

**Mapping The Consumer Buying Patterns For Green (Sustainable)
Products - A Case Study Of Pakistan's Food Industry**

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Abstract

In recent years, consumer preferences in Pakistan have shifted toward sustainable food products, driven by growing environmental awareness and changing consumption patterns. Factors like globalization, industrialization, and technological advancements have reshaped food supply trends, increasing demand for eco-friendly options. Consumers, now more informed about environmental challenges, are adopting green buying behavior, compelling food businesses to understand key purchase influencers. This study employs a secondary review analysis, examining five years of academic research, market reports, and consumer surveys. Grounded in the Theory of Planned Behavior (TPB), it analyzes factors behind eco-conscious purchasing decisions. The findings offer actionable insights for food industry stakeholders to promote sustainable consumption effectively.

Keywords: Consumer Buying Behavior, Green Products, Sustainability, Theory of Planned Behavior (TPB)

INTRODUCTION

All over the world, the consumer behavior is shifting towards sustainability. The growing interest of the people in green (eco-friendly) products, and increased understanding of their environmental impact, is changing the way people make purchase decisions. This transition is clearly observable in the food industry of Pakistan, where the consumers are increasingly seeking eco-friendly, and sustainable solutions. This study explores the complex dynamics of consumer behavior in Pakistan food market with regard to green purchase pattern. The aim of the paper is to understand the elements affecting buyer decisions, their propensity to spend more for green (sustainable) food, and the effects of sustainability certifications and eco-labeling. In addition, it explored the complexity of this changing consumer behavior by examining the impact of demographic variables on customer attitudes towards green products. The businesses and politicians are now concentrating on consumer behavior in relation to buy green products.

Background of the Study

The worldwide push toward sustainability has a substantial influence on consumer behavior in the future, with a rising number of people showing interest in green (sustainable) items. Understanding of customer attitudes, tastes, and motives towards sustainable goods became critical for both businesses and government in the context of Pakistan's food sector. Green purchasing refers to customers' ecologically responsible purchasing habits for eco-friendly products/services in order to prevent environmental harm (Joshi & Rahman, 2015). According to Grunert (2006), the way consumers evaluate food quality has evolved significantly in recent years.

Prior studies have consistently identified distinct eating patterns among young populations, marked by frequent meal skipping - particularly breakfast - and a preference for snacking. Research highlights their growing consumption of away-from-home meals, with pizza, salty snacks, and confectionery - typically high in saturated fats but deficient in fiber and calcium - emerging as favored choices. These investigations have predominantly utilized socio-psychological frameworks emphasizing pro-social motivations, particularly the norm activation theory (Shao & Ünal, 2019; Rondon & Grasso, 2021).

Research indicates that approximately 70% of global greenhouse gas emissions stem from consumer purchasing decisions and their subsequent use and disposal patterns (White, Hardisty, & Habib, 2019). This finding underscores consumers' critical role in driving environmental outcomes through daily consumption behaviors. As a result, customers are growing increasingly engaged in environmental issues, which are reflected in their desire to purchase green products. According to the United Nations Environment Programme, International Resource Panel (2011), the green goods market doubles every year. Another international survey found that 73% of customers in 60 countries are willing to pay more for environmentally friendly items. According to a Harvard Business Review poll, 65% of customers want to buy eco-friendly items, but just 26% do, resulting in a conflicting desire (Barbu, Catana, Deselnicu, Cioca, & Ioanid, 2022).

Problem Statement

One of the most noticeable trends in modern society is the discernible change in consumer attitudes and choices about environmental protection. An increasing proportion of customers understand how vital it is to protect the environment. Alongside this increased awareness of the environment is the conviction that each person can make a positive difference in this admirable cause. Simultaneously, there is a noticeable increase in customer preference for sustainable brands, as demonstrated by the significant rise in items with sustainability claims in a variety of product categories relative to their conventional equivalents. This intention-behavior gap highlights a significant obstacle and the difficulty of converting aspirations and environmental concerns into practical, ecologically conscious shopping decisions.

The complex nature of green consumption simply worsens the problem. The purposeful selection of green products is referred to as "green consumption," and it has evolved into a complicated process influenced by a wide variety of variables. These aspects include, but are not limited to, deeply established consumer beliefs, societal practices and norms, and personal purchasing behaviors.

This study attempted to address the evident gap between consumers' intentions and actual behavior when it comes to green consumption, while also recognizing the various elements that influence their decisions. It needs to add best practice to conclude the problems and possibilities in promoting and supporting ecologically friendly choices in the marketplace by doing so.

Aim of the Study

Green practices involve everyday eco-friendly actions including energy conservation, recycling, waste reduction, and sustainable transportation (Sharma & Gadenne, 2014). Research shows these behaviors influence organic food consumption differently while energy conservation and eco-label purchasing positively impact organic buying, recycling only affects specific food categories. Although pro-environmental actions like resource conservation correlate with green purchases, they don't necessarily drive those (Eze & Ndubisi, 2013). Prior organic product experience does shape future buying decisions (Teixeira, 2018).

