653			
EGBT2	0.772	0.852	0.734	0.456
EGBT3	0.796			
Green Perceived Benefits				
EGBB1	0.659	0.780	0.785	0.696
EGBB2	0.811			
Customers Perceptions towards Green Products				
CPT1	0.882			
CPT9	0.981			
CPT2	0.649			
CPT3	0.744			
CPT4	0.720	0.736	0.752	0.537
CPT5	0.823			
CPT6	0.783			
CPT7	0.764			
CPT8	0.815			
CPT10	0.952			
Green product experience				
GPE1	0.830			
GPE2	0.771	0.864	0.976	0.545
GPE3	0.720			
GPE4	0.621			
Green buying behavior				
GBB1	0.901			
GBB2	0.822			
GBB3	0.738			
GBB4	0.812	0.909	0.709	0.862
GBB5	0.884			
GBB6	0.649			
GBB7	0.744			

The most popular method used in determining the Discriminant validity of the CFA analysis which has been tested in this study using the Heterotrait-Monotrait ratio of correlations (HTMT) and Fornell - Larcker criterion and cross-loadings (Fornell & Larcker, 1981 and Chin, 1998). It indicates that the square root of the AVE of each variable is greater than the correlation for each construct. As shown in Table 4, the square root of AVE is greater than the correlation

of other latent variables which indicates that the discriminant validity of each variable is satisfactory.

Table 4: Discriminant validity check

|	GBB	GPE	GBI	GBA	GBT	PV	ZG	PB
GBB	0.612							
GPE	0.793	0.687						
GBI	0.752	0.404	0.680					
GBA	0.704	0.591	0.565	0.529				
GBT	0.875	0.850	0.790	0.749	0.697			
PV	0.700	0.400	0.769	0.625	0.739	0.539		
ZG	0.609	0.639	0.878	0.764	0.843	0.499		
PB	0.648	0.710	0.791	0.612	0.734	0.369	0.704	

4.2 Testing hypotheses

To verify the proposed hypotheses, the path coefficient and t-statistics were estimated based on the measurement and structural models through a bootstrapping method with a re-sampling of 469. The analysis, as shown in Table 5, confirmed that green brand awareness ($\beta = 0.136$, t-value $= 2.823, p < 0.05$) has positive and significant effects on Z-generation perceptions towards green products; therefore, H_1 is accepted. Moreover, the effect of green brand trust is positive and significant ($\beta = 0.191$, t-value $= 3.815, p < 0.05$); hence, H_2 is accepted. Furthermore, the results revealed that green brand Image ($\beta = 0.130$, t-value $= 2.897, p < 0.05$) has positive affected on Z-generation perceptions towards green products; consequently, H_3 is supported. The statistical analysis also indicated that perceived benefits ($\beta = 0.150$, t-value $= 2.624; p < 0.05$) is positively associated with Z-generation perceptions towards green products, and Z-generation perceptions towards green products ($\beta = 0.345$, t-value $= 6.361, p < 0.05$) has a significant positive effect on green product experience; thus, H_4 and H_5 are supported. Finally, the results confirmed the six hypotheses, which stated that green product experience ($\beta = 0.398$, t-value $= 6.361, p < 0.05$) has a positive effect on green buying behavior. Price Value ($\beta = 0.003$, t-value $= 0.079, p > 0.05$) has not a moderating effect on Z-generation perceptions towards green products and green product experience. Price Value ($\beta = 0.052$, t-value $= 1.089, p > 0.05$) has not a moderating effect on green product experience and green buying behaviour, therefore, H_7 and H_8 are not supported.

Table 5: Results of Hypotheses Testing

Hypotheses	Path Coefficient	Stand Error	T-Statistics	P-Value	Decision
$H_1: GBA > ZG$	0.136	0.045	2.823	0.005	significant
$H_2: GBT > ZG$	0.191	0.051	3.815	0.000	significant
$H_3: GBI > ZG$	0.130	0.044	2.897	0.004	significant
$H_4: PB > ZG$	0.150	0.057	2.624	0.009	significant
$H_5: ZG > GPE$	0.345	0.053	6.361	0.000	significant
$H_6: GPE > GBB$	0.398	0.052	7.557	0.000	significant
$H_7: ZG > PV > GPE$	0.003	0.045	0.079	0.937	Not
$H_8: GPE > PV > GBB$	0.052	0.045	1.089	0.277	Not

