Determinants of Tourists' Purchase Attitude towards Green Technology Practices in the Hotels Industry

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by

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<u>APPROVAL</u>

Title: Determinants of Tourists' Purchase Attitude towards Green Technology Practice in the Hotel Industry

We certify that we approve this thesis submitted in partial fulfillment of requirements for the degree of Master of Science in Tourism Management

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DEDICATION

I am very thankful to almighty Allah who blessed me to complete my study. Special thanks to my parents without their support and time it would not be possible to accomplish this stage of life.

I also dedicate this to my esteemed supervisor Assist. Prof**. Dr. Farzad Safaeimanesh** and my co-supervisor Assoc. Prof. **Dr. Nafiya Guden**, your unwavering commitment to education and your tireless efforts in the promotion of knowledgeable interest have been the driving forces behind my academic achievement, your guidance has not only shaped this thesis but has also played a transformative role in my personal and intellectual growth. I am profoundly grateful for the knowledge you imparted, the challenges you posed, and the encouragement you provided. This work stands as a testament to your dedication to fostering a love for learning and the pursuit of excellence. Thank you for being beacons of inspiration and mentors of unparalleled significance in my academic journey.

ETHICAL DECLARATION

I, **Kashif Khan**, hereby, declare that I am the sole author of this thesis and it is my original work. I declare that I have followed ethical standards in collecting and analyzing the data and accurately reported the findings in this thesis. I have also properly credited and cited all the sources included in this work.

Kashif Khan

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ABSTRACT

The service sector became more aware of the importance of sustainability. Both users and providers became more interested in promoting sustainability. Technology and sustainability are the two main concerns in the accommodation industry. Green technology is the combination of sustainability and technology. The main focus of this study is to investigate guest perception toward hotels where green technology is practiced. Furthermore, the effects of hotel guests' environmental knowledge (EK), concern (EC), and responsibility (ER) on green technology attitude, and how green technology attitude affects their intention to stay in a hotel where such type of technology is practiced. The practice of green technology is still new in the hospitality industry. Very limited research took place in the context of green technology in the hotel industry and regarding this, the potential importance of green technology from a consumer perspective should need to be studied extensively. This research adopts a quantitative method and data were collected from the international tourists who visit north Cyprus. The hypothesis was derived from the Theory of Planned Behavior model. This research found that the adaptation of green technology is very important in the hotel sector from the customer's perspective. Also, the study found that EC, EK, and ER positively affect the green technology attitude (as mediator) and their intention to stay in a hotel where such types of technologies are practiced.

Keywords: Green Technology, Green Technology Attitude, Customer Perception, Intention to Purchase Green Technology, Sustainability.

ÖZ

Hizmet sektörü sürdürülebilirliğin öneminin daha fazla farkına vardı. Hem kullanıcılar hem de sağlayıcılar sürdürülebilirliği teşvik etme konusuna daha fazla ilgi duymaya başladı. Konaklama endüstrisinde teknoloji ve sürdürülebilirlik iki temel kaygıdır. Yeşil teknoloji sürdürülebilirlik ve teknolojinin birleşimidir. Bu çalışmanın ana odağı yeşil teknolojinin uygulandığı otellere yönelik misafirlerin algısını araştırmaktır. Ayrıca otel misafirlerinin çevre bilgisinin (EK), kaygısının (EC) ve sorumluluğunun (ER) yeşil teknoloji tutumuna etkisi ve yeşil teknoloji tutumunun bu tür teknolojinin uygulandığı bir otelde kalma niyetini nasıl etkilediği araştırılmıştır. Yeşil teknolojinin uygulanması konaklama endüstrisinde hala yenidir. Otel endüstrisinde yeşil teknoloji bağlamında çok sınırlı araştırma yapılmıştır ve bununla ilgili olarak yeşil teknolojinin tüketici açısından potansiyel öneminin kapsamlı bir şekilde araştırılması gerekmektedir. Bu araştırma nicel bir yöntem benimsemiş olup veriler Kuzey Kıbrıs'ı ziyaret eden uluslararası turistlerden toplanmıştır. Hipotez Planlı Davranış Teorisi modelinden türetilmiştir. Bu araştırma, otel sektöründe yeşil teknolojinin uyarlanmasının müşteri açısından çok önemli olduğunu ortaya çıkardı. Ayrıca çalışma, EC, EK ve ER'nin yeşil teknoloji tutumunu (arabulucu olarak) ve bu tür teknolojilerin uygulandığı bir otelde kalma niyetini olumlu yönde etkilediğini buldu.

Anahtar Kelimeler: Yeşil Teknoloji, Yeşil Teknoloji Tutumu, Müşteri Algısı, Yeşil Teknoloji Satın Alma Niyeti, Sürdürülebilirlik.

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LIST OF ABBREVIATIONS

AMOS   Analysis of Moment Structure

CFA   Confirmatory Factor Analysis

CMB   Common Method Basie

CMIN   Chi- Square Minimum

CR   Composite Reliability

DF   Degree of Freedom

EC   Environmental Concern

EFA   Exploratory Factor Analysis

EK   Environmental knowledge

ER   Environmental Responsibility

GDP   Gross Domestic Product

GHG   Greenhouse gases

GPB   Green Purchasing behavior

GTA   Green Technology Attitude

IPGT   Intention to Purchase Green Technology

KMO   Kaiser-Mayer Olkin

RQ   Research Question

SDG   Sustainable Development Growth

SPSS   Statistical Package for Social Science

TPB   Theory of Planned Behavior

TRA   Theory of Reasoned Action

CHAPTER 1

INTRODUCTION

In the current globalization era, the tourism sector is considered an important sector for development. The economy of the countries is directly and indirectly supported by tourism industry. The worldwide tourism industry increased the gross domestic product (GDP) contributed with 3.9 percent with a total of 8.8 trillion dollars. With this increase, 319 million jobs were also created. Besides the tourism industry, many other jobs are also created in different industries (WTTC, 2019) creating a multiplier effect in economies. Between 2009 and 2019 on the international line, the increase of international tourism increased by 54 percent which increased the Gross Domestic Product (GDP) by 44 percent (UNWTO, 2020). However, tourism industry is the 5th largest producer of pollution in the world and the primary offender due to its significant emissions of greenhouse gases (GHG), the travel and tourism sector is the principal lawbreaker (Gossling et al., 2010). Since 1990, there has been a huge amount of awareness among the people regarding sustainability, eco-friendly tourism, and the green hotel business. With the incensement in awareness of climate change and environmental issues, individuals are willing to use green hotels, which are more environmentally friendly. They are utilizing green services to eliminate the negative impacts of the tourism industry, which are affecting the environment (Bohdanowicz, 2005). These negative effects are calculated during the construction of hotels, which violate the environment in the starting phase. While building the hotels they used many un-friendly services, which are polluting the environment such as unnecessary heating or cooling, ventilation, and lighting etc. These kinds of services

are used to provide comfort to the guest but may have negative impacts on the environment (Bohdanowicz, 2005; Han et al., 2009). Daily, these services are used widely in service operations. These daily operations and use of these services are widely impacting the nature and environment (Verma & Chandra, 2018; Legrand et al., 2016). The success of a clean atmosphere is essential to the prosperity of the closely linked travel, hotel, and tourism industries. Despite all of the hotel industry's direct and indirect adverse effects on the environment, including contamination, garbage, and other factors it is a fact that, approximately 75 percent of negative impacts are on the environment which is caused by extreme use of resources, water, energy, non-durable goods and products, and high levels of emission into the soil air, water (Bohdanowicz, 2006). Hotels and restaurants use huge amounts of energy and millions of liters of water for their daily operations excluding different chemicals and detergents, which pose high threats to the environment (Krakovsky, 2008). Martínez, (2015) stated that hotels are buying products and services for daily use to provide services within seven days, which is compared to one hundred household operations used in one year, in which many are not healthy products. This statement explains that this industry has taken the attention of research scholars, government bodies, and consumers (L. Wang et al., 2020b; Han & Yoon, 2015). In the tourism sector, the environmental problems are not avoidable (Wang & Wong, 2020). In the hotel industry the resources are using excessively which are causing environmental problems and the guest are aware of that, hence guests prefer to use green hotels that are using green strategies in their establishments to make the environment sustainable (Han et al.,.2010). That is how the concept of 'Green' has been raised which leads to the practices of less harm on nature and environment. Many online reservation and booking websites, such as booking.com have also started to show rate of green practices with

symbols. The alternative terms for Green are environmentally friendly, eco-friendly, environmentally responsible, environmentally focused, and sustainable (Wolfe & Shanklin, 2001; Han et al., 2009).

The main goal of sustainable tourism is to promote particular type of tourism, which supports green technology practices and has effects on the behavior of tourists, and supporting tourist-related products such as hotels (Ali & Frew, 2014). Technology and sustainability are two important topics in the hospitality sector that have received attention from recent studies. Law, Buhalis, and Cobanoglu (2014) deliberate the incredible prospects that the hotel industry has due to the rapid advancement of technology and Neuhofer, Buhalis, and Ladkin (2015) highlight how advancements in creative technology generate new opportunities for the service sector to provide ideal service. Technology has potential to improve the quality of services and products that provide customers more a new experience (Neuhofer et al., 2015).

These studies prove that the service industry is becoming more and more conscious of the value of sustainability. Jones, Hillier, and Comfort (2016) point out that both hotel owners and visitors are becoming more interested in promoting sustainability. Green technologies, or the combination of advance technologies and sustainability, is an innovative idea in the hotel sector that may fulfill the needs of service providers as well as guests in terms of sustainability. According to an earlier study of Billatos (1997), the main focus of green technology is to effect of products on the environment. The main motive behind green technology is to reduce operational expenses while minimizing the environmental impacts of running a business (Dedrick, 2010). However, research suggests that, from the perspective of users, hotel guests have grown increasingly aware

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of their environmental obligations when deciding which goods or services to purchase (Ramayah, Lee, & Mohamad, 2010). They expressed their favorable attitudes and willingness to choose green hotels wisely (L. Wang et al., 2019; Mas'od & Chin, 2014). The perception of hotel guests and their attitude toward environmental practices in the hotel business are positively correlated (Manaktola & Jauhari 2007). Nevertheless, there has not been any research done on customer attitude and their perception towards green technology in the hotel industry.

1.1 Problem Statement

Consumers who are particularly concerned about their impact on the environment and are prepared to take action to reduce it by choosing sustainable travel options and hotels with green housing for their travel and holiday plans are part of the growing sustainability movement in the tourism industry (Chen, et al., 2021). Many hotels and other hospitality businesses are using more and more environmental programs that reduce waste, conserve water and energy, and improve their environmental performance in response to the growing pressure from green consumers. Green accommodation is a term used to describe lodging establishments that are dedicated to conserve the environment (Merli et al., 2019). Environmental protection is important to the hotel sector since creating a safe and appealing environment is essential to its success (Kasim, 2015; Pereira-Moliner et al., 2015; Chan & Wong, 2006). In recent years, the market is seeing an increasing number of "green hotels" emerge. According to Holjevac's (2003) prediction, hotels of the future will be "eco-hotels," designed and built with the preservation of the environment and nature as the primary considerations in sight. It is believed that an

increasing number of hotels will need to think about implementing environmental protection practices, like installing eco-friendly technology. From the perspective of consumers, they are aware of the environmental problems that are caused by the excessive use of resources in hotels, which is why consumers prefer to use green hotels that are using green strategies in their establishments to make the environment sustainable. In the hotel sector, green technology is an innovative concept that combines technology with sustainability to meet the needs of both service providers and guests in terms of sustainability. Many of the earliest studies worked on customer attitude and their intention towards green hotels in the field of the hospitality industry (Lei Wang, 2022; De Freitas, Van Eeden & Christie, 2020). However, there has not been limited research on customer attitude and their perception toward green technology in the hotel industry. This study aims to fill the gap by investigating customer attitude and characteristics for their intention towards green technology hotels.

