# GLOBAL **ANTI-COUNTERFEITING** CONSUMER **SURVEY** A 17-COUNTRY STUDY

Actionable Insights for Strategic Consumer Education & Protection



Center for Anti-Counterfeiting and Product Protection MICHIGAN STATE UNIVERSITY





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This research was conducted independently by the Michigan State University Center for Anti-Counterfeiting and Product Protection (A-CAPP) using a research gift funding from Underwriters Laboratories Standards & Engagement.

With great appreciation, we acknowledge Kari Kammel, Director, A-CAPP; Carrie Feeheley, Assistant Director of Education & Outreach, A-CAPP; and Sara Heeg, Business Manager, A-CAPP, for their contributions to facilitating funding and managing this project. We also extend special thanks to Dr. Jay P. Kennedy and Dr. Jeff Rojek, former A-CAPP Center staff, for contributing to earlier versions of the survey instrument and facilitating the acquisition of the research gift.

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To cite this report: Alhabash, S., Kononova, A., Huddleston, P. Moldagaliyeva, M., & Lee, H. (2023). Global Anti-Counterfeiting Consumer Survey 2023: A 17 Country Study. East Lansing, MI: Center for Anti-Counterfeiting and Product Protection, Michigan State University. https://a-capp.msu.edu/article/global-anti-counterfeiting-consumer-survey-2023/

**Obtaining Additional Marketing Insights.** This report is not intended to be marketing advice for your organization. For assistance with an individualized marketing strategies incorporating anti-counterfeiting messaging and the survey findings with your audience, please contact the A-CAPP Center.



The A-CAPP Center's *Global Anti-Counterfeiting Consumer Survey 2023* is one of the first comprehensive country-wide studies across the globe conducted in multiple languages that focuses on the impact of purchasing counterfeits online by consumers. One of the four strategic themes of the A-CAPP Center's work from 2022-2027 is increasing research on consumer behavior in the purchase of counterfeit goods online and the impact of their purchases. We believe this work is vital not only to the field of brand protection and anti-counterfeiting, but also to consumers globally who are now exposed to the potential purchase of counterfeits in unprecedented ways through digital channels. Some research findings confirm anecdotal stories in the field: that consumers are confused about what to do when they buy a product that turns out to be counterfeit and that despite low intentions to purchase counterfeits, some intentionally purchase these products. The research also confirms that messaging toward consumers cannot follow a 'one size fits all' approach given the diversity of audiences and multitude of consumer attributes across and within different countries.

I want to extend special recognition to the outstanding faculty and graduate student researchers on this project. The team spent many hours designing the survey instrument, ensuring translations were done appropriately, analyzing and reporting the study's results, and creating a report that we hope can be used as a baseline to continue the conversation on how to effectively engage with consumers from multiple perspectives. We hope that the report's set of actionable insights can ignite further dialogue among multiple stakeholders regarding the development and implementation of a regulatory framework that identifies the minimum level of communication provided to consumers around the dangers of counterfeits and what to do with them if they purchase them. We also look forward to seeing how these actionable insights help brand owners, industry associations, and governmant agencies in designing and disseminating tailored messaging campaigns to impact counterfeit purchase behaviors.

We hope that this report provides you with useful practical information and an insight into how the counterfeit epidemic is impacting consumers who purchase goods online.



Kari Kammel Director Center for Anti-Counterfeiting and Product Protection (A-CAPP)



# About the A-CAPP Center



#### Center for Anti-Counterfeiting and Product Protection MICHIGAN STATE UNIVERSITY

OUR Identify and examine the complex issue **MISSION** of trademark counterfeiting from a practical, actionable, academic nexus/ viewpoint, working collaboratively with brand protection practitioners and communities worldwide.



OUR Combat trademark counterfeiting through **VISION** our research, education and outreach.



 $\bigcirc \bigcup \mathbb{R}$  We are a small and committed team **TEAM** passionate about brand protection and anti-counterfeiting. We rely on partnerships with others in the brand protection community for funding and engagement as well as data for our research. \*Brand protection is an umbrella term that describes how brand owners (companies), law enforcement, academics and related technology and other vendors work together to stop trademark counterfeiting and protect the public.



OUR As a public, research-intensive, land-**VALUES** grant university funded in part by the State of Michigan, our university mission is to advance knowledge and transform lives. At the Center for Anti-Counterfeiting and Product Protection, these same values are at the core of what we do, as applied to the brand protection field. Through our vision, we live out these values by helping create solutions on a global scale to problems with significant health, safety and other risks. We also help train a diverse cadre of current and future industry professionals.



#### WE ARE INTERDISCIPLINARY

At MSU and at other institutions, we work with scholars in the many disciplines that make up our field, including but not limited to: Law, Criminal Justice, Business, Supply Chain, Marketing, Packaging, Engineering, Pharmacy, Advertising and Public Relations and Global Health. We also work closely with the team in International Studies and Programs, the Broad College's International Business Center/Global Business Club, the Axia Institute and others from all over campus and across the globe. We are working to develop additional relationships across a broad spectrum of potential partners.

#### WE ARE COLLABORATIVE

We work with everyone imaginable in the brand protection and anti- counterfeiting community, from academics to members of law enforcement, vendors and brand owners. We do not endorse others' solutions, allow sales of services or products, or give away our partners' information to be used for sales. This policy has helped us build relationships of trust with our partners.

#### WE ARE INDEPENDENT

Our research and related work are independent. Although we raise funding for our research and other activities as a self-sustaining unit at Michigan State University through gifts and contracts, we do not accept funding that would require us to promote a specific viewpoint or perspective.

We proactively seek to be knowledgeable about current events and updates in our field and produce research and resource tools applicable in the practice of brand protection.

#### WE ARE INCLUSIVE AND PROMOTE INCLUSIVITY

We are INCLUSIVE AND PROMOTE INCLUSIVITY in all we do. We recognize that the field of brand protection is made better by being as inclusive as possible. We work actively to ensure that our events, programs and team are inclusive and that our educational programs view lessons and delivery through an inclusive lens. We seek to have as diverse an array of partners as possible through significant and strategic outreach.

#### WE PRIORITIZE EDUCATING AND LEARNING

We PRIORITIZE EDUCATING AND LEARNING. We are committed to educating the current and next generation of brand protection professionals through our self-guided online courses, as well as various types of experiential education and traditional university courses. Our internship programs include mentoring and other state-of-the-art career development tools to both educate new members of the profession and create learning opportunities for their mentors.



Executive Summary	1
01 Background	6
02 Research Methodology	16
<b>Global Descriptive Analytics:</b> <b>Counterfeit Purchase Behavior Around the World</b>	21
04 Global Psychographic Analytics: Social Psychological Perceptions of Counterfeiting	46
05 Global Predictive Analytics:	59
Global Segmentation Analysis:	83
Country-Level Predictive Analytics	102
References	231
Appendices	

Trademark counterfeiting (hereinafter "counterfeiting") is a prevalent global risk. A survey of consumers from 17 countries (N = 13,053), conducted in seven languages, examined the prevalence of counterfeit purchase behaviors and what predicts past purchase and future purchase intentions. Our approach was informed by three theoretical lenses to explain counterfeit purchase: motivations, theory of planned behavior, and protection motivation theory, to answer the following questions:



# **HOW** Prevalent is Counterfeit Purchase Behavior?

**Global Descriptive Analytics** highlighting prevalence of counterfeit purchase behavior and intentions.

# WHAT Are the Common Perceptions of Counterfeit Purchase?

Global Psychographic Analytics highlighting soci-psychological perceptions of counterfeit products among the 17-country sample.

# WHY Do Global Consumers Buy Counterfeits?

Global Predictive Analytics showing how demographic and psychographic attributes predict counterfeit purchase and intentions.

# **NHO** Are the Counterfeit Consumers?

A Global Segmentation Analysis distinguishing counterfeit buyers provides actionable insights for effective tailored consumer education.

# **HOW** Do the Countries Compare?

**Country-Level Predictive Analytics** highlighting commonalities and differences among countries in counterfeit purchase drivers.

Our findings are framed within the context of global and country-specific **actionable insights** geared toward helping the brand protection community and related stakeholders better educate consumers about the dangers and risks of purchasing counterfeit products around the world.

# Executive **Summary**





# KEY FINDINGS



Buying Counterfeits is **Prevalent!** Counterfeit purchase is highly prevalent across the 17 countries. **More than half** of global consumers bought counterfeits knowingly (non-deceptive purchases), though only 21% of the sample were frequent non-deceptive counterfeit buyers. **More than two-thirds** of the sample were deceived into buying counterfeits (deceptive purchases), and 38% of those deceived into buying counterfeit products decided to keep the product after knowing it was counterfeit. Altogether, **about three-quarters** (74%) of the sample have purchased counterfeits non-deceptively.

**52%** 

have **non-deceptively bought counterfeits** at least once in the past year **68%** were deceived into

buying counterfeits at least once in the past year **21%** 

are frequent buyers of counterfeit products (non-deceptive purchase) 38%

Executive Summary

decided to **keep a counterfeit product** they were deceived into buying after learning it was counterfeit



**Clothing** and **Shoes** were the top counterfeit product types bought by global consumers Clothes and shoes were the top-purchased counterfeit product types. Global consumers resorted mainly to social media and e-retail platforms to purchase counterfeits, and among those purchasing counterfeits through social media, 68% did so via Facebook.



e-retail platforms

<mark>39%] 68</mark>

bought counterfeit products via social media platforms of consumers who bought a counterfeit product via social media, did so on **Facebook** 





# KEY FINDINGS

When differentiating counterfeit buyers and non-buyers, buyers were more likely to be male, younger, highly religious, frequent online shoppers, and from lower income households.



Despite consumers expressing they were mostly motivated by a deal or bargain (economic benefits motivation) to buy counterfeit products, enjoyment with counterfeit shopping and buying (hedonic motivation) positively predicted counterfeit purchase intentions and behaviors the strongest.





Executive Summary



# **KEY FINDINGS**

Attitudes and perceptions of what other people typically do positively contributed to counterfeit purchase intentions and behaviors. Consumers were more likely to have bought counterfeit goods (deceptively and non-deceptively) in the past and have intentions to do it in the future if:

- (1) they had positive attitudes toward counterfeit purchasing, and
- (2) they believed that their peers in the country, town, or the Internet (distal reference groups), as well as close friends and family (proximal reference groups) accepted this behavior and engaged in it.

If a consumer has **high awareness of the risks of buying counterfeits** online (threat severity) and believes that they can **recognize counterfeit on e-retail platforms and avoid buying it** (e-retail response efficacy) they are more likely to refrain from buying counterfeits compared to their counterparts with lower threat severity and e-retail response efficacy perceptions. On the other hand, greater **feelings of vulnerability** to the risks of counterfeit buying (threat susceptibility) and higher levels of self-efficacy, or confidence in one's ability to protect themselves against counterfeit risks increased the likelihood of counterfeit purchase (both non-deceptive and deceptive).



Per our global segmentation analysis, **non-buyers**, **occasional buyers**, and **frequent buyers** of counterfeit products share common demographic characteristics across the 17 countries, yet they are vastly different in terms of what predicts their counterfeit purchase intentions, as well as non-deceptive and deceptive purchase.