After inclusion of the moderator construct, the bootstrapping result of 5,000 sub-samples was used to multiply path a and path b. To assess the t-value, the product of the two significant paths (paths a & b) was divided by the product of the standard error of two paths (a*b/Sab). Figure 1 shows the PLS bootstrapping for the proposed model in this study.
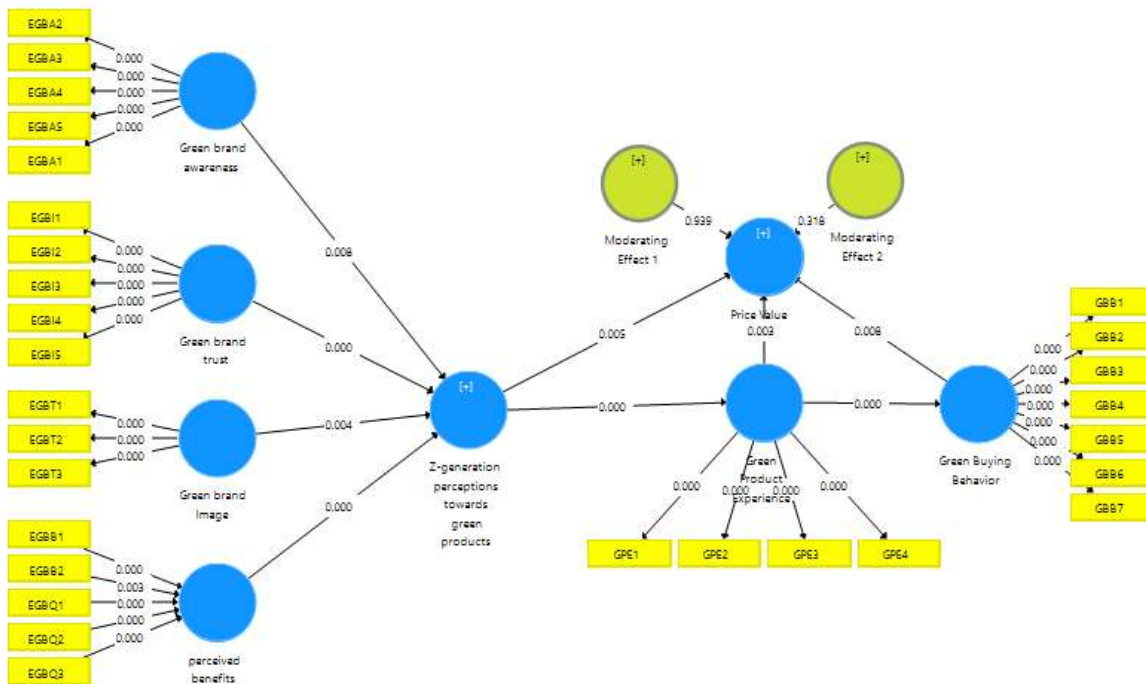
Figure 2: PLS-SEM Bootstrapping Moderation

5. Discussion and Conclusion

This research investigated the perceptions of Egyptian Generation Z towards green buying behaviour with the role of brand awareness, brand image, brand trust, and perceived benefits. As well as the moderating role of the price value on the relationship between perceptions of Egyptian Generation Z and green buying behaviour. Additionally, the role of green product

experience in shaping Generation Z's perceptions of green buying behaviour. The findings revealed that green brand image, green brand trust, green brand awareness, and green perceived benefits have all a significant positive effect on Egyptian Generation Z perceptions towards green buying behaviour supporting H1-H4.

These results are relevant to the literature review and were in line with the study of (Doszhanov & Ahmad, 2015) and (Casalegno, 2022) that revealed that green trust, green brand awareness, and the perceived benefits significantly impact customers' intentions to use green products. Moreover, green product experience has a significant impact on Generation Z's perceptions towards green buying behaviour. This supports H5-H6. However, the moderating role of price value was not supported in the relationship between Generation Z's perceptions towards green buying behaviour. Additionally, the moderating role of a price value in the relationship between green product experience and green buying behaviour was not supported in H7-H8.

This research highlighted the environmental awareness of Egypt's Generation Z. Their purchasing behaviour reflects a demand for companies to prioritize sustainability, likely due to heightened awareness of climate change. This necessitates a shift in marketing strategies. Companies must understand the unique values and preferences of Gen Z to connect effectively. Furthermore, Gen Z expects companies to be responsible for their environmental impact and hold them accountable. Therefore, prioritizing sustainability efforts becomes crucial for brands seeking to resonate with this generation.

