
THE EFFECT OF HOFSTEDE CULTURAL DIMENSIONS ON BRAND EQUITY: THE MEDIATING ROLE OF PERCEIVED USEFULNESS¹

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Abstract

Consumers are inherently shaped by their culture, which plays a crucial role in developing and formulating brand equity. Considering culture's significant role in shaping brand equity, this study aims to determine the impact of cultural dimensions on brand equity, with a mediating role of perceived usefulness and a moderating role of gender in the relationship between perceived usefulness and brand equity. The data were collected through face-to-face surveys administered to 356 respondents and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results of the study revealed that the dimensions of uncertainty avoidance, long-term orientation, and indulgence/restraint have a positive and significant impact on brand equity, while power distance does not significantly influence brand equity. The study also found that perceived usefulness fully mediates the effect of individualism/collectivism and masculinity/femininity on brand equity. Furthermore, perceived usefulness significantly enhances brand equity, whereas gender does not significantly moderate the effect of perceived usefulness on brand equity.

Keywords: Hofstede cultural dimensions, brand equity, perceived usefulness, gender

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HOFSTEDE KÜLTÜREL BOYUTLARININ MARKA DENKLİĐİ ÜZERİNDEKİ ETKİSİ: ALGILANAN FAYDANIN ARACILIK ROLÜ

ÖZ

Tüketiciler, kültürlerinden doğal olarak etkilenirler ve kültür, marka denklığının geliştirilmesi ve oluşturulmasında önemli bir rol oynamaktadır. Kültürün marka denklığı üzerindeki belirleyici etkisi göz önüne alındığında, bu çalışma, kültürel boyutların marka denklığı üzerindeki etkisini belirlemeyi amaçlamakta ve bu ilişkide algılanan faydanın aracılık rolü ile algılanan fayda ve marka denklığı arasındaki ilişkide cinsiyetin düzenleyici rolünü incelemektedir. Veriler, yüz yüze gerçekleştirilen anketlerle 356 katılımcıdan toplanmış ve Kısmi En Küçük Kareler Yapısal Eşitlik Modellemesi (PLS-SEM) kullanılarak analiz edilmiştir. Çalışmanın sonuçları, belirsizlikten kaçınma, uzun vadeli yönelim ve hoşgörü/kısıtlama boyutlarının marka denklığı üzerinde pozitif ve anlamlı bir etkiye sahip olduğunu, ancak güç mesafesinin marka denklığı üzerinde anlamlı bir etkisinin olmadığını ortaya koymuştur. Ayrıca, algılanan faydanın bireycilik/kolektivizm ve erillik/dişillik boyutlarının marka denklığı üzerindeki etkisine tam aracılık ettiği belirlenmiştir. Ayrıca, algılanan fayda, marka denklığını önemli ölçüde artırırken, cinsiyetin algılanan faydanın marka denklığı üzerindeki etkisini anlamlı bir şekilde düzenleyici olarak etkilemediği sonucu elde edilmiştir.

Anahtar Kelimeler: Hofstede kültürel boyutları, marka denklığı, algılanan fayda, cinsiyet

1. Introduction

In marketing literature, culture is widely acknowledged as a key determinant of brand equity (Deshpande et al., 1986; Henry, 1976; Howard & Sheth, 1969; Yoo, 1996). The cultural environment strongly influences marketing programs and the formulation of brand equity (Yoo, 1996; Yoo & Donthu, 2002). Different cultures may adopt distinct approaches to information processing, which can lead to varied formulations of brand equity (Yoo, 1996). The effects of culture, language, relationships with people, and shared understanding are critical to the success of modern businesses (Cook, 2012). Culture plays a pivotal role in shaping the everyday operations of businesses. Furthermore, aligning a firm's marketing activities with consumer culture is essential for the effectiveness of its marketing strategies (Mohamed et al., 2024).

Cayla & Arnould (2008) argued that "Branding is about developing relationship with the people both intellectually and emotionally". Brands such as Yves Saint Laurent and Chanel integrate elements of history, culture, and art from Western Europe (Kapferer, 2006). Consumer culture comprises a network of symbols, words, and images that consumers use to construct identities, meanings, experiences, and lifestyles. In other words, consumer culture demonstrates that consumption is shaped by historical and cultural practices (Arnould & Thompson, 2005; Kozinets, 2001; Lehmann, 1996; Wells, 1993). Culture manifests in daily activities through values, symbols, heroes, and rituals (Hofstede et al., 2010). Branding, as a form of communication, conveys a product's story to consumers, fulfilling unmet needs and desires (Cayla & Arnould, 2008). While global markets exist, people are inherently shaped by their cultural environments, meaning that global products may exist, but there are no truly global consumers. Culture influences consumer behavior (De Mooij, 2010). Culture is a crucial factor influencing consumer behavior in the social sciences (De Mooij, 2010; Kopaničová & Vokounová, 2023; Yoo, 1996).

Consumer behavior is the process of purchasing, using, or disposing of goods and services to satisfy consumer needs (De Mooij, 2010). The concepts of culture and consumer behavior are interrelated, making it impossible to separate the two (De Mooij, 2019). To understand how culture affects consumer behavior, it is necessary to study the similarities and differences between people from various cultures (De Mooij, 2019). Understanding the relationship between culture and consumer behavior is crucial for the success of today's business (De Mooij & Beniflah, 2017).

Due to the complexity of culture and its inherent heterogeneity, there is an increasing need to study individual cultural differences (Yoo & Donthu, 2002). Tools that effectively measure the impact of culture on brand equity must be identified (Yoo & Donthu, 2002). Analyzing the subcultures within countries provides a more nuanced understanding of consumer culture, as each country has different subcultures (Hofstede et al., 2010; Yoo, 1996). Mohamed and Ünsalan (2024) conducted a study investigating the influence of two cultural dimensions, individualism/collectivism and masculinity/femininity, on brand loyalty at the individual level. Their findings highlighted a significant relationship between these dimensions and brand loyalty, emphasizing the critical role of brand loyalty as a key element of brand equity.

Studies that examine the impact of Hofstede's cultural dimensions on brand equity typically focus on cultural dimensions at the international level. These dimensions include individualism/collectivism (Chatzipanagiotou et al., 2019; Jiao et al., 2018), uncertainty avoidance (Erdem et

al., 2006; Li, 2021; Yoo & Donthu, 2002), long-term/short-term orientation (Rodríguez-López et al., 2023), and indulgence/restraint (Kazmi & Rahman, 2019). To the best of the researcher's knowledge, no studies have explored the effects of individual-level cultural dimensions on brand equity. Several researchers have called for further studies on individual-level cultural dimensions and their impact on marketing issues (Hofstede et al., 2010; Yoo et al., 2000). This study specifically investigates the effect of individual-level Hofstede cultural dimensions on brand equity, with the inclusion of intervening variables. The study uses perceived usefulness as a mediating variable in the relationship between Hofstede's cultural dimensions and brand equity. Additionally, the study explores the moderating effect of gender on the relationship between perceived usefulness and brand equity.

Research on gender, behavior, and culture is frequently employed by marketers for segmentation purposes (Darley & Smith, 1995; Putrevu, 2001). Holbrook (1986) used gender as a key variable to regulate consumers' evaluative judgments. Similarly, some scholars have proposed incorporating gender as a segmentation criterion in marketing, noting its suitability for successful implementation due to the ease of identifying, accessing, and profiting from the resulting segments (Tan et al., 2012).

There is a limited body of literature investigating the influence of culture on marketing. However, one area that remains underexplored is the impact of culture on branding (Cook, 2012). Moreover, the existing marketing literature lacks clear and accessible guidelines for examining the role of culture in branding (Cayla & Arnould, 2008). Thus, further research is needed to obtain a more comprehensive understanding of the role of culture in branding (Buil et al., 2013; Cayla & Arnould, 2008; Li, 2021).

Perceived usefulness and perceived ease of use are fundamental variables within the Technology Acceptance Model (TAM). These variables are often key indicators in research investigating the relationship between culture and branding in the technology sector (Mohamed & Ünsalan, 2024). In this study, perceived usefulness will serve as a mediating variable, enabling an assessment of the impact of cultural dimensions on brand equity, with a particular focus on the smartphone industry.

Addressing the identified gaps, this study examines the effect of individual-level Hofstede cultural dimensions (power distance, masculinity/femininity, uncertainty avoidance, long-term/short-term orientation, indulgence/restraint, and individualism/collectivism) on the brand equity of smartphone companies in Türkiye, with a mediating role of perceived usefulness and a moderating role of gender. Hofstede's cultural dimensions are among the most commonly used tools for measuring cultural differences (De Mooij, 2010; Kopaničová & Vokounová, 2023). Hofstede's cultural dimensions have been widely applied in marketing to investigate cultural values and their influence on human behavior (Li, 2021; Steenkamp, 2001). Perceived usefulness significantly mediates the effect of cultural dimensions on branding in the smartphone and technology sectors (Mohamed & Ünsalan, 2024; Raihan, 2023).