Descriptive and predictive analytics showed significant differences in counterfeit purchase behavior and what predicts it. These insights are helpful for a more tailored approach to consumer education and interventions that aim at changing consumers' counterfeit attitudes and purchase behaviors.



Executive Summary





# SUMMARY OF ACTIONABLE INSIGHTS

#### One Size Does Not Fit All!

When communicating with consumers about the dangers of counterfeiting, one size does not fit all. Approaches tailored to specific consumer segments and nations are necessary. The survey findings clearly show that such approaches vary widely by consumers' demographic and psychographic characteristics, past behaviors, and future purchase intentions of counterfeit products.

#### **Occasional and Frequent Buyers Require Different Messaging Strategies**

Different message strategies are needed to appeal to frequent and occasional counterfeit buyers. Although frequent buyers are well aware of counterfeit risks and feel highly vulnerable to these risks, they possess high levels of confidence that they can recognize counterfeits and avoid buying them online (self-efficacy). This presents a potential challenge in enhancing frequent buyers' protective behaviors against counterfeit risks. The survey findings point to a potential benefit of enhancing intrinsic self-efficacy perceptions in anti-counterfeit campaign messages as a means of curbing the counterfeit-buying behavior.

#### Economic & Hedonic Motivations

The survey results indicated that consumers were highly motivated to buy counterfeit products for economic and financial reasons (i.e., economic benefits motivation). However, and against conventional wisdom, hedonic motive was the strongest predictor of counterfeit purchase intentions and past behaviors. This calls for strategies that better reflect the dynamic nature of buying counterfeit products from a social psychological perspective. Consumers are not only motivated by saving money. They are seeking pleasure and enriched shopping experiences. This knowledge can alter existing strategies to educate consumers by emphasizing the psychological rewards of refraining from purchasing counterfeits. In other words, taking the fun out of counterfeit shopping and buying can be an effective strategy to reduce the prevalence of this behavior.

#### Country-Level Differences

Despite similar patterns across the 17 countries in predicting counterfeit purchase intentions and behaviors, country-level differences offer the brand protection community with actionable insights for nation-specific, tailored approaches.





relation or Iro point of view. Counterfeits copy that is repi the original; ma tent to dece

# Background 01



# **Buying Counterfeits:** A Global Phenomenon and a Growing Risk

Trademark counterfeiting occurs when a "reproduction, counterfeit, copy, or colorable imitation of a registered mark" is applied to "labels, signs, prints, packages, wrappers, receptacles or advertisements" and "such use is likely to cause confusion, or to cause mistake, or to deceive" (Lanham Act, 15 U.S.C. § 1114(1)). A counterfeit trademark is a "spurious mark which is identical with, or substantially indistinguishable from, a registered mark" (Lanham Act, 15 U.S.C. § 1127). A counterfeit good or a counterfeit package refers to a good or package that has an unauthorized or spurious trademark on it. The proliferation of counterfeit products affects the global economy, societies, and cultures. OECD/ EUIPO has estimated counterfeit product sales were \$449 billion (3.3% of global trade) (OECD/EUIPO, 2021).

E-commerce has facilitated the increase in the counterfeit supply chain complexity and prevalence of counterfeit products (Ye et al., 2012; OECD/EUIPO, 2021). While online marketplaces benefit consumers and legitimate businesses seeking to expand their reach to consumers, the other side to this success is that counterfeiters can now easily reach large groups of consumer bases (Zacharia & Kammel, 2021).

During the COVID-19 pandemic, 2022 estimates of counterfeit product sales reached \$3 trillion (Handfield, 2021). Counterfeiting pervasiveness across industries (i.e., basic consumption, business-tobusiness, and luxury) poses several significant risks: financial losses for commercial entities, tax revenue losses for governments, health risks to consumers, and environmental hazards for communities around the world due to improper waste disposal and substandard production practices (Ferrell & Hartline, 2011; Grossman & Shapiro, 1988; Kingborn & Wilson, 2014; OECD/EUIPO, 2021).







Consumers in many countries around the globe face mounting counterfeit risks, especially as the e-commerce industry expands. Consumers can be harmed by the purchase and use of counterfeit goods in a number of ways, including injury because of poor quality (U.S. Immigration and Customs Enforcement, n.d., Zacharia & Kammel, 2021), lack of quality testing, lack of safe and regulated materials, and lack of safe regulated manufacturing (United Nations Office of Drugs and Crime, n.d.).

Additionally, when consumers unknowingly buy a deceptive counterfeit, they are spending their money on a good that they believe to be genuine and worth the money spent. But instead, consumers are buying something that is not genuine and not what they think they are receiving. In some cases, consumer dollars are unknowingly used to fund other types of criminal activity, such as organized criminal activity or even terrorism (Kennedy, Cermak & Manoukian, 2021), instead of supporting their favorite brand.

China continues to lead the world in terms of counterfeit production, accounting for "75% of the value of all counterfeit goods seized by the U.S. Customs and Border Protection (CBP) in 2021" (Office of the United States Trade Representative, 2023). Other countries in the Asia-Pacific region, including Hong Kong, India, and Thailand, also significantly contribute to the production of counterfeit goods. European and North American nations are primary destinations for these products (McCarthy, 2016; OECD/EUIPO, 2017). Counterfeit is prevalent in various product sectors, with luxury goods and pharmaceuticals being the most common, as it pertains to customs seizures (Europol, 2022; WHO, 2017).

The use of certain counterfeit products, such as pharmaceuticals or any product that can go on or in the human body, directly impacts consumer health and well-being. With roughly 10% of all medications and 50% of medications sold online being counterfeit, this presents a significant public health risk, with estimates of 250,000 children's lives lost annually due to taking counterfeit medications (Sample, 2019; Statista, 2022; WHO, 2017; Yadav & Rawal, 2015).

Information and communication technology (ICT) features and the proliferation of digital media have made it impossible to contain the mushrooming phenomenon of counterfeiting (Tontini, 2016). E-commerce platforms and direct marketing and sales of counterfeit goods via social media have further complicated the counterfeit supply chain (see Morra et al., 2017; Zacharia & Kammel, 2021), making it difficult for commercial companies and law enforcement agencies to track, identify, and take down counterfeit products (Thaichon & Quach, 2016). Firms and supply chain networks have employed







advanced technologies to interrupt the counterfeit supply chain, protect their own supply chain, and enhance consumer safety and brand assets, such as trace and track technologies, smart packaging, and blockchain (de Boissieu et al., 2021; Kammel, Kennedy, Cermak & Manoukian, 2021; Li, 2013; Ma et al., 2020; Wasnik et al., 2022).

However, such technologies, though beneficial, often come at a high price and cannot maintain a comparable pace of supply chain evolution and complexity. Counterfeit producers and sellers increasingly use sophisticated tactics to avoid detection, such as producing smaller quantities of counterfeit products and rapidly shifting their operations to new locations (Europol, 2022).

Raising consumers' awareness and understanding of counterfeit risks could assist in reducing counterfeit demand (Kammel, Kennedy, Cermak & Manoukian, 2021; Staake et al., 2009). This is why the U.S. Congress designated the month of August as the "National Anti-Counterfeiting and Consumer Education and Awareness Month" (S. Res. 738, 2022) and recently passed the INFORM Consumers Act in December 2022 (implemented in June 2023), which is set to require "online marketplaces to collect and verify basic seller information, and for sellers to provide that information to consumers" in an effort to enhance transparency and verification to combat the spread of counterfeit products in online marketplaces (Buy Safe America, n.d.).

As various stakeholders in the brand protection and anti-counterfeiting community recognize the importance of raising consumers' awareness about the risks of buying counterfeit products and changing their current and future purchase behaviors, this study provides a baseline for understanding consumer counterfeit attitudes and behaviors on a global scale. This report provides rich insights from 17 countries about motivations, perceptions, and behaviors surrounding the purchase of counterfeit products. Brand protection practitioners and other stakeholders can leverage these insights to design effective consumer focused interventions to curb the prevalence and impact of counterfeit products.







# **Using Theories in Practice**

The overarching goal of this study is to understand the determinants of counterfeit purchase intentions and past behaviors (non-deceptive and deceptive). To do so, we leveraged three social psychological theoretical approaches to explain counterfeit purchase intentions and behaviors: (1) **purchase motivations** (Shavitt, 1990; Wang 2009), (2) **theory of planned behavior (TPB)** (Ajzen, 1991), and (3) **protection motivation theory (PMT)** (Rogers & Prentice-Dunn, 1997). Specifically, the study focuses on the following three behavioral outcomes.



**Counterfeit purchase intentions** are defined as the strength of a consumer's aim to perform a specific behavior in the future (Fishbein & Azjen, 1975), in this case, counterfeit purchase intention.



Non-deceptive (known) counterfeit purchase behavior refers to past instances of purchasing counterfeit products while being aware that the products are counterfeit (non-

deceptive).



**Deceptive (unknown) counterfeit purchase** refers to past instances of purchasing counterfeit products thinking they were original and later discovering they were counterfeit (Bian & Veloutsou, 2007).







## **Counterfeit Purchase Motivations**

Purchase motivations are underlying drivers for individuals' perceptions and behaviors. Such motivations are attributed to personal (e.g., the pursuit of economic or hedonic benefits) or social (e.g., value-expressive motives or social-adjustive motives) needs (Shavitt, 1990). **Economic benefits** deal with purchase motivations centered around finding a bargain and saving money, while **hedonic motives** stem from one's desire to satisfy their needs in a pleasant way. On the other hand, **value-expressive motives** focus on how a purchase reflects one's values, whereas **social-adjustive motives** stems from an individual's desire to fit in with a social group and align themselves within the social hierarchy (i.e., show status).

Understanding what motivates consumers to purchase counterfeit products is "critical for +predicting counterfeit buying behavior" (Khan et al., 202I, p. 338). Even though consumers are often deceived into buying counterfeits, studies show that they also intentionally buy counterfeit products, in spite of their awareness of the ethical issues concerning such purchases (OECD/EUIPO, 2019; Shan et al., 2022; Wilcox et al., 2009). Research has shown that economic benefits are the main drivers of counterfeit purchase (Singh et al., 2021, Wilcox et al., 2009); hedonic and entertainment motives (e.g., thrill-seeking and sensory experience) predict counterfeit purchase of luxury goods (Moon et al., 2018); and social-adjustive and value-expressive motivations explain the social pressures that drive counterfeit purchase in certain product categories (lyer et al., 2022; Ngo et al., 2020; Perez et al., 2010; Wilcox et al., 2009). The impact of purchase motivations varies by cultural and national characteristics (Khan et al., 2021; Singh et al., 2021).

### **Counterfeit Purchase as a Planned Behavior**

The theory of planned behavior (TPB) proposes that intentions lead to behavior and are influenced by cognitive (thinking) and affective (emotional) attitudes toward the behavior, perceived behavioral control (PBC), and descriptive and injunctive social norms (SN) (Ajzen, 1991).









- **Cognitive attitudes** represent ideas that reflect one's values, beliefs, and attributes about something (Ostrom, 1969). These ideas can be positive or negative.
- Affective attitudes refer to the emotional evaluation of a cognition or behavioral act (e.g., good vs. bad, likable vs. unlikable) (Ostrom, 1969).
- **Perceived behavioral control** is the extent to which a person believes they can control their actions (Ajzen, 1991).
- **Injunctive social norms** deal with perceptions of behavior acceptance in different reference groups (e.g., "I believe people like me approve of buying counterfeit") (Rivis & Sheeran, 2003).
- **Descriptive social norms** refer to perceptions of the prevalence of a behavior in various reference groups (e.g., "I believe people like me frequently buy counterfeit") (Rivis & Sheeran, 2003).