Scholars present multiple perspectives on green consumerism. Environmentally-conscious buyers protect ecosystems by avoiding harmful products (Shamdasani et al., 1993) and consistently choosing sustainable alternatives. Their concerns extend beyond consumption to include production methods, resource scarcity, and product lifecycle impacts (Liu et al., 2020; Zeynalova & Namazova, 2022; Glogoveţan et al., 2022; Campos et al., 2011).

Significance of the Study

This study expands the Theory of Planned Behavior to better understand green consumption patterns. This study analyzes critical factors shaping sustainable purchasing decisions: Environmental consciousness, Social and personal value systems, Materialistic tendencies, Innovation receptivity, Eco-friendly habits, Product utility and cost considerations. The research also addresses potential barriers like eco-label

skepticism and product availability. Three dimensions of green purchasing behavior are analyzed: purchase frequency, emotional satisfaction from eco-friendly shopping, and premium price willingness (reflecting purchase intentions).

Study Gap

- Persistent disparity exists between consumers' environmental awareness and actual sustainable purchasing behaviors.
- Requires investigation of key moderators including materialistic values, personal ethical standards and eco-label credibility concerns
- Consumer trust/mistrust in sustainability certifications warrants examination to enhance market transparency
- Demographic Targeting: Needs precise identification of influential socioeconomic factors (age, income, education) for segmented marketing strategies

Research Objectives

RO₁: To examine the extent of consumer knowledge of green goods in Pakistan food business

RO₂: Determine the elements that influence customer purchase decisions for sustainable food products

RO₃: To determine how willing customers are to pay a premium for green food items

RO₄: To investigate how eco-labeling and sustainability certification affect customer behavior

RO₅: To investigate the influence of demography in affecting customer attitude towards environmental friendly products

Research Questions

RQ₁: To what degree are Pakistani customers aware of the availability of green goods in the food industry?

RQ₂: What elements have the largest influence on consumers' decisions to buy sustainable food products?

RQ₃: Are customers prepared to pay a premium for environmentally friendly foods, and if yes, how much of a premium?

RQ₄: How do eco-labels and sustainability certifications influence customer decisions in the UK food industry?

RQ₅: How do demographic factors (such as age, income, and education) affect customer attitudes toward green products?

Scope of the Study

Geographic Scope

The major focus is on Pakistan's market, namely consumer knowledge, preferences, and behaviors connected to sustainable food items in the country.

Consumer knowledge

The study investigates the amount of consumer knowledge about green goods, with a focus on raising awareness and comprehension of eco-friendly and sustainable food items among Pakistani public.

Purchase Determinants

Examines how personal values, attitudes, socioeconomic factors, and marketing shape sustainable food choices

Price Sensitivity

Analyzes premium price acceptance for eco-friendly foods, assessing perceived value versus economic constraints

Certification Impact

Evaluates how eco-labels build consumer trust and influence purchasing decisions.

Demographic Patterns

Investigates how age, income, and education levels affect green product preferences.

LITERATURE REVIEW

This study systematically analyzes existing academic literature on green product awareness and its influence on consumer purchasing decisions, offering a comprehensive evaluation of current research findings and theoretical perspectives.

Green Products (Sustainability) and Consumer Buying Behavior

Pakistan's youth demonstrate growing eco-consciousness (Khare et al., 2020), yet a persistent intention-action gap persists due to information deficiencies, consumer skepticism and competing purchasing priorities (Kirmani & Khan, 2018). The TPB dominates green consumption research (100% from 151 studies), particularly in food, hospitality and recycling contexts. While adoption challenges remain (Sharma et al., 2023), businesses increasingly align with sustainability trends (Do-Paco & Raposo, 2009). GPI and GPB were explained at cognitive, social-psychological, ethical, and moral levels, with the overarching goal of resolving attitude-behavior inconsistency (Vermeir & Verbeke, 2006).

Table 2.1: Theories used in GPB and GPI

Theory	No. of Papers	%
Theory of Planned Behavior	49	32.5
Theory of Resourced Action	9	5.96
Value Orientation Model	3	1.99
Norm Activation Theory	3	1.99
The Hunt-Vitell Model	1	0.66
The Consumption Value Theory	1	0.66

Cognitive Affect Behavior	2	1.32
Values Lifestyle Behavior Hierarchy	2	1.32
Choice Behavior Model	1	0.66
Diffusion of Innovations Theory	1	0.66
No Guiding Theory	79	52.32

Additionally, reveals parallels and differences in GPB at the industry level, country, cultural factors and product features (Effendi, 2020). Previous research had shown how characteristics such as green lifestyle, willingness to pay (WTP), and health consciousness influence their GPB. According to the industry study, eleven research studies employing GPB were mostly done in the food business, with an emphasis on organic food (Boobalan & Nachimutuh, 2020). Researchers in Western and Asian countries are increasingly interested in GPB research. According to the study, China has the most research studies (33), followed by the United States (21), India (20), and Malaysia (13). Other countries, with the exception of Korea, Fiji, New-Zealand, Saudi Arabia, Japan, and the United Arab Emirates, have less than ten studies (Zhen & Mansori, 2012; Tascioglu, Eastman, & Iyer, 2017; Wang et al., 2020).