1.2 Purpose of the Study

An innovative idea in the hotel industry is green technology, which is the combination of technology with sustainability. It has the potential to meet the sustainable requirements of both customers and service providers. Hotels all over the world are adopting green technologies minimize the negative impact that the hospitality industry has on the environment. The main purpose of this study is to investigate consumer perception toward hotels where green technology is practiced. To be more specific this study's aim is to investigate

- The effects of hotel guests' environmental knowledge, concern, and responsibility towards the environment on their attitude toward green technologies

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- And how do these green technology attitudes affect their intention to stay in hotels where green technology is practiced?

1.3 Objectives

The following are the objectives of this study:

1) Implementing the Theory of reasoned action (TRA) and theory of planned behavior (TPB) in the concept of green technology on hotels.

2) Proposing a model for environmental factors that affect green technology attitude in guest intentions.

3) Determining the relationship between EC, EK, and ER with green technology attitude.

4) Determining the relationship between GTA and IPGT

1.4 Significance of the Study

The impact of green technology on tourists' behavior and perceptions is revealed by this important study on how tourists perceive and behave concerning green technology. Hoteliers can use the findings of this study to enhance the overall travel experience and make locations more appealing. The creation of efficient marketing campaigns and destination management strategies can also benefit from an understanding of how customers view and use green technology. Furthermore, by offering individualized recommendations and enhancing access to information and services, green technology can be used to improve the entire visitor experience. This study can assist in identifying these kinds of hotels. The study can also help uncover possible challenges and barriers to the

adoption of green technology, such as concerns about the security and privacy of data. The tourism sector, travelers, and destination communities stand to gain from this study's potential to further creative and sustainable tourism practices.

1.5 Research Questions and Hypotheses

1.5.1 Research Questions

RQ1: What is the perception of hotel guests towards the practices of green technology in the hotel industry?

RQ2a: Do environmental concern, environmental knowledge, and environmental responsibility affect customer green technology attitude?

RQ2b: Does green technology attitude arouse the tourist's intention to purchase green technology practices?

1.5.2 List of Hypotheses

H1: Environmental Concern Positively Affects Green Technology Attitude

H2: Environmental Responsibility Positively Affects Green Technology Attitude

H3: Environmental Knowledge positively affects Green Technology Attitude

H4: Green technology attitude positively affects tourist's Intention to Green Technology Practices Purchase

H5a-c: Green Technology Attitude mediates the relationship between Environmental Concern (a), Environmental Responsibility (b), Environmental Knowledge (c), and Intention to Green Technology Practices Purchase

1.6 Assumptions

Based on the following assumption, this investigation will be conducted:

- The participants offered to fill out the questionnaire as they were aware of the purpose of the study.

- Given the limited sample size, it is assumed that the respondents accurately reflect the overall population of visitors to smart tourism destinations. Easy sampling is thought to provide useful information about the attitudes and behaviors of tourists, even though it may also introduce some biases.

- The questionnaire that was used to evaluate the attitudes and behaviors of the visitors was considered to be valid, which implies that it correctly identifies the target constructs and produces data that is suitable for analysis.

- The conclusions of the study are based on their generalizability across a wide range of cultural contexts and backgrounds, allowing for the formation of conclusions outside of the particular limitations of the sample and environment.

1.7 Limitations

Even though the thesis attempts its best, it has limitations because this study was a part of the Master in Tourism Management program. The study area of this investigation was quite limited, which focused on guests who traveled to north Cyprus. An insufficient representation of the population was represented by the samples, which served visitors who had stayed at hotels that practiced green technology. As a result, the context only applies to this location and presents differences from other areas because of the acceptability of the green topic, cultural differences, and numerous other factors. Secondly, this study only focused on the user's point of view about green technology, future researchers can also work on the provider's point of view.

1.8 Definition of Key Terminology

Green technology: The enhancement and application of tools, products, and processes that protect natural resources and the environment while minimizing the negative effects of human activity is referred to as green technology (Monu Bhardwaj et al., 2015).

Attitude: According to Azjen (1991), Attitude is the extent to which a person has a favorable or unfavorable view of what is expected of a specific behavior.

Environmental knowledge: An individual overall understanding of the facts, ideas, and connections related to environmental protection and the world's major ecosystems is referred to as environmental knowledge (Vicente-Molina et al., 2013; Kaufmann et al., 2012).

Environmental Concern: The level of care, belief, and attitude toward the environment is referred to as environmental concern (Aman et al. (2012).

Environmental Responsibility: Environmental responsibility is assumed by those who maintain responsible behavior and protect the environment for generations going ahead (Wang et al., 2018).

1.9 Theoretical Framework

Figure 1

Research Model

The research framework is mentioned below in Figure 1.
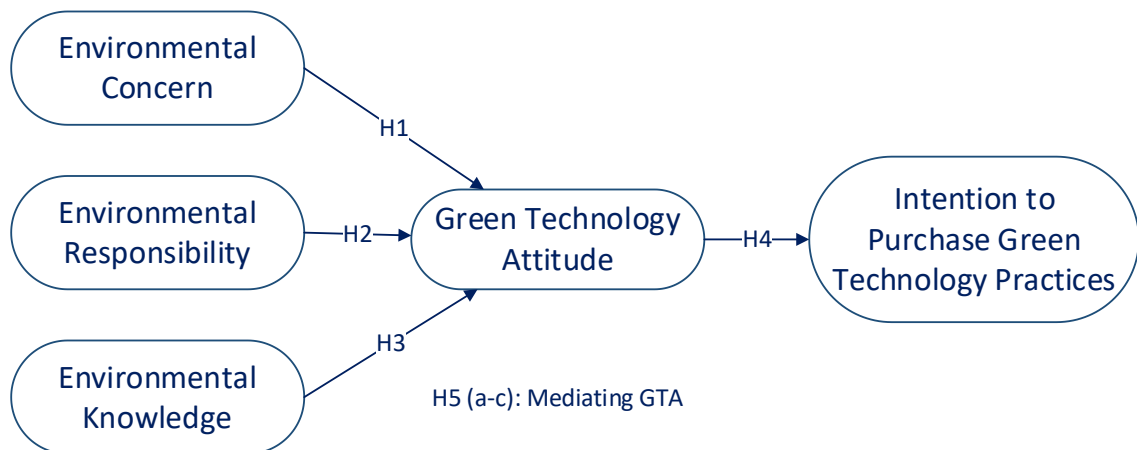
CHAPTER 2
LITERATURE REVIEW

2.1 Sustainability

Sustainability is a mindset that people have toward the environment and their sense of responsibility to each other and future generations as well. (Baumgärtner and Quaas, 2010). In other words, the interaction between humans and nature can be characterized as sustainability. Sustainability is a global concern that needs to be given careful thought, particularly from a corporate perspective (Legrand, Chen, & Sloan, 2013). Elkington (1998) asserts that there are three ways to evaluate sustainability: social, environmental, and economic. Long-term laws must be implemented to ensure that companies safeguard the environment in order to advance sustainability at the economic level (Costanza, 1992). In general, sustainable tourism development is acknowledged as a way to fulfill the objectives of sustainable development. (Chan, 2010).

The United Nations General Assembly adopted the 2030 Agenda for Sustainable Development on September 25, 2015, and it includes 17 SDGs with 169 goals as a universal and groundbreaking development approach (Abdou, Hassan & El Dief 2020). Tourism may support all 17 SDGs, either directly or indirectly (Kapucu & Beaudet, 2020). the travel and hospitality sector may create a variety of market opportunities while also helping to realize the SDGs. (Kapucu & Beaudet, 2020). For instance, in the outline of how tourism and hospitality can help achieve goal 6 (Ensure availability and sustainable management of water and sanitation for all) "tourism investment requirements for providing utilities can have a critical role in accomplishing water access and security, as well as hygiene and environmental sustainability." To protect the most valuable resource,

water usage, pollution prevention, and technological advancements can be essential. Goal 12 (Ensure sustainable consumption and production patterns) can also be attained by the tourism and hospitality sectors through the adoption of sustainable consumption and production (SCP) modes and tools, such as efficient water and energy technologies, recycling, waste treatment, and pollution reduction; local purchasing and enterprise; and community involvement. These measures track the effects of sustainable development on tourism and improve economic, social, and environmental outcomes (Kapucu & Beaudet, 2020).

2.2 Green Technology in Hotels

The enhancement and application of tools, products, and processes that protect natural resources and the environment while minimizing the negative effects of human activity is referred to as green technology (Monu Bhardwaj et al., 2015). Green technology reduces the rate of environmental deterioration, sinks greenhouse gas emissions (GHS), is safe to use, and ultimately improves the environment to make it healthier and better for all mankind. Moreover, it enhances the utilization of renewable energy sources while reducing the consumption of natural resources and energy.

According to Bartlett and Trifilova (2010), technology not only directly influences the promotion of greener business. However, it also offers unintended advantages including enhancing employee self-esteem (Olson, 2008), and promoting a positive image of business (del Rio Gonzalez, 2005). Neuhofer et al. (2015) stated that there are two main reasons why business owners should pay attention to the actuality of green technology. Firstly, according to Zach, Gretzel, and Xiang (2010), the service industry is a rapidly expanding in the marketplace. Next, technology is regarded as an edge over rivals that

improves the efficiency and effectiveness of the company (Buhalis & Law, 2008). Technology-based devices have far more sophisticated functionality than conventional ones. For example, a hotel room management system automatically switches on the lights at the entry of guests to the room and shuts them off while leaving the room. Implementing this type of technology increases energy efficiency. Additionally, because such devices rely on technology, users are continually urged to upgrade to enhance functionality and have access to the most recent technology. These concepts are consistent with the findings of the study conducted by Ali and Frew (2014), which suggest that advanced hoteliers can increase the success of green hospitality by utilizing modern technological tools or strategies. According to Gagić, Jovičić, & Erdeji, (2013), Green hotel technologies are environmentally friendly approaches to reducing waste and water usage as well as the negative effects of hotels on the environment. It was also anticipated that demand for green technology adoption in hotels would increase over time. (Aleksandrovna et al. 2021). Innovation in green technology has an impact on how sustainably hotels operate (Elzek et al. 2021). There is a lack of research on the implementation of green technology in hotels. Day and Cai (2012) emphasized how important it is to understand the behavior of all stakeholders, including employees, guests, and management, who are connected to the hotels. The majority of guests are aware of the value of implementing sustainable creativities like using green technology in hotel sectors (Floričić 2020). This study utilized both the Theory of Reasoned Action (TRA) and the Theory of Planned Behavior (TPB) to determine how consumers behave when it comes to green technologies in the hotels industry. Researchers used both TRA and TPB extensively to study customer behavior and green purchasing behaviors. (Wang et al., 2019; Paul et al., 2016).