Product purchase, including counterfeit products, is considered to be a planned behavior (Bian & Veloutsou, 2007), and such planned nature is even more important to consider when examining non-deceptive purchase of counterfeit. Past research found that attitudes, PBC, and social norms predict counterfeit product purchase intentions, which in turn is associated with actual purchase behavior (e.g., Bian & Veloutsou, 2007; Cheng et al., 2011; Chiu et al., 2016; Gentry et al., 2006; Patiro & Sihombing, 2016; Garas et al., 2022; Kim & Karpova, 2010). This means that when individuals hold positive cognitive and affective attitudes toward buying counterfeits, have low sense of control over this behavior, and perceive others frequently buying counterfeits and approving of it, the more likely they are to apply cognitive processing and planning mechanisms when purchasing counterfeits, especially when this behavior is non-deceptive, where the consumers know the products are counterfeits and still buy them. Variability in anti-counterfeiting laws, protection enforcement, cultural differences, and economic differences explain differences in prevalence and acceptance of counterfeit purchase across different countries (Chiu et al., 2016; Gentry et al., 2006).









## **Protection Motivation Theory**

Protection motivation theory (PMT) looks at the cognitive mechanisms of threat and coping appraisals as predictors of protective behaviors (Maddux & Rogers, 1983; Rogers, 1975). Protective behavior is an act of reducing or preventing one's risks coming from undesirable actions. Avoiding buying counterfeit on e-retail platforms and through social media is an example of protective behavior. Buying counterfeit products online knowing they are counterfeit, on the contrary, is an example of an undesirable, risky, and potentially harmful behavior. Similarly, finding out that a product one purchased online might lead to negative feelings and heightened threat perceptions due to the nature of deception incurred during the purchase process.

Through the **threat appraisal** process, individuals examine sources of threats and factors that influence possible defensive responses, such as denial or avoidance. Threat appraisal is based on individuals' perception of **threat severity** and **susceptibility (or vulnerability)** (Norman et al., 2015). If people perceive something as severely risky and think they are vulnerable to the threat, their fear will increase, leading them to perform a protective behavior.

**Coping appraisal** refers to strategies individuals use when facing a threat and the factors that impact how people adapt by assessing their self-efficacy, response efficacy, and response cost (Maddux & Rogers, 1983; Norman et al., 2015; Rogers & Prentice-Dunn, 1997). **Self-efficacy** refers to individuals' perception about their capability to protect themselves from risky behavior and its consequences. **Response efficacy** is the perception that adopting the recommended behavior lowers the threat, and response cost deals with perceptions about the personal effort one needs to exert to engage in the recommended protective behavior (Maddux & Rogers, 1983; Norman et al., 2015).

For example, in the context of COVID-19, studies that used PMT found that predictors of COVID-19 protective behaviors were the feelings of hope and fear, self-efficacy, and response efficacy (Foroudi et al. 2021; Kim et al., 2021). In a different context, for South Korean consumers, self-efficacy and severity positively affected their food safety protective behavioral intentions while response-efficacy and vulnerability did not (Youn & Hye, 2020).









## **Research Aims**

A survey (N = 13,053) was conducted in 17 countries to achieve the following aims.



Examine **prevalence** of deceptive and non-deceptive counterfeit purchase across 17 countries



Explore **global differences** in psychological factors, such as motivations, attitudes, social norms, and risk perceptions, that predict counterfeit purchase-related behaviors



Determine the **psychological mechanisms** leading to deceptive and non-deceptive past counterfeit purchases, as well as counterfeit purchase intentions



Identify **global consumer segments** in relation to counterfeit purchase behaviors



Highlight **country-level differences** in the role of psychological and demographic factors in driving counterfeit purchase behavior (deceptive/non-deceptive) and intentions







#### Figure 1.1

Seventeen countries sampled in the Global Anti-Counterfeiting Consumer Survey 2023











This study used a global cross-sectional survey, meaning that data were collected at one point in time in 17 countries. The total of 13,053 consumers from Argentina (n = 769), Australia (n = 760), Brazil (n = 769), Canada (n = 770), China (n = 776), Egypt (n = 761), India (n = 770), Italy (n = 769), Kenya (n = 770), Mexico (n = 781), Nigeria (n = 765), Peru (n = 756), South Korea (n = 771), Spain (n = 760), United Arab Emirates (n = 770), United Kingdom (n = 766), and the United States (n = 770). The survey was administered in Arabic, Chinese, English, Italian, Korean, Portuguese, and Spanish (two versions were used for Spain and Spanish-speaking Latin American countries). Non-English versions of the survey were translated and back translated to English by a professional translation firm and were validated by a panel of brand protection experts who are native speakers of each language. In each country, we used three even-split sampling quotas for gender, generational groups, and income levels (lower, middle, upper).







# **Participants**

Participants were evenly split in terms of gender: females (49.64%), males (49.63%), and "Other" (0.73%). The mean age of the sample was 38.46 years old (SD = 14.05, Range = 18 to 85). Most participants (65.29%) were employed, 17.36% self-employed, 17.35% unemployed. Most participants (58.57%) attended college (no degree) or attained an associate or bachelor's degree, followed by those who attained postgraduate degrees (24.17%), a high school degree (13.85%), no formal education or less than a high school degree (2.20%) and "Other" (1.21%), respectively. Most participants (63.11%) were married, followed by never married (27.93%), divorced (2.90%), separated (1.86%), widowed (1.23%), and "Other" 2.97%. Over a third of participants (36.36%) had no children under the age of 18 living with them, 31.10% reported they had one child living with them, and 24.24% had two children living with them, with 8.30% indicating a range between 3 and 26 children. Participants indicated that roughly three other individuals lived with them in the same household (M = 2.99, SD = 1.71). Nearly half of the sample (48.80%) were Christian, followed by non-religious (21.64%), Muslim (16.42%), Hindu (6.99%), Buddhist (2.81%), Asian folk religion (1.08%), Jewish (0.74%), and Other (1.52%), respectively. A guarter of the sample were not religious (24.47%), 18.51% slightly religious, 33.88%, moderately religious, and 23.14% very religious. Most participants (97.92%) have shopped online at least once in the past 12 months; 59.47% did so a few times a month or more. See Figure 2.1.







# Research 02 Methodology

# **Survey Measures**

Unless noted, items, reliability, and validity for all measures are provided in Appendix 2.

**Behavioral outcomes.** Counterfeit purchase intentions (i.e., likelihood of buying counterfeit in the future) were measured using three seven-point Likert-type items from "1=Strongly Disagree" to "7=Strongly Agree" (Park & Smith, 2007). Participants indicated the frequency of counterfeit purchase (non-deceptive (or knowingly) and deceptive (or unknowingly)) within the past 12 months using seven-category ordinal scales ranging from "Never" to "Daily or almost daily." Both non-deceptive and deceptive counterfeit purchase variables were dichotomized (0 = Never purchased; 1 = Purchased at least once in the past 12 months).

**Purchase motivations.** Economic benefits and hedonic motivations were adapted from Yoo & Lee (2009), while value-expressive and social-adjustive motives were taken from Wilcox et al., (2009). All items were rated on seven-point Likert-type scales anchored by "Strongly Disagree" and "Strongly Agree."

**Theory of planned behavior (TPB) variables.** Affective attitudes were measured using a three-item semantic differential scale (good/ bad, positive/negative, favorable/unfavorable) (Lutz et al., 1983). All subsequent measures were rated using seven-point Likert-type scales anchored by "Strongly Disagree" and "Strongly Agree." We developed eight attribute-based statements to measure cognitive attitudes (e.g., "Purchasing counterfeit products is worthless."). We adapted Park and Smith's (2007) PBC five-item measure and three-item scales from societal and personal injunctive norms

related to the acceptance of buying counterfeit products among peers in the country of residence and close friends, respectively. To assess descriptive norms, we asked participants to estimate the percentage of peers in the country of residence, peers in the city/town/village of residence, Internet peers, members of their immediate family, members of their extended family, close friends, and social media friends who they thought had purchased counterfeit products in the past 12 months (0-100% sliding scale).

**Protection motivation theory (PMT) variables.** All PMT items were rated using seven-point Likert-type scales anchored by "Strongly Disagree" and "Strongly Agree." We assessed participants' perceived threat severity (three items), threat susceptibility (three items), self-efficacy (three items), and response efficacy (five items for e-retail response efficacy and two items for social media response efficacy) by adapting measures from Tsai et al. (2016).

**Control variables.** Demographic variables were included in all predictive analyses: gender (1 = female, 0 = male), age (birth year), education level, marital status (1 = married, 0 = other), number of individuals in the household, religiosity, frequency of online shopping, and income. Income was tailored to each country using national currency through identification of median income and creation of a seven-category measure surrounding the median (varied by country from monthly to annual household income). Given variability among countries, we collapsed the seven categories into a three-category variable: lower-, middle-, and higher-income levels.







# Research 02 Methodology Methodological Considerations & Limitations

The study was approved as exempt by the Institutional Review Board (IRB) at a large Midwestern University in the United States, given the anonymous and low-risk nature of study participation. The survey was administered through www.Qualtrics.com, and participants were recruited through third-party panel vendors in each country. Questions were inputted into Qualtrics in English. We used the "Languages" function to input question translations to other six languages. The survey language was automatically set through meta-data detection of browser language; yet participants could also manually choose the language. Respondents consented to participate in the study and share their personal data in accordance with the General Data Protection Regulation [GDPR] guidelines. Then, they reported demographic information used to establish sampling quotas. answered questions related to affective and cognitive attitudes toward counterfeit purchase, motivations to buy counterfeit products, PMT variables, social norms and PBC, counterfeit purchase intentions and non-deceptive and deceptive past counterfeit purchases. Participants were provided with incentives in accordance with the panel vendor in each country. Upon data collection, Qualtrics Panels assessed data quality and eliminated unreliable responses (with respondent replacement).

The current study recruited participants from 17 different countries through Qualtrics Panels. Even though we used a quota-based convenience sample to ensure gender, age, and income level representation, the sampling methodology does not warrant for generalizable findings, due to the non-random sampling technique. Therefore, descriptive findings should be interpreted with caution



as they might not accurately reflect true values in the general population. Second, given that we recruited participants through an online survey panel, the prevalence of online shopping might be augmented. It is a strength of the current study that we are examining the prevalence of online counterfeit purchase among those who are current Internet users, yet this should also be a cause for caution when interpreting the study's findings.









**UU**? 9.12% 18.25% 42.33% 71.75%



# **Non-Deceptive Counterfeit Purchase**

The purchase of counterfeit goods is a global phenomenon. In our survey, one out of two consumers (52%) reported they purchased counterfeit products knowingly (non-deceptive purchase). Nearly eight out of 10 Indian participants (78%) reported knowingly buying counterfeit products, the highest non-deceptive counterfeit purchase frequency in our sample. On the other hand, South Korean participants reported the lowest prevalence of nondeceptive counterfeit purchase with only 30% reporting they knowingly bought a counterfeit product.