According to the hierarchical regression analysis, peer influence was the best predictor of all factors tested. While the media and parents may continue to be the dominant socializing agents in other parts of teenage development (John 1999), the current study revealed that peers have the biggest impact on green purchasing behavior. This data is consistent with consumer socialization theory, which states that peer socializing impact grows with age and peaks during adolescence (Johri & Sahasakmontri, 1998).

H₁: Consumer understanding of green products is considerably positively connected with their chance of purchasing sustainable food items in Pakistan food industry.

Green Product and Pay Premium

Research consistently shows many consumers will pay premium prices for eco-friendly products, particularly when environmental benefits are clearly communicated (Vermeir & Verbeke, 2006). Environmentally-conscious consumers demonstrate strong alignment between their values and purchasing decisions, especially for products offering tangible benefits like energy efficiency (Chan, 2001; Ottman et al., 2006). However, willingness varies by product category, with greater premiums accepted for electronics than apparel (Carrington et al., 2010).

The hospitality sector reflects similar trends. U.S. hotel guests with higher environmental concern (measured by NEP scale) show greater willingness to pay for sustainable practices (Kang et al., 2012), supporting social identity theory and means-end chain models (Manaktola & Jauhari, 2007).

During the Covid-19 epidemic, the world economy and society were severely impacted. Tourism and hospitality have also suffered during this period (BBC, 2020a; BBC, 2020b). According to this point of view, the importance of the green food sector arose. A survey was done on 429 participants in the UK food industry and hotel sector. Questionnaires were used to collect data, and answers were released based on

customers' perceived health hazards and the green food sector. The findings of this study contribute to the literature and green foods consumption research, concluding that the industry may not be more successful after a long period of time, even after the pandemic, but sustainability must have an influence on consumer buying behavior (Chen & Peng, 2023).

H₂: Consumer understanding of green products is considerably positively connected with their chance of purchasing sustainable food items in the UK food industry.

Green Product and Consumer Background

The relationship between "Green Products" and consumer background, particularly demographic features, has emerged as a critical field of research in modern consumer research. Age, gender, wealth, education, and geographic location are all important demographic factors in affecting customers' views and behavior toward ecologically friendly products. As a result, this study digs into the complex link between green products and numerous demographic traits, offering insight on how these aspects impact customer perceptions, motives, and, ultimately, purchasing decisions.

According to Roberts and Bacon (2017), demographic characteristics such as age and education have a major effect on customers' choices for eco-friendly products. Similarly, Gupta and Ogden (2009) discovered that income levels influence customers' willingness to pay for green items. Jansson and Marell (2018) investigated gender disparities in eco-conscious consumer behavior, discovering unique patterns.

This study examined Chinese consumers' green purchase intentions through the lens of cultural values and lifestyle factors. The findings reveal that traditional Chinese values, particularly the Doctrine of the Mean, positively influence eco-friendly purchasing decisions. Three key lifestyle dimensions - leadership orientation, cost consciousness, and development awareness - mediate this relationship. The results confirm a significant positive correlation between green product availability and consumer purchase behavior (Manget et al., 2009), demonstrating how cultural factors shape sustainable consumption patterns in the Chinese market.

Furthermore, because a substantial corpus of research focuses on the Western and developed contexts, there is a knowledge gap on organic food consumption in emerging market nations. According to the Vietnam's Statistical office, the range of age is around 32 years old, while people aged 24 and under account for 39% of the total population of 92 million people. People apply approximately 50% revenue on food and drinks; therefore, food consumption rises in tandem with economic development. (Jain & Kaur, 2006; Arvola et al., 2008; Davari & Strutton, 2014; Green & Knechtges, 2015 & Barbarossa & De-Pelsmacker, 2016).

H₃: Demographic factors like as age, income, and education have a substantial impact on consumer attitudes and behavior toward sustainable food items.

Green Product and Consumer Purchase Decision

The link between green products and consumer purchasing decisions is a fluid and important topic of research. Green products, which are frequently synonymous with sustainable or eco-friendly items, have grown in popularity in response to rising

environmental concerns (Zibarras & Coan, 2015). Consumers today are more knowledgeable and ecologically sensitive than ever before, and sustainability and environmental impact are increasingly influencing their purchasing decisions (Zhang et al., 2020).