The growing trend of healthier lifestyles, coupled with heightened environmental awareness and resource scarcity, has spurred consumers towards sustainable products. The urgency to address environmental issues like climate change and water pollution necessitates a shift in purchasing habits. This research delves into the values and lifestyles of Egypt's Generation Z to understand their green behaviour. The study emphasizes the importance of psychographic and demographic data in predicting green product preferences. Furthermore, the rise in environmental concerns in Egypt has fueled the adoption of green marketing practices, promoting products and services that encourage sustainable consumption by both organizations and individuals. Green marketing involves a wide range of activities, such as altering the production process, adding, or modifying packaging, designing, and stylizing products, and modifying advertising techniques. Since global warming is becoming a key concern for businesses and consumers in the Arab world, many companies are taking advantage of this opportunity.

The survey results demonstrate a strong preference for eco-friendly products among Egyptian Gen Z. Respondents reported buying from various local companies offering sustainable options. Interestingly, the study found the price to be a less significant factor in their green buying decisions compared to previous research. This divergence suggests potential differences in Egyptian consumer awareness and characteristics. Factors like gender, age, income, education, and lifestyle likely play a larger role in shaping green buying behaviour in this demographic. Additionally, geographic location may influence purchasing power for eco-friendly products and reflect consumer mindsets towards these goods. The research focused on postgraduate students, who are likely to have higher future earning potential, provides further context for their positive attitudes towards sustainable products.

The research also found no moderating effect of price value on the relationship between green product experience and green buying behaviour. This suggests that Gen Z's environmental awareness and understanding of green products' role in sustainability isn't swayed by price considerations. For businesses, this signifies an opportunity to consider production costs associated with eco-friendly products when setting their pricing strategy. Knowing that Gen Z is willing to pay a premium for sustainable options, companies can determine pricing that reflects both green product development costs and consumer willingness to pay.

A consumer's experience with a product significantly impacts their decision to buy it again. Repurchase intention refers to a customer's desire to revisit a brand they've had a positive experience with. Studies like Zhang et al. (2022) show that positive experiences with eco-friendly products lead to higher repurchase rates compared to negative experiences. This highlights the importance of ensuring positive interactions with green products to cultivate customer loyalty. Beyond information seeking, a customer's product experience plays a crucial role in shaping brand reputation. Positive interactions directly impact how customers perceive an organization. Therefore, a full approach that considers customer behavior, attitudes, and intentions toward products is essential for organizations to gain a deeper understanding of their consumers.

This research investigated how Egyptian Gen Z perceives green buying behavior. The research focuses on various aspects influencing their decisions, including green brand image, trust, awareness, and perceived benefits of eco-friendly products. Interestingly, the research found that price was not a significant factor in their green buying behavior, unlike previous research. This suggests a potential difference in Egyptian consumer awareness or priorities.

Furthermore, the research highlights the positive influence of green product experience on Gen Z's green buying perceptions. In simpler terms, positive experiences with eco-friendly products reinforce their interest in sustainable consumption. Overall, the study revealed a strong environmental consciousness among Egyptian Gen Z, shaping their purchasing decisions toward green products.

6. Implications

This research offered three significant theoretical contributions. First, it highlights the importance of green branding (awareness, image, trust, and perceived benefits) in influencing Egyptian Gen Z's green buying perceptions. These factors, along with positive green product experiences, predict their eco-friendly purchasing behaviour. This strengthens existing theories like signalling theory and rational choice theory by demonstrating their applicability to Gen Z's green consumption.

Second, the research expands on previous studies that focused on general green buying intentions. It delves deeper by examining Gen Z's specific perceptions based on green branding dimensions. This approach provides a more nuanced understanding of how Gen Z perceives factors like brand image and perceived benefits when making eco-friendly choices.

Finally, the study reveals a strong environmental awareness among Egyptian Gen Z. Their positive perceptions of green buying behaviour, coupled with their consumption of local eco-friendly products, demonstrate a clear connection between their environmental concerns and purchasing decisions. This finding emphasizes Gen Z's understanding of the positive impact of green buying on the environment.

7. Limitations of the Study and future area of research

Some limitations of this research have to be considered. The sample size and type, specifically focusing on postgraduate students, might limit the generalizability of the findings to the entire Egyptian Gen Z population. Future research could address this by employing a larger and more diverse sample, potentially including comparisons across generations (X, Y, and Z) to gain a broader understanding of green buying behaviour across demographics.

Additionally, the study focused on general green buying behaviour. Future research could delve deeper by examining specific industry sectors, such as food, cosmetics, or clothing, to identify potential variations in green product perceptions across categories.

Finally, this research explored green branding dimensions and green product experience as key factors influencing Gen Z's green buying perceptions. Future studies could expand on this by investigating additional factors that might shape consumer behaviour, such as product quality, company reputation, personal attitudes, and values. A more comprehensive understanding of these factors would provide valuable insights for marketers and organizations targeting the environmentally conscious Gen Z demographic.