This study is grounded in Hofstede's cultural dimensions theory (Hofstede et al., 2010). According to Hofstede et al. (2010), every country has its subcultures that influence people's behavior. We argue that since individual subcultures shape behavior, they also influence the formulation of brand equity (Yoo, 1996; Yoo & Donthu, 2002). Due to differences in consumer culture, varying formulations of brand equity are expected (Yoo, 1996; Yoo & Donthu, 2002). Existing research supports a relationship between cultural dimensions and brand equity (Chatzipanagiotou et al., 2019).

This study makes several academic contributions to the literature. First, it empirically examines the relationship between cultural dimensions at the individual level and brand equity. Second, it investigates the influence of cultural dimensions on perceived usefulness. Third, it explores the impact of perceived usefulness on brand equity. Fourth, it examines the moderating role of gender in the relationship between perceived usefulness and brand equity. Lastly, it enhances our understanding of Hofstede's cultural dimensions theory and its implications for branding and brand management at the individual level.

The paper is divided into four sections. The first section includes the literature review and hypothesis development, focusing on the meaning and concepts of brand equity, perceived usefulness, and Hofstede's cultural dimensions. The second section outlines the methodology, detailing the data collection and analysis process designed to address the research questions. The third section presents the research findings, structured in alignment with the research questions. The final section discusses the results, conclusions, implications, and generalizations, as well as research limitations and future research directions.

2. Literature Review and Hypotheses Development

2.1. Cultural Dimensions

According to Hofstede et al. (2010), culture can be defined as “the collective programming of the mind distinguishing the members of one group or category of people from others.” Hofstede began his research on cultural values in the 1970s and identified four dimensions of national culture: power distance, individualism vs. collectivism, masculinity vs. femininity, and uncertainty avoidance. Further research added two more dimensions: short-term vs. long-term orientation and indulgence vs. restraint (Hofstede et al., 2010).

(i) Power Distance (PDI)- People around the world are not equal; some are stronger, smarter, more powerful, or wealthier than others. Therefore, inequality exists among people. Power distance reflects the extent to which less powerful members of society expect and accept that power is distributed unequally and how they deal with this inequality.

(ii) Individualism vs Collectivism (IDV)- This dimension differentiates cultures based on the emphasis on the individual or the group. In collectivist societies, families are often extended and include parents, children, and other relatives. Children in such cultures grow up with a “We” mentality. In contrast, individualist societies may consist of smaller family units, such as a parent and child, where the “I” mentality prevails. In individualistic cultures, individuals are expected to take care of themselves and their immediate family, while collectivist cultures emphasize caring for extended family and relatives with an expectation of loyalty. Scoring an average in this dimension indicates a balance between individualism and collectivism (Hofstede, 2001, 2016; Hofstede et al., 2010; Hofstede & McCrae, 2004).

(iii) Masculinity vs Femininity (MAS)- Masculinity suggests that men are expected to be strong and assertive, whereas women are expected to be caring, nurturing, and focused on quality of life. A society is considered masculine if competition and toughness are encouraged, while a feminine society promotes cooperation and mutual care, with more fluid roles within the family.

(iv) Uncertainty Avoidance (UAI)- The future is uncertain, and people often live without knowing what will happen tomorrow, which can create anxiety. Uncertainty avoidance measures the degree to which individuals feel threatened by the unpredictability of the future. In such societies, people tend to seek predictability by establishing formal or informal rules, including religious and institutional guidelines (Hofstede, 2001, 2016; Hofstede et al., 2010; Hofstede & McCrae, 2004).

(v) Long-term vs Short-term Orientation (LTO)- This dimension, added after the 1985 Chinese Value Survey (CVS), relates to the time orientation of a society—how communities link their past with present and future tasks. Long-term orientation focuses on future rewards, while short-term orientation emphasizes traditions and fulfilling social obligations in the present (Hofstede, 2001, 2016; Hofstede et al., 2010; Hofstede & McCrae, 2004).

(vi) Indulgence vs Restraint (IVR)- This dimension examines the degree to which individuals in a society feel free to act upon their desires and seek pleasure. Indulgence implies allowing free gratification of desires and the pursuit of enjoyment, while restraint refers to the regulation of desires and pleasures by societal norms and prohibitions (Hofstede, 2001, 2016; Hofstede et al., 2010; Hofstede & McCrae, 2004).

The following data, generated from the (www.hofstede-insights.com) website, provides an analysis of Türkiye's national culture based on Hofstede's dimensions. The website is associated with Hofstede's cross-cultural research (Hofstede et al., 2010; National Culture, 2023).

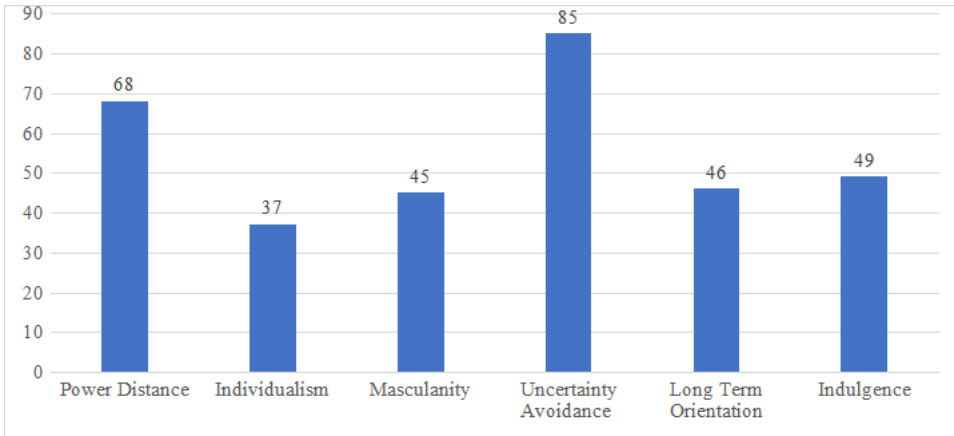


Figure 1: Türkiye Hofstede cultural dimensions Source: Hofstede-Insights (2023)

Türkiye scores 66 in the power distance dimension, indicating that Turkish communities are hierarchical and dependent on authority (Hofstede et al., 2010). Those in positions of power are viewed as superiors and role models by their subordinates. This hierarchical structure also exists within the family, where the father is often regarded as the patriarch, and the rest of the family adheres to his authority. Türkiye scores 37 in the individualism vs. collectivism dimension, reflecting a collectivist society. People live in groups or clans and take care of each other, with loyalty being a key value. Trust among group members is highly encouraged (Country Comparison, 2023; Hofstede, 1984, 2001; Hofstede et al., 2010).

In the masculinity vs. femininity dimension, Türkiye scores 45, which suggests a more feminine society. Qualities such as cooperation, caring for others, and maintaining a good quality of life are highly valued. Türkiye scores 85 in the uncertainty avoidance dimension, indicating that Turkish society has a high need for rules, regulations, and religious institutions to reduce anxieties about the future (Country Comparison, 2023; Hofstede, 1984, 2001; Hofstede et al., 2010).

Regarding the long-term vs. short-term orientation dimension, Türkiye scores a moderate 46, indicating no clear dominance of either long-term or short-term cultural tendencies. Similarly, with a score of 49 in the indulgence vs. restraint dimension, there is no definitive tendency toward indulgence or restraint in Turkish society (Country Comparison, 2023; Hofstede, 1984, 2001; Hofstede et al., 2010).

2.2. Brand Equity

Brand equity plays an important role in the field of marketing (Buil et al., 2013). A firm's sales are contingent on the value of its brands (Leone et al., 2006). Brand equity is the "added value" derived from the consumer's experience and perceptions of the firm's brands (Keller, 2003; Leone et al., 2006).

According to Aaker (1995), brand equity is "a set of assets (and liabilities) linked to a brand's name and symbol that adds to (or subtracts from) the value provided by a product or service to a firm or customer". The assets include brand awareness, brand loyalty, perceived quality, and brand association (Aaker, 1995 p.15). The authors argue that brand loyalty, perceived quality, brand awareness, and brand association can be used to measure brand equity. These dimensions of brand equity are previously used in various studies (Buil et al., 2013; Kim et al., 2003; Kim & Hyun, 2011; Lee & Back, 2010; Pappu et al., 2005; Yoo et al., 2000).

Brand awareness focuses on the brand's position in the consumer's mind and the recalling ability of the brand's products (Aaker, 1995). It includes the concepts of brand recognition and brand recall (Keller, 2003). Perceived quality is part of brand association and is included as an element of brand equity because (i) it drives financial performance, (ii) it plays an important role in business strategy, and (iii) it is critical to understanding how a brand is perceived. Perceived quality focuses on consumers' quality perceptions of the brand. The third element of brand equity is brand loyalty; consumer loyalty is crucial for formulating and enhancing brand equity. Loyalty increases the brand's value and acts as a barrier to new entrants. Brand association refers to consumers' connections with the brand, whether through symbols or product attributes. It defines the brand identity and its place in the consumer's mind (Aaker, 1995).