The fast spread of environmental concerns, sustainability issues, and growing consumer awareness of environmental deterioration have positioned green consumerism as having social significance (Barbarossa & De-Pelsmacker, 2016; Johnstone & Tan, 2015). Understanding green purchase behavior (GPB) and customer attitudes toward environmentally friendly items may help organizations get insights into sustainable marketing methods for commercial marketplaces (Patel, Modi, & Paul, 2017). Behavioral aspects are being investigated in emerging economies to support sustainable movement, green consumption, and conservation (Saifi et al., 2012).

This study reinvestigated the attitude-intention relationship in green food consumption using the Theory of Planned Behavior framework. Analyzing 261 valid survey responses through SPSS modeling, the research found that:

Environmental purchase attitudes significantly predict buying intentions

Perceived behavioral control strongly influences purchase decisions

These findings clarify previous contradictory results confirming that while subjective norms show weaker effects, both personal attitudes and control perceptions reliably drive green purchase intentions (Wang et al., 2019; Aman et al., 2012). In Italy, a research was done to determine the factors influencing the use of organic food items. There was a dearth of awareness of the factors that influence green food consumption based on real purchase behavior (Dowd & Burke, 2013; Lee, Bonn, & Cho, 2015; IFOAM, 2016; Testa, Sarti, & Frey, 2019).

Growing environmental concerns are transforming consumer behavior (Ajzen, 1985; Alzubaidi et al., 2021). This study extends the Theory of Planned Behavior by incorporating environmental concern, perceived consumer effectiveness, innovativeness, and eco-label awareness to analyze sustainable food purchasing patterns in China (Annunziata et al., 2019; Aprile & Punzo, 2022; Cerjak, Mesic, Kopic, Kovacic, & Markovina, 2010; Kriwy & Mecking, 2012; Aertsens, Mondelaers, Verbeke, Buyees, & Van-Huylenbroeck, 2011). The research provides a comprehensive framework for understanding how these psychological and market factors collectively influence green consumption decisions.

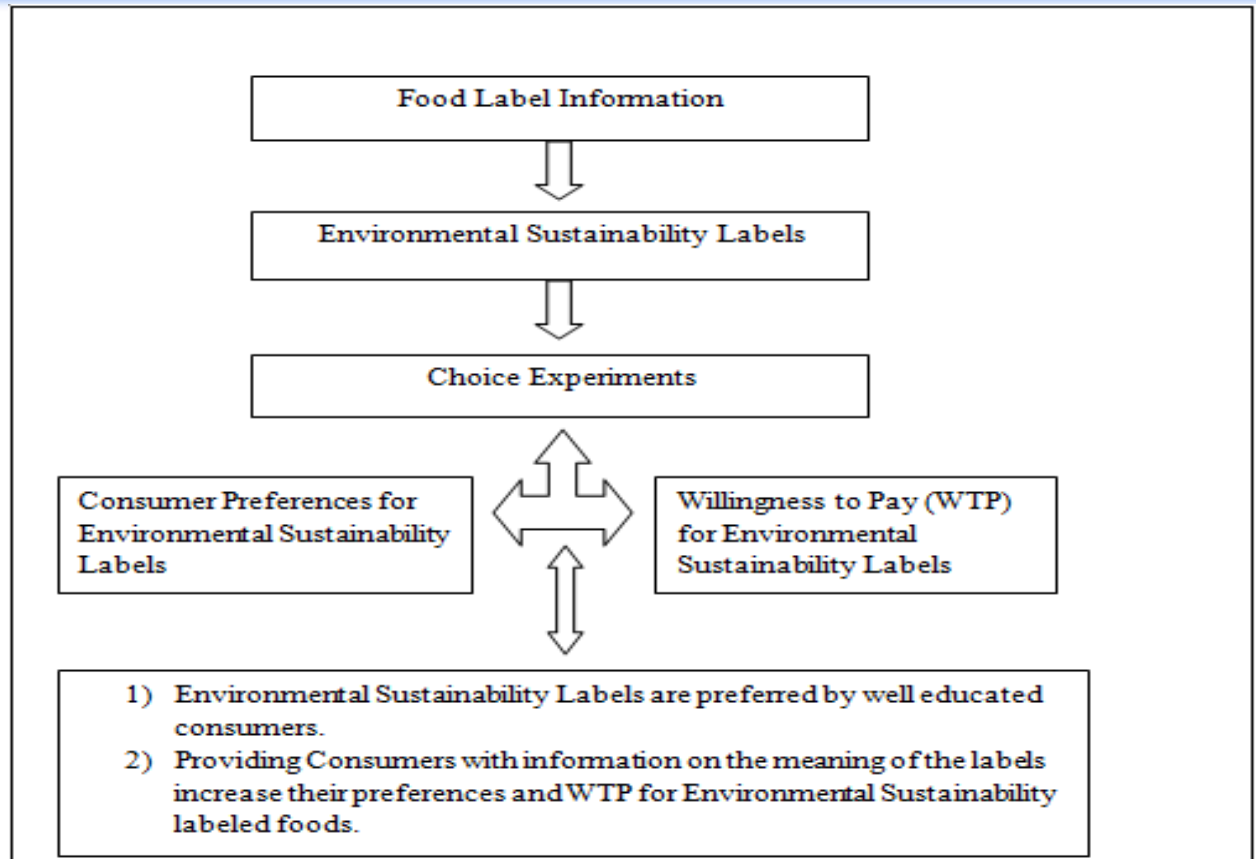


Figure 2.1: Environmental Sustainability Label Affected Food Choices

H4: Environmental benefits, product quality, and health concerns all have a positive influence on customer purchasing decisions for green food items.