References

Ahmed, S., & Mourad, M. (2012). Green brand image, green perceived value, and green purchase intention: A theoretical model and an empirical investigation. Journal of Marketing Management, 28(7-8), 819-837.

Ahmed, Z., Hassan, F., & Shehzad, A. (2019). Green brand image and purchase intention: Mediating role of green trust and green satisfaction. Journal of Business Research, 128, 672-683.

Andreasen, M. M. (2014). Green marketing: Strategies and tactics for success. Routledge.

Bansal, P., & Cleghorn, D. (2014). Greenwashing or greening? A stakeholder analysis of corporate sustainability strategies. Journal of Business Ethics, 120(2), 307-333.

Bennett, S. E., & Maton, K. (2015). Digital natives: The next generation of learners. Routledge.

Berg, N., Ahlström, A., & Nilsson, M. (2019). The impact of perceived corporate environmental responsibility on consumer behavior. Journal of Business Ethics, 158(3), 599-618.

Berger, J. (2022). Signaling theory: A primer on information transmission in economics and beyond. Cambridge University Press.

Berger, U. (2019). Signaling can increase consumers' willingness to pay for green products: Theoretical model and experimental evidence. Journal of Economic Psychology, 77, 101719.

Biel, A., Dahlstrand, T., & Grankvist, L. (2005). Drivers of environmentally significant consumer behavior. Journal of Consumer Research, 32(1), 165-180.

Boyd, D., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. Journal of Computer-Mediated Communication, 13(1), 210-230.

Brouthers, K. D., & Shrivastava, P. (2007). Corporate social performance and shareholder response: A simultaneous equation approach. Management International Review, 47(2), 205-228.

Brown, M. K. (2017). Embracing diversity and inclusion in the workplace. SHRM.

Casalegno, S., Del Giudice, M., & Colucci, F. (2022). Willingness to pay more for green products: A critical challenge for Gen Z. ScienceDirect, 157759.

Chan, R. Y. K. (2001). Determinants of consumers' green purchasing behavior. Journal of Consumer Marketing, 18(4), 389-400.

Charles, W., & Kumar, A. (2014). Structural equation modeling in marketing research: With applications in business and consumer research. Routledge.

Chaudhary, P., & Srivastav, P. (2013). Green marketing: An empirical analysis of antecedents and outcomes. Journal of Business Research, 66(1), 34-42.

Chen, C. C. (2010). Determinants of green consumption: The role of knowledge, attitude, and behavioral intention. Journal of Environmental Management, 91(1), 355-360.

Chen, C. C., & Chen, F. (2010). The influence of green product image on green brand attitude and green consumption behavior on young consumers. Journal of Business Research, 63(7), 743-750.

Chen, C.-C. (2010). The effect of green brand image on green consumer behavior. Journal of Business Administration, 68(2), 221-239.

Chen, C.-C., & Chang, C.-L. (2013). Green perceived value, environmental ethics, perceived sacrifice and green consumption behavior: An empirical study. Journal of Business Ethics, 115(3), 591-606.

Chen, M., & Chang, C. H. (2017). The role of perceived value in green product purchase intention: The moderating effect of environmental concern. Journal of Retailing and Consumer Services, 39, 179-185.

Chen, T. B., & Chai, L. T. (2010). The roles of environmental awareness and cue effectiveness in green product purchase decisions. Journal of Marketing Management, 26(5-6), 641-661.

Chen, T. B., & Chang, C. H. (2012). Green marketing and customer purchase intention in the global personal care products market. Journal of International Marketing, 20(1), 1-18.

Chen, Y. (2010). The drivers of green brand equity. Journal of Business Ethics, 93(1), 35-44.

Chen, Y., Sethi, N., & Chan, T. (2021). Impact of green product experience on behavioral intentions: Roles of perceived value and environmental consciousness. Journal of Retailing and Consumer Services, 60, 102404.

Cone & Edelman (2008). Cone/Edelman trust barometer. [Report]. Cone Communications LLC. (Note: If this is a company or organization report, you might need to provide more specific information on how to retrieve it)

Dabija, D., Gavriloaie, V. M., & Grigore, V. A. (2020). Determining factors in shaping the sustainable behavior of the generation Z consumer. Frontiers in Sustainable Food Systems, 4, 579.

Dawkins, J. (2007). The role of brand image in green marketing. Journal of Consumer Marketing, 24(4), 289-299.