2.3 Theoretical Underpinning

According to various studies, tourist pro-environmental behavior is explained by the Theory of Reasoned Action (TRA), while consumer attitudes and behavioral intentions toward green consumption are explained by the Theory of Planned Behavior (TPB) (Teng et al., 2018; Nguyen et al., 2019; Lin and Niu, 2018)). These are the two theories that are most frequently used for predicting the intentions as well as the behaviors of customers when they make purchases (Chen and Tung, 2014; Paul et al., 2016). Evidence from both models supports the idea that intention influences behavior significantly (Paul et al., 2016; Teng et al., 2011). Paul et al (2016) describe intention as the psychological drive behind someone to involve in a specific behavior. Several researches have shown that customer intention and behavior related to green purchasing have a significant positive correlation. (Teng et al., 2011; Rezai et al., 2012; Paul et al., 2016). Additionally, attitude and subjective norms influence intention. Subjective norm, on the other hand, describes the social pressure to either engage in a behavior or refrain from it. While Ajzen, (1991) states that attitude refers to the degree of person believes that certain behavior is expected of them, whether that belief becomes positive or negative. The core element of TRA is a high degree of volitional control in humans, which directs behavior between reasonably presented decisions. However, individual purchase decisions may not always be influenced by volitional factors because of perceived limits (Wang & Wong, 2020). How easy or tough behavior is considered to be performed is referred to as perceived behavioral control (Ajzen, 1991). This theory states that subjective norms influence customer purchase intentions, attitudes and perceived behavioral control. Moreover, those intentions ultimately influence purchase behavior.

Researchers have used both TRA and TPB extensively to study customer green purchase behavior (Wang et al., 2019; Paul et al., 2016). However, some have emphasized that subjective norms or perceived behavioral control are weak indicators of consumer behavior. (Wang et al.2019, 2020c; Paul et al., 2016). In certain research, for example, perceived behavioral control has been used as a predictor for customer purchase behavior and intention; the outcomes showed that there is no positive relationship among these variables. (Sutikno, Indarini & Margaretha, 2020; Han & Yoon, 2015). Similar to this, other scholars have used subjective norms to forecast consumers' intentions and behaviors while making green purchases, however, this has led to an ineffective subjective norm for consumers' purchase behavior and intention (Paul et al., 2016; L. Wang et al., 2019).

On the other hand, several researches have confirmed a significant relation among attitude, intention, and behavior and suggested that green purchase attitude plays a substantial role in predicting consumer green purchase behavior (Olya et al., 2019; Lim et al., 2019). This is consistent with the theory put forth by Ajzen and Fishbein (1977) since attitude is just one of the several variables that effect behavior. It has been noted as a crucial driver of consumer behavior and intentions related to green purchases (L. Wang et al., 2020a; Paul et al., 2016).

2.4 Attitude Toward Green Purchase

According to Azjen (1991), Attitude is the extent to which an individual has a favorable or unfavorable view of what is expected of a specific behavior. Paul et al. (2016) stated that individual attitudes include their evaluation of the action ethics and their level of desire to participate in it. A person is more likely to participate in an activity when they

have a positive perspective on it. (Nimri et al., 2019). Attitude is just one of the numerous variables that affect behavior (Azjen & Fishbein 1977). Based on these results, several studies looked at how intentions or behavior were affected by attitudes in the context of green marketing and discovered that attitudes are the most accurate predictor of customer choices to make green purchases, including their choice of hotels (Wang and Wong, 2021; Sutikno et al., 2020). Thus, research has shown that attitude is the most important and trustworthy prior component that influences customer GPB green purchasing behavior out of all the other anterior components (Han et al. 2019). According to Chang (2011), while assessing the advantages and disadvantages of environmentally friendly items, customers may have mixed opinions about products. For instance, the customer chooses to purchase an environmentally friendly product because it helps to protect the environment from negative impacts. Considering and assessing psychological feelings, attitude is the best indicator of behavioral intent in terms of all consumer activities. (Moon et al., 2017, 2018). Hsu et al. (2017) found that when it comes to green consumer behavior, attitude in particular has a favorable impact on customers' intention to engage in environmentally conscious activity across different cultures. Favorable feelings toward the environment increase the possibility that consumers will make green purchases (Mostafa, 2007). Based on the development of the initial TPB and factual data (Moon et al., 2015; Moon et al., 2017, 2018), this study hypothesizes green technology attitude in the TPB model which has not been researched yet in the context of guest intention toward green technology in the hotels sector.

H4: Green technology attitude positively affects tourist's Intention to Green Technology Practices Purchase

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H5a-c: Green Technology Attitude mediates the relationship between Environmental Concern (a), Environmental Responsibility (b), Environmental Knowledge (c), and Intention to Green Technology Practices Purchase

2.5 Environmental Knowledge

Research states that an individual overall understanding of the ideas, facts, and connections related to environmental protection and the major ecosystems in the world is stated as environmental knowledge (Vicente-Molina et al., 2013; Kaufmann et al., 2012). To put it another way, environmental knowledge encompasses all knowledge that individuals may have about the environment, major connections and influences, the potential of environmental systems, and the shared responsibilities necessary for sustainable growth. (Kaufmann et al., 2012). Researchers in the past argued that knowledge of the environment promotes behavior that is more environmentally friendly (Otto and Pensini, 2017; Indriani et al., 2019). When customers are not informed of the potential negative effects of their behaviors, they are less motivated to adopt eco-friendly practices (Szabo and Webster, 202; Daryanto & Song, 2021; Ernst et al., 2017). For example, a meta-analysis conducted by Ernst et al. (2017) found that environmental knowledge is one of the best indicators of a responsible attitude and intention toward the environment. According to Choe et al. (2020), Customers show a high degree of knowledge about waste, typical destruction, and resources that are renewable but a poor level of understanding of climate change, quality of water, and generation of energy. Numerous consumers desire to learn how a product is created and other relevant information that has an impact on the environment so they can understand their common obligation to a sustainable environment (Kaufmann et al., 2012). Although, in theory,

environmental knowledge appears to be important in assisting individuals in understanding the proper steps toward achieving an environmentally friendly goal, it can also act as an essential driver for the development of attitudes toward environmental behavior. Kumar et al. (2017) demonstrated that customers' pro-environmental attitudes are considerably and favorably influenced by their knowledge of the environment.

Numerous studies in the tourism and hospitality industries show that individual attitudes toward the environment are strongly influenced by their knowledge of the environment and adoption of green practices (Wang et al., 2020; Choe et al., 2020; Wang et al., 2019). Scholars used qualitative study of an online sample of 248 participants to investigate the relationship among environmental knowledge and green purchasing attitude and intention (Wang et al. 2020a). The result of the study showed a strong positive correlation among knowledge about the environment, attitude, and intention toward selecting green hotels. Using a convenience sample technique, Yadav and Pathak (2016) used the Theory of Planned Behavior to study Indian customer intentions to purchase green products. An analysis of 326 respondents' intentions and attitudes regarding green purchasing revealed a favorable correlation between environmental knowledge. While making sustainability-related decisions, we must take into account the viewpoint of hotel visitors who may be a part of a community that actively pursues our knowledge (Singjai et al., 2018). It is evident from recent studies that the majority of the research showed a significant relationship among environmental knowledge and consumer green attitude toward green purchase intention. While the literature in the context of green technology attitude toward green purchase intention has not yet been studied in the hotel sector. That's why we hypothesis

H3: Environmental Knowledge positively affects Green Technology Attitude

2.6 Environmental Concern

The level of care, belief, and attitude toward the environment is referred to as environmental concern (Aman et al. 2012), which contains concern for health, biosphere, waste, energy consciousness, and responsibility to the environment (Said et al., 2003). three aspects stated by Diamantopoulos et al. (2003) environmental concern used to outline green customers (1) attitude toward environmental quality (2) knowledge about green problems and (3) environmentally conscious behavior. Environmental concern as the degree of awareness of environmental issues and the ability to participate actively in attempts to address those (Hu et al. 2010). It expresses an individual level of devotion and passion for environmental issues as a whole (Han & Hyun, 2018). It represents individual opinions on environmental issues and indicates their preferences for and objections to potential solutions (Yeung, 2004).

According to M.-F. Chen and Tung, (2014). Customers who have a positive concern for the environment have shown stronger attitudes, which have led to stronger intentions. Concern for environmental sustainability among customers is essential in the hospitality and tourism sectors (Wang et al., 2020). Research has indicated that environmental concerns have a positive impact on customer perceptions of green hotels (Paul et al. 2016). Similar outcomes were found in recent research. by Yan and Chai (2021), Hou and Wu (2020), and Demir, Rjoub, and Yesitas (2021), It demonstrated how strongly environmental concerns influenced consumers to stay in green hotels. Hou and Wu (2020) stated consumer attitude toward pro-environmental behavior or intention is

influenced by Environmental concerns while choosing hotel to stay. Furthermore, Paul et al. (2016) examines the connection among TPB and environmental concerns. The TPB model and environmental concern were found to be positively correlated in a quota sample. Similar results Vazifehdoust et al. (2013) used the model TRA for a conceptual framework. Out of all the various attitudinal components that influenced the attitude toward green products, environmental concern was shown to be the only one that was significant. Based on the research examined, which revealed that consumers who are aware of environmental concerns and desire to make green purchases have positive attitude, the following hypothesis was put forth about green technology in hotels.

H1: Environmental Concern Positively Affects Green Technology Attitude

2.7 Environmental Responsibility

Ever since environmental degradation has been acknowledged as the world's major issue. Although responsibility emerges from having the choice to act in a particular situation, individuals who can select between several options are considered to be responsible for how they behave (Schrader, 2007). When an individual focuses on their social relationships, experiences, and cultural and social systems that shape their environment, they become aware of their socially generated environmental responsibility (Gill, 2012). Those who are willing to give up something personal to save the environment are considered environmentally responsible (Lee, 2009). Environmental responsibility is assumed by those who maintain responsible behavior and protect the environment for generations going ahead (Wang et al., 2018). Over time, every single customer has become more knowledgeable and conscious of environmental issues. (Lai, 2000; Lee,

2008). Customers are more encouraged to practice green consumption if they believe that their actions are responsible for environmental issues. (Nyborg et al., 2006) additionally, they frequently buy green products and show more environmentally conscious behavior (Kaiser & Shimoda, 1999).

Arli et al. (2018) state that someone can be considered environmentally responsible if they participate in green activities that contribute to a sustainable environment. Chams and Blandon, (2019) state that the obligation or acts that a person or organization endorses for the sustainable use of natural resources are referred to as perceived environmental responsibility. If visitors believe they have a responsibility for the environment, they are more likely to engage in environmentally friendly activities (Zhang et al., 2018; Daryanto and Song, 2021). Furthermore, according to Zhang et al. (2018), individuals who value nature and the environment are more likely to have suitable environmental attitudes. It has been stated by earlier studies that to understand consumers' views toward green lifestyles, it is important to investigate how environmental responsibility affects their attitudes (Kumar et al., 2021). A study carried out in Hong Kong youth revealed a significant correlation between a green attitude and the perception of being environmentally responsible (Lee, 2009). Based on previous studies about the importance of environmental responsibility toward green attitude we deem to hypothesize this variable in the context of green technology in the hotel sector.