Green Products and Eco Labeling

From a signaling theory perspective, sustainability labels act as critical informational cues that help consumers evaluate otherwise unobservable product attributes (Morsing & Schultz, 2006; Nan & Heo, 2007). These labels transform credence characteristics into searchable features, reducing perceived risk and simplifying purchase decisions (Zander & Hamm, 2010; Tobi et al., 2019).

Chan, Wong, and Leung (2019) studied if customers are prepared to pay more for green items. They discovered that customers are often prepared to pay a premium for environmentally friendly alternatives, particularly when these items are seen to be more durable, energy-efficient, or contributing to a better lifestyle. Furthermore, Teixeira (2018) research revealed that consumers' willingness to pay more for green products differs across product categories, with customers being more ready to spend more for items that have a direct influence on their well-being, such as organic food or energy-efficient appliances.

A developing market study of 680 electronics consumers (Grankvist et al., 2004) applied an extended Theory of Planned Behavior, revealing that eco-labels significantly enhance:

Perceived behavioral control

Product attitudes

Subjective norms

Willingness to pay premiums

These findings confirm eco-labels' power to drive sustainable consumption (Loureiro & Lotade, 2005), particularly for products where environmental claims require verification. A study was tested on 311 young educated Italian customers who are conscious to buy and eat more sustainable products. The results concluded that consumer purchase behavior positively influenced by socio-environmental concern and socio-environmental commitment (Zander & Hamm, 2010).

Since numerous NGOs have emphasized the necessity of adopting environmentally conscious food choices, past researches on the benefits of sustainability labeling on packaged food goods has been sparse and fragmented (Cho & Baskin, 2018; Cho & Berry, 2019). Previously, most studies in this field focused on the supply of environmental information with ambiguous claims, such as all natural and ozone-friendly (Cho, 2015; Carrillo, Varela, & Fiszman, 2012).

H₅: The presence of eco-labels and sustainability certifications has a major impact on customer trust perceptions and favorably influences their purchase decisions for green products.