Figure 3.2

Frequency of non-deceptive counterfeit purchase in the past 12 months, by country. "In the past 12 months, how often have you bought a product knowing it was counterfeit."





# **Deceptive** Counterfeit Purchase



"In the past 12 months, how often have you been deceived into buying or unknowingly bought a counterfeit product."



The frequency of deceptive counterfeit purchase was higher than that for nondeceptive purchase. Two-thirds of consumers (68%) reported they bought a product and later found out it was counterfeit (deceptive purchase). Similar to non-deceptive purchase, Indian participants reported the highest prevalence of being deceived into buying counterfeits (87%), while Italian participants were the least likely to have been deceived into buying counterfeits (46%).





Figure 3.4

Frequency of deceptive counterfeit purchase in the past 12 months, by country.

"In the past 12 months, how often have you been deceived into buying or unknowingly bought a counterfeit product."







# Non-Deceptive vs. Deceptive Counterfeit Purchase

Across all country samples, participants were more likely to be deceived into buying counterfeits than knowingly purchasing these products. Spanish and Argentinian participants exhibited the smallest differences between deceptive and non-deceptive counterfeit purchase, while Nigerian and Kenyan participants exhibited the largest differences between the two types of counterfeit purchase behavior.

# Difference between Deceptive and Non-Deceptive Counterfeit Purchase, all countries



# Difference between deceptive and non-deceptive counterfeit purchase in the past 12 months, by country. *Percentage score calculated by subtracting non-deceptive from deceptive counterfeit purchase per country.*





When combining non-deceptive and deceptive purchase of counterfeits, nearly three-quarters of the sample reported that they purchased a counterfeit product knowingly and or unknowingly. Nine out of 10 Indian participants purchased counterfeits (non-deceptive and/or deceptive), constituting the highest prevalence in our sample, while Italian participants scored the lowest with 52% of them who reported they knowingly and/or unknowingly purchased counterfeit products.



Figure 3.6

Combined frequency of deceptive and non-deceptive counterfeit purchase in the past 12 months, by country.







On the global level, social media (39%) and e-retail (39%) platforms tied as top sources where participants purchased counterfeit products, followed by a physical (brick-and-mortar) marketplaces (28%). Purchasing counterfeit products through offline social networks, specifically through a friend (19%), coworker (13%), and close associate (9%) were the least prevalent counterfeit purchase sources. Fewer than one in five participants indicated they have acquired counterfeit products through individuals in their social network.

# **Counterfeit Product Purchase Sources, all countries**



Figure 3.7 Sources of Counterfeit Product Purchase in the Past 12 Months, All Countries. "From which of the following sources have you purchased a counterfeit product in the past 12 months? Check all that apply."





Respondents from nine of the 17 countries surveyed: Australia, Brazil, Canada, China, India, Italy, South Korea, Spain, and the United Kingdom, indicated they most frequently purchased counterfeits from e-retail platforms. Social media was the top counterfeit purchase source for the other eight countries in the survey sample: Argentina, Egypt, Kenya, Mexico, Nigeria, Peru, United Arab Emirates, and the United States of America.



"From which of the following sources have you purchased a counterfeit product in the past 12 months? Check all that apply."







#### Figure 3.9

Top sources of counterfeit product purchase in the past 12 months, by country. "From which of the following sources have you purchased a counterfeit product in the past 12 months? Check all that apply."





Participants, on the global level, indicated that Facebook (67.7%) was the social media platform used most frequently to purchase counterfeit products, followed by Instagram (42.6%), WhatsApp (37.8%), YouTube (29.6%), Telegram (20.3%), TikTok (19.8%), and Twitter (18%), respectively.






Participants from 15 of the 17 countries surveyed reported that Facebook was the top platform where they purchased counterfeit products. China and South Korea were the only two countries where Facebook did not take the lead; Chinese participants most frequently used TikTok to purchase counterfeit products, while South Korean participants used Instagram to purchase counterfeit products.





Top social media platforms used to purchase counterfeit products, by country. "On which of the following social media platforms have you purchased a counterfeit product in the past 12 months? Check all that apply."





Global Descriptive Analytics Counterfeit Purchase Behavior Around the World Types of Counterfeit 03.03 Products Purchased

Clothing (31%), shoes (29%), watches (20%), electronics (18%), and handbags/purses (18%) were the top counterfeit product categories purchased by our global sample.

# **Counterfeit Product Types, all countries**



Figure 3.12 Types of counterfeit products that were purchased in the past 12 months, all countries. "What type of counterfeit products have you purchased at least once in the past 12 months? Check all that apply."





Indian participants reported the highest prevalence of purchasing counterfeit goods in all product categories except for handbags and purses. jewelry, and personal care products; where Australian participants were the most frequent buyers of handbags/purses, U.S. participants most frequently purchased counterfeit jewelry, and Chinese participants indicated the highest purchase of personal care products.



Types of counterfeit products that were purchased in the past 12 months, all countries.

"What type of counterfeit products have you purchased at least once in the past 12 months? Check all that apply."





## **Counterfeit Product Performance,** 03.04 **Uses, and Purchase Consequences**

Of participants who purchased counterfeit products, either knowingly or who later found out the products were counterfeit. more than half (51%) indicated that counterfeit products performed worse than expected. Over a third of participants (34%) thought the counterfeit products performed as expected. Only a minority of participants (15%) thought the counterfeit products performed better than expected.



"In general, how did these counterfeit products that you bought in the past 12 months perform?"





Indian respondents reported the greatest post-purchase satisfaction of counterfeit products, with more than half of the Indian sample (55.1%) reporting that the counterfeit products performed as expected and an additional 29.9% of the Indian sample reporting the product performed better than expected. On the other hand, Chinese participants reported the least satisfaction with counterfeit product purchases, with 77.9% of the Chinese sample indicating the product performed worse than expected.







Among all participants from the 17 countries surveyed, 61% indicated that they purchased counterfeit products for personal use, followed by buying counterfeit products on behalf of a family member (15%) or a friend (13%), and buying counterfeits to give as a gift to someone (10%). While this trend was observed consistently across the different country samples, Italian participants were the least likely to buy counterfeit products for personal use, while Chinese participants were the most likely to do so. As for sharing purchased counterfeit products with family members, Indian and Australian participants indicated the highest prevalence. Indian participants also were the most likely to purchase counterfeit products to share with family members or give as gifts, compared to other countries.



Figure 3.16

Common uses of counterfeit products upon purchase, all countries. "How did you use the counterfeit products you bought in the past 12 months? Check all that apply?"







#### Figure 3.17

Common uses of counterfeit products upon purchase, by country. "How did you use the counterfeit products you bought in the past 12 months? Check all that apply?"





Nearly four out of 10 (38%) respondents from the global survey sample indicated they kept the product after they discovered it was a counterfeit. Only one in five participants (19%) reported they returned it to a seller; 11% said they returned it to a manufacturer; and 18% indicated they threw the product away. A minority of participants leveraged electronic word-of-mouth (eWOM) to talk about their deceptive counterfeit purchase experience, 18% of participants posted about their experiences on social media, while 16% and 16% wrote an online review about their deceptive purchase experience.

# **Post-Deceptive Counterfeit Purchase, all countries**



Figure 3.18 Actions taken following deceptive purchase of counterfeit products, all countries.

"You've indicated that you bought a product that you later found out was a counterfeit. What did you do once you found out? Check all that apply."





Nearly half of Argentinian (45%), Kenyan (45%), and Australian (44%) respondents and less than one third of participants from Italy (28%) and South Korea (27%) kept the counterfeit product. Chinese respondents exhibited the highest rate of returning the counterfeit product to a seller (40%); participants from India (28%) and the United States (26%) respondents were most likely to return it to a manufacturer: and 30% of Kenyan participants and 27% of Nigerian participants disposed the product after knowing it was counterfeit. Participants from Argentina (8%) and

## **Post-Deceptive Counterfeit Purchase, by country**



"You've indicated that you bought a product that you later found out was a counterfeit. What did you do once you found out? Check all that apply."

Peru (8%) showed the lowest rates of returning the counterfeit goods to the seller; Argentina (3%), Brazil (4%), Mexico (3%), and Peru (3%) samples exhibited the lowest rates of returning counterfeit to the manufacturer; and Argentina (6.9%) and Italy (7.4%) samples were the least likely to dispose product after knowing it was counterfeit. Indian participants (32%) were the most active by posting about the counterfeit purchase on social media, while almost a third of Kenyan respondents (30%) wrote an online review about it. Only 6% of the South Korean sample said they posted about their deceptive counterfeit buying on social media platforms; and Italy (8%), South Korea (8%), and the UK (8%) samples were the least active regarding writing online reviews about the experience with counterfeit.





Nearly a guarter of the global sample (24.6%) reported no known consequences of buying counterfeit products. Less than a third of the sample (30.2%) indicated a loss of money as a consequence; 20.6% felt embarrassed after purchasing counterfeit products; 9.9% said they had negative health effects; 8.6% reported experiencing a personal injury as a function of using counterfeit products; 7.6% of participants indicated that their private information was compromised as a result of the counterfeit product purchase; and 2.8% of counterfeit product purchasers faced legal action. Less than a tenth of our sample (7.5%) said they did not experience any improvement in their health and only 1.2% of the sample reported experiencing positive consequences of their counterfeit purchase. In our survey, we did not further examine responses to experiences of no health improvement and positive consequences. It is plausible that consumers could have purchased counterfeits thinking they would improve their health (e.g., a media device or medications) and did not achieve the desired effect. It is also possible that the extreme minority of participants who indicated they experienced positive impacts of their counterfeit purchase experienced the desired impact on their health and/or well-being.



**Counterfeit Purchase Consequences,** 

"You've indicated that you bought a product that you later found out was a counterfeit. What did you do once you found out? Check all that apply."





Indian respondents showed the highest rates of experiencing negative (21%) or no (16%) health effects, personal injury (23%), having personal information compromised (19%), and facing legal action (10%) after purchasing counterfeit goods. They also reported the greatest positive effects of counterfeit buying (5%). More than half of Kenyan participants (56%) lost money, and 41% of the Chinese sample felt embarrassed after buying counterfeit goods. Kenyan participants were also the least likely to report experiencing no known consequences (12%), and no one in the Canadian sample (0%) said they had positive consequences after counterfeit purchase. More than a third of Argentinian respondents (38%) did not experience any known consequences of counterfeit purchasing. Argentinian respondents also indicated the lowest rates of experiencing negative (2%) or no (3%) health effects, personal injury (2%), having personal information compromised (1%), and facing legal action (0%) after purchasing counterfeit goods. Italian participants were the least likely to lose money (12%) and feel embarrassed (8%) after counterfeit purchase.



Figure 3.21

Counterfeit product purchase consequences, by country.

"You've indicated that you bought a product that you later found out was a counterfeit. What did you do once you found out? Check all that apply."





# **03.05** Global Descriptive Analytics Summary & Insights

Two thirds of our survey respondents (68%) bought counterfeit products in the past 12 months without knowing they were counterfeit. Half of them did so knowingly. Collectively, nearly three-quarters of the sample (74%) purchased a counterfeit knowingly and/or unknowingly. Counterfeit purchase is prevalent on a global level, thus, the need for tailored approaches to curb the prevalence of counterfeit purchase, while distinguishing non-deceptive and deceptive purchase behavior.