H2: Environmental Responsibility Positively Affects Green Technology Attitude

CHAPTER 3

METHODOLOGY AND PROCEDURE

3.1 Research Design and Proposed Model

3.1.1 Research Design

The research strategy is built around a process of measuring and analyzing the data that has been gathered to achieve research objectives and handle research difficulties. Researchers who examine hypotheses can benefit from it (Saunders, Thornhill & Lewis, 2009).

According to Saunders et al. (2009), research design:

> *"The overall strategy for addressing your research question(s) will be outlined in your study design. It will include specific goals that are based on your research question(s), list the sources you plan to use for data collection, take into account any inevitable limitations (such as time, money, location, or access to data), and address ethical concerns"* (p. 136-7).

Consequently, the designs of research can be categorized into three categories created on the goal of the study: descriptive explanatory and exploratory (Saunders et al., 2009).

> "*Exploratory research is a useful tool for figuring out "what is happening," looking for new viewpoints, posing queries, and viewing actions from a different angle.*" (p. 139).

"*The purpose of descriptive research is "to portray an accurate profile of a person, situations, or events"(p. 140).*

"*Explanatory research refers to studies that show causal links between variables. Here, the focus is on analyzing a situation or an issue to clarify the connections between various components.*" (p. 140).

The purpose of this study is to find out how travelers perceive green technology in the accommodation industry, and how attitudinal characteristics affect their intention to stay in hotels where green technology is practiced, thus this study is explanatory in nature.

3.1.2 Research Approach

This study will take a deductive approach, in which hypotheses are derived from an existing theory. The research will shed light on the hypothesis's investigation even though no new theory has been established. The quantitative approach was the most appropriate for this research because the goal is to use the planned behavior theory to examine how tourists perceive green technology that is practiced in the hotel sector and the effects of environmental factors on green technology attitude.

3.2 Instruments and Procedures of Collecting Data

3.2.1 Instruments

According to Einola and Alvesson (2001), questionnaires are widely utilized as essential tools for gathering and analyzing data in research across the globe. Based on earlier research, the questionnaire's design includes a Likert scale with five response

options. Researchers have utilized the Likert scale extensively since it was created (Likert, 1932).

3.2.2 Data Gathering Method

Paper and pencil were used to collect the data for this study utilizing the self-administrative approach. Using paper and pencil, respondents complete the questionnaire, answering the questions without the use of any electronic devices or any other instruments. (Eaton et al., 2010). Due to the respondent's ability to answer the question on their own, the paper and pencil approach is often used in research. The questionnaires are printed on paper with key lines for answering, distributed among respondents, and provided with instructions on how to fill them after handling them. The questionnaire provides detailed information on various questions and responses, allowing respondents to easily understand and mark their choices using pen and pencil. The paper and pencil method provides convenience and user-friendliness for researchers and participants but may introduce data biases, errors, and missing data. (Ebert et al., 2018), The researcher ensured participant confidentiality and anonymity by limiting their identity and ensuring their opinions would only be used for research purposes. Data were collected during October, 2023 to December, 2023. At tourist destinations, the questionnaire was distrusted by foreign visitors, such as Famagusta, Harbor of Kyrenia, Kyrenia Castle, Nicosia some of the busiest tourist spots of Turkish Republic of North Cyprus.

3.2.3 Questionnaire Designing

Saunders et al. (2009) suggest that questionnaire of research can be created using three methods: adaptation, adoption, or adeptness. This study employs a questionnaire

comprising general attributes of respondents and respondent opinions, covering variables derived from the literature review's hypotheses.

3.2.4 Questionnaire Format

The questionnaire must be visually appealing, simple to read, and time-efficient, providing valuable data for the researcher while respecting respondents' time. It will be designed to engage the general public while maintaining English as the language.

The study evaluated the perceived value of several variables using a modified measuring scale. The scale encompassed five dimensions: environmental concern (EC), environmental responsibility (ER), environmental knowledge (EK), green technology attitude (GTA), and intention to purchase green technology (IPGT). For the variable of environmental concern (EC), six questions were adopted from the studies of (Kim & Choi, 2005; and Fujii, 2006) Similarly, for the variable of environmental knowledge (EK), four questions were derived from the works (Sidique et al., 2010; Mostafa, M. M. 2007) In the scenario of the environmental responsibility (ER) variable, five questions were adapted from the studies of (De Groot & Steg, 2009; Bamberg, Hunecke, & Blöbaum, 2007 ;Onwezen, Antonides, & Bartels, 2013; Lee, K. 2009). The green technology attitude (GTA) variable was assessed using five questions sourced from the research of (Han et al. (2010).) Finally, the intention to purchase green technology (IPGT) variable, five questions were utilized, which originated from the studies of (Han & Hyun, 2018; Han et al., 2018).

The goal of the current study was to carefully assess the perceived worth of the variables listed above by utilizing this modified measurement scale. The current

investigation's approach to measuring these factors was made robust and validated by including items from prior studies.

The age, gender, marital status, level of education, and place of origin of the respondents are among the demographic factors included in this study. Two scale items were used to measure gender (Male=1, and Female=2). Age and Education were categorized regarding to the scale of Hou, H., & Wu, H. (2021), (1=under 18, 2=18-24, 3=25-34, 4=35-44, 5=45-54, 6=55-64, and 7=65 and over). Education level is categorized and measured through six scales which are High school=1, Diploma=2, Bachelor's degree=3, Master's degree=4, Doctoral degree=5. Regarding the respondents' nationality, this study retained the names of their respective countries. The total number of questionnaire items and the labels attributed to them are shown in Table 1, which will be used throughout the thesis.

Table 1

Questionnaire Items and Labels

Variable	Label
Environmental Concern (*EC)*	
I am extremely worried about the state of the world's environment and what it will mean for my future	EC_Q1
People are severely abusing the environment	EC_Q2
When humans interfere with nature it often causes disastrous Consequence	EC_Q3
I believe that environmental problems are very Important	EC_Q4
I believe that environmental problems cannot be ignored and should be taken seriously	EC_Q5

Table 1 (continued)

Questionnaire Items and Labels

I believe that the balance of the natural environment is very delicate and can be easily disturbed.	EC_Q6

Environmental Responsibility *(ER)*

I believe that every hotel guest is partly responsible for the environmental problems caused by the hotel industry.	ER_Q1
I believe that every hotel guest is partly responsible for the environmental problems caused by the hotel industry.	ER_Q2
Every hotel guest must take responsibility for the environmental problems caused by hotels	ER_Q3
I am willing to take up the responsibility to protect the environment	ER_Q4
I should be responsible for protecting our environment.	ER_Q5

Environmental knowledge *(EK)*

I believe that staying at an eco-friendly hotel is an important way to reduce air, water, and soil pollution	EK_Q1
I believe that staying at an eco-friendly hotel is an important way to reduce air, water, and soil pollution	EK_Q2
I believe that staying at an eco-friendly hotel is a good approach to conserving the earth's natural resources	EK_Q3
I have knowledge about environmental issues and Problems	EK_Q4

Green Technology Attitude *(GTA)*

Table 1 (continued)

Questionnaire Items and Labels

Staying at a hotel where green technologies are practiced would enable me to protect the environment. GTA_Q1

Staying at a hotel where green technologies are practiced would enable me to be more socially responsible. GTA_Q2

Staying at a hotel where green technologies are practiced would enable me to Experience a healthy environmentally friendly guestroom. GTA_Q3

Staying at a hotel where green technologies are practiced would enable me to perform environmentally friendly practices. GTA_Q4

Staying at a hotel where green technologies are practiced would enable me to enjoy environmentally friendly products and healthy amenities. GTA_Q5

Intention to Purchase Green Technology Practices *(IPGT)*	
I am willing to stay at a hotel where green technologies are practiced	IPGT_Q1
I will plan my tour accordingly to accommodate my stay at a hotel where green technologies are practiced.	IPGT_Q2
I will do my best to choose a hotel where green technologies are practiced during my trip	IPGT_Q3
The hotel where green technologies are practiced will always be my top chose	IPGT_Q4

Table 1 (continued)

Questionnaire Items and Labels

I will post good comments about the hotel where green technologies are practiced.	IPGT_Q5

3.3 Sampling and Population

A total of 460 questionnaires were distributed to the tourists who travelled to North Cyprus and 451 completed surveys were used for the data analysis. Despite having no standard rule for determining the sample size when estimating maximum likelihood, it is suggested that in SEM a minimum of five respondents per estimated parameter can be acceptable; however, a ratio of 10 is desirable (Hair et al., 2019). Therefore, with 25 parameters a minimum of 250 sample should be collected; however, we collected more than its requirement in order to overcome the generalizability limitation of the applied sampling technique. Purposive sampling was applied in order to choose the participants based on certain criteria (Judd et al., 1991). Therefore, participants with two criteria were chosen. First, those who knew about green technologies and second, those who were aware of the environmental issues were selected to participate. For the pilot study, a total of 30 questionnaires were issued. Since we were unable to identify any comprehension issues with the responders, we retained them for additional analysis.

3.4 Time Frame

This study was conducted in two phases:

3.4.1 Stage 1

- Problem Areas Recognizing

- Brainstorming the topic

- Topic selection

- Paper base selection

- Proposals writing

- Introduction

- Literature Review

3.4.2 Stage 2

- Methodology

- Forming of Questionnaires

- Pilot Testing

- Data Collection Survey

- Data Analyzing

- Management Report

- Final Submission

3.5 Data Analysis tools and Methods

In this study, SPSS V.26 and AMOS V.24 are used for data analysis. Structural equation modeling (SEM), exploratory and confirmatory factor analysis (CFA), correlation analysis, and descriptive analysis were used to assess the information obtained from the online questionnaire. To explain and represent a sample of the population or the whole population, descriptive analysis gives information and summarizes the total data.

Measures of variability and indications of central tendency are two categories of descriptive statistics. The terms mean, median, and mode of measurement are used to characterize central tendency, whereas the terms standardized deviations, deviation, variance, and lowest and maximum variable values are used to characterize variability measurements (Broke & Logan, 2023). A statistical method called exploratory factor analysis (EFA) breaks down the data into smaller sets of summary variables so that the underlying theory behind these events can be examined. According to Weaver and Maxwell (2014), this will be utilized for estimating the structure of a variable's connection with its respondent. Confirmatory factor analysis (CFA) is a statistical technique that looks at how well indicators reflect the r unobserved constructs and assesses whether or not they are singularly distinct from one another. In a CFA, the term "factor" usually refers to an unobservable idea. Therefore, the concept of "factor" refers to an observable construct that we are trying to measure

The analysis will include normality of the data, multicollinearity, reliability, and validity testing through various statistical techniques such as Cronbach's alpha coefficient, composite reliability, and the Heterotrait–Monotrait Ratio of Correlations (HTMT). The HTMT is suggested for measuring discriminant validity instead of the average variance extracted (AVE) (Voorhees et al., 2016).

CHAPTER 4

DATA ANALYSIS RESULTS

4.1 Profile of the Respondents

Tables 2-5 display the responder profile. In this study, the frequency and percentage of each demographic question element were calculated and displayed using the description analysis.

Table 2

Descriptive analysis - Gender

	Frequency	Percent %
Male	281	62.3
Female	170	37.7
Total	451	100

The results of the gender-specific descriptive analysis are displayed in Table 2. The majority of respondents (62.3%) were men, and the remaining respondents (36.7%) were women.