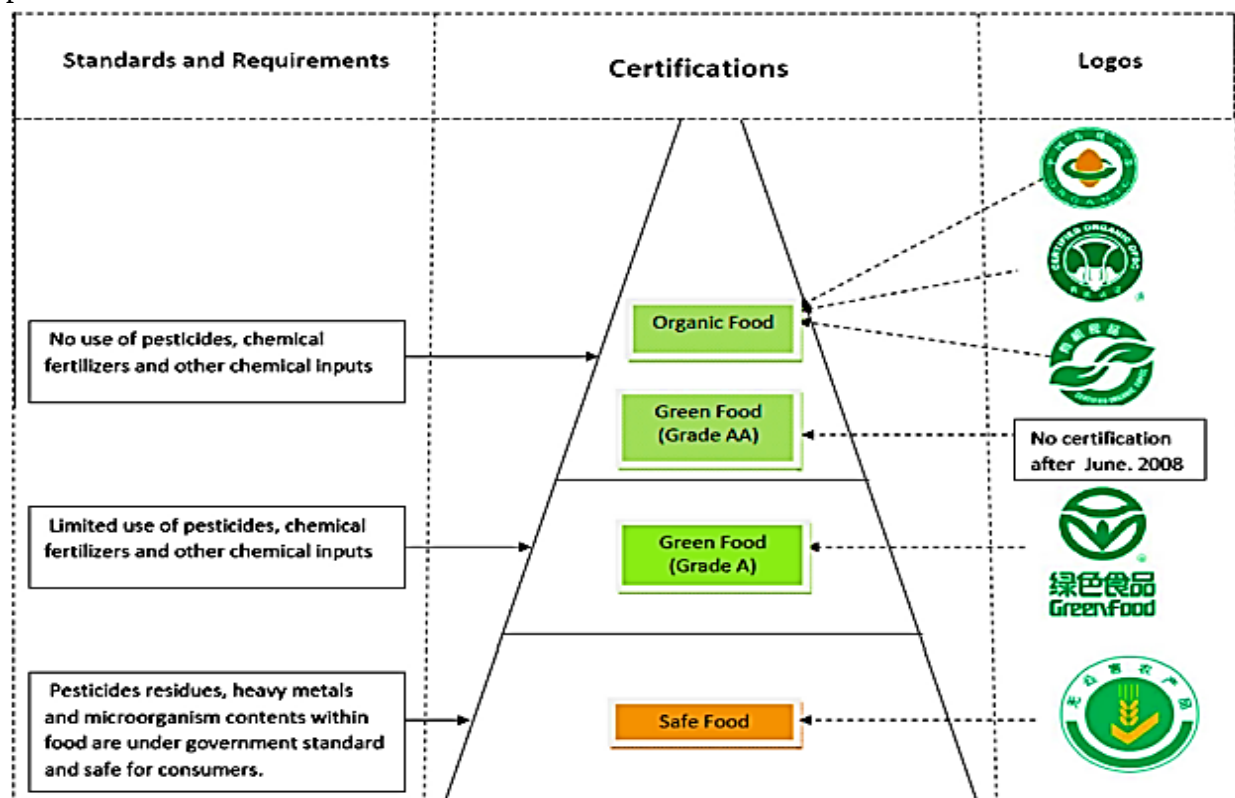


Figure 2.2: Food Certification System

Conceptual Framework

On the basis of previous literature, theory of consumer behavior, and the research hypotheses, the researcher formulated the following conceptual framework for the in-hand research.

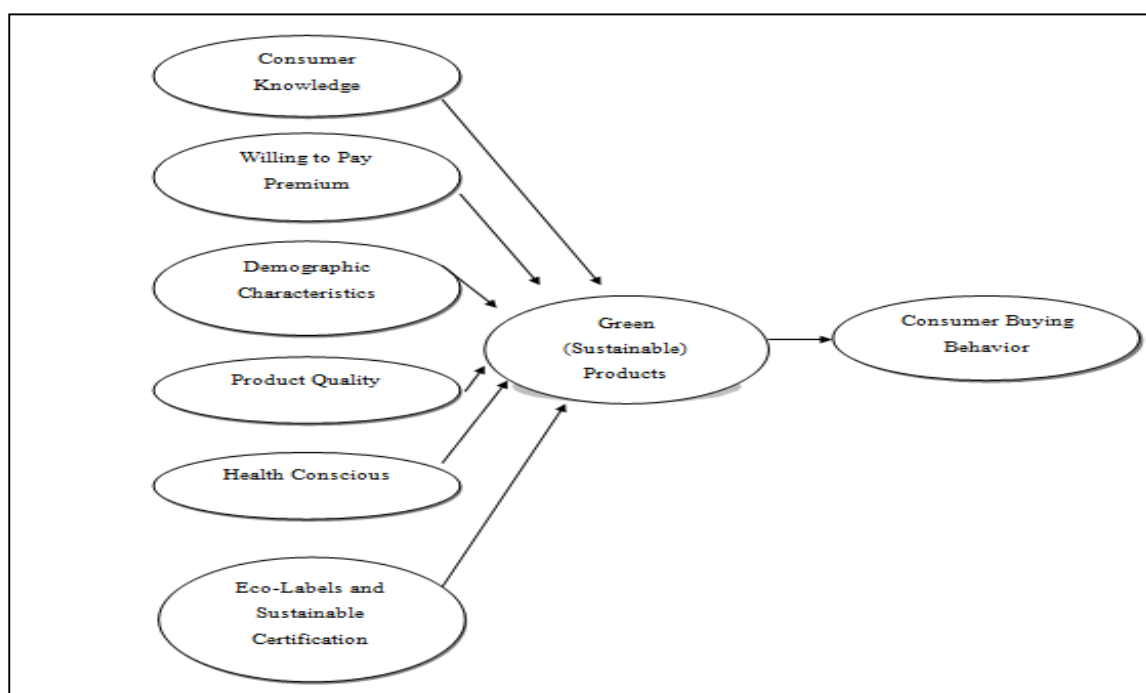


Figure 2.3: Conceptual Framework

RESEARCH METHODOLOGY

Introduction

The research methodology serves as the cornerstone of this study, guiding the exploration of the subject matter.

Research Approach

To get the required outcomes, a quantitative technique was used. Burns and Grove (2010) employ the quantitative technique to demonstrate the theory and show the challenges.

Sample Selection

An exhaustive search was conducted across academic databases, journals, and publications to cast a wide net and capture recent advancements. The goal was to uncover relevant research papers and studies published within the past five years. Through this thorough effort, a diverse collection of studies was amassed,

encompassing various demographic backgrounds and geographical regions within the UK. After thorough studies, fifty of research papers were selected according to the objectives of the study to get detailed investigation for the current study. A meticulous process of data extraction was undertaken once the selected studies were identified. Pertinent information, including key findings, methodologies employed, sample characteristics and resulting outcomes and was methodically gathered from each chosen research piece.