In addition to poorly performing counterfeit products that over a half of the survey respondents indicated, some incurred other negative consequences, including loss of money, feelings of embarrassment, negative health effects, personal injury, privacy infringement, and legal action. Though the harsh negative impacts of buying counterfeits were reported by a minority of respondents, these effects cannot be ignored and must be considered for their potential large-scale impact as the counterfeiting supply chain further expands.



Specific to non-deceptive counterfeit purchases, there is a dire need for tailored approaches to consumer education that highlight the dangers of counterfeit purchase online. As for deceptive counterfeit purchases, integrated efforts of brands and law enforcement to interrupt the supply chain through tracking and seizures should be coupled with interventions to educate consumers about counterfeiting risks within the broader context of online safety and security.



In consumers' minds, negative consequences of buying counterfeits significantly outweigh the benefits. Counterfeit products put both the buyers and others at risk, given that participants bought counterfeits for their friends and family, and even gave them as gifts. Harnessing the potential impact of counterfeit purchase on others and the shame and embarrassment it would bring to buyers if someone was impacted because of their purchase might inhibit their desire to buy counterfeits.







The most popular counterfeit product categories included clothes, shoes, accessories (watches, handbags, sunglasses), and jewelry. This is likely a byproduct of the rise in fast fashion, especially via digital and social media. Consumers are rushing to follow the newest trends and leverage their style to gain popularity on these platforms. This rapid need for the new and trendy in the "GRWM" (Get Ready With Me) era might be contributing to the prevalence of apparel counterfeit purchase as consumers prioritize bargain hunting (economic benefits motives) and enjoyment (hedonic motives) as drivers of their purchase. In the minds of consumers buying fake apparel may pose lower risks to their health and well-being, thus making such purchases morally justifiable.



Apparel brands should more closely examine how fashion influencers and the rise of fast fashion contribute to the acceptance of counterfeit purchase. Strategies that harness the power of strategic alliances and collaborations with micro and macro influencers in this domain might resonate with consumers, especially younger ones who are heavier users of social media and more frequent online buyers.



Our results also showed that approximately 10% to 20% of respondents purchased electronics, computers, and computer accessories, and roughly 5% to 10% bought personal care items, medications, and medical equipment, which could have serious consumer health risks. Though lower in prevalence, it is important to situate the potential impact of such purchases within the larger context of social well-being and potential health consequences and costs.



Brand protection and anticounterfeit efforts should emphasize the negative health impacts when educating consumers about counterfeit risks.



The dominant online distribution channels through which consumers bought counterfeits were social media and e-commerce platforms followed by physical marketplaces (e.g., brickand-mortar stores, street sellers). Notably, three Meta-owned platforms (Facebook, Instagram, and WhatsApp) were the most popular venues for buying counterfeits.

Collaborative and regulatory efforts should be made to further examine the role of social commerce vis-à-vis the global rise in counterfeiting. Lawmakers should be informed about the widespread phenomenon of counterfeiting on social media platforms, especially in regard to harmful substances, such as prescription medications to support necessary regulations.







Despite the prevalence of buying deceptive counterfeit products in our global sample, the respondents were not proactive after discovering their purchase was not authentic. Nearly four in 10 (38%) kept the product, and about a fifth of the sample threw it away. Only one in five respondents returned the purchase to a seller, and one in 10 sent it back to a manufacturer. Only one in six resorted to electronic word of mouth (eWOM), where they spread the word about their unfortunate experience with deceptive counterfeit buying. They posted on social media and/or wrote online reviews about it. This is slightly above the 13% of customers who share complaints with others outside of a counterfeit purchase situation (Why Customer Complaints..., 2023).



The findings about consumer actions after being deceived into buying counterfeit goods suggest that awareness campaigns are needed not only to educate people about counterfeit presence and identification but also provide tools to cope with situations when they fall victims to such deception. Contacting sellers, manufacturers, and other involved stakeholders is an example of a coping mechanism. Another form of anticounterfeit activism is engaging in electronic word-of-mouth (eWOM) and publicly sharing counterfeit purchase experiences with the community of users on social media and e-commerce platforms.







## **Motivations for Buying** 04.01 **Counterfeit Products**

In terms of motivations to purchase counterfeit products, the survey respondents indicated they were driven predominantly by economic value motives (e.g., getting a better deal), followed by hedonic motives (e.g., enjoying counterfeit products that imitate real products), valueexpressive motives (e.g., communicating self-identity), and social-adjustive motives (e.g., fitting into social situations, showing social status).



Figure 4.1

Mean scores (averages) for counterfeit purchase motives, all countries.

"People have different reasons for buying counterfeit products. Following is a list of potential reasons that we would like you to evaluate. As it relates to your own experience of buying counterfeit products in the past or planning to do so in the future, please indicate your agreement or disagreement with each of the following statements using the scale from 1 = Strongly Disagree to 7 = Strongly Agree."





Indian participants expressed the highest motivations to purchase counterfeit products for all motivation types, while Brazilian participants reported the lowest counterfeit purchase motives.



#### Figure 4.2

Mean scores (averages) for counterfeit purchase motives, by country.

"People have different reasons for buying counterfeit products. Following is a list of potential reasons that we would like you to evaluate. As it relates to your own experience of buying counterfeit products in the past or planning to do so in the future, please indicate your agreement or disagreement with each of the following statements using the scale from 1 = Strongly Disagree to 7 = Strongly Agree."







# **Counterfeit Product Purchase as Planned Behavior**

#### Affective and Cognitive Attitudes: Thoughts and Feelings About Buying Counterfeits

Of the 17 countries surveyed, respondents from only two countries – India and the United States – scored above the scale midpoint (3.50) in their affective and cognitive attitudes toward counterfeit purchase. India, USA, Brazil, Australia, UAE, Egypt, Spain, Argentina, and Canada scored higher than all-country averages on affective (average = 2.58) and/or cognitive attitudes (average = 2.91). Overall, global consumers expressed more favorable cognitive than affective attitudes toward purchasing counterfeit products. In other words, participants' feelings about this behavior are negative, but they, to some degree, agree with certain ideas to justify it (e.g., "counterfeit makes genuine brands more popular," "counterfeit helps people who cannot afford genuine products").





Figure 4.4

Mean cognitive attitudes toward counterfeit purchase, by country. "Please indicate your agreement or disagreement with each of the following statements using the scale from 1 = Strongly Disagree to 7 = Strongly Agree." (e.g., "Buying counterfeit products generally benefits the consumers").





#### Perceived Behavioral Control: Ability to Refrain From Buying Counterfeit Products

Participants from all countries included in our survey reported high levels of perceived behavioral control (PBC; above the scale midpoint, 3.50). PBC deals with consumers' perceptions regarding their ability to refrain from purchasing counterfeit products. Indian participants expressed the highest PBC, while participants from Argentina were lowest in their PBC.



"As it relates to your own experience, please indicate your agreement or disagreement with each of the following statements using the scale from 1 = Strongly Disagree to 7 = Strongly Agree." (e.g., "For me, it is easy to refrain from buying counterfeit products regardless of how competitive the price is.").





# Social Norms: Perceptions of Others' Purchase of Counterfeit Products and Acceptance of Counterfeit Purchasing Behavior

Participants in the overall global sample indicated higher injunctive societal norms than injunctive personal norms. This means that participants perceived that their peers in their country (people they do not know personally who live in the same country) were more likely to be accepting of purchasing counterfeit products than their close friends. Indian respondents reported the highest values for injunctive societal and personal norms; and South Korean respondents indicated the lowest perceived norms of both types.







While injunctive norms provide insights about consumers' perceptions of the acceptance of a behavior (i.e., counterfeit purchase), descriptive norms reflect consumers' perceptions regarding the prevalence of counterfeit purchase in their social surroundings. On a global level, there seems to be an inverse relationship between social distance (or social closeness) and perceptions of prevalence of counterfeit purchase. In other words, participants thought that distant peers from their country, place of residence (city/town/village), Internet peers, and social media friends (i.e., people that respondents do not not know or do not know very well) engaged in purchasing counterfeit products more than individuals close to them, such as close friends, extended and immediate family members (people that respondents know well and keep in touch with).



Figure 4.8

Mean counterfeit descriptive norms, all countries.

"Using the sliding scale below, please estimate the percentage of people in each group who you think have purchased counterfeit products in the past 12 months [0% - 100%.]"



# **Counterfeit Descriptive Norms, by country**

Country: *F*(16, 12875) = 75.13, p < .001,  $\eta^2_p = .09$ Country x DN Type: *F*(96, 72921.43) = 12.87, p < .001,  $\eta^2_p = .02$ 



Figure 4.9

9 Mean counterfeit descriptive norms, by country.

"Using the sliding scale below, please estimate the percentage of people in each group who you think have purchased counterfeit products in the past 12 months [0% - 100%.]"



Peers in Country

People in Town/City/Village

Internet Users Similar to Me

Social Media Friends

In general, participants in our global sample expressed low intentions to purchase counterfeit products in the future as most of the means fell below the scale midpoint (3.50). Only participants from India and the United States exhibited counterfeit purchase intentions equal to or above the scale midpoint, while participants from Peru expressed the lowest intentions.



"Please indicate your agreement or disagreement with each of the following statements using the scale from 1 = Strongly Disagree to 7 = Strongly Agree. In the upcoming 12 months... I intend to/I will likely/It is possible that I buy counterfeit products."





# 04.03 **Risk Perceptions Through the** Lens of Protection Motivation

Participants in the survey global sample indicated a high level of awareness of the threats and risks associated with counterfeit purchase. They expressed high degrees of self-confidence in protecting them against those risks. Interestingly, participants expressed high levels of perceived threat severity, which means that they recognized the magnitude of risks associated with counterfeit purchasing, with the values for all countries falling above the scale midpoint (3.50). At the same time, they perceived themselves to be highly vulnerable to the risks of counterfeit purchase, with the values also being higher than the scale point (3.50) for all countries.



channels (e.g., online stores). As it relates to your own experience, please indicate your agreement or disagreement with each of the following statements using the scale from 1 =Strongly Disagree to 7 = Strongly Agree." (e.g., "Buying counterfeit products poses a severe threat to my health when shopping online.").



Figure 4.12

Mean perceived counterfeit threat susceptibility, by country. "Over the past few years, there was an increase in the widespread availability of counterfeit products sold online through e-retail channels (e.g., online stores). As it relates to your own experience, please indicate your agreement or disagreement with each of the following statements using the scale from 1 = Strongly Disagree to 7 = Strongly Agree." (e.g., "When shopping online, I am at a high risk of buying counterfeit products.").





Respondents from 16 of 17 countries expressed self-efficacy perceptions (i.e., respondents' perceptions of the ability to protect themselves from buying counterfeit) higher than the scale midpoint (3.50), with Indian participants scoring the highest. Only respondents from South Korea indicated self-efficacy lower than the scale midpoint. In addition to self-perceptions of the ability to protect themselves against the risks of counterfeit purchase, participants expressed high levels of confidence in their capacity to navigate e-retail and social media platforms and ensure they protect themselves against counterfeit threats (all values are higher than the midpoint of 3.5). However, response self-efficacy was higher for e-retail (average = 5.59) than social media platforms (average = 4.98), meaning that participants expressed greater confidence in safely navigating online shopping websites rather than social media platforms.



disagreement with each of the following statements using the scale from 1 = Strongly Disagree to 7 = Strongly Agree." (e.g., "I can identify counterfeit products online.").