2.3. Cultural Dimensions and Brand Equity

Brand equity is a key element driving consumer behavior (Leone et al., 2006; Srivastava et al., 2005). The consumer culture associated with brands impacts customer engagement behaviors (Connell et al., 2023). Culture affects consumer buying behavior, and consumer behavior is linked to the formation of brand equity (Chatzipanagiotou et al., 2019; Chiu et al., 2012). De Mooij (2010) argues that consumer behavior influences decisions before, during, and after a purchase. Integrating culture into different models of consumer behavior helps us understand the effects of culture on consumer behavior.

Considering the impact of culture on consumer behavior, previous studies have established the relationship between Hofstede's cultural dimensions and brand equity, primarily at the national level (Chatzipanagiotou et al., 2019; Cordeiro Socha, 2012; Crespo-Almendros et al., 2023; Erdem et al., 2006; Han et al., 2021; Jiao et al., 2018; Kazmi & Rahman, 2019; Li, 2021; Rodríguez-López et al., 2023; Yoo & Donthu, 2002). Hence, this study focuses on the effect of Hofstede's cultural dimensions on brand equity at the individual level, examining the mediating role of the perceived usefulness of smartphones and the moderating role of gender.

Chatzipanagiotou et al. (2019) conducted a cross-cultural study on managing the consumer-based brand equity process by comparing Greece and Germany. The study found that Greece, a collectivist culture, maintains a close relationship with brands and is willing to pay a premium price. In contrast, German consumers evaluate brand characteristics by assessing brand reputation before paying a premium price.

Jiao et al. (2018) collected data to compare the cultural effects on social value, content value, and brand equity in social media brand communities between Chinese and US consumers. The study found that Eastern collectivist cultures generate more social value through social media brand communities, increasing their perceptions of brand equity. Western individualistic cultures, on the other hand, drive higher brand equity perceptions from content value. Yoo & Donthu (2002) also found a significant link between individualism/collectivism and brand equity. In line with these findings, the first hypothesis of this study is formulated as:

***H_{1a}**: Individualism/collectivism tendency dimension has a positive significant effect on brand equity.*

Li (2021) explored the effect of the uncertainty avoidance dimension on consumer-based brand equity and concluded that lower uncertainty avoidance cultures develop higher brand equity for unfamiliar brands. Yoo & Donthu (2002) also found a significant effect of the individualism/collectivism and uncertainty avoidance dimensions on brand equity.

Erdem et al. (2006) argue that brand credibility is important for uncertainty-avoiding and collectivist cultures. In these cultures, brand trust contributes to brand equity. Uncertainty-avoiding cultures tend to avoid risks and uncertainties, making brand credibility and trust crucial. Based on this, the second hypothesis was developed:

***H_{1b}**: Uncertainty avoidance tendency dimension has a significant positive effect on brand equity.*

Rodríguez-López et al. (2023) examined the indirect effects of individualism/collectivism, long-term/short-term orientation, power distance, and uncertainty avoidance on restaurant brand equity. The study revealed that individualism/collectivism, uncertainty avoidance, and long-term/short-term orientation play significant roles in brand equity formation. High long-term orientation cultures develop long-term loyalty toward brands, uncertainty-avoiding cultures develop loyalty to mitigate the risk of new brands, and individualist/collectivist cultures develop loyalty to express group belongingness or individuality. Hence, the following hypothesis was proposed:

***H_{1c}**: Long-term/short-term orientation tendency dimension has a positive significant effect on brand equity.*

Kazmi & Rahman (2019) conducted an explanatory study to investigate the impact of indulgence/restraint on brand equity, with brand loyalty, brand awareness, perceived quality, and brand image as mediators in the textile industry in Pakistan. Their study revealed a direct relationship between indulgence/restraint and elements of brand equity. The study also found a significant relationship between this dimension and brand equity, mediated by brand awareness, brand loyalty, brand image, and perceived quality. Therefore, the following hypothesis was formed:

H_{1a}: Indulgence/restraint tendency dimension has a positive significant effect on brand equity.

Cordeiro Socha (2012) conducted a quantitative cross-cultural study to identify the influence of power distance on foreign brand choice. The study compared consumers from Brazil and Canada and found that power distance influences consumer preferences for international brands. Brazilian consumers differ from Canadian consumers in terms of brand choice. Culture influences consumer preferences and choices, and consumer behavior and brand equity are closely related (Chiu et al., 2012; Leone et al., 2006; Srivastava et al., 2005).

Another study by Crespo-Almendros et al. (2023) examined the role of power distance in building heritage brand equity through social media sales promotion. The study found that sales promotions positively affect brand equity development, and power distance partially moderates the effect of sales promotion on brand equity, with high power distance amplifying this effect. Han et al. (2021) argue that power distance and collectivism positively affect brand loyalty. Based on these findings, the following hypothesis was developed:

H_{1e}: Power distance dimension has a positive significant effect on brand equity

Most studies have investigated the effect of national-level individualism/collectivism, uncertainty avoidance, long-term/short-term orientation, and power distance dimensions on brand equity (Chatzipanagiotou et al., 2019; Cordeiro Socha, 2012; Crespo-Almendros et al., 2023; Erdem et al., 2006; Han et al., 2021; Jiao et al., 2018; Li, 2021; Rodríguez-López et al., 2023; Yoo & Donthu, 2002). Only one study has focused on the effect of indulgence/restraint on brand equity (Kazmi & Rahman, 2019). According to the authors' literature review, there is no research evaluating the impact of the masculinity/femininity dimension on brand equity at the individual level. Hair et al. (2021a) argue that the relationship between variables should be grounded in theory derived from previous research or the researcher's logic, experience, and knowledge. Therefore, based on the literature, the sixth hypothesis is formulated as:

H_{1f}: Masculinity/femininity tendency dimension has a positive significant effect on brand equity.

2.4. Cultural Dimensions and Perceived Usefulness

Perceived usefulness is one of the primary variables of the Technology Acceptance Model (TAM) developed by Davis (1986). Perceived usefulness refers to "The degree to which an individual believes that using a particular system would enhance his or her job performance" (Davis, 1986).

The Technology Acceptance Model is one of the most widely used theories in information systems and is frequently applied in studies involving culture, gender, and organizational structure (Lee et al., 2003). The masculinity/femininity dimension moderates the relationship between perceived usefulness and perceived ease of use (Yoon, 2009). Hofstede's cultural dimensions positively correlate with perceived usefulness (Akour et al., 2006). However, the effects of Hofstede's cultural dimensions on perceived usefulness vary across cultures (McCoy et al., 2007). Huang et al. (2003) argue that the effect of subjective norms on perceived usefulness is stronger in low power distance cultures. Individual-level cultural dimensions significantly influence technology acceptance and usage (Lok, 2016). Western cultures tend to rely more on perceived usefulness (Scheepers & Wetzels, 2007). Both cultural (contingent factors) and individual-related factors significantly influence perceived usefulness (Scheepers & Wetzels, 2007). According to Özbilen (2017), power distance, uncertainty avoidance, individualism/collectivism, and long-term/short-term orientation significantly affect perceived usefulness. Uncertainty avoidance positively affects perceived usefulness (Jan et al., 2022). Therefore, based on the above arguments, the study developed the following hypotheses:

H_{2a}: Individualism/collectivism tendency dimension has a positive significant effect on perceived usefulness.

H_{2b}: Uncertainty avoidance tendency dimension has a positive significant effect on perceived usefulness.

H_{2c}: Long-term/short-term orientation tendency dimension has a positive significant effect on perceived usefulness.

H_{2d}: Indulgence/restraint tendency dimension has a positive significant effect on perceived usefulness.

H_{2e}: Power of distance tendency dimension has a positive significant effect on perceived usefulness.

H_{2f}: Masculinity/femininity tendency dimension has a significant positive effect on perceived usefulness.

2.5. Perceived Usefulness and Brand Equity

The study argues that perceived usefulness has a significant positive effect on the brand equity of smartphones. Also, Sheng & Teo (2012) found a positive significant effect of perceived usefulness on mobile brand equity. Perceived usefulness significantly influences brand loyalty (Kusmayanti, 2022). Furthermore, Badenhop & Frassetto (2021) found a positive significant effect of perceived usefulness on brand equity of online grocery shopping. Therefore, the study developed the following hypothesis;

H_{3a}: Perceived usefulness has a significant positive effect on brand equity.