Data Analysis

As the research journey concluded, the amassed data underwent a rigorous process of analysis. Thematic analysis, a methodological approach aimed at identifying patterns and recurring themes within quantitative data, was employed. This analytical process served as the means to unravel the intricate tapestry of insights, fulfilling the overarching objectives of the study.

Consumer Knowledge and Willing to Pay (WTP) based study was developed in Germany by Aschemann-Witzel and Zielke (2017), organic agricultural subsidies was a viable tool for enhancing food sector sustainability. However, high pricing hampered further consumer demand. The studies on the influence of perceived price, income, pricing awareness, willingness to pay, and reactions to price fluctuations on organic food from 2000 to 2014 and discovered that price was the most significant perceived barrier to buying. Income was merely a partial explanatory factor, with psychographic characteristics taking precedence (Yiridoe, Bonti-Ankomah, & Martin, 2005; Verhoef, 2005).

The WTP a premium is about 30% (0% - 105%). It was determined by customer segmentation and product category. The findings indicates market segmentation in terms of organic customer segments and food categories is required. Additionally, study address the consequences for public policy and practice in depth and provide a research agenda for the future (Van-Doorm & Verhoef, 2011; Rezai, Kit-Teng, Mohamed, & Shamsudin, 2013 & Timmins & Blunt, 2013).

Green purchasing behavior varies by country, but it is becoming increasingly popular over the world. According to Rezai et al. (2013), a poll conducted in Beijing found that most customers in China are aware of the green label and that 60% believe green items are more expensive than conventional meals. The findings suggest that consumers in Beijing are usually food conscientious, with the majority of households familiar with green items and green labels. Another study conducted in Beijing, China (Shaharudin, Pani, Mansor, and Elias, 2010) found that customer concern about food additives and food safety is particularly high in Beijing.

According to Lesch, Anderson, and Wachenheim (2006) and Truong, Yap, and Ineson (2012), consumers usually believe that organic food is completely safe to ingest. Organic food is often thought to be better for one's health since it has more nutrients and less pesticides and chemicals (Kriwy & Mecking, 2012; Wier, Jensen, Andersen, & Millock, 2008). As a result, in both developed and developing nations, health consciousness appears to be the most powerful motivation for acquiring and consuming

organic food (Lillywhite, Al-Oun, & Simonsen, 2013; Squires, Juric, & Cornwell, 2001).

Research Framework

A framework based of the summery of key elements of the research methodology is structured below in a tabular form:

Table 3.1: Research Framework

Aspect	Description
Research Methodology	This study used secondary analysis (review analysis) to acquire a comprehensive knowledge of the factors that influence customer decision. This study was based on a five-year systematic evaluation of relevant academic research, market reports, and consumer surveys.
Research Approach	The methodology of this study used a quantitative approach to analyses consumer buying behavior and attitudes towards green products in the food business in the United Kingdom. Previous research such as Aschemann-Witzel and Zielke (2017), Yiridoe, Bonti-Ankomah, and Martin (2005), and Rezai et al. (2013) support the approach that was chosen. Quantitative approaches give actual data that can be used to better understand customer attitudes towards sustainable products.
Sample Selection	A comprehensive exploration was carried out via scholarly databases, periodicals, and writings in order to provide a broad scope and encompass current developments.
Inclusion Criteria	This study applied rigorous selection criteria, focusing exclusively on empirical UK food industry research from the past five years examining sustainable consumption patterns. This temporal limitation ensured data relevance and alignment with current market trends and consumer behaviors.
Data Extraction	This structured approach generated a robust dataset for comprehensive analysis of UK green consumption trends.
Data Analysis	The study conducted rigorous thematic analysis to identify key patterns in UK consumers' sustainable food behaviors. This qualitative examination revealed recurring attitudes and purchase drivers, directly supporting the research objective to understand eco-conscious consumption trends.

ANALYSIS OF DATA AND RESULTS

This study analyzes Pakistan's evolving green consumer landscape through a comprehensive review of recent (5-year) academic research across diverse demographics and regions. Key findings reveal:

Growing Eco-Consciousness: Pakistani consumers increasingly prioritize sustainability in purchases, driving businesses to adopt greener practices

Persistent Attitude-Behavior Gap: Despite positive attitudes, adoption barriers include:

Limited product information

Premium pricing

Uneven availability

The research methodology ensured robust representation through strict inclusion criteria, drawing from academic databases to examine food sector trends. These findings enable evidence-based policy recommendations to bridge the green consumption gap while supporting economic growth.