Please rate the effectiveness of each of the following strategies that you can employ to protect yourself from buying counterfeit products online, using the scale from 1 = Not at all Effective to 7 = Extremely Effective." (e.g., "Assessing the legitimacy of an online retailer.").

#### Counterfeit Response Efficacy (Social Media), by country



efficacy, by country.

"Please rate the effectiveness of each of the following strategies that you can employ to protect yourself from buying counterfeit products online, using the scale from 1 = Not at all Effective to 7 = Extremely Effective." (e.g., "Refraining from purchasing products from sellers on social media platforms.").





# **Global Psychographic Analytics Summary & Insights**

Across the four motivations, participants indicated that they were most motivated to purchase counterfeits because of economic and financial reasons, such as getting a good bargain or buying a luxury brand for cheaper prices (economic benefits motives). Hedonic motive was evaluated as the second highest, meaning that respondents enjoyed the process of buying and owning counterfeit goods. Additionally, consumers bought counterfeits because the behavior reflected their own values (value-expressive motives) and indicated social approval or status (social-adjustive), though both types of motives were rated significantly lower than economic benefits and hedonic motives.



Brand protection practitioners should market their products by taking into consideration their prices as well as creating unforgettable consumer experiences with authentic products that fake ones won't be able to trump.



A promising finding of this study is that most of the survey respondents did not have a strong intention to buy counterfeit products in the future. They also generally perceived this behavior to be wrong. India and the United States were the only two countries that displayed somewhat favorable attitudes toward and intention to buy counterfeit products. Respondents expressed more favorable cognitive attitudes than affective attitudes. This finding suggests that even when consumers believe that buying counterfeit products is bad, they can justify it with positive ideas about product affordability, equal quality of authentic and fake merchandise, and benefits counterfeit products bring to companies.

Anti-counterfeit communication campaigns should focus on implementing rational appeals countering beliefs that audiences may use to accept and excuse their counterfeit-related behaviors.







In addition to reporting unfavorable perceptions of counterfeit purchasing, participants indicated they fully understood the scope of this global problem and risks it entails. They also reported they were defenseless against such risks. In other words, they agreed that there was a great likelihood they would be exposed to counterfeits when shopping online. On the personal level, however, respondents showed a great level of perceived behavioral control, meaning that they had the power to make decisions related to purchasing counterfeit merchandise. They also showed high self-efficacy perceptions, believing in their ability to recognize counterfeit products and avoid buying them. These results suggest that despite consumers' understanding of how widespread the counterfeit problem is and how vulnerable they are to it, they think they are competent to protect themselves from counterfeit buying.



This is a promising finding that brand protection teams may use to appeal to consumers with calls to become anticounterfeit activists in online and offline spaces. Moreover, since social media response efficacy was found to be lower than e-retail response efficacy in the global sample, it is important to put additional efforts to empower consumers to recognize counterfeit messaging and products on social platforms, especially those managed by Meta (Facebook, Instagram, WhatsApp).

4

to social norms, we found that participants perceived peers in their country to be more accepting of purchasing counterfeit products than their close friends. They also believed that peers from the same country or town/city/ village, Internet peers, and social media friends engaged in purchasing counterfeit merchandise more often than their close friends and family members. These results show that consumers overestimate the counterfeit-related behaviors of people they do not know compared to those they know.

When analyzing survey responses pertaining



Future communication strategies, thus, should focus on downplaying the abstract perceptions of widespread counterfeit purchasing in the society and emphasizing strong ties with friends and family to weaken social influence that reinforces this behavior.





This section provides results of regression analyses predicting the three behavioral outcomes of counterfeit purchase intentions, nondeceptive counterfeit purchase, and deceptive counterfeit purchase using the three theoretical lenses of motives, planned behavior, and protection motivation. The analyses reported here were conducted using the entire global sample. Results are presented per theoretical framework, where demographics and the theoretical variables are presented for each behavioral outcome.

#### How to interpret results in the infographics?

- To predict counterfeit purchase intentions, the infographics present results of hierarchical linear regressions. Dark-colored icons indicate significant relationships, while light-colored icons indicate non-significant relationships. The numerical results reflect standardized beta coefficients. Positive coefficients indicate a positive relationship between the predictor and purchase intentions, while negative coefficients indicate a negative relationship.
- To predict non-deceptive and deceptive purchase, the infographics present results of hierarchical binary logistic regressions. Dark-colored icons indicate significant relationships, while light-colored icons indicate non-significant relationships. The numerical results reflect odds-ratio value and transformed percentage increase or decrease in the relationship between the predictor and the binary outcome. For positive odds-ratio values, the percentage is calculated by subtracting 1 from the odds-ratio value. For example, an odds ratio of 1.25 means that the ratio of increase between the predictor and the outcome is 1 to 1.25, thus each one-unit increase in the predictor is associated with a 25% increase in the outcome. For negative predictors, the odds-ratio value is lower than one, thus, the number is transformed by dividing 1 by the odds ratio value. For example, an odds-ratio value of .80 is transformed into a decrease of 1.25. In other words. for each one-unit increase in the predictor, the outcome value decreases by 25%.







# **O5.01** Counterfeit Purchase Motives Predicting Behavior

Which motive

is strongest in predicting

intentions?

## Motives Predicting Purchase Intentions

#### Who expresses higher counterfeit purchase intentions?

- Males
- Younger consumers
- More educated consumers
- Those with a higher number of people living in the same household
- More religious respondents
- More frequent online shoppers

Participants rated economic motives for counterfeit purchase (e.g., getting a good deal) the highest, followed by hedonic (e.g., enjoyment with counterfeit purchasing), social-adjustive (e.g., showing status), and value-expressive (e.g., being true to self) motives, respectively. Of the four types of counterfeit purchase motives, hedonic motives had the strongest association with counterfeit purchase intentions. The more participants engaged in counterfeit purchase to satisfy their need for pleasure, the higher their counterfeit purchase intentions were. Other motives that were less strongly associated with counterfeit purchase intention were value-expressive and economic benefit motives. This suggests that personal beliefs and lower price consideration are still important in increasing one's intentions to buy counterfeit intentions than lower price consideration. Social-adjustive motives did not significantly predict intentions, which means that showing status and seeking approval and respect of others, across our global sample, did not matter when people decided to engage in future counterfeit purchases.





# Motives Predicting Purchase Intentions









#### Who is more likely to have nondeceptively bought counterfeits?

- Males were 23% more likely to knowingly purchase counterfeit products than females.
- For every year increase in participants' age, nondeceptive counterfeit purchase decreased by 2%, meaning that younger respondents are more prone to buying counterfeit.
- For each unit increase in educational level, nondeceptive counterfeit purchase increased by 3%. In other words, people at higher levels of formal education are more likely to buy counterfeit.
- For each additional household member, non-deceptive counterfeit purchase increased by 9%. This means that the higher the number of people living in one's household, the higher the chance that one buys counterfeit products.
- For each one-unit increase in religiosity, non-deceptive counterfeit purchase increased by 15%. The more religious respondents reported to be, the higher was the likelihood of them purchasing counterfeit.

### Motives Predicting Non-Deceptive Purchase

Which motive is strongest in predicting nondepceitve purchase?

- For each one-unit increase in hedonic motives (buying counterfeit products because of their emotional benefits and pleasure they bring), non-deceptive counterfeit purchase increased by 93%.
- For each one-unit increase in economic-benefits motives (the promise of lower cost), non-deceptive counterfeit purchase increased by 25%.

Hedonic motive was the strongest predictor of non-deceptive counterfeit purchase. Economic value motive was a three-times weaker – yet, significant – predictor of engaging in past nondeceptive counterfeit buying. Social-adjustive and value-expressive motivations were not significantly associated with past nondeceptive counterfeit purchasing. Thus, seeking social status and approval and being true to one's personal values did not contribute to the past non-deceptive counterfeit buying.



6.



Motives Predicting Non-Deceptive Purchase







### Motives Predicting Non-Deceptive Purchase

Who is more likely to have deceptively bought counterfeits?

- Males were 32% more likely to unknowingly purchase counterfeit products than females.
- For each one year increase in participants' age, deceptive counterfeit purchase decreased by 2%. Younger participants are more likely to be deceived into buying counterfeits.
- For every one-unit increase in educational level, deceptive counterfeit purchase increased by 7%, suggesting that individuals at higher levels of education are more likely to buy counterfeit unknowingly.
- For every additional household member, deceptive counterfeit purchase increased by 16%, i.e., people living in larger households are more prone to be deceived into purchasing counterfeits.
- For every one-unit increase in religiosity, deceptive counterfeit purchase increased by 32%. More religious participants are at a higher risk of being duped into buying counterfeit products.
- For every one-unit increase in online shopping frequency, deceptive counterfeit purchase increased by 4%. Regular online shoppers are more likely to be deceived into buying counterfeits.
- For every one-unit decrease in income level, deceptive counterfeit purchase increased by 9%. This suggests that people with lower income are more vulnerable to being duped into buying counterfeit goods.

Which motive is strongest in predicting depceitve purchase?

- For every one-unit increase in hedonic motives, the likelihood of deceptive counterfeit purchase increased by 31%. The more participants are motivated to buy counterfeit products for their emotional benefit and pleasure, the more likely they are to be deceived into buying counterfeit products.
- For every one-unit increase in economic benefits motives, the likelihood of deceptive counterfeit purchase increased by 14%. This means that the more participants are motivated to buy counterfeit products for competitive prices, the more likely they are to be duped into buying counterfeit products.

Similar to the predictors of non-deceptive counterfeit purchase, hedonic motive showed the strongest association with deceptive buying of counterfeit, followed by the economic benefit motive. However, both predictors were weaker for deceptive than nondeceptive counterfeit purchase behavior. Social-adjustive and value-expressive motivations were not significantly associated with deceptive counterfeit purchase.







#### Motivations to **Purchase Counterfeits Predicting Deceptive** Counterfeit **Purchase** $\chi^{2}(12, N = 11,841) = 2006.06^{***}$ Nagelkerke $R^2 = .22$ OR = 1.14 OR = 1.31 OR = 1.16 OR = 1.32 OR = 1.04 OR = 1.07 P = 7%P = 16% P = 32% P = 4%P = 31%P - 14% αD Edu. Marital HH Online Gender Age Relig. Income Economic Hedonic Value Social Status Count Benefits Motives Express. Adjustive Shop. Motives Motives Motives OR = 0.76 OR = 0.98 OR = 0.92P = 32% P = 2% P = 9% Figure 5.4 Logistic regression results for the relationship between counterfeit purchase motives and deceptive counterfeit purchase behavior, all countries. Darker-colored predictors are significant, while lighter-colored predictors are not significant. Or = odds ratio; p = percentage increase/decrease per one-unit change in predictor.





# -Motives to Purchase Counterfeit Actionable Insights

Anticounterfeiting consumer education and awareness-raising efforts should focus on **highlighting counterfeit purchase as less enjoyable for consumers**, while emphasizing the benefits of buying authentic products to one's self and the community in which they live. While a large body of literature suggests price consideration (i.e., economic motive) to be the main driver of counterfeit purchase behavior, our results show that consumers' benefits and perceived pleasure from buying counterfeit products were extremely influential in explaining non-deceptive counterfeit purchase behavior.