2.6. Mediation Role of Perceived Usefulness

Adams et al. (1992) called for further research to investigate the mediating and moderating role of perceived usefulness in the context of culture. This study argues that cultural dimensions influence brand equity through perceived usefulness. Straub

(1994) conducted a study to investigate the role of culture in shaping attitudes toward media usage. By applying perceived usefulness as a mediator, the study found that culture plays a crucial role in shaping attitudes toward media usage, and perceived usefulness mediated this relationship. Akour et al. (2006) found that perceived usefulness significantly mediates the effect of cultural dimensions on the intention to use the Internet. Similarly, perceived usefulness mediates the relationship between Hofstede's cultural dimensions and the intention to use digital tourism (Mazan & Çetinel, 2022). Furthermore, Yulianto & Tanamal (2019) found a link between perceived usefulness and brand equity. Perceived usefulness significantly mediates the relationship between consumer response and brand equity (Mathur, 2018). Therefore, this study argues that perceived usefulness mediates the effect of cultural dimensions on the brand equity of smartphone companies, and the following hypotheses were developed:

H_{4a}: Perceived usefulness mediates the effects of individualism/collectivism tendency on brand equity.

H_{4b}: Perceived usefulness mediates the effects of masculinity/femininity tendency on brand equity.

H_{4c}: Perceived usefulness mediates the effects of uncertainty avoidance tendency on brand equity.

H_{4d}: Perceived usefulness mediates the effects of the power of distance tendency on brand equity.

H_{4e}: Perceived usefulness mediates the effects of indulgence/restraint tendency on brand equity.

H_{4f}: Perceived usefulness mediates the effects of long-term/short-term tendency orientation on brand equity.

2.7. Moderator Role of Gender

This study argues that the effect of perceived usefulness on brand equity is moderated by demographic variables such as gender because brand equity formulation is influenced by various factors, including gender. Men and women play significant roles in society, and their behaviors affect brand equity formulation (Abuhashesh et al., 2021). Gender moderates the relationship between perceived brand coolness and brand equity (Salem et al., 2023). Perceived usefulness has a stronger influence on the brand equity of male consumers, while trustworthiness has a stronger impact on the brand equity of female consumers (Tobias-Mamina et al., 2021). Gender also moderates the effect of perceived benefits on brand equity (Kamboj & Rahman, 2016). As evident from the literature, the influence of gender on brand equity varies. For the purposes of this study, we will examine the moderating role of both male and female genders and propose that they will moderate the impact of perceived usefulness on brand equity. Hence, the following hypothesis was formed:

H_{5a}: Gender moderates the effect of perceived usefulness on brand equity.

The research model created within the framework of the hypotheses is presented in Figure 1.

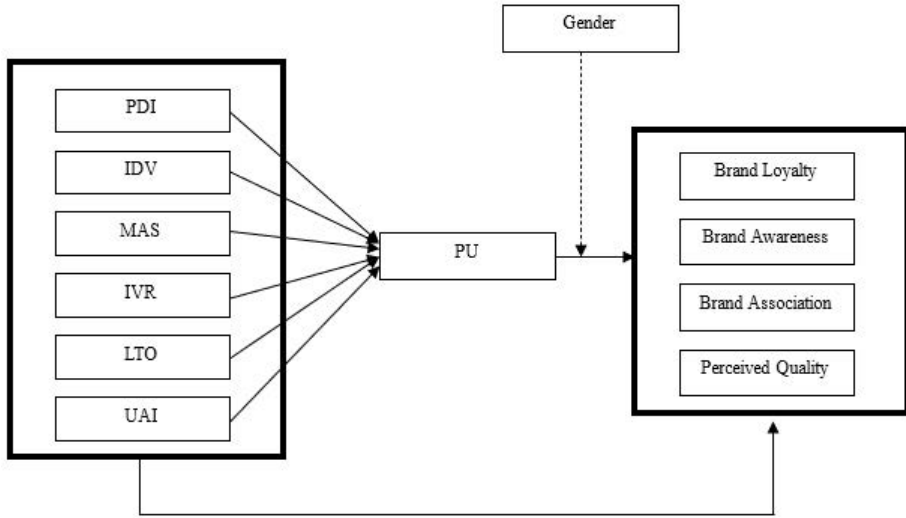


Figure 1: Research model

3. Methodology

According to Yoo & Donthu (2002), individual-level studies must be conducted to understand the effect of cultural dimensions on brand equity. This paper investigates the effect of individual-level Hofstede cultural dimensions on brand equity, with the mediating role of perceived usefulness and the moderating role of gender. The study focused on smartphone brands as a specific case. Using individual-level cultural dimensions, data were collected from 356 respondents in Nevşehir, Türkiye, via a face-to-face survey questionnaire. Respondents were asked to answer brand equity-related questions based on their current smartphone brand. Smart-PLS 4.0 software was used to evaluate the reliability and validity of the measurement model (structural validity).

2.1. Measurements

The items were measured using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The study utilized scales from previous research. The scales for the five cultural dimensions (power distance, individualism/collectivism, masculinity/femininity, long-term/short-term orientation, and uncertainty avoidance) were adapted from the CV scale developed by Yoo et al. (2011). The indulgence and restraint dimension was adapted from Heydari et al. (2021), and slightly modified brand equity elements scale was adapted from Yoo et al. (2000). The construct of brand equity was modeled as a higher-order reflective formative construct, replicating previous studies (Koay et al., 2020; Raza et al., 2020). Smartphone brands, specifically Apple, Samsung, Huawei, Xiaomi, and Oppo, were selected because the study population is highly familiar with and uses these brands. If respondents are familiar with and have experience with the brand, they are more likely to provide accurate responses to the questionnaire items (Yoo et al., 2000). The scale of perceived usefulness was adapted from Davis (1989). Respondents were asked to answer the questionnaire based on their current smartphone brand.

Table 1: Constructs and sources

Construct	Source	Item
Indulgence/ Restraint	(Heydari et al., 2021)	<p>There should not be any limits on individuals' enjoyment</p> <p>Societies should value relatively free gratification of desires and feelings.</p> <p>Desires, especially with respect to sensual pleasures, should not be suppressed.</p> <p>The gratification of desires should not be delayed</p> <p>One should enjoy complete sexual freedom without restriction</p> <p>Feelings and desires related to casual sex should be gratified freely</p>
Power of Distance	(Yoo et al., 2011)	<p>People in higher positions should make most decisions without consulting people in lower positions.</p> <p>People in higher positions should not ask the opinions of people in lower positions too frequently.</p> <p>People in higher positions should avoid social interaction with people in lower positions.</p> <p>People in lower positions should not disagree with decisions by people in higher positions.</p> <p>People in higher positions should not delegate important tasks to people in lower positions.</p>
Uncertainty Avoidance	(Yoo et al., 2011)	<p>It is important to have instructions spelled out in detail so that I always know what I'm expected to do</p> <p>It is important to closely follow instructions and procedures</p> <p>Rules and regulations are important because they inform me of what is expected of me</p> <p>Standardized work procedures are helpful.</p> <p>Instructions for operations are important.</p>
Individualism/ Collectivism	(Yoo et al., 2011)	<p>Individuals should sacrifice self-interest for the group</p> <p>Individuals should stick with the group even through difficulties</p> <p>Group welfare is more important than individual rewards</p> <p>Group success is more important than individual success</p> <p>Individuals should only pursue their goals after considering the welfare of the group</p> <p>Group loyalty should be encouraged even if individual goals suffer</p>
Long-Term/ Short-Term Orientation	(Yoo et al., 2011)	<p>Careful management of money (Thrift)</p> <p>Going on resolutely in spite of opposition (Persistence)</p> <p>Personal steadiness and stability</p> <p>Long-term planning</p> <p>Giving up today's fun for success in the future</p> <p>Working hard for success in the future</p>

Masculinity/Femininity	(Yoo et al., 2011)	It is more important for men to have a professional career than it is for women Men usually solve problems with logical analysis; women usually solve problems with intuition. Solving difficult problems usually requires an active, forcible approach, which is typical of men. There are some jobs that a man can always do better than a woman. Work more quickly Job performance Increase productivity Effectiveness Make job easier Use full
Perceived Usefulness	(Davis, 1989)	
Perceived Quality	(Yoo et al., 2000)	My smartphone brand has good quality My smartphone brand is safe to use My smartphone brand is a reliable brand My smartphone brand has excellent features
Brand Loyalty	(Yoo et al., 2000)	I consider myself to be loyal to this smartphone brand This smartphone brand would be my first choice. will not buy other brands if this smartphone is available at the store. I know what this smartphone brand looks like. I can recognize my Smartphone brand among other competitors' brands.
Brand Associations and Brand Awareness	(Yoo et al., 2000)	When I think of a smartphone, my smartphone brand is one of the brands that come to my mind. This smartphone brand is worth the price. This smartphone brand has the same benefits as the other brand.

2.2. Data Collection

To achieve the aim of the study, a quantitative research approach was used to collect data from users who had smartphone experience in Nevşehir, Türkiye. A convenience non-probability sampling method was employed. Since the scales were initially developed in English, the authors translated them into Turkish with the help of two bilingual experts. For the data collection process, permission was obtained from the Nevşehir Hacı Bektaş Veli University Scientific Research and Publication Ethics Committee, dated 26.11.2022, with decision number 2022.13.417.