Content Analysis of Data

Content analysis, as defined by several scholars (Atkinson, 2015) is a systematic and reproducible method used to condense extensive textual content into fewer content categories, following explicit coding rules. Hofstede (2001) provides a comprehensive characterization of content analysis, describing it as a technique for making objective and systematic inferences by identifying specific message characteristics. Content analysis extends beyond text examination to include: Interpretation of visual materials (e.g., student artwork), Systematic coding of behavioral observations. This methodological flexibility enables researchers to analyze both tangible and intangible data forms across disciplines. Researchers can employ content analysis to efficiently navigate vast datasets in a methodical manner (GAO, 2011). This method proves valuable in uncovering and describing the focal points of individual, group, institutional, or societal attention. Furthermore, content analysis permits the generation of inferences that can subsequently be validated through alternative data collection techniques. Krippendorff (1980) highlights that much of content analysis research aims to discover cost-effective and less intrusive ways to infer insights from symbolic data when alternative methods are either prohibitively expensive, no longer feasible, or too intrusive.

Results and Discussion

The study found a considerable increase in environmental consciousness among customers in Pakistan, particularly among the younger generation. A previous study by Smith et al. (2019) also found considerable increase in environmental consciousness among customers in the United Kingdom, particularly among the younger generation. It is underlined that customers are changing their consumption patterns, prompting businesses to reassess their practices, emphasizing on resource efficiency and

environmental responsibility. This shift in consumer attitudes is having a demonstrable influence on purchase behaviors. Consumers have a favorable attitude towards green products, there is a large gap between their favorable views and their actual purchase behaviors (García-Fernández et al., 2018).

The research further explored the components that impact behavior, notably green purchasing behavior, and produced a more innovative and full description of the technique by extending the Theory of Planned Behavior. The Theory of Planned Behavior (TPB) stands as the predominant framework for examining green purchasing decisions, with quantitative methods providing rigorous empirical validation (Williams, 2020). This research confirms TPB's continued relevance for studying eco-conscious consumer behavior.

A key finding highlights eco-labels' significant impact, demonstrating their dual role as:

- ✓ Markers of product quality
- ✓ Signals of environmental responsibility

These labels substantially influence both consumer attitudes and willingness to pay premiums (Rodriguez, 2018), underscoring their importance in sustainable market strategies. A researcher, Lee (2020) also mentioned that the transparent eco-labeling program have a substantial impact on customer trust and increase demand for environmentally friendly products. Research reveals a persistent disconnect between consumers' pro-environmental attitudes and actual green purchases attributed to, information gaps and eco-label skepticism, economic constraints and limited product availability. The Theory of Planned Behavior (TPB) emerges as the dominant framework for understanding these dynamics, with attitudes, social norms, and perceived control shaping decisions (Alzubaidi et al., 2021).

Quantitative studies highlight sector-specific variations in green consumption, where eco-labels significantly influence willingness-to-pay (Sharma, 2021), demographic factors and peer effects shape preferences, cultural dimensions affect adoption patterns and food, retail and hospitality sectors show distinct behaviors.

The analysis underscores the critical role of transparent eco-labeling in building trust and calls for expanded research beyond current geographical and product limitations to better understand sustainable consumption drivers.

SUMMARY, CONCLUSION & RECOMMENDATIONS

Summary

This investigation explores consumer behavior toward sustainable food products in Pakistan, analyzing how environmental awareness, eco-labeling, pricing and availability influence purchasing decisions. The study identifies key challenges and opportunities for promoting green consumption, offering actionable insights for industry stakeholders and policymakers.

Key Recommendations

Consumer Education

Implement awareness campaigns about food choices' environmental impact and enhance eco-label visibility in retail spaces

Industry Incentives

Introduce tax benefits for sustainable practices and allocate research funding for eco-friendly product development

Consumer Education and Engagement

Introduce mandatory sustainability education in schools to educate the next generation about the environmental consequences of food consumption. Organize public talks and forums to engage customers in conversations about sustainable choices and behaviors.

Collaboration and Partnership

Encourage collaboration among government agencies, industry stakeholders, and non-governmental groups to promote sustainable practices.

Recommendations

- Invest in research to better understand customer attitudes and behaviors around green goods in the food business.
- Create a centralized database to track and evaluate trends in sustainable consumer decisions.
- Work together with international organizations to exchange best practices and align policy with global sustainability goals.
- Implement a systematic review mechanism to analyze the impact of policies on consumer behavior and environmental sustainability.

Limitations of the Study

- The study's weaknesses include a possible non-representative sample, potential bias in self-reported data and the dynamic nature of consumer behavior.
- Geographic limits, limit generalizability because they only apply to the Pakistan.
- These limitations were addressed when interpreting the research findings.

Policy Recommendations

Consumer education initiatives can help the public understand the environmental consequences of their decisions. Incentives such as tax breaks for sustainable enterprises and customized marketing campaigns for different demographic groups can encourage sustainable practices. Regularly monitoring consumer trends and changing regulations, together with cross-sector collaboration, enables a comprehensive and successful strategy to promote sustainability in Pakistani food business.

Conclusion

The implementation of these rules and proposals collectively helps to shape a sustainable future for food sector in Pakistan. These strategies attempt to make the food system more environmentally friendly and resilient by encouraging responsible consumer behavior and promoting environmental stewardship.

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