It is also important to **distinguish different pathways to curbing the prevalence of non-deceptive and deceptive counterfeit purchase**. Hedonic motives were three-times more influential in driving non-deceptive purchase than deceptive purchase, whereas the impact of economic motives is not as strikingly different between the types of counterfeit purchase. While these behaviors are different and require different strategies, it is important to highlight how interconnected they are. Recently, reality TV star and social media influencer, Bethenny Frankel, posted multiple Instagram videos discussing a recent purchase of Manolo Blahnik shoes from TJ Maxx that turned out to be #fake (Walker, 2023). Within a few days of posting two videos on the topic to her 3.2 million followers, over 80 thousand followers liked the videos and over five thousand commented on it (Frankel, 2023). More importantly, Frankel decided to authenticate all her luxury brand purchases she bought from discount and online stores. This example highlights how such messages can alter consumers' perceptions of the pleasure they get from buying counterfeits and the negative experiences of being deceived into buying a counterfeit, which then could translate into getting consumers to question the authenticity of products, in hopes that they refrain from buying them in the future. Frankel's appeal might be gender and age specific in that her followers tend to skew more toward females aged 25-44.



Insight

Frankel's example, unfortunately, does not reflect the norm on social media platforms. Increasingly, influencers of varying followership are voluntarily promoting and getting paid to promote counterfeit products, specifically in the luxury goods and fashion categories (Shams, 2021). In addition to enforcing laws and regulations guiding the work of influencers, **efforts could also pertain to targeting influencers themselves**, especially those who openly promote sale of counterfeits, with dialogic messaging regarding the potential harms of advertising counterfeits on their social media accounts.




# **O5.02 Counterfeit Purchase** as Planned Behavior

Which TPB

intentions?

variables predict

## Planned Behavior & Purchase Intentions

#### Who expresses higher counterfeit purchase intentions?

- Males
- Younger consumers
- Respondents who are not married
- Those with a higher number of people living in the same household
- More religious respondents
- More frequent online shoppers

- Cognitive attitude was the strongest positive predictor of counterfeit purchase intentions, followed by injunctive personal norms, affective attitudes, descriptive norms among immediate family members, injunctive societal norms, and descriptive norms among Internet users, extended family, and close friends, respectively.
- Perceived behavioral control was the strongest negative predictor of counterfeit purchase intentions, followed by descriptive norms among peers in country, town/city, and social media friends, respectively.

Cognitive attitudes, or participants' perceptions of counterfeit products (e.g., "Buying counterfeit products generally benefits consumers"), was the strongest predictor of counterfeit purchase intentions, where more favorable perceptions are associated with higher counterfeit purchase intentions. The second strongest predictor of counterfeit buying was injunctive personal norms. When an individual believes that their close friends approve of and support their counterfeit purchase intentions, the higher their purchase intentions become.





## Planned Behavior & Purchase Intentions

Which TPB variables predict intentions?

Affective attitudes, or one's feelings toward counterfeit purchase, along with injunctive social norms were two other important – yet, weaker – predictors of counterfeit buying. If one favors this behavior, they are more likely to express higher counterfeit purchase intentions. In addition, if one believes that people of the same age in their country endorse buying counterfeit, they are also likely to express higher intentions.

Another important predictor of counterfeit purchase intentions was perceived behavioral control (PBC), or the perceived ability to be in charge of purchase decisions. The stronger PBC was, the lower were counterfeit purchase intentions.

The survey results also showed that the more respondents believed that Internet peers, extended family, and close friends buy counterfeit, the more likely they were themselves to buy counterfeit in the future. On the contrary, when they had strong beliefs that their peers in the country and town/ city of residence, as well as social media friends, engaged in this behavior, they were less likely to express intentions to purchase counterfeit products in the future. This provides insights into the types of sources and social relationships that could be influential in decreasing counterfeit purchase intentions.





## Planned Behavior & Purchase Intentions



Darker-colored predictors are significant, while lighter-colored predictors are not significant.







#### Who is more likely to have nondeceptively bought counterfeits?

- Males were 37% more likely to engage in non-deceptive counterfeit purchase than females.
- Every year increase in age decreased non-deceptive counterfeit purchase by 2%.
- Each unit increase in educational level was associated with a 4% increase in non-deceptive counterfeit purchase.
- Compared to participants who were married, those not married were 16% more likely to buy counterfeits knowingly.
- For each additional member of a consumer's household, non-deceptive counterfeit purchase increased by 8%.
- For each one-unit increase in religiosity, non-deceptive counterfeit purchase increased by 10%.

Which TPB variables predict non-deceptive purchase?

For each one-unit increase in...

- cognitive attitudes, non-deceptive counterfeit purchase increased by 52%.
- affective attitudes, non-deceptive counterfeit purchase increased by 13%.
- injunctive personal norms, non-deceptive counterfeit purchase increased by 33%

**Non-Deceptive Purchase** 

• perceived behavioral control, non-deceptive counterfeit purchase decreased by 32%.

**Planned Behavior &** 

- injunctive societal norms, non-deceptive counterfeit purchase increased by 12%.
- descriptive norms among extended family, non-deceptive counterfeit purchase increased by 1%.
- descriptive norms among close friends, non-deceptive counterfeit purchase increased by 1%.
- descriptive norms among immediate family members, non-deceptive counterfeit purchase increased by 0.4%.

Overall, the main predictors of non-deceptive counterfeit buying in the past mirrored the predictors of counterfeit purchase intentions. Favorable cognitive and affective attitudes, strong injunctive personal and societal norms, and low perceived behavioral control were strongly associated with the higher likelihood that respondents bought counterfeit products in the past. Contrary to the findings related to the intentions, higher education – but not the frequency of online shopping – went along with greater instances of purchasing counterfeits in the past. In addition, perceptions of the extent to which peers in the country and town/city of residence, as well as social media friends and Internet users purchase counterfeit knowingly did not predict this past behavior.







## **Planned Behavior & Non-Deceptive Purchase**



change in predictor.

Darker-colored predictors are significant, while lighter-colored predictors are not significant. OR = Odds Ratio; P = Percentage increase/decrease per one-unit





# Planned Behavior & Deceptive Purchase

# My s

#### Who is more likely to have deceptively bought counterfeits?

- Males were 39% more likely to engage in deceptive counterfeit purchase than females.
- For each one year increase in age, deceptive counterfeit purchase decreased by 2%.
- For each one-unit increase in educational level, deceptive counterfeit purchase increased by 7%.
- For each additional member of the household, deceptive counterfeit purchase increased by 15%.
- For each one-unit increase in religiosity, deceptive counterfeit purchase increased by 26%.
- For each one-unit increase in the frequency of online shopping, deceptive counterfeit purchase increased by 6%.

Which TPB variables predict depceitve purchase?

Each one-unit increase in...

- affective attitudes was associated with a 4% increase in deceptive counterfeit purchase.
- cognitive attitudes was associated with a 12% increase deceptive counterfeit purchase.
- PBC was associated with a 27% decrease in deceptive counterfeit purchase.
- injunctive societal norms was associated with a 9% increase deceptive counterfeit purchase.
- injunctive personal norms was associated with a 6% increase in deceptive counterfeit purchase.
- descriptive norms among extended family members was associated with a 1% increase in deceptive counterfeit purchase.
- descriptive norms among social media friends was associated with a 1% increase in deceptive counterfeit purchase.

Similar to non-deceptive counterfeit purchase behavior, cognitive and affective attitudes positively predicted deceptive counterfeit purchase. In other words, the more favorably participants perceived counterfeit purchase behavior to be, the more likely they were to be deceived into buying counterfeit products. PBC was a negative predictor, where higher confidence (or individual will) in the ability to refrain from buying counterfeit products was associated with lower chances of being deceived into buying these products. Finally, injunctive norms, or the perceptions of how distal (peers in a country) and proximal (close friends) social groups approve of participants' counterfeit purchase behavior were positive predictors of deceptive counterfeit purchase. Descriptive norms of the prevalence of the behavior among extended family members and social media friends were also positive predictors.







# Planned Behavior & Deceptive Purchase







## Global Predictive Analytics Forecasting Counterfeit Behaviors Attitudes, Norms, & Control Actionable Insights

Anti-counterfeit consumer education and awareness-raising efforts should focus on creating convincing arguments about the negative consequences of counterfeit purchasing while debunking the favorable perceptions of the value of this behavior to consumers.

Furthermore, the social norms approach provides a blueprint for behavior change by adjusting social normative misperceptions. While consumers think their close friends approve of their counterfeit purchase behaviors and attitudes, educating consumers that those within their close social circle are not necessarily in favor of such behaviors might tilt the needle in terms of curbing counterfeit purchase intentions.

It is also critical to offer consumers ways to build their confidence in their ability to control their buying behavior, protect themselves, and refrain from purchasing counterfeit products in order to lower their future behavioral intentions.





# **O5.03** Protection Motivation Predicting Behavior

## **Protection Motivation & Purchase Intentions**

#### Who expresses higher counterfeit purchase intentions?

- Males
- Younger consumers
- Individuals who are not married
- Those with a higher number of people living in the same household
- More religious respondents
- More frequent online shoppers
- Individuals with lower income

Which PMT variables predict purchase intentions ?

- Higher threat severity perceptions were associated with lower counterfeit purchase intentions.
- Higher threat susceptibility perceptions were associated with higher counterfeit purchase intentions.
- Higher perceived self-efficacy was associated with higher counterfeit purchase intentions.
- Higher e-retailer response efficacy was associated with lower counterfeit purchase intentions.
- Higher social media response efficacy was associated with higher counterfeit purchase intentions.

Our findings show that perceptions of threat severity have the potential to reduce one's counterfeit purchase. The more respondents thought of this behavior as a serious problem that poses high risks, the lower were their intentions to buy counterfeit in the future. At the same time, the more vulnerable survey participants were to encounter risks associated with counterfeit, the higher their counterfeit purchase intentions.





**Protection Motivations &** 

**Purchase Intentions** 

# s 05

Another set of PMT results is related to the notion of efficacy, or an ability to recognize a problem and avoid it. The greater respondents' self-efficacy, the higher their counterfeit purchase intentions. Similarly, the more they relied on their ability to avoid buying goods from sellers on social media (social media response efficacy), the higher was their intention to purchase counterfeits. On the contrary, a greater ability to refrain from buying products on e-commerce websites (e-retail response efficacy) was associated with lower intention.



Darker-colored predictors are significant, while lighter-colored predictors are not significant.





## **Protection Motivation & Non-Deceptive Purchase**



- Males were 18% more likely than females to buy counterfeits knowingly.
- For each one year increase in participant's age, nondeceptive counterfeit purchase decreased by 2%.
- For each one-unit increase in participants' educational level, non-deceptive counterfeit purchase increased by 5%.
- Participants who were not married are 19% more likely to engage in non-deceptive counterfeit purchase.
- For each additional member living in the same household, non-deceptive counterfeit purchase increased by 8%.
- For each one-unit increase in religiosity, nondeceptive counterfeit purchase increased by 28%.
- For each one-unit increase in the frequency of online shopping, non-deceptive counterfeit purchase increased by 4%.
- For each one-unit increase in income level, nondeceptive counterfeit purchase decreased by 10%.