As shown in Table 3, of the 451 respondents, 7, or 1.6 %, belong to group one, which includes those who are below the age of 18 or 18. Group two, which includes respondents between the ages of 18 and 24, comprises 26.2% of the sample. Respondents aged 25- 34 are included in group 3 and their respective percentages are 31.0%. In group 4 the percentage is 18.4% which shows the detail of age between 35-44. The respondents of group 5 starting from the age of 45-54 have a percentage of 11.5%. 55-64 belongs to

group 6 which has a percentage of 10.6%. The last and final group 7 has 7.3% age of 65 and over.

Table 3

Descriptive analysis - Age

	Frequency	Percent %
Under 18	7	1.6
18-24	118	26.2
25-34	140	31.0
35-44	83	18.4
45-54	52	11.5
55-64	48	10.6
65 and over	3	0.7
Total	451	100

Table 4 shows that, of the entire sample size of 295 respondents, 65.4% are married, with more than half of their profiles indicating that they are married. Of these, 30.8% are single, and 3.8% belong to others in table 4.

Table 4

Descriptive analysis - Marital Status

	Frequency	Percent %
Single	139	30.8
Married	295	65.4
Others	17	3.8
Total	451	100.0

Table 5 shows the respondents belong to different educational backgrounds and qualifications. The dataset displays a range of attainment levels by displaying the distribution of educational attainment within a group. Only 5.1% of the population graduated from high school (23 people), but a sizable 25.5% of the population did (115). 43.5% of the group claims to have a bachelor's degree (196). Moreover, 20.6% have master's degrees (93), and just 5.3% have doctorates (24), the highest degree possible. This descriptive breakdown reveals the educational environment and shows how different qualification levels are more common in the population under study.

Table 5

Descriptive analysis - Education

	Frequency	Percent %
High School	23	5.1
Diploma	115	25.5
Bachelor's Degree	196	43.5
Master's Degree	93	20.6
Doctoral Degree	24	5.3
Total	451	100.0

4.2 Descriptive analysis

Table 6-8 shows the descriptive analysis of the questionnaires.

Table 6

Descriptive Statistics

Variables	Mean	Median	Mode	Std. Deviation	Minimum	Maximum
IPGTQ1	4.22	4.00	5	0.931	1	5
IPGTQ2	4.14	4.00	5	0.956	1	5
IPGTQ3	4.08	4.00	4	0.924	1	5
IPGTQ4	3.94	4.00	5	1.023	1	5
IPGTQ5	3.78	4.00	4	1.026	1	5
ERQ1	3.87	4.00	4	0.974	1	5
ERQ2	3.78	4.00	4	1.061	1	5

Table 6 (Continued)

Descriptive Statistics

ERQ3	3.97	4.00	4	0.975	1	5
ERQ4	3.91	4.00	4	0.966	1	5
ERQ5	3.98	4.00	4	1.003	1	5
GTAQ1	4.00	4.00	4	0.992	1	5
GTAQ2	3.98	4.00	4	1.009	1	5
GTAQ3	3.93	4.00	4	0.998	1	5
GTAQ4	3.85	4.00	5	1.082	1	5
GTAQ5	3.90	4.00	4	1.041	1	5
EKQ1	3.57	4.00	3	1.016	1	5
EKQ2	3.49	3.00	3	0.996	1	5
EKQ3	3.48	3.00	3	1.029	1	5
EKQ4	3.53	4.00	3	1.050	1	5
ECQ1	3.91	4.00	5	1.100	1	5
ECQ2	3.95	4.00	4	1.026	1	5
ECQ3	3.95	4.00	5	1.083	1	5
ECQ4	4.08	4.00	5	1.027	1	5
ECQ5	4.01	4.00	5	1.100	1	5
ECQ6	4.01	4.00	5	1.112	1	5
ECQ6	4.01	4.00	5	1.112	1	5

Note: Std. Deviation = Standard Deviation.

Table 6 provides an extensive descriptive analysis that clarifies the features and distribution of the variables obtained from the survey questions. The average values show the average scores for variable separately and range from 3.48 to 4.08. Interestingly, the values' tendency to approach 4.0 indicates that most respondents' answers fell between agree and strongly agree. The medians, which are important since they serve as demonstrations of the middle values, are always around 4.00, indicating that the distribution of the variables is balanced. This implies that the opinions of respondents generally lie around the middle of the Likert scale. Analyzing the mode, which represents the value that occurs the most frequently, reveals that 4 is a common pattern for all of the variables. This consistency suggests agreement among respondents, as most of them agreed with the questions that were asked. The data's variability is gauged by the standard deviation, which varies from 0.924 to 1.112. These values show variations in the response distribution, suggesting different degrees of participant agreement or disagreement. With all variables showing a minimum of 1 and a high of 5, investigating the maximum and minimum values sheds light on the general range of scores seen for each variable. This range, which goes from the lowest to the highest possible values on the Likert scale, demonstrates the diversity of perspectives held by respondents. The means, medians, and modes of the variables show a central tendency towards agreement, but the standard deviations vary, highlighting indirect gaps in the responses' dispersion. This thorough analysis, which captures both the consensus and heterogeneity in respondents' viewpoints, adds to a more comprehensive understanding of the collected data.

Table 7

Likert Scale Questions – Descriptive

Variables	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
IPGTQ1	9	2.00	21	4.66	40	8.87	175	38.80	206	45.68
IPGTQ2	11	2.44	19	4.21	56	12.42	176	39.02	189	41.91
IPGTQ3	8	1.77	17	3.77	76	16.85	179	39.69	171	37.92
IPGTQ4	10	2.22	30	6.65	101	22.39	148	32.82	162	35.92
IPGTQ5	14	3.10	36	7.98	104	23.06	176	39.02	121	26.83
Avg IPGT	10	2.31	25	5.45	75	16.72	171	37.87	170	37.65
ERQ1	11	2.44	21	4.66	117	25.94	168	37.25	134	29.71
ERQ2	21	4.66	23	5.10	117	25.94	161	35.70	129	28.60
ERQ3	9	2.00	25	5.54	91	20.18	170	37.69	156	34.59
ERQ4	11	2.44	24	5.32	95	21.06	187	41.46	134	29.71
ERQ5	10	2.22	29	6.43	83	18.40	165	36.59	164	36.36
Avg ERQ	12	2.75	24	5.41	101	22.31	170	37.74	143	31.80
GTAQ1	14	3.10	22	4.88	72	15.96	186	41.24	157	34.81
GTAQ2	10	2.22	34	7.54	72	15.96	175	38.80	160	35.48
GTAQ3	9	2.00	30	6.65	96	21.29	163	36.14	153	33.92
GTAQ4	14	3.10	41	9.09	96	21.29	149	33.04	151	33.48
GTAQ5	13	2.88	34	7.54	88	19.51	165	36.59	151	33.48
Avg GTA	12	2.66	32	7.14	85	18.80	168	37.16	154	34.24

Table 7 (Continued)

Likert Scale Questions – Descriptive

EKQ1	15	3.33	37	8.20	169	37.47	135	29.93	95	21.06
EKQ2	14	3.10	42	9.31	186	41.24	126	27.94	83	18.40
EKQ3	22	4.88	33	7.32	186	41.24	127	28.16	83	18.40
EKQ4	23	5.10	34	7.54	166	36.81	139	30.82	89	19.73
Avg EK	19	4.10	37	8.09	177	39.19	132	29.21	88	19.40
ECQ1	15	3.33	37	8.20	93	20.62	134	29.71	172	38.14
ECQ2	13	2.88	34	7.54	69	15.30	182	40.35	153	33.92
ECQ3	19	4.21	28	6.21	78	17.29	158	35.03	168	37.25
ECQ4	12	2.66	28	6.21	65	14.41	154	34.15	192	42.57
ECQ5	19	4.21	26	5.76	79	17.52	136	30.16	191	42.35
ECQ6	18	3.99	33	7.32	69	15.30	138	30.60	193	42.79

Notes: Freq. = Frequency; Avg. = Average.

The majority of respondents agreed, as Table 7 demonstrates, that there is a considerable impact when it comes to the intention to purchase green technology. 37.87% Agree to this while 37.65% of them strongly agree with this. In the case of environmental responsibility, 37.4% and 31.80% of respondents strongly agree and agree showing their self-responsible toward green technologies. According to green technology attitude, 37.16% of them showed their attitude toward green technologies and 34.24% of respondents strongly agree with this statement. 39.19% were neutral in their answer about environmental knowledge while 29.21% agreed and 19.44% strongly agreed and showed their knowledge about the

environment. 30.60 % agreed and 42.79 strongly agreed that they have concerns about the

environment in the case of green technologies.

Table 8

Test of Normality

	Skewness	Std. Err. Skewness	Kurtosis	Std. Err. Kurtosis
IPGTQ1	-1.386	0.115	1.873	0.229
IPGTQ2	-1.243	0.115	1.454	0.229
IPGTQ3	-0.996	0.115	0.899	0.229
IPGTQ4	-0.746	0.115	-0.043	0.229
IPGTQ5	-0.699	0.115	0.045	0.229
ERQ1	-0.683	0.115	0.214	0.229
ERQ2	-0.763	0.115	0.224	0.229
ERQ3	-0.828	0.115	0.315	0.229
ERQ4	-0.822	0.115	0.490	0.229
ERQ5	-0.884	0.115	0.305	0.229
GTAQ1	-1.065	0.115	0.956	0.229
GTAQ2	-0.921	0.115	0.347	0.229
GTAQ3	-0.756	0.115	0.062	0.229
GTAQ4	-0.719	0.115	-0.201	0.229
GTAQ5	-0.825	0.115	0.135	0.229
EKQ1	-0.305	0.115	-0.271	0.229

Table 8 (Continued)

Test of Normality

EKQ2	-0.175	0.115	-0.286	0.229
EKQ3	-0.312	0.115	-0.104	0.229
EKQ4	-0.414	0.115	-0.133	0.229
ECQ1	-0.800	0.115	-0.132	0.229
ECQ2	-0.964	0.115	0.466	0.229
ECQ3	-0.995	0.115	0.433	0.229
ECQ4	-1.097	0.115	0.680	0.229
ECQ5	-1.038	0.115	0.421	0.229
ECQ6	-1.042	0.115	0.330	0.229

Note: Std. Err. = Standard Error.

All variables have a normal distribution in terms of kurtosis and skewness, as shown by Table 8 normality test result. For skewness, the ranges were 0.563 and -1.386, while for kurtosis, they were 1.873 and -1.748. All values were within the acceptable range for normality, which is indicated by these data: -3 and +3 as suggested by Sposito et al. (1983).

4.3 Reliability and Validity

4.3.1 Reliability

Table 9 outcome displays the reliability values. All of the variables' Cronbach's alpha values stayed above 0.7 as of the cutoff level, indicating their internal consistency. (Hair

et al., 2019). All variables have item-total correlations greater than the cut-off value of 0.3. (Nunnally & Bernstein, 1994, p 304; De Vaus, 2014, p. 357).