A total of 400 questionnaires were distributed to respondents after obtaining their consent. Of these, 373 questionnaires were completed and returned. After data cleaning, 356 responses were retained for further analysis, resulting in a response rate of 89%. Of the participants, 199 (55.9%) were male and 157 (44.1%) were female. The average age of the respondents was 24.59 years. Bryman and Cramer (2002) suggest that the sample size in structural equation modeling studies should be at least five, or approximately ten, times the number of statements in the research. As the sample size in this study exceeds five times the number of statements in the questionnaire, it is deemed sufficient.

4. Data Analysis and Results

3.1. Measurement Model

The variables in this study were Hofstede's cultural dimensions as individualism/collectivism (IDV1 to IDV5), indulgence/restraint (IVR2 to IVR3), long-term/short-term orientation (LTO3 to LTO6), masculinity/femininity (MAS1 to MAS4), power of distance (PDI3 to PDI4), and uncertainty avoidance (UAI1 to UAI5). The dependent variable was brand equity, consisting of brand awareness (BA1 to BA3), brand loyalty (BL1 to BL3), brand association (BSC1 to BSC3), and perceived quality (PQ1 to PQ4). This study used perceived usefulness (PU1 to PU4) as a mediator and gender as a moderator. The study labelled brand equity as a higher-order reflective formative construct.

The reliability of the constructs was established using outer loadings and composite reliability. Each construct has an outer loading value that meets the minimum acceptable threshold value of 0.500 (Hair et al., 2011). While some researchers recommend a factor loading greater than 0.700 (Vinzi et al., 2010), studies in the social sciences often yield values below 0.700 (Latif et al., 2020). Hair et al. (2021b) suggest that if the outer loading is between 0.40 and 0.70, internal consistency reliability and convergent validity should be analyzed. If the construct measures meet the recommended thresholds in these analyses, the reflective indicator may not need to be removed from the analysis.

According to Latif et al. (2020), before eliminating indicators with values between 0.400 and 0.700, the researchers must assess the impact of their removal on composite reliability and convergent validity. If removing items within this range improves the composite reliability and the average variance extracted (AVE) values, they should be removed. However, if deletion does not improve these values, the items should be retained (Latif et al., 2020). In this study, the constructs DV5 (loading 0.641) and LTO5 (loading 0.559) were not removed, as their values exceeded the recommended threshold of 0.500, and their removal would not significantly improve composite reliability or AVE. The composite reliability values for all constructs were higher than the recommended threshold of 0.700.

Table 2: Reliability and validity analysis

	Outer loadings	CR	AVE
BA1 <- BA	0.849	0.912	0.775
BA2 <- BA	0.920		
BA3 <- BA	0.871		
BL1 <- BL	0.809	0.912	0.776
BL2 <- BL	0.924		
BL3 <- BL	0.906		
BSC1 <- BSC	0.849	0.861	0.674
BSC2 <- BSC	0.780		
BSC3 <- BSC	0.833		
IDV1 <- IDV	0.814	0.811	0.592
IDV2 <- IDV	0.837		
ID5 <- IDV	0.641		
IVR2 <- IVR	0.915	0.802	0.673
IVR3 <- IVR	0.713		
LTO3 <- LTO	0.720	0.800	0.504
LTO4 <- LTO	0.715		
LTO5 <- LTO	0.559		
LTO6 <- LTO	0.821		
MAS1 <- MAS	0.783	0.861	0.607
MAS2 <- MAS	0.788		
MAS3 <- MAS	0.815		
MAS4 <- MAS	0.728		
PDI3 <- PDI	0.774	0.794	0.658
PDI4 <- PDI	0.847		
PQ1 <- PQ	0.896	0.937	0.788
PQ2 <- PQ	0.875		
PQ3 <- PQ	0.886		
PQ4 <- PQ	0.893		
PU1 <- PU	0.783	0.902	0.697
PU2 <- PU	0.915		
PU3 <- PU	0.799		
PU4 <- PU	0.837		
UAI1 <- UAI	0.786	0.857	0.548
UAI2 <- UAI	0.776		
UAI3 <- UAI	0.812		
UAI4 <- UAI	0.710		
UAI5 <- UAI	0.598		

For the convergent validity, the AVE values of the constructs were calculated, and the values were higher than the recommended values of 0.500. Table 1. summarizes the reliability and validity of the constructs. To establish the discriminant validity, the HTMT ratio was assessed, and all the ratios were below the recommended values of 0.85. Table 2. summarizes the values of the HTMT ratio.

Brand equity is a higher-order formative construct based on four lower-order constructs: brand loyalty, brand awareness, brand association, and perceived quality. To validate this higher-order construct, the study checked for multicollinearity using the variance inflation factor (VIF). According to Hair et al. (2021b), VIF values of less than or equal to 5 indicate no issues of multicollinearity. There were no multicollinearity issues in this study, as all values were below 5. Next, the significance of the outer loadings was assessed, and all outer loadings were above 0.50 and significant. Table 3 presents the validation of the higher-order construct.

Table 3. HTMT ratio

	BA	BL	BSC	Gender	IDV	IVR	LTO	MAS	PDI	PQ	PU	UAI
BA												
BL	0.727											
BSC	0.792	0.755										
Gender	0.12	0.177	0.246									
IDV	0.192	0.21	0.178	0.241								
IVR	0.227	0.193	0.314	0.02	0.157							
LTO	0.484	0.331	0.383	0.138	0.204	0.145						
MAS	0.166	0.248	0.205	0.621	0.228	0.179	0.14					
PDI	0.36	0.301	0.338	0.216	0.317	0.209	0.334	0.398				
PQ	0.898	0.867	0.824	0.164	0.189	0.134	0.464	0.232	0.256			
PU	0.607	0.456	0.616	0.154	0.248	0.246	0.422	0.298	0.298	0.551		
UAI	0.277	0.182	0.196	0.13	0.376	0.115	0.434	0.291	0.299	0.226	0.238	

Table 4. Validation of the higher-order construct (Brand Equity)

	VIF	Outer Loadings	T Statistics	P Values
BA	2.846	0.910	17.601	0.000
BL	2.500	0.682	9.498	0.000
BSC	2.052	0.897	19.887	0.000
PQ	4.306	0.856	16.947	0.000

3.2. Structural Model Analysis and Hypotheses Testing

The first step in assessing the structural model is to evaluate the issue of multicollinearity using VIF. The VIF values in this study were below the recommended threshold of 5, ranging from 1.218 to 3.982 (Hair et al., 2021b). Therefore, multicollinearity is not a concern in this study. Next, the explanatory power of the model was assessed. The R-squared value was 0.247 for perceived usefulness and 0.441 for brand equity, indicating that 24.7% of the variance in perceived usefulness and 44.1% of the variance in brand equity are explained by the exogenous variables. The R-squared values, ranging between 24.7% and 44.1%, can be described as weak to moderate (Hair et al., 2013). The predictive

relevance of the model was assessed using Q-squared, with values ranging from 0.248 to 0.251, indicating that the model has medium predictive relevance.

The next step was to test the study's proposed hypotheses. The analysis revealed that individualism/collectivism does not have a significant impact on brand equity ($\beta = -0.103$, $t = 1.427$, $p = 0.077$); thus, H1a is rejected. Uncertainty avoidance has a positive and significant effect on brand equity ($\beta = 0.092$, $t = 1.785$, $p = 0.037$); hence, H1b is supported. Short-term/long-term orientation has a positive and significant effect on brand equity ($\beta = 0.283$, $t = 4.200$, $p = 0.000$), indicating that H1c is accepted. The proposed effect of indulgence/restraint on brand equity is positive and significant ($\beta = 0.122$, $t = 2.147$, $p = 0.016$); hence, H1d is supported. The analysis revealed that the effect of power distance on brand equity is not significant ($\beta = -0.078$, $t = 1.418$, $p = 0.078$); hence, H1e is rejected. The study also found that masculinity/femininity does not significantly influence brand equity ($\beta = 0.075$, $t = 1.372$, $p = 0.085$); hence, H1f is rejected.

The PLS-SEM results on the effect of cultural dimensions on perceived usefulness are as follows: the impact of individualism/collectivism on perceived usefulness is not positive as proposed ($\beta = -0.170$, $t = 2.004$, $p = 0.023$); thus, H2a is not supported. Uncertainty avoidance does not significantly influence perceived usefulness ($\beta = 0.116$, $t = 1.634$, $p = 0.051$); therefore, H2b is also rejected. Long-term/short-term orientation does not have a significant impact on perceived usefulness ($\beta = 0.076$, $t = 0.774$, $p = 0.219$); hence, H2c is not supported. The effect of indulgence/restraint on perceived usefulness is not significant ($\beta = 0.019$, $t = 0.220$, $p = 0.413$); thus, H2d is not supported. The results show that the effect of power distance on perceived usefulness is not significant ($\beta = 0.012$, $t = 0.119$, $p = 0.453$); therefore, H2e is rejected. The study also found a negative and significant effect of masculinity/femininity on perceived usefulness ($\beta = -0.182$, $t = 1.814$, $p = 0.035$). Since the proposed relationship was a positive effect of masculinity/femininity on perceived usefulness, H2f is rejected. SEM analysis further revealed a positive and significant effect of perceived usefulness on brand equity ($\beta = 0.381$, $t = 5.807$, $p = 0.000$); thus, H3a is supported. Table 4 summarizes the direct relationships found in the study.