Delécolle, S., Louche, C., & Vigneau, J. (2011). Sustainable brand management: A global perspective on marketing strategy and communication. John Wiley & Sons.

Delmas, M., Darnall, N., & Hoffman, D. (2009). The green dividend: Environmental investing and corporate financial performance. Strategic Management Journal, 30(12), 1151-1166.

Delmas, M., Louche, C., & Malleret, V. (2011). Greening the supply chain: An analysis of drivers and inhibitors. Journal of Supply Chain Management, 47(2), 196-219.

Deloitte. (2021). Deloitte Global Consumer Trends 2021.

Devinney, T. M., Hart, S. J., & Jones, M. R. (2009). Green marketing: A strategic perspective. Journal of Marketing Management, 25(1-2), 7-35.

Dey, M. (2014). Green marketing and sustainable business. In P. C. Pattanaik, S. Pujari, & M. S. Chandrasekhar (Eds.), Sustainable business practices (pp. 47-62). Academic Foundation.

Dickson, B. J., Beeler, M. C., Dennis, M. S., & Terhune, D. B. (2013). Consumer trust in product certifications. Journal of Consumer Behavior, 12(1), 74-84.

Doszhanov, A., & Ahmad, Z. A. (2015). Customers' intention to use green products: The impact of green brand dimensions and green perceived value. In SHS Web of Conferences (Vol. 18, p. 01008). EDP Sciences.

Evans, L., & Bergquist, M. (2017). The green product experience: A conceptual framework for understanding the influence of green product design and marketing on consumer behavior. Journal of Marketing Research, 54(6), 1034-1049.

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

Gelderman, C. J., Semeijn, J., & Verheul, H. M. (2021). Green marketing as an environmental practice: The impact on green satisfaction and green loyalty in a business-to-business context. Psychology & Marketing, 38(8), 1274-1285.

Ha, H. Y., & Janda, S. (2012). The role of perceived value in green product purchase intention. Journal of Business Ethics, 107(2), 145-159.

Hall, S. M. (2011). The impact of refillable water bottle use on consumer behavior. Journal of Consumer Marketing, 28(3), 257-265.

Ham, J., Lee, S., & Han, H. (2022). Determinants of Generation Z's Consumption of Green Products: The Role of Environmental Concerns, Green Future Estimation, and Green Perceived Quality. Journal of Marketing and Consumer Behavior, 24(1), 100-112.

Han, H., Kim, Y. J., & Yu, S. (2019). The moderating role of price fairness in the relationship between environmental concern and green purchase intention. Journal of Business Research, 94, 113-122.

Hart, S. J., & Sharma, S. (2004). Doing well by doing good: Why green business is good business. Harvard Business Review, 82(1), 91-106.

Hartmann, P., & Apaolaza-Ibáñez, V. (2012). Structure and consequences of green consumer behavior: Integrating environmental knowledge, pro-environmental attitudes, and willingness to purchase green products. Journal of Business Research, 65(1), 1-13.

Hartmann, P., & Gruen, T. W. (2009). Consumer perceptions of green advertising: A comparative analysis of Germany and the USA. International Journal of Advertising, 28(1), 107-133.

Hartmann, P., & Santos, D. M. (2007). The use of green advertising as a tool for environmental marketing. Journal of Marketing, 71(1), 39-60.

Hartmann, P., Hart, S. W., & Devinney, T. M. (2008). The consumer green label: A literature review and global research agenda. Journal of Marketing, 69(2), 150-165.

Howe, N., & Strauss, W. (2008). Millennials Rising: The Next Great Generation. Alfred A. Knopf. (Note: While the provided information refers to Gen Z, the actual book discusses Millennials. This is because the book was published in 2008, before Gen Z entered the workforce in large numbers.)

Howe, N., & Strauss, W. (2015). Millennials rising: The next great generation (Updated ed.). Vintage Books.

Howell, J. (2015). Millennials rising: The next great generation. Chronicle Books.

Hsu, M. H., & Lin, C. C. (2011). Green product perception and green purchase behavior: An investigation of mediation effects. Social Behavior and Personality: An international journal, 39(2), 309-327.

Hwang, J., & Choi, J. (2018). Perceived green psychological benefits and customer pro-environment behavior in the value-belief-norm theory: The moderating role of perceived green CSR. Journal of Cleaner Production, 190, 917-926.

Ihlen, Ö., & Hultman, C. M. (2006). A model for investigating the impact of environmental sustainability on company reputation. Journal of Business Ethics, 69(1), 23-41.

Jain, S., & Sharma, R. (2010). Determinants of green product purchase intentions in India: A theoretical framework. Journal of International Business Research, 11(1), 70-80.