Table 9

Reliability Analysis

Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
Intention to Purchase Green Technology Practices			0.787
IPGTQ1	0.623	0.729	
IPGTQ2	0.615	0.731	
IPGTQ3	0.546	0.753	
IPGTQ4	0.542	0.755	
IPGTQ5	0.503	0.768	
Environmental Responsibility			0.794
ERQ1	0.546	0.764	
ERQ2	0.573	0.756	
ERQ3	0.614	0.742	
ERQ4	0.572	0.756	
ERQ5	0.566	0.757	
Green Technology Attitude			0.743
GTAQ1	0.496	0.702	
GTAQ2	0.510	0.697	
GTAQ3	0.522	0.692	
GTAQ4	0.515	0.695	

Table 9 (Continued)

Reliability Analysis

GTAQ5	0.488	0.705	
Environmental Knowledge			0.808
EKQ1	0.583	0.778	
EKQ2	0.637	0.753	
EKQ3	0.655	0.744	
EKQ4	0.622	0.760	
Environmental Concern			0.889
ECQ1	0.657	0.878	
ECQ2	0.721	0.868	
ECQ3	0.741	0.864	
ECQ4	0.683	0.874	
ECQ5	0.710	0.869	
ECQ6	0.726	0.867	

The exploratory factor analysis (EFA) was used to evaluate the dimensionality of the scales prior to the confirmatory factor analysis (CFA). Therefore, using Promax rotation with Kaiser Normalization and the Maximum Likelihood as the extraction method, the EFA results are shown in Table 10.

Table 10

KMO and Bartlett's Test

"Kaiser-Meyer-Olkin Measure of Sampling Adequacy"		0.917
"Bartlett's Test of Sphericity"	Approximate Chi-Square	4088.420
	degree of freedom	253
	Significance	0.000

Table 10 provides the results of the KMO and Bartlett's Test. It shows that a middling degree of prediction has been used because the sample adequacy as determined by the Kaiser-Mayer Olkin (KMO) is greater than 0.7 (Hair et al., 2019). Furthermore, the results of Bartlett's Test of Sphericity (BTS) indicate that the data are suitable for factor analysis and are significant (sig. = 0.000, $p < 0.050$). Together, these two tests show that the data used in this study are adequate (Hair et al., 2019).

Table 11

Total Variance Explained – EFA

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings	
	Total	%of Var.	Cum. %	Total	%of Var.	Cum. %	Total	%of Var.
1 (EC)	7.380	32.087	32.087	6.863	29.840	29.840	5.780	25.130
2 (ER)	2.638	11.468	43.555	2.131	9.264	39.103	3.796	16.504
3 (GTA)	1.421	6.180	49.735	0.975	4.241	43.344	4.472	19.442

Table 11 (Continued)

Total Variance Explained – EFA

4 (EK)	1.377	5.985	55.720	0.776	3.373	46.717	4.755	20.675
5 (IPGT)	1.046	4.549	60.268	0.625	2.717	49.434	3.558	15.472

Notes: Extraction Method = Maximum Likelihood; Rotation Method = Promax; Kaiser Normalization; Var. = Variance.

The overall variety in the research is explained by the five components and this representation of the eigenvalues. Figure 2 shows that the eigenvalues of the five components that were greater than one accounted for 60.268 percent of the overall variance. The variables in this research represent more than 60% of the variation, which is an acceptable rate in the social sciences (Hair et al., 2019). As the most significant factor, the EC with the highest variance value was explained by 32.09 percent. With 11.47% of the variance, ER has the second-highest value. The three last positions were captured by GTA, EK, and IPGT. During EFA, two items of IPGT (IPGTQ4 and IPGTQ5) were released due to the cross loading.

Figure 2

Scree plot - EFA

Scree Plot
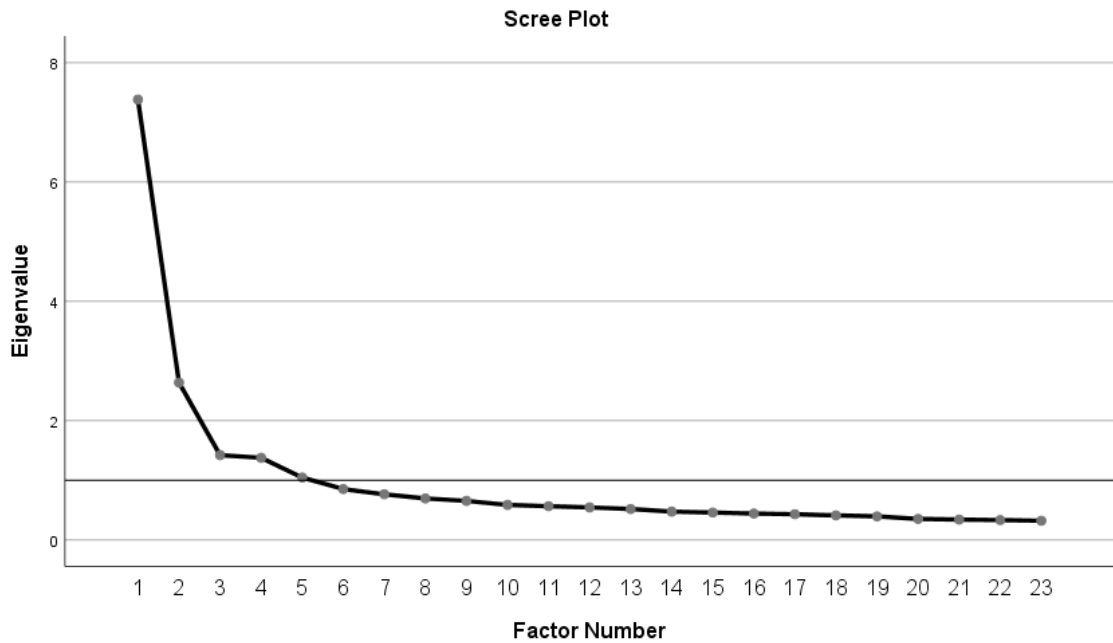
The CFA was completed after the EFA to obtain the final factor loadings. Table 12 displays the composite reliability (CR) values, with the remaining data being shown in the following section. CR had a minimum value of 0.743 and a maximum value of 0.89, both of which were higher than the cut-off value of 0.7. (Bagozzi & Yi, 1988). The internal consistency of the components in this study is represented by the acceptable values of Cronbach's alpha (CR) and their combined values.

Table 12

The Composite Reliability

Factors	Composite Reliability
Green Technology Attitude (GTA)	0.743
Intention to Purchase Green Technology Practices (IPGT)	0.781
Environmental Concern (EC)	0.89
Environmental Responsibility (ER)	0.794
Environmental Knowledge (EK)	0.809

4.3.2 Validity

Validity explains how much of the research is covered by the data that has been obtained (Ghauri & Gronhaug, 2005). Validity means "measure that which is extended to be measured" (Field, 2005).

Table 13

CFA

Items	SL	*SE*	t-Values (sig.)
Green Technology Attitude			
GTAQ1	0.599	0.092	9.748 ***
GTAQ2	0.627	0.095	10.068 ***
GTAQ3	0.595	0.092	9.704 ***
GTAQ4 ¥	0.614	n/a	n/a
GTAQ5	0.593	0.096	9.681 ***

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Table 13 (Continued)

CFA

Intention to Purchase Green Technology Practices

IPGTQ1	0.705	0.069	12.898 ***
IPGTQ2 ¥	0.770	n/a	n/a
IPGTQ3	0.737	0.070	13.252 ***

Environmental Concern

ECQ1	0.696	0.058	15.233 ***
ECQ2	0.760	0.053	16.923 ***
ECQ3	0.801	0.055	18.027 ***
ECQ4	0.732	0.053	16.169 ***
ECQ5	0.768	0.057	17.123 ***
ECQ6 ¥	0.783	n/a	n/a

Environmental Responsibility

ERQ1	0.605	0.077	11.076 ***
ERQ2	0.648	0.084	11.766 ***
ERQ3 ¥	0.710	n/a	n/a
ERQ4	0.671	0.077	12.123 ***
ERQ5	0.665	0.080	12.035 ***

Environmental Knowledge

EKQ1	0.688	0.067	13.580 ***
EKQ2	0.709	0.065	13.984 ***

Table 13 (Continued)

CFA

EKQ3 ¥	0.750	n/a	n/a

Note: SL = Standardize loading Extracted; SE = Standard Error; ¥: fixed parameter; ***:
p < 0.001.

The CFA findings are displayed in Table 13. We used the range of model fit indices
provided in Table 14 to support our CFA model.

Table 14

Goodness-of-Fit Indices

Measure	Estimate	Interpretation
"Chi-square (χ2) (CMIN)"	306.285 (p = 0.000)	Significant
"CMIN/DF (Normed Chi-Square)"	χ2/df = 1.392 (df = 220)	Excellent
"Goodness-of-Fit Index (GFI)"	0.945	Excellent
"Root Mean Square Error of Approximation (RMSEA) [90% CI]"	0.030 [0.021, 0.037], PClose=1.000	Excellent
"Root Mean Square Residual (RMR)"	0.036	Excellent
"Standardized Root Mean Residual (SRMR)"	0.038	Excellent
"Normed Fit Index (NFI)"	0.926	Excellent
"Tucker Lewis Index (TLI)"	0.975	Excellent
"Comparative Fit Index (CFI)"	0.978	Excellent

Notes: df = degree of freedom; confidence interval; PClose: P-value of close fit.

The multi-collinearity problem was not noticed, as shown by the VIF's minimum of 1.785 and maximum of 4.237. (Hair et al. 2019). By examining the cook's distance to look for significant outliers, the multivariate assumption was tested. The majority of cases were significantly less than 0.07, as seen in Figure 3, suggesting that there were no outliers.

Figure 3

Cook's distance
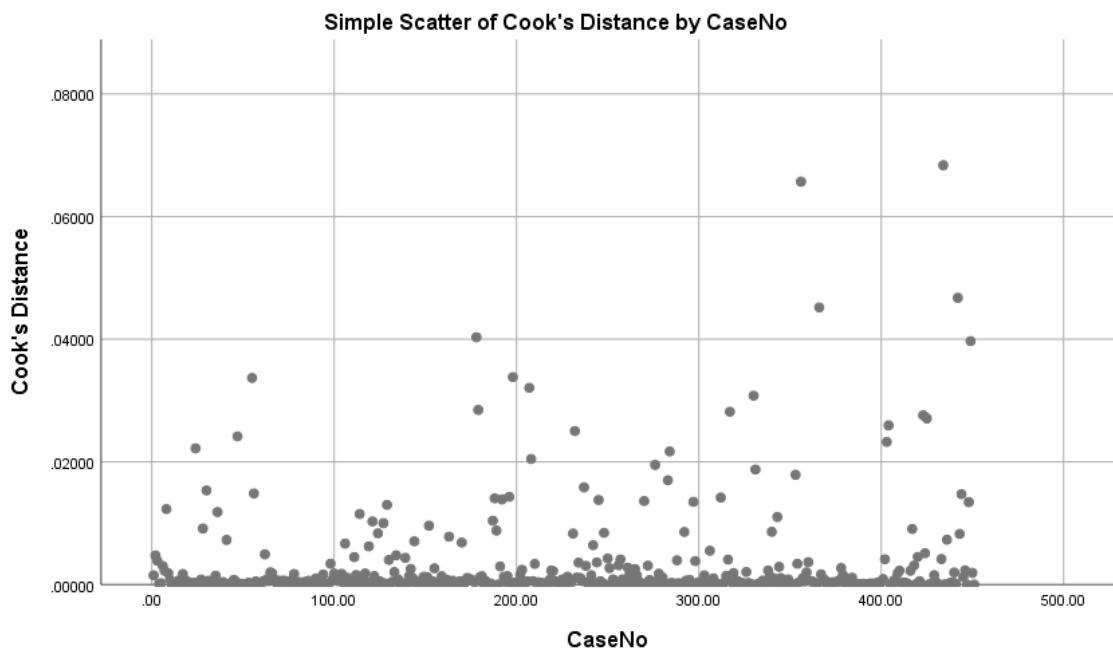
In order to test for common method bias (CMB), Podsakoff et al. (2003) employed the common latent factor (CLF). Based on the finding of a large difference between the zero-constrained and unconstrained models, the model identified the CMB. Consequently, the CLF of the structural model was controlled.