Table 5: Direct Relationship Analysis

Hypothesis	B	SE	T	P Values	Results
H1a: IDV -> BE	-0.103	0.072	1.427	0.077	Not Supported
H1b: UAI -> BE	0.092	0.052	1.785	0.037	Supported
H1c: LTO -> BE	0.283	0.067	4.200	0.000	Supported
H1d: IVR -> BE	0.122	0.057	2.147	0.016	Supported
H1e: PDI -> BE	-0.078	0.055	1.418	0.078	Not Supported
H1f: MAS -> BE	0.075	0.055	1.372	0.085	Not Supported
H2a: IDV -> PU	-0.170	0.085	2.004	0.023	Not Supported
H2b: UAI -> PU	0.116	0.071	1.634	0.051	Not Supported
H2c: LTO -> PU	0.076	0.098	0.774	0.219	Not Supported
H2d: IVR -> PU	0.019	0.087	0.220	0.413	Not Supported
H2e: PDI -> PU	0.012	0.098	0.119	0.453	Not Supported
H2f: MAS -> PU	-0.182	0.100	1.814	0.035	Not Supported
H3a: PU -> BE	0.381	0.066	5.807	0.000	Supported

Mediation analysis was performed to assess the mediating effect of perceived usefulness on the relationship between cultural dimensions and brand equity. As Table 5 indicates, perceived usefulness mediates the relationship between individualism/collectivism and brand equity ($\beta = -0.065$, $t = 1.684$, $p = 0.046$). The direct effect of individualism/collectivism on brand equity was not significant ($\beta = -0.103$, $t = 1.427$, $p = 0.077$). The study revealed that perceived usefulness fully mediates the effect of individualism/collectivism on brand equity. Furthermore, the study found that perceived usefulness mediates the effect of masculinity/femininity on brand equity ($\beta = -0.069$, $t = 1.794$, $p = 0.036$). The direct effect of masculinity/femininity on brand equity was not significant ($\beta = 0.075$, $t = 1.372$, $p = 0.085$), indicating that masculinity/femininity influences brand equity through perceived usefulness and perceived usefulness fully mediates this effect.

Perceived usefulness did not significantly mediate the effect of power distance, indulgence/restraint, long-term/short-term orientation, or uncertainty avoidance on brand equity. Therefore, H4a and H4b were supported, while H4c, H4d, H4e, and H4f were not supported. Table 5 summarizes the mediation effects.

Table 6: Mediation Analysis

Indirect effects					
Hypothesis	B	SE	T value	P Value	Results
H4a: IDV -> PU -> BE	-0.065	0.038	1.684	0.046	Supported
H4b: UAI -> PU -> BE	0.044	0.033	1.327	0.092	Supported
H4c: LTO -> PU -> BE	0.029	0.041	0.709	0.239	Not Supported
H4d: IVR -> PU -> BE	0.007	0.037	0.198	0.421	Not Supported
H4e: PDI -> PU -> BE	0.004	0.039	0.113	0.455	Not Supported
H4f: MAS -> PU -> BE	-0.069	0.039	1.794	0.036	Not Supported

The study assessed the moderating effect of gender on the relationship between perceived usefulness and brand equity and found that gender did not moderate the effect of perceived usefulness on brand equity ($\beta = 0.018$, $t = 0.183$, $p = 0.428$). Therefore, H5a is not supported. Table 6. summarizes the moderation effect.

Table 7: Moderation Analysis

Hypothesis	B	SE	T Value	P Value	Result
H5a: Gender x PU -> BE	0.018	0.097	0.183	0.428	Not Supported

5. Discussion and Conclusion

Examining the proposed hypotheses uncovered insightful results. The study reveals that uncertainty avoidance has a positive and significant effect on the brand equity of smartphone companies. This finding aligns with the empirical results of Yoo & Donthu (2002), who also found a positive and significant effect of uncertainty avoidance on brand equity. Furthermore, the study indicates that short-term/long-term orientation has a positive and significant effect on brand equity, emphasizing the significant role of long-term orientation in brand equity formulation. This is consistent with the findings of Rodríguez-López et al. (2023), highlighting the influence of cultural orientation on long-term brand loyalty.

The effect of indulgence/restraint on brand equity is positive, echoing the results of Kazmi & Rahman (2019), who similarly found a positive and significant effect of indulgence/restraint on brand equity. However, the study finds that power distance does not significantly influence the brand equity of smartphone companies.

Furthermore, the study reveals that perceived usefulness fully mediates the effect of individualism/collectivism and masculinity/femininity on brand equity. Perceived usefulness has a positive and significant effect on brand equity, consistent with the findings of Badenhop and Frasquet (2021) and Kusmayanti (2022).

The study also identifies an insignificant moderating effect of gender on the positive relationship between perceived usefulness and brand equity. This moderating effect is similar to the findings of Salem et al. (2023), who also found an insignificant moderating effect of gender on the relationship between perceived usefulness and brand equity. Furthermore, Abuhashesh et al. (2021) argued that men and women have a significant role in the community, and their behavior affects brand equity formulation.

In conclusion, this paper aims to examine the impact of Hofstede's cultural dimensions on brand equity. Specifically, we investigated the dimensions of uncertainty avoidance, long-term/short-term orientation, indulgence/restraint, power distance, individualism/collectivism, and masculinity/femininity. Additionally, this study explored the mediating role of perceived usefulness and the moderating role of gender. To achieve our objective, 356 questionnaires were collected from respondents. PLS-SEM was employed to analyze the relationships between the variables. The findings demonstrate that uncertainty avoidance, long-term/short-term orientation, and indulgence/restraint significantly influence the brand equity of smartphone companies. Furthermore, the dimensions of individualism/collectivism and masculinity/femininity impact brand equity through perceived usefulness. Notably, our study reveals a positive and significant relationship between perceived usefulness and brand equity. However, it is important to note that gender does not significantly moderate the relationship between perceived usefulness and brand equity.

This study contributes to the existing body of brand equity literature by examining the impact of individual-level cultural dimensions on the brand equity of smartphone companies. Additionally, this research sheds light on the mediating role of perceived usefulness in the relationship between individual-level cultural dimensions and brand equity.

This paper contributes to the existing literature in four different ways. First, it tests an empirical model of the relationship between cultural dimensions and brand equity in the smartphone industry. Second, the paper tests the mediating role of perceived usefulness in the relationship between cultural dimensions and brand equity in the smartphone industry. Third, the paper further analyzes the relationship between perceived usefulness and brand equity, finding that perceived usefulness has a significant positive effect on brand equity. Fourth, the paper contributes to the literature on Hofstede's cultural dimensions and brand equity by focusing on the relationship between individual-level cultural dimensions and brand equity in the context of the smartphone industry. To the best of the researcher's knowledge, no studies have focused on the relationship between individual-level cultural dimensions and brand equity. Finally, the paper assists smartphone companies in understanding the effect of consumer culture on the formulation and development of smartphone brand equity, as culture is one of the most influential factors in international markets.

For practitioners, particularly those in the smartphone industry, the study provides actionable insights into how cultural dimensions can be leveraged to enhance brand equity. Managers should recognize the significant impact of uncertainty avoidance on brand perceptions and tailor their marketing strategies to reduce uncertainty for consumers, such as through transparent communication and robust customer support services. The significant influence of long-term orientation on brand equity suggests that companies should invest in long-term relationship-building activities, such as loyalty programs and consistent post-purchase engagement. These strategies can foster enduring brand loyalty among consumers who value long-term commitments. Understanding the role of indulgence/restraint can help managers align their branding efforts with the lifestyle preferences of their target markets. Brands that cater to indulgent cultures might emphasize luxury and pleasure in their marketing messages, while those in restraint-oriented markets might focus on practicality and functionality.

The mediating role of perceived usefulness highlights the importance of product functionality and consumer perceptions of utility in driving brand equity. Managers should ensure that their products meet or exceed consumer expectations of usefulness and clearly communicate these benefits in their marketing efforts. This approach can enhance brand perceptions across various cultural dimensions, including individualism/collectivism and masculinity/femininity. Finally, given the non-significant moderating effect of gender, managers might consider focusing their segmentation strategies on other factors that more significantly impact brand equity. While gender-specific marketing can still be relevant, it should not overshadow the broader cultural and functional aspects that drive brand value.