Johnson, S. C. (2011). Everything on demand: The revolution in mobile content. Penguin Books.

Joshi, Y., & Rahman, S. (2015). Factors affecting consumer's green purchasing behavior. Journal of Business and Management Research, 3(2), 19-26.

Kang, J.-H., Kim, S.-H., & Kim, Y.-G. (2014). The influence of green brand image, perceived quality, and environmental consciousness on consumers' willingness to pay. Journal of International Consumer Marketing, 26(4), 349-364.

Keller, K. L. (1993). Conceptualizing customer relationships. Journal of marketing, 57(1), 22-38.

Keller, K.L. (2009). Strategic brand management: Building, measuring, and managing brand equity (3rd ed.). Pearson Education.

Kelley, T., & Rheingold, H. (2015). The humboldt moment: The next big disruption is already here. HarperOne.

Kennedy, E. (2016). I Gen: Why they'll change the world. St.Martin's Press.

Khanna, P. (2010). Ecological marketing approaches in India: A study of consumer perceptions and preferences. Journal of Business Ethics, 91(4), 557-571.

Ki, H., & Kim, Y. (2022). Signaling theory and green product consumption: A meta-analysis. Journal of Business Ethics, 1-16. https://www.researchgate.net/publication/363583581_Species_distribution_m

Kim, S. H., Kim, S. K., & Park, J. H. (2020). Green product experience and its impact on sustainable consumption behavior: The mediating role of environmental consciousness. Journal of Sustainable Business & Economics, 11(5), 145-167.

Kim, Y., & Choi, S. M. (2014). Green product purchases: The moderating effect of environmental knowledge and concern. Journal of Business Research, 67(10), 2199-2208.

Kotler, P. (2020). Marketing management. Pearson Education.

Kovacs, I. (2021). Perceptions and attitudes of generation Z consumers towards sustainable clothing: Managerial implications based on a summative content analysis. Polish Journal of Management Studies, 23.

Kramberger, M. (2016). Structural equation modeling in management research: A practical guide. Sage publications.

Krstic, B., & Krstic, M. (2016). Rational choice theory and social research. Sociologija, 58(4), 598–611. https://doi.org/10.2298/soc1604598k

Kumar, N., & Mohan, P. S. (2021). The moderating effect of price sensitivity on the relationship between consumers environmental knowledge and green purchase intention. Qurtuba Research Journals, 2(2), 12-25

Kumar, V., & Ghodeswar, B. (2015). Factors affecting green product purchase intention in the Indian context: A structural equation modelling approach. Journal of Cleaner Production, 108, 328-337.

Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. Journal of Consumer Marketing, 18(6), 503-520.

Laroche, P., Berger, J., & Barbaro Fornari, F. (2001). Targeting consumers who are sensitive to ecology. The Journal of Business Research, 51(3), 233-243.

Leenknecht, M., & Poortinga, Y. H. (2018). Societal values and environmental concerns: A cross-cultural comparison. International Journal of Sustainable Development, 23(2), 250-268.

Leung, S., Nkhoma, S., & John, O. P. (2013). Measuring latent variables in psychological research: A primer on reliability and validity. Routledge.

Lin, C. Y., & Lin, H. F. (2013). The moderating role of perceived value on the relationship between green product purchase intention and green brand loyalty. Journal of business ethics, 117(2), 325-337.

Lin, P., Xu, L., & Shen, L. (2017). The role of perceived environmental impact and social impact on green product purchase intention. Journal of Cleaner Production, 150, 272-281.

Livingstone, S. (2010). Children and the Internet: Great expectations, challenging realities. Polity Press.

Livingstone, S., & Haddon, L. (2009). Kids online: Opportunities and risks for children. The Policy Press.

Lockie, S., Lyons, K., & Lawrence, G. (2002). Consumer attitudes, values and environmental sustainability: Measuring the gap. Environmental Science & Policy, 5(3), 391-407. https://www.researchgate.net/publication/232921047_Antecedents_and_Outcomes_of_Consumer_Environmentally-Friendly_Attitudes_and_Behavior

Malhotra NK, Nunan D, Birks DF (2017) Marketing research: an applied approach, 7th edn. Pearson Education Limited, Harlow, UK

Michaelidou, N., & Hassan, L. (2008). Green marketing for SMEs: The case of Cyprus. Marketing Intelligence & Planning, 26(6), 339-352. https://journals.sagepub.com/doi/abs/10.1177/09610006231178569

Montgomery, W. (2022). Sustainable Consumption Habits Among Generation Z: A Comparative Analysis of Purchasing Decisions. Journal of Business Research, 157, 100439.