Table 15

Correlations & HTMT

Variables	1	2	3	4	5	6	7	8	9	SD
1. EK	*3.517*	**0.310**	**0.775**	**0.379**	**0.582**					0.815
2. ER	0.364**	*3.904*	**0.323**	**0.506**	**0.549**					0.738
3. EC	0.855**	0.378**	*3.984*	**0.442**	**0.559**					0.863
4. IPGT	0.457**	0.604**	0.509**	*4.145*	**0.513**					0.781
5. GTA	0.686**	0.652**	0.652**	0.622**	*3.932*					0.720
6. Age	0.121**	0.007	0.117*	0.080	0.093*	*3.468*				1.348
7. Gender	0.028	-0.057	-0.008	-0.078	0.000	0.032	*1.377*			0.485
8. Material Status	0.066	0.085	0.047	0.111*	0.106*	0.394**	0.000	*1.729*		0.523
9. Education	0.073	0.061	0.071	0.114*	0.072	0.365**	-0.046	0.207**	*2.956*	0.937

Notes: Italic values diagonally are means; HTMT (Heterotrait–Monotrait Ratio of Correlations) values are shown in bold upper diagonal; correlations are shown lower diagonal; * $p < 0.05$, ** $p < 0.01$; *** $p < 0.001$ (2-tailed); SD = Standard Deviation.

According to the confidence interval and tail, all variable correlations were acceptable as long as they were between +1 and -1. As demonstrated in Table 15, the study examines at the correlations between different variables. Environmental Knowledge (EK) reveals a positive correlation with environmental responsibility (ER) at a coefficient of 0.364 ($p < 0.01$). Also, EK shows a positive correlation with Environmental concern (EC) at 0.855 ($p < 0.01$), intention to purchase green technology (IPGT) at 0.457 ($p < 0.01$), green technology attitude (GTA) at 0.686 ($p < 0.01$), age by 0.121 ($p < 0.01$).

Environmental responsibility (ER) indicate a positive relationship with (EC) at 0.378 ($p < 0.01$), Environmental responsibility (ER) also showed positive correlation with intention to purchase green technology (IPGT) at 0.604 ($p < 0.01$), Environmental responsibility (ER) also have a positive correlation with green technology attitude GTA at 0.1652 ($p < 0.01$), Environmental concern (EC) shows a positive correlation with (IPGT) at 0.509 ($p < 0.01$) and environmental concern (EC) also have a positive correlation with green technology attitude (GTA) at .652 ($p < 0.01$). Age 0.117 ($p < 0.05$). Intention to purchase green technology (IPGT) demonstrates positive correlations with green technology attitude (GTA) at 0.622 and education at 0.114 ($p < 0.05$) Material Status at 0.111 ($p < 0.05$). Green technology attitude (GTA) shows positive correlation with age 0.093($p < 0.05$) it also has a positive correlation with material status 0.106 ($p < 0.05$).

Age has a positive relationship with material status 0.394 ($p < 0.01$).and age also have positive relation with education 0.365 ($p < 0.01$). Material status shows have a positive correlation with education 0.207 ($p < 0.01$). It is important to remember that, according to the correlation coefficients, these numbers indicate the direction and strength of the linear correlations between the variables. To derive significant implications from

these results, additional statistical analysis and the examination of other variables are required. There were no warnings for this HTMT analysis as all the values are less than 0.85 (Henseler et al., 2015).

4.4 Assessment of Hypothesis, SEM

4.4.1 The Direct Effects

The direct effects result is presented in Table 16. The results disclose that EC (B=0.141, $p < 0.050$), ER (B=0.377, $p < 0.001$), and EK (B=0.277, $p < 0.010$) have significant direct and positive effect on GTA. Moreover, the results show that GTA (B=0.247, $p < 0.050$), EC (B=0.199, $p < 0.050$), and ER (B=0.338, $p < 0.001$) have significant direct and positive effect on IPGT. The EK variable did not have significant direct effect ($p > 0.05$) on IPGT; however, the direct effects of EC, ER, and EK were not hypothesized in this study. Therefore, hypotheses H1, H2, H3, and H4 were accepted, as they represent in Table 21.

Table 16

Direct Effects - all Variables

Parameter			Estimate (B)	SE	*P*	*R-Square*
GTA	←	EC	0.141	0.071	1.976 *	0.509
	←	ER	0.377	0.060	6.258 ***	
	←	EK	0.277	0.084	3.287 **	
IPGT	←	GTA	0.247	0.101	2.453 *	0.370
	←	EC	0.199	0.081	2.457 *	
	←	ER	0.338	0.076	4.461 ***	

Table 16 (Continued)

Direct Effects - all Variables

←	EK	-0.028	0.099	-0.282

Note: B: Unstandardized Coefficient; * $p < 0.050$; ** $p < 0.010$; *** $p < 0.001$.

4.4.2 Indirect Effects

The results of indirect effects are presented in Table 17. The results show that the EK (B = 0.069; CI: 0.007, 0.186), ER (B = 0.093; CI: 0.016, 0.212) and EC (B = 0.035; CI: 0.001, 0.110) have indirect effect on IPGT, zero is not within the bootstrap confidence interval that indicate EK, ER, AND EC positively related and have indirect effects on IPGT.

Table 17

Indirect Effects for the Variables

Parameter			Estimate (B)	LCI	UCI	Boot*SE*	Sig.
ER	→	IPGT	0.093	0.016	0.212	0.049	Sig.
EC	→	IPGT	0.035	0.001	0.110	0.026	Sig.
EK	→	IPGT	0.069	0.007	0.186	0.044	Sig.

Note: B: Unstandardized Coefficient; Bootstrap samples: 5000 with 95% confidence intervals; LCI & UCI: Lower & Upper Confidence Interval; Sig.: Significant (if zero in not within LCI and UCI).

4.4.3 Mediating Effects

Table 18 shows the result of mediating effects for the proposed model. The results revealed that GTA has a mediating role on the connection of EC (B= 0.035; CI: 0.001,

0.110), ER (B= 0.093; CI: 0.016, 0.212), and EK (B=0.069; CI: 0.007, 0.186), and IPGT.

Regarding the results of Table 16, since EC and ER have a significant direct effect on

IPGT, we can see that GTA has a partial mediating effect on these relationships. However,

for the EK it has full mediation as EK does not have a significant direct effect on IPGT.

Therefore, hypotheses H5 (a, b, and c) were accepted.

Table 18

The Mediating Effects

Parameter	Estimate (B)	LCI	UCI	Boot*SE*	Sig.
EC $\longrightarrow$ GTA $\longrightarrow$ IPGT	0.035	0.001	0.110	0.026	Sig.
ER $\longrightarrow$ GTA $\longrightarrow$ IPGT	0.093	0.016	0.212	0.049	Sig.
EK $\longrightarrow$ GTA $\longrightarrow$ IPGT	0.069	0.007	0.186	0.044	Sig.

Notes: B: Unstandardized Coefficient; Bootstrap samples: 5000 with 95% confidence

intervals; LCI: Lower Confidence Interval; UCI: Upper Confidence Interval; Boot*SE*:

Bootstrap Standard Errors; Sig.: Significant (if zero in not within LCI and UCI).

4.4.4 Total Effects

Table 19 represent the result overall effects of the proposed model. The results

revealed that the total effect for EC (B=0.234; CI: 0.015, 0.472) and ER (B=0.431; CI:

0.273, 0.653) on IPGT, the zero is not within the bootstrap confidence interval that

indicates EC and ER positively related and has effects on IPGT directly and indirectly

through the mediator (GTA).

Table 19

Total Effects for the Variables

Parameter			Estimate (B)	LCI	UCI	BootSE	Sig.
EC	→	IPGT	0.234	0.015	0.472	0.115	Sig.
ER	→	IPGT	0.431	0.273	0.635	0.092	Sig.
EK	→	IPGT	0.041	-0.205	0.262	0.117	

Note: B: Unstandardized Coefficient; Bootstrap samples: 5000 with 95% confidence intervals; LCI: Lower Confidence Interval; UCI: Upper Confidence Interval; Sig.: Significant (if zero in not within LCI and UCI).

The structural model's support is demonstrated in Table 20, which also provides the results of all model fit indices tested for the SEM. This table contains all of the criteria and interpretations for every index. The measurement model was shown to be a good fit for the data by the acceptable level of these goodness of fit indices.

Table 20

Goodness-of-Fit Indices for the SEM

Measure	Estimate	Interpretation
"Chi-square ($\chi 2$) (CMIN)"	306.285 (p = 0.000)	Significant
"CMIN/DF (Normed Chi-Square)"	$\chi 2/df = 1.392$ (df = 220)	Excellent
"Goodness-of-Fit Index (GFI)"	0.945	Excellent
"Root Mean Square Error of Approximation (RMSEA) [90% CI]"	0.030 [0.021, 0.037], PClose=1.000	Excellent

Table 20 (Continued)

Goodness-of-Fit Indices for the SEM

"Root Mean Square Residual (RMR)"

"Standardized Root Mean Residual (SRMR)"	0.036	Excellent
"Normed Fit Index (NFI)"	0.038	Excellent
"Tucker Lewis Index (TLI)"	0.926	Excellent
"Comparative Fit Index (CFI)"	0.975	Excellent
"Chi-square (χ2) (CMIN)"	0.978	Excellent

Notes: df = degree of freedom; CI=confidence interval; PClose: P-value of close fit.

Table 21 displays the list of hypotheses considered in this study along with the results drawn from the data provided.

Table 21

The Hypotheses Results

Hypothesis	Description	Decision
H1	The EC has positive effect on GTA.	Accepted
H2	The ER has positive effect on GTA.	Accepted
H3	The EK has positive effect on GTA.	Accepted
H4	The GTA has positive effect on IPGT.	Accepted
H5a	The GTA mediates the relationship between the EC and IPGT.	Accepted
H5b	The GTA mediates the relationship between the ER and IPGT.	Accepted

The Hypotheses Results

H5c	The GTA mediates the relationship between the EK and IPGT.	Accepted

CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 Discussions

The hospitality industry has witnessed a growing importance of customer perception of sustainability in the context of green technology in hotels. The modern customer is concerned about the environment and searches for eco-friendly practices and technologies in addition to comfortable lodging. Implementing green technologies in hotels can help the environment. Examples of these technologies include renewable energy sources, water-saving fixtures, and energy-efficient lighting. Consumers who place a high value on sustainability are likely to have positive perceptions of hotels that use these technologies, seeing them as ethically and environmentally conscious businesses. One of the most important aspects of the hospitality sector is the way that guests view the sustainability of green technology. A rising group of eco-conscious guests are likely to be drawn to and stay with hotels that sincerely invest in and promote their dedication to sustainable operations. The use of green technology has advantages for the environment as well as for hotels' perception of visitors, who perceive them as progressive and beneficial purposes.