6. Limitation and Direction for Future Research

Despite its contributions, the study has some limitations. First, the current study assessed the effect of individual-level cultural dimensions on brand equity by focusing on only one country. The fact that the data was collected through convenience sampling and the study was conducted in the Nevşehir province of Türkiye limits the generalizability of the results. Additionally, the fact that the study was conducted within a specific time period can also be considered an important limitation. Another limitation is that the research focused on a specific product group; future studies on different product categories may yield different results.

Future research should focus on and compare different countries. This study only considers perceived usefulness as the mediating variable, but future research could include additional variables such as perceived ease of use and perceived risk. Future studies should also explore the moderating effects of perceived usefulness. The present study examines gender as the moderating variable in the relationship between perceived usefulness and brand equity. Future research should also focus on other control variables, such as subjective norms.

References

- Aaker, D. A. (1995). *Building Strong Brands*. Simon and Schuster. New York.
- Abuhashesh, M. Y., Alshurideh, M. T., Ahmed, A., Sumadi, M., & Masa'deh, R. (2021). The Effect of Culture on Customers' Attitudes Toward Facebook Advertising: The Moderating Role of Gender. *Review of International Business and Strategy*, 31(3), 416–437.
- Adams, D. A., Nelson, R. R., & Todd, P. A. (1992). Perceived Usefulness, Ease of Use, and Usage of Information Technology: A Replication. *MIS Quarterly*, 227–247.
- Akour, I., Alshare, K., Miller, D., & Dwairi, M. (2006). An Exploratory Analysis of Culture, Perceived Ease of Use, Perceived Usefulness, and Internet Acceptance: The Case of Jordan. *Journal of Internet Commerce*, 5(3), 83–108.
- Arnould, E. J., & Thompson, C. J. (2005). Consumer Culture Theory (CCT): Twenty Years of Research. *Journal of Consumer Research*, 31(4), 868–882.
- Badenhop, A., & Frassetto, M. (2021). Online Grocery Shopping at Multichannel Supermarkets: The Impact of Retailer Brand Equity. *Journal of Food Products Marketing*, 27(2), 89–104.
- Buil, I., Martínez, E., & De Chernatony, L. (2013). The Influence of Brand Equity on Consumer Responses. *Journal of Consumer Marketing*, 30(1), 62–74.
- Bryman, A. & Cramer, D. (2002). *Quantitative Data Analysis with SPSS Release 10 for Windows: A Guide for Social Scientists*. Routledge.
- Cayla, J., & Arnould, E. J. (2008). A Cultural Approach to Branding in the Global Marketplace. *Journal of International Marketing*, 16(4), 86–112.
- Chatzipanagiotou, K., Christodoulides, G., & Veloutsou, C. (2019). Managing the Consumer-Based Brand Equity Process: A Cross-Cultural Perspective. *International Business Review*, 28(2), 328–343.
- Chiu, C. Y., Kwan, L. Y. Y., Li, D., Peng, L., & Peng, S. (2012). Culture and Consumer Behavior. *Foundations and Trends in Marketing*, 7(2), 109–179. <https://doi.org/10.1561/17000000032>
- Connell, C., Marciniak, R., & Carey, L. D. (2023). The Effect of Cross-Cultural Dimensions on the Manifestation of Customer Engagement Behaviors. *Journal of International Marketing*, 31(1), 32–48.
- Cook, G. (2012). The Influence of National Cultural on American Business People—Managerial Implications for Central Europe. *Central European Business Review*, 1(2), 46–51.
- Cordeiro Socha, A. (2012). The Influence of the Culture Dimension 'Power Distance' on Product Choice: A Cross Cultural Exploration of Effects of Country of Origin on the Choice of Branded Products. Master Thesis, University of Guelph. Canada

- Country Comparison. (2023). Turkey National Cultural Dimensions . <https://www.hofstede-insights.com/country-comparison-tool?countries=turkey> (accessed 10 September 2023)
- Crespo-Almendros, E., Prados-Peña, M. B., Porcu, L., & Alcantara Pilar, J. M. (2023). Building Heritage Brand Equity through Social Media Sales Promotion: The Role of Power Distance. *International Journal of Tourism Research*, 25(3), 305-317
- Darley, W. K., & Smith, R. E. (1995). Gender Differences in Information Processing Strategies: An Empirical Test of the Selectivity Model in Advertising Response. *Journal of Advertising*, 41–56.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 319–340.
- Davis, F. D. (1986). Technology Acceptance Model for Empirically Testing New End-User Information Systems Theory and Results. Doctoral Dissertation, MIT.
- De Mooij, M. (2010). *Consumer Behavior and Culture Consequences for Global Marketing and Advertising*. Sage Publications
- De Mooij, M. (2019). *Consumer Behavior and Culture: Consequences for Global Marketing and Advertising*. Consumer Behavior and Culture. Sage Publications
- De Mooij, M., & Beniflah, J. (2017). Measuring Cross-Cultural Differences of Ethnic Groups within Nations: Convergence or Divergence of Cultural Values? The Case of the United States. *Journal of International Consumer Marketing*, 29(1), 2–10. <https://doi.org/10.1080/08961530.2016.1227758>
- Deshpande, R., Hoyer, W. D., & Donthu, N. (1986). The Intensity of Ethnic Affiliation: A Study of the Sociology of Hispanic Consumption. *Journal of Consumer Research*, 13(2), 214–220.
- Erdem, T., Swait, J., & Valenzuela, A. (2006). Brands as Signals: A Cross-Country Validation Study. *Journal of Marketing*, 70(1), 34–49.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial Least Squares Structural Equation Modeling: Rigorous Applications, Better Results and Higher Acceptance. *Long Range Planning*, 46(1–2), 1–12.
- Hair Jr, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2011). *Multivariate Data Analysis*. New Jersey: PrenticeHall. Inc.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021a). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook*. Springer Nature.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021b). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage publications.
- Han, S. H., Chen, C.H. S., & Lee, T. J. (2021). The Interaction Between Individual Cultural Values and the Cognitive and Social Processes of Global Restaurant Brand Equity. *International Journal of Hospitality Management*, 94:102847. <https://doi.org/10.1016/j.ijhm.2020.102847>

- Henry, W. A. (1976). Cultural Values Do Correlate with Consumer Behavior. *Journal of Marketing Research*, 13(2), 121–127.
- Heydari, A., Laroche, M., Paulin, M., & Richard, M.O. (2021). Hofstede's Individual-Level Indulgence Dimension: Scale Development and Validation. *Journal of Retailing and Consumer Services*, 62, 102640.
- Hofstede, G. (1984). *Culture's Consequences: International Differences in Work-Related Values* (Vol. 5). Sage Publications.
- Hofstede, G. (2001). *Culture Consequences*. Sage Publications.
- Hofstede, G. (2016). Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations. *Collegiate Aviation Review*, 34(2), 108.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and Organizations : Software of the Mind : Intercultural Cooperation and Its Importance for Survival*. McGraw-Hill. New York
- Hofstede, G., & McCrae, R. R. (2004). Personality and culture revisited: Linking Traits and Dimensions of Culture. *Cross-Cultural Research*, 38(1), 52–88.
- Holbrook, M. B. (1986). Aims, Concepts, and Methods for the Representation of Individual Differences in Esthetic Responses to Design Features. *Journal of Consumer Research*, 13(3), 337–347.
- Howard, J. A., & Sheth, J. N. (1969). *The Theory of Buyer Behavior*. Wiley. New York
- Huang, L., Lu, M.T., & Wong, B. K. (2003). The Impact of Power Distance on Email Acceptance: Evidence from the PRC. *Journal of Computer Information Systems*, 44(1), 93–101.
- Jan, J., Alshare, K. A., & Lane, P. L. (2022). Hofstede's Cultural Dimensions in Technology Acceptance Models: A Meta-Analysis. *Universal Access in the Information Society*, 1–25.
- Jiao, Y., Ertz, M., Jo, M. S., & Sarigollu, E. (2018). Social Value, Content Value, and Brand Equity in Social Media Brand Communities: A Comparison of Chinese and US Consumers. *International Marketing Review*, 35(1), 18–41.
- Kamboj, S., & Rahman, Z. (2016). The Influence of User Participation in Social Media-Based Brand Communities on Brand Loyalty: Age and Gender as Moderators. *Journal of Brand Management*, 23, 679–700.
- Kapferer, J. N. (2006). The Two Business Cultures of Luxury Brands. In *Brand Culture*. Routledge.
- Kazmi, S. Q., & Rahman, M. U. (2019). The Impact of Indulgence and Restraint Cultural Dimension on Brand Equity. *Global Management Journal for Academic & Corporate Studies*, 9(2), 168–209.
- Keller, K. L. (2003). *Strategy Brand Management*. Pearson Education, Inc. Upper Saddle River, New Jersey, USA.