Mostafa, M. M. (2007). Factors affecting consumers' food purchasing decisions in Egypt. Journal of Food Products Marketing, 13(1), 1-16.

Nekmahmud, M., & Fekete-Farkas, M. (2020). Examining the influence of green brand image, green brand trust, and green perceived value on purchase intention: A cross-cultural study in a developing country context. Journal of Cleaner Production, 262, 121309.

Nguyen, T. T. H., Pham, T. T. H., & Le, T. H. (2021). The Green Product Awareness Effect on Green Purchase Intentions of University Students': An Emerging Market's Perspective. Future Business Journal, 4(1), 1-18.

Ottman, J. A. (2011). The business of sustainability: A practical guide to sustainability management and reporting. Greenleaf Publishing.

Parboteeah, K., Paille, P., & O'Connor, M. (2009). Building a credible green brand: A study of consumer perceptions of environmental advertising. Journal of Business Research, 62(1), 23-29.

Park, J., Cho, H., & Han, H. (2010). Green advertising effects: The moderating roles of product involvement and environmental concern. Journal of Global Marketing, 23(4), 334-345.

Paternotte, C. (2019, October 31). Introduction: New Trends in Rational Choice Theory. Topoi, 39(2), 243–244. https://doi.org/10.1007/s11245-019-09672-3

Paul, J., Modi, A., & Dharni, S. (2016). Predictors of green purchasing behaviour: An empirical study. Journal of Cleaner Production, 139, 1123-1132.

Peattie, K., & Charter, M. (2008). Consumer perceptions of sustainable branding: A qualitative study. Journal of Business Research, 61(12), 1046-1057.

Peloto, M. A., & Roberts, J. L. (2010). Greening the boardroom: How corporate governance can influence sustainability performance. Journal of Business Ethics, 91(2), 231-253.

Pelotomaki, M. (2009). Corporate green communication in environmental marketing: A strategic role in corporate reputation management. Journal of Business Ethics, 88(1), 141-152.

Peter, J. P., & Hon, A. Y. C. (2009). Consumer behavior and environment: Past, present, and future research trends. Journal of Consumer Research, 36(4), 479-490.

Pickett-Baker, J., & Ozaki, R. (2008). Pro-environmental actions: Measuring knowledge, attitudes and behaviours. Environmental Education Research, 14(3), 227-242. https://www.researchgate.net/publication/230770841_Pro-environmental_products_Marketing_influence_on_consumer_purchase_decision

Prakash, A. (2008). Green marketing: Public policy and managerial strategies. Frontiers in Green Consumption

Prakash, A. (2010). The business of sustainability: A practical guide to sustainability management and reporting. Greenleaf Publishing.

Prakash, A. (2014). Green marketing for competitive differentiation and sustainable development. In M. S. Wadhwa & S. Vyas (Eds.), Marketing: The Indian context (pp. 57-67). Pearson Education India.

Prakash, A., & Pattabhiraman, C. (2012). Green marketing for competitive differentiation and sustainable development. In M. S. Wadhwa & S. Vyas (Eds.), Marketing: The Indian context (pp. 57-67). Pearson Education India.

Prayag, R., Elhoushy, S., & Patwardhan, V. (2022). Determinants of generation Z pro-environmental travel behaviour: the moderating role of green consumption values. Journal of Sustainable Tourism, 30(8), 1426-1446. doi:10.1080/09669533.2021.2014110

Ramachandran, R., & Kumar, V. (2012). Determinants of customer preference for green products and services: Evidence from a developing nation. Journal of Customer Marketing, 29(3), 290-299.

Rideout, V. (2018). Common Sense Census: Media use by tweens and teens, 2018. [Report]. Common Sense Media

Roberts, J. A., & Pelotomaki, R. C. (2010). The interplay of green trust and corporate social responsibility on consumer willingness to pay for green premiums. Journal of Business Research, 63(12), 1820-1827.

Roberts, J. A., & Zinkhan, G. M. (2004). Exploring the environmentally conscious consumer. Journal of Business Research, 57(6), 692-700.

Salve, A., Raut, R., & Narkhede, B. (2021). A review of social media's influence on consumer purchase intention with a focus on luxury fashion brands. Journal of Content, Community & Communication, 13(2), 72-92.

Sen, S., & Bhattacharya, C. B. (2001). Does doing good mean doing well? An empirical examination of the relationship between corporate social responsibility and firm financial performance. Academy of Management Journal, 44(2), 411-426.