Furthermore, previous researches mention regarding to sustainable development growth SDGs 6 and 12 goals (Kapucu & Beaudet, 2020). But while green technology practice can achieve goal of SDGs 7 (affordable and clean energy), hotels can implement renewable energy sources like solar panels and turbines for wind energy. Reducing energy use can be achieved by putting energy-efficient technologies like energy management

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systems, electronic thermostats, and use of LED lights. Results in terms of the economy, society, and environment. SDGs9 (Industry, innovation and infrastructure), Sustainable development in the hospitality industry is aided by the integration of modern green technology into hotel infrastructure, such as eco-friendly construction methods, smart HVAC systems, and green building materials. SDGs13 (Climate action) Green technology in hotels reduces carbon emissions through sustainable practices and energy-efficient techniques, therefore minimizing the effects of climate change. The hotel sector adopts climate-resilient strategies by implementing water-saving technologies and sustainable landscaping.

The main purpose of this research was to investigate guest perception who stay in hotels where green technology is practiced. This is the first study in the hotel sector to investigate the attitude of customers toward green technology; this research leads to a number of findings. Firstly, the relationship between environmental knowledge, environmental concern and environmental responsibility, green technology attitude, and intention toward green technology were examined in the hotel sector. This research employed particular consumer attitudes toward green technology and meaningful questions about hotels that use green technology, compared to the general attitudes and purpose questions from other studies.

The study's findings demonstrate how tourist's attitude affect green technologies. Many previous studies indicate that consumers who have higher environmental concerns have a strong attitude, which has led to stronger intention (M.-F. Chen & Tung, (2014), in line with previous studies current results are accepted and confirmed that environmental concern has a significant impact on green technology attitudes and then leads to intention

to purchase green technology. Result of this study also showed a direct relationship between environmental concern and intention to purchase green technology. It means that environmental concern affects the attitude of customers to stay in hotels where green technology is practiced.

Wang et al. (2020a), states that people who have more knowledge about the issues of environment are having a positive attitude to act in environmentally friendly behavior. There was a strong positive link found between green technology attitude and environmental knowledge. Nevertheless, this finding did not demonstrate a connection among environmental knowledge and intention to purchase green technology. This indicates that a person with knowledge about the environment has a more positive outlook and is therefore more likely to have intentions and behaviors related to green purchases.

In prior studies, environmental responsibility has been proven to be a significant predictor that leads to a positive attitude (Lee, 2009). In the case of green technology practice in the hotel, sector this study also showed that, environmental responsibility has a direct positive relation with green technology attitude and then led intention to purchase green technology.

According to the result of this study, GTA and IPGT have a significant correlation. Previous research also supports the relationship between green purchase attitude and green purchase intention (Jaiswal and Kant, 2018; Paul et al., 2016; Wang et al., 2018). Furthermore, previous researches demonstrate the relationships, between the TRA, and the TPB model are valid theoretical frameworks for explaining consumer behavior while making green purchases (Mohamad et al., 2014; Maichum et al., 2016; Paul et al., 2016).

Because of this, we used these models to explain tourist-purchasing behavior towards green technology.

5.2 Conclusion

This research aims to investigate that how customers perceives green technology practices in the hotel industry, how their attitude influences their intention to purchase green technology, and how their attitude toward green technology is influenced by environmental concern, environmental responsibility, and environmental knowledge Thus, the findings derived from the analysis of every variable employed in this research demonstrate that EK , ER, and EC impact customer attitudes and intention to purchase green technology.

RQI: As a result of this study, customers have a positive perception of the accommodation sector's implementation of green technology approaches. Accommodations that embrace green technology are likely to have positive Perceptions from travelers, as sustainability becomes an increasingly important factor during their traveling decisions.

RQ2_a: hotels guest green technology attitudes are positively influenced by environmental knowledge, environmental concern, and environmental responsibility.

RQ2_b: The finding also revealed that customer green technology attitude has a significant relation with intention to purchase green technology when it comes to hotels sector.

Attitudes toward green technologies are significantly shaped by environmental concerns. Individuals are becoming motivated to implement green technology as they

become more conscious of environmental problems and the impacts of human activity on the environment. Furthermore, the attitude of hotel guests toward green technologies is significantly influenced by their knowledge of the environment. Consumers who have well knowledge about the environment are more likely to know the value of implementing sustainable behaviors and innovations also Customers who are responsible for the environment have positive attitudes about green technology practices specifically select lodgings that share their devotion to sustainability. Therefore, hoteliers must study the attitudes and perceptions of customers while adopting innovation in accommodation sectors and also have to look at the impacts of that innovation on the environment.

5.3 Practical & Theoretical Implications

Understanding customer perception of green technology can assist hoteliers in evolving and implementing the strategies of green technology that match customer needs and requirements. Since customers are ready to help protect the environment, technology developers need to carry out innovations in technology that can help to protect the environment and cost saving, and hoteliers are responsible for adopting green technology that matches customer expectations. A practical approach that might decrease the cost related to green technology could provide the hotel with a competitive edge.

The framework upon which the model of TRA and TPB are built is the idea that attitudes transfer into intention, which then leads to the actual behavior of an individual (Ajzen, 1991). Researchers have used both TRA and TPB extensively to study customer behavior and green purchase behavior (Wang et al., 2019; Paul et al., 2016s). Previous studies used TRA and TPB variable environmental knowledge, environmental

concern, and environmental responsibility and their effect on customers' green attitude toward green purchase intention (Kumar et al., 2017; Kumar et al., 2021; M.-F. Chen & Tung, 2014; Lei Wang (2022). In this study, we also used previous variable EC, ER, EK which has been studied in green attitude and green hotel intention but not studied yet in the context of green technology practice in hotels sectors. The study output is significant among EC, ER, and EK on green technology attitude. So green technology attitude is contribution to the TPB model.

5.4 Limitations & Recommendations for Future Studies

This study was based on the user stand of view toward green technology in hotels, future researchers should work on the provider side that what are the effects of green technology in hotels sectors. In this research, we used environmental factors EK, EC, and ER effects on customer green technology attitude. Future researchers can work on the other factors that influence green technology attitudes. The context is specific to North Cyprus and differs from other regions in that it takes into account cultural differences and the acceptability of green concepts, among other factors. Secondly, a few Researchers contend that one of the most popular approaches for examining customer green purchasing behavior is the use of demographic factors. (L. Wang et al., 2020b). To predict customers' green technology attitudes and intentions, future researchers should include demographics with attitudinal factors. It should also be evaluated and repeated in different locations to confirm the validity and usefulness of the model used in this work.

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APPENDICES

APPENDIX A

Questionnaire

Instructions
I am a Master's student in Tourism Management at Final International University and I would like to invite you to participate in my research as part of my thesis by filling out the following questionnaire. It would take almost 5-7 minutes of your time. Based on your experience during traveling abroad, especially hotels where green technologies are practiced, give the answers to the questions. Any sort of information collected during our research will be kept confidential. We appreciate your time and participation in our research very much.
If you have any questions, you can contact me through my email. kashif.khan@fiu.edu.tr
Thank you for your kind corporation.

Research team
Assoc. Prof Dr. Nafia Guden
Assit. Prof Dr. Farzad Safaeimanesh

Part I

	(5) Strongly Agree	(4) Agree	(3) Neutral	(2) Disagree	(1) Strongly Disagree
1. I am willing to stay at a hotel where green technologies are practice.					
2. I will plan my tour accordingly to accommodate my stay at a hotel where green technologies are practice.					
3. I will do my best to choose a hotel where green technologies are practice during my trip.					
4. The hotel where green technologies are practice will always be my top choice.					
5. I will post good comments about the hotel where green technologies are practice.					

6. I am extremely worried about the state of the world's environment and what it will mean for my future					
7. People are severely abusing the environment					
8. When humans interfere with nature it often cause disastrous consequences					
9. I believe that environmental problems are very important.					
10. I believe that environmental problems cannot be ignored and should be taken seriously.					
11. I believe that the balance of the natural environment is very delicate and can be easily disturbed.					
12. I believe that staying at an eco-friendly hotel is an important way to reduce air, water and soil pollution.					
13. I believe that staying at an eco-friendly hotel is a good approach to reduce wasteful use of natural resources.					
14. I believe that staying at an eco-friendly hotel is a good approach to conserve earth's natural resources.					
15. I have knowledge about environmental issues and problems					
16. I believe that every hotel guest is partly responsible for the					

environmental problems caused by the hotel industry.					
17. I feel that every hotel guest is jointly responsible for the environmental deteriorations caused by the hotel industry					
18. Every hotel guest must take responsibility for the environmental problems caused by hotels.					
19. I am willing to take up the responsibility to protect the environment.					
20. I should be responsible for protecting our environment.					
21. Staying at a hotel where green technologies are practice would enable me to protect environment.					
22. Staying at a hotel where green technologies are practice would enable me to be more socially responsible.					
23. Staying at a hotel where green technologies are practice would enable me to experience a healthy environmental friendly guestroom.					
24. Staying at a hotel where green technologies are practice would enable me to perform environmental friendly practices.					
25. Staying at a hotel where green technologies are practice would enable me to enjoy environmental friendly products and healthy amenities.					

Part II

1. How old are you _____?
   ☐ Under 18
   ☐ 18-24
   ☐ 25-34
   ☐ 35-44
   ☐ 45-54
   ☐55-64
   ☐ 65 and over

2. What is your gender _____?
   ☐ Male
   ☐ Female
   ☐ Other

3. What is your material Status_____?
   ☐ Single
   ☐ Married
   ☐ Others

4. What is your highest level of education_____?
   ☐ High school
   ☐ Diploma
   ☐ Bachelor's degree
   ☐ Master's degree
   ☐ Doctoral degree

5. Nationality_____?

APPENDIX B
Ethical Committee Approval

 İÇ YAZIŞMA / INTER OFFICE MEMORANDUM

Gönderilen/To: Kashif Khan   Tarih/Date: 17/03/2023

Gönderen/From: Prof. Dr. Hüseyin YARATAN   Ref/Sayı:100/050/REK.001
                Rector

Konu/Subject: About ethical approval

In line with the decision taken at the Ethics Committee meeting on March 10th, 2023, it was decided that your study was ethically and scientifically appropriate.

Distribution: Chair of the Ethics Commitee

Ethics Committee Decision:
Decision no / Karar Sayısı: 2023/007/03
Kashif Khan's application to the Ethics Committee titled "Guests intention towards green hotel in terms of their attitudes (Evidence from North Cyprus)", a proposed study to be carried out under the supervision of Dr Farzad Safaeimanesh was discussed. With the justification, purpose, approach and methods stated in the application, the proposed research was found ethically and scientifically appropriate.

SK/HY

APPENDIX C

Turnitin Report

Master Thesis

ORIGINALITY REPORT

13%	10%	9%	4%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1. Submitted to The Scientific & Technological Research Council of Turkey (TUBITAK)
   Student Paper — 1%

2. www.final.edu.tr
   Internet Source — 1%

3. www.tandfonline.com
   Internet Source — 1%

4. Lei Wang. "Determinants of Consumers Purchase Attitude and Intention Toward Green Hotel Selection", Journal of China Tourism Research, 2020
   Publication — 1%

5. go.gale.com
   Internet Source — 1%

6. Ananya Ray, Arghya Ray, Pradip Kumar Bala, Nripendra P. Rana. "What affects the use of green technology in hotels? Assessing hotel management viewpoint using natural language processing based qualitative study", — <1%