- Kim, H., Gon Kim, W., & An, J. A. (2003). The Effect of Consumer-Based Brand Equity on Firms' Financial Performance. *Journal of Consumer Marketing*, 20(4), 335–351.
- Kim, J. H., & Hyun, Y. J. (2011). A Model to Investigate the Influence of Marketing-Mix Efforts and Corporate Image on Brand Equity in the IT Software Sector. *Industrial Marketing Management*, 40(3), 424–438.
- Koay, K. Y., Ong, D. L. T., Khoo, K. L., & Yeoh, H. J. (2020). Perceived Social Media Marketing Activities and Consumer-Based Brand Equity: Testing A Moderated Mediation Model. *Asia Pacific Journal of Marketing and Logistics*, 33(1), 53–72.
- Kopaničová, J., & Vokounová, D. (2023). Cultural Differences in Coping with Changes in the External Environment: A Case of Behavioural Segmentation of Senior Consumers Based on Their Reaction to the COVID-19 Pandemic. *Central European Business Review*, 12(3), 21.
- Kozinets, R. V. (2001). Utopian Enterprise: Articulating the Meanings of Star Trek's Culture of Consumption. *Journal of Consumer Research*, 28(1), 67–88.
- Kusmayanti, P. (2022). The Influence of Price, Brand Resonance, Perceived Usefulness, Product Variants and Distribution Channels on Customer Loyalty of Cleo. *Journal of Marketing and Business Research (MARK)*, 2(1), 71–80.
- Latif, K. F., Sajjad, A., Bashir, R., Shaukat, M. B., Khan, M. B., & Sahibzada, U. F. (2020). Revisiting the Relationship Between Corporate Social Responsibility and Organizational Performance: The Mediating Role of Team Outcomes. *Corporate Social Responsibility and Environmental Management*, 27(4), 1630–1641.
- Lee, J. S., & Back, K. J. (2010). Reexamination of Attendee-Based Brand Equity. *Tourism Management*, 31(3), 395–401.
- Lee, Y., Kozar, K. A., & Larsen, K. R. T. (2003). The Technology Acceptance Model: Past, Present, and Future. *Communications of the Association for Information Systems*, 12, 752-780. <https://doi.org/10.17705/1cais.01250>
- Lehmann, D. R. (1996). Presidential Address Knowledge Generalization and the Conventions of Consumer Research: a Study in Inconsistency. *ACR North American Advances*. 23(5), 1-5
- Leone, R. P., Rao, V. R., Keller, K. L., Luo, A. M., McAlister, L., & Srivastava, R. (2006). Linking Brand Equity to Customer Equity. *Journal of Service Research*, 9(2), 125–138.
- Li, J. (2021). Exploring the Effects of National Culture on Consumer-Based Brand Equity. Master Thesis, University of Guelph. Canada
- Lok, C. K. (2016). The Effects of Cultural Dimensions on Technology Acceptance at Individual Level. *International Conference on Business and Social Sciences, ICBASS 2016*. Kyoto.
- Mathur, M. (2018). Leveraging Social Media-Based Determinants to Build Customer-Based Brand Equity of A Retailer. *The International Review of Retail, Distribution and Consumer Research*, 28(5), 554–575.

- Mazan, İ., & Çetinel, M. H. (2022). Effects of Perceived Ease of Use and Perceived Usefulness as Mediators of the Relationship between Individual Culture and Intention to Use Digital Tourism Applications and Services. *Journal of Tourism & Gastronomy Studies*, 10(3), 2166–2192.
- McCoy, S., Galletta, D. F., & King, W. R. (2007). Applying TAM Across Cultures: The Need for Caution. *European Journal of Information Systems*, 16(1), 81–90.
- Mohamed, Z. A., Ünsalan, M., & Abdinasir, A. M. (2024). Culture in Marketing Communication. In *Management in Marketing Communication*. IntechOpen. <https://doi.org/10.5772/intechopen.1004300>
- Mohamed, Z., & Ünsalan, M. (2024). The Impact of Individualism/Collectivism and Masculinity/Femininity on Brand Loyalty: A Mediation Role of Perceived Ease of Use. In *Proceedings of The International Conference on Research in Business, Management and Economics (Vol. 1)*. <https://doi.org/10.33422/icrbme.v1i1.191>
- National Culture. (2023). Hofstede Insights. <https://www.hofstede-insights.com/intercultural-management#whatisnationalcultureandhowdoesitdifferfromorganizationalculture> (accessed 10 September 2023)
- Özbilen, P. (2017). The Impact of Natural Culture on New Technology Adoption By Firms: A Country Level Analysis. *Int. J. Innov. Manag. Technol*, 8, 299–305.
- Pappu, R., Quester, P. G., & Cooksey, R. W. (2005). Consumer-Based Brand Equity: Improving the Measurement—Empirical Evidence. *Journal of Product & Brand Management*, 14(3), 143–154.
- Putrevu, S. (2001). Exploring the Origins and Information Processing Differences between Men and Women: Implications for Advertisers. *Academy of Marketing Science Review*, 10(1), 1–14.
- Raihan, D. (2023). The Effect of Ease Of Use, Seller Reputation, and Perceived Usefulness on Brand Loyalty with Satisfaction as a Mediating Variable. *Jurnal Informatika Ekonomi Bisnis*, 5(2). 324–330.
- Raza, M., Salleh, S., Tariq, B., Altayyar, R., & Shaari, H. (2020). Investigating the Effects of Customer-Based Brand Equity on Turnover Intentions with Mediating Effect of Customer Citizenship Behavior. *Management Science Letters*, 10(2), 279–286.
- Rodríguez-López, M. E., Alcántara-Pilar, J. M., & del Barrio-García, S. (2023). Individual Cultural Values as Determinants of the Attitudinal Process in the Restaurant: A Different Perspective for Understanding Brand Equity Formation. *Tourism & Management Studies*, 19(1), 49–57.
- Salem, S. F., Alanadoly, A. B., & Sulaiman, M. A. B. A. (2023). Immersive Gaming in the Fashion Arena: An Investigation of Brand Coolness and Its Mediating Role on Brand Equity. *Journal of Research in Interactive Marketing*. 18(4),529-548
- Schepers, J., & Wetzels, M. (2007). A Meta-Analysis of the Technology Acceptance Model: Investigating Subjective Norm and Moderation Effects. *Information & Management*, 44(1), 90–103.

- Sheng, M. L., & Teo, T. S. H. (2012). Product Attributes and Brand Equity in the Mobile Domain: The Mediating Role of Customer Experience. *International Journal of Information Management*, 32(2), 139–146.
- Srivastava, R., Reibstein, D. J., & Woodside, W. S. (2005). *Metrics for Linking Marketing to Financial Performance*. Marketing Science Institute Cambridge, MA.
- Steenkamp, J. B. E. M. (2001). The Role of National Culture in International Marketing Research. *International Marketing Review*, 18(1), 30–44
- Straub, D. W. (1994). The Effect of Culture on IT Diffusion: E-Mail and FAX in Japan and the US. *Information Systems Research*, 5(1), 23–47.
- Tan, T. M., Tan, S. M., Lee, W., Ong, M. B. F., & Liew, T. W. (2012). Does Gender Contribute Moderating Effect in Brand Equity Model? *International Journal of Research in Management*, 3(2), 1–15.
- Tobias-Mamina, R. J., Maziriri, E. T., & Kempen, E. (2021). Determinants of Consumer-Generated-Content Usage for Apparel Shopping: The Moderating Effect of Gender. *Cogent Business & Management*, 8(1), 1–20
- Vinzi, V. E., Chin, W. W., Henseler, J., & Wang, H. (2010). *Handbook of Partial Least Squares*. Springer.
- Wells, W. D. (1993). Discovery-Oriented Consumer Research. *Journal of Consumer Research*, 19(4), 489–504.
- Yoo, B. (1996). *The Effects of Marketing Efforts and Culture on Brand Equity Formation*. Doctoral Dissertation. Georgia State University.
- Yoo, B., & Donthu, N. (2002). Testing Cross-Cultural Invariance of the Brand Equity Creation Process. *Journal of Product & Brand Management*, 11(6), 380–398.
- Yoo, B., Donthu, N., & Lee, S. (2000). An Examination of Selected Marketing Mix Elements and Brand Equity. *Journal of the Academy of Marketing Science*, 28, 195–211.
- Yoo, B., Donthu, N., & Lenartowicz, T. (2011). Measuring Hofstede's Five Dimensions of Cultural Values at the Individual Level: Development and Validation of CVSCALE. *Journal of International Consumer Marketing*, 23(3–4), 193–210.
- Yoon, C. (2009). The Effects of National Culture Values on Consumer Acceptance of E-Commerce: Online Shoppers in China. *Information & Management*, 46(5), 294–301.
- Yulianto, S., & Tanamal, R. (2019). The Influence of Brand Equity, Trust, Price, PEOU and PU on Online Based Crowdfunding Investment. *Jurnal Teknologi Sistem Informasi dan Aplikasi*, 2(2), 53–58. <https://doi.org/10.32493/jtsi.v2i2.2733>