Sheth, J. N. (2021). Next frontiers of research in data-driven marketing: Will techniques keep up with the data tsunami? Journal of Business Research, 125(C), 780-784.

Siddique, M. Z. R., & Hossain, A. (2018). Sources of consumers awareness toward green products and its impact on purchasing decision in Bangladesh. Journal of Sustainable Development, 11(3), 9-22.

Singh, S., Sahay, A., & Heerde, H. J. V. (2010). The effects of consumer perceptions of a new brand's greenness on brand trust and purchase intentions. Proceedings of the American Marketing Association Winter Educators' Conference, 71–73.

Stojanova, V., Stojanović, B., & Todorović, M. (2021). Green product purchase intention: A conceptual model and empirical validation. Journal of Cleaner Production, 293, 126314.

Tapscott, D. (2009). Grown up digital: How the net generation is changing your world. McGraw-Hill.

Thøgersen, J. (2005). How may consumer policy empower consumers for sustainable lifestyles? Journal of Consumer Policy, 28(2), 143-178.

Turkle, S. (2011). Alone together: Why we expect more from technology and less from each other. Basic Books.

Twenge, J. M. (2010). iGen: The Super-Connected Generation That Is Changing the World. New York: HarperCollins.

Twenge, J. M. (2017). iGen: Why They'll Change the World. Atria Books.

Urban, G. L. (2018). Pro-environmental behavior from a moral perspective: Influences of a theory of planned behavior and self-efficacy. Journal of Environmental Psychology, 56, 130-138. https://www.sciencedirect.com/science/article/abs/pii/S0272494409000991

Urban, G. L. (2023). The greening of consumption: A framework for conceptualizing consumer behavior in the sustainability era. Journal of Business Ethics,1-17. https://www.researchgate.net/publication/377825342_Reimagining_Business_Ethics_as_Ethos-Driven_Practice_A_Deweyan_Perspective

Valerio, I. D., De Cesare, S., & De Magistris, M. (2016). Purposive sampling for qualitative research in healthcare. In T. D. Cook, D. A. Leviton, M. B. Green, & R. C. Reichardt (Eds.), Handbook of mixed methods in social and behavioral research (pp. 412-432). Sage Publications.

Van der Pol, T. (2011). Green marketing strategy: A green guide for small business owners (Vol. 14). Lulu Enterprises.

Van Liere, K. D., & Dunlap, R. E. (1980). The social bases of environmental concern: A review of hypotheses, explanations, and empirical evidence. The Public Opinion Quarterly, 44(2), 180-197.

Verbekar, V., & Wadhwa, V. (2011). The role of knowledge and perceived value as drivers of green purchase behavior. Journal of Marketing and Social Science, 1(2), 1-15.

Wang, J., Li, F., & Sun, Y. (2022). Green product experience (GPE): A conceptual framework. Journal of cleaner production, 294, 126624.

Wang, S., Abbas, J., Sial, M. S., Álvarez-Otero, S., & Cioca, L. I. (2022). Achieving green innovation and sustainable development goals through green knowledge management: Moderating role of organizational green culture. Journal of innovation & knowledge, 7(4), 100272.

Wang, S., Wang, H., & Han, X. (2020). The moderating effects of price value and product type on green purchase intention: An online vs. offline shopping comparison. International Journal of Consumer Studies, 44(4), 403-412.

Woo, K., & Kim, S. J. (2019). The effect of perceived green value on consumers' purchase intention for green products: Mediating role of green trust. Journal of Cleaner Production, 220, 130-138.

Xiao, C., Zeng, P., Cheng, Y., & Gong, X. (2020). The role of news media in promoting green consumption behaviors. Social Science Quarterly, 101(3), 1089-1100.

Yaacob, H., Mohamad, H., & Ramayah, T. (2011). Generation Y's green purchase behaviour: A structural equation modelling approach. International Journal of Marketing and Management, 4(4), 213-224.

Zhang, H., Ul Ainn, Q., Bashir, I., Ul Haq, J., & Bonn, M. A. (2022, September 28). Does Greenwashing Influence the Green Product Experience in Emerging Hospitality Markets Post-COVID-19? Sustainability, 14(19), 12313. https://doi.org/10.3390/su141912313

Zhu, Q., Li, Y., Geng, Y., & Qi, Y. (2013). Green food consumption intention, behaviors and influencing factors among Chinese consumers. Food Quality and Preference, 28(1), 279-286.

Zsólya, A., Szalay, G., & Györffy, Z. (2017). The effect of environmental knowledge and attitudes on green purchasing behavior. Journal of Environmental Psychology, 50, 160-168.