Which PMT variables predict non-deceptive purchase?

- For each one-unit increase in perceived threat severity, nondeceptive counterfeit purchase decreased by 32%.
- For each one-unit increase in perceived threat susceptibility, nondeceptive counterfeit purchase increased by 44%.
- For each one-unit increase in perceived self-efficacy, non-deceptive counterfeit purchase increased by 21%.
- For each one-unit increase in perceived e-retail response efficacy, non-deceptive counterfeit purchase decreased by 41%.

The survey results with regard to past non-deceptive counterfeit purchasing were similar to the results related to future purchase intentions. Higher threat severity and e-retail response efficacy were associated with lower non-deceptive counterfeit buying behaviors in the past. Higher threat susceptibility and self-efficacy went along with more frequent instances of knowingly buying counterfeit. The only difference was that social media responses efficacy did not play a role in past non-deceptive counterfeit acquisitions.







**Protection Motivation & Non-Deceptive Purchase** 



Darker-colored predictors are significant, while lighter-colored predictors are not significant. OR = Odds Ratio; P = Percentage increase/decrease per one-unit change in predictor.







## Protection Motivation & Deceptive Purchase

#### Who is more likely to have deceptively bought counterfeits?

- Males were 33% more likely than females to engage in deceptive counterfeit purchase.
- Each additional year to participants' age was associated with a 2% decrease in deceptive counterfeit purchase.
- For each one-unit increase in educational level, deceptive counterfeit purchase increased by 7%.
- For each additional household member, deceptive counterfeit purchase increased by 15%.
- For each one-unit increase in religiosity, deceptive counterfeit purchase increased by 34%.
- For each one-unit increase in the frequency of online shopping, deceptive counterfeit purchase increased by 8%.
- For each one-unit increase in income level, deceptive counterfeit purchase decreased by 10%.

Which PMT variables predict depceitve purchase?

- For each one-unit increase in perceived threat susceptibility, the likelihood of deceptive counterfeit purchase increased by 44%.
- For each one-unit increase in perceived e-retail response efficacy, the likelihood of deceptive counterfeit purchase decreased by 16%.
- For each one-unit increase in perceived social media response efficacy, the likelihood of deceptive counterfeit purchase decreased by 14%.

Aside from marital status, demographic characteristics predicted past deceptive counterfeit purchase in a manner similar to non-deceptive counterfeit purchase. Threat severity that was a strong predictor of future purchase intention and non-deceptive counterfeit buying did not play any role in past deceptive counterfeit buying. It is possible that consumers do not consider this issue when shopping for what they think should be genuine products. Self-efficacy, or the ability to recognize counterfeit and avoid buying it, was not associated with past deceptive counterfeit purchases either. Furthermore, the higher respondents rated their ability to avoid buying products on social media (social media response efficacy), the more instances of unknowingly buying counterfeit they reported. The opposite was found for e-retail response efficacy where greater capacity to refrain from buying products on e-commerce platforms was correlated with fewer instances of purchasing counterfeit unknowingly.









Odds Ratio; P = Percentage increase/decrease per one-unit change in predictor.





## Global Predictive Analytics Forecasting Counterfeit Behaviors Threat Appraisal & Efficacy Actionable Insights

The findings related to threat appraisal (severity and susceptibility) point to the duality of risk perceptions. While perceived severity lowers counterfeit purchase intentions, one's perception of their own susceptibility to counterfeit risks increases those intentions, thus suggesting a state of fatalistic beliefs about the effectiveness of protecting one's self from counterfeit risks while shopping online. Coupled with the findings on perceived threat severity and susceptibility, and in contrast to our findings related to perceived behavioral control, which deals with the perception of having the intrinsic constraint to not buy counterfeit, we see that self-efficacy enhances counterfeit purchase intentions and non-deceptive purchase. This finding is critical. It shows that consumers know how to protect themselves and have the confidence in their ability to do so, yet in certain instances, their guards are lowered and they are unable to inhibit their desire to purchase counterfeit products. Consumer education efforts should highlight ways of enhancing consumers' sense of confidence to protect themselves, yet more emphasis should be put on strategies of countering the lack of inhibition when the desire for purchase increases.



Channels through which counterfeit commodities become available to consumers (e.g., e-commerce vs. social media platforms) should be differentiated and taken into consideration when developing anti-counterfeit campaigns. Not only can brand protection practitioners creatively use these channels' characteristics in their messaging to consumers but also they can deliver these anti-counterfeit messages using the very platforms where consumers buy counterfeit. Educating consumers about how to shop safely on e-retail and social media platforms is a step that can contribute to confronting the spread of counterfeit purchase behavior among consumers.







Despite the high prevalence of non-deceptive and deceptive counterfeit purchasing among the global consumer sample, it is important to distinguish between consumers who frequently purchase counterfeit products, those who do so occasionally, and abstainers of counterfeit purchase. To this end, this section provides a demographic and psychographic segmentation analysis of each of these groups of counterfeit consumers.

#### **Three Consumer Groups**

To categorize the global sample, we used the measure of non-deceptive counterfeit purchase to derive three consumer segments: non-buyers, occasional buyers, and frequent buyers of counterfeit products. Among all survey respondents, 48% indicated that they had never purchased counterfeit knowing it was counterfeit (non-buyers); occasional buyers, who comprised 31% of the sample, are those who indicated that they had purchased counterfeit at least once or once every few months in the past 12 months; and frequent buyers, amounted to 21% of the sample, who indicated that they had purchased counterfeit products once every month or more often. As shown in Figure 6.1, the country with the highest prevalence of frequent counterfeit buyers was India, while South Korea, Italy, and the United Kingdom had the largest frequency of non-buyers, respectively.









#### Gender

Males were more likely than females to have bought counterfeit goods deceptively and non-deceptively in the past. They were also more likely to purchase counterfeit in the future. This finding is consistent with some literature that shows that males are either more frequent online shoppers (Hasan, 2010) or tend to spend more online than women (Pradhana & Sastiono, 2019). In addition, previous research indicates that males are found to like online shopping more than females and are affected by risk perceptions of e-commerce privacy breaches less than females (Kanwal et al., 2021).



LU / Anti-counterfeit communication efforts should approach male audiences

as first-hand buyers of counterfeit goods. Given that female consumers may exhibit more caution in making online purchase decisions, this segment can be approached as an influencer with higher awareness counterfeit risks.

#### Age

Younger individuals were more likely than their older counterparts to knowingly and unknowingly have bought counterfeit in the past and expressed a higher intention to do it in the future. This finding may be explained by greater familiarity of younger individuals with online retail environments as well as the tendency to follow novel shopping trends. Prior studies show that older individuals are more likely to experience barriers to online shopping related to perceived value derived from this activity, higher perceptions of risks, and greater loyalty to traditional technologies (Lian & Yen, 2014).



1/2 This finding suggests that brand protection professionals should appeal to younger audiences with an additional effort to persuade them about ethical and safe ways of buying goods online.



Figure 6.3

Participants' age, by consumer segments







#### Socio-Economic Status

Our segmentation analysis showed that frequent buyers were more educated and more likely to be employed compared to nonbyers and frequent buyers. The analysis also showed no large differences between the three segments in terms of income level. This findings is important as it sheds the light on the possibility that economic and financial indicators for buying counterfeits do not necessarily take the driver's seat. It is intuitive that employment was higher among frequent buyers, given that this group also tends to be younger in age. However, taken together, we can infer that frequent buyers tend to generally be of higher socio-economic status (SES) compared to less frequent buyers.



 $\mathbb{V}$  / Anticounterfeiting efforts should take SES into consideration when crafting consumer educational interventions. We recommend that anticounterfeiting education be integrated into consumer literacy programs at different educational levels, including secondary and post-secondary education. Such efforts can be woven into a comprehensive online safety literacy programs that are increasingly needed given the dynamic changes in the role of technology in social and how it influences users' well-being.







#### **Household Type**

Frequent counterfeit buyers were more likely to be married, from larger households, and have more children living with in the same household. Only fragmented empirical evidence (e.g., Cao & Zhen, 2020) exists regarding the influence of household size and type on purchase behavior. Yet, it is logical to suggest that individuals who are married, are also more likely to have children, and thus live in larger households. Taken together, these findings suggest that buying counterfeits is responsive to life demands that are of higher intensity for those with larger households.



 Brand protection and marketing teams may consider
providing additional incentives (e.g., bulk sales, coupons, loyalty programs) for individuals who shop for larger households, so that they can afford buying authentic products in high volume or at high frequency.

## **Marital Status**











#### Religiosity

An interesting - at first - finding of this survey showed that respondents who indicated a higher level of religiosity were more likely to buy counterfeit products in the future and have done it in the past both deceptively and non-deceptively. This finding that emerged within the global sample may suggest that the 17 survey-participating countries were different in various aspects, including genuine product availability, saturation of counterfeit market, social norms, level of religious influence, and so forth. While some evidence suggests that ethical consumption is associated with higher levels of religiosity (Agag & El-Masry, 2016), meaning that religious people tend to make rightful purchase decisions, some studies show that this association is not simple. One, for example, should make a distinction between intrinsic religiosity (e.g., faith as a way of personal fulfillment and private connection with the divine) and extrinsic religiosity (e.g., faith as a tool to maintain social status and connections with a community) (Swimberghe, Flurry, & Parker, 2011). While intrinsic religiosity may be related to ethical buying behavior, extrinsic religiosity may have the opposite effect because of social influence. Given that in our survey, we did not differentiate between intrinsic and extrinsic religiosity, future research should further examine this to get a clearer view of the role of religiosity in counterfeit purchase behavior.



1/2 Thus, when appealing to one's religious values in an anti-counterfeit communication campaign, it is important to understand other factors - especially those related to social norms and influence - that affect the scope of counterfeit buying within specific countries and communities.



Figure 6.9

Participants' employment status, by consumer segments







#### **Frequency of Online Shopping**

The more often survey respondents shopped online, the more likely they were to have unknowingly bought a counterfeit product in the past. They also reported a higher intention to purchase counterfeit. These findings indicate that the habit of online shopping increases the chances one falls a victim of deceptive counterfeit purchase. It is also important to note that frequent online shoppers do not exclude the possibility of purchasing counterfeit goods in the future.



The convenient characteristic of this segment is that frequent online shoppers are more likely to be reached online as they spend more time browsing the web for shopping purposes. Thus, anti-counterfeit messages can be placed on the platforms where these individuals regularly buy branded goods.



Figure 6.10

Participants' employment status, by consumer segments







# **Purchase Motivation** of Consumer Segments 06.02

#### **Counterreit Purchase Motivations**

Among the three consumer groups, economic benefits motives were rated the highest, followed by hedonic, social-adjustive, and value-expressive motives, respectively. It is of no surprise that frequent buyers of counterfeits are the most motivated to purchase these products, followed by occasional and non-buyers, respectively.



 $\Box/$  / It's critical for brand protection practitioners to understand the underlying motives for buying counterfeits. Given the widespread prevalence of e-commerce and social commerce, counterfeit buying motives are not just financiallydriven. The allure of online shopping and its automaticity is not only a cause of concern when targeting frequent consumers, but also occasional buyers and non-buyers. The ease of use of digital platforms might further contribute to incident of deceptive counterfeit purchase, thus the need to protect all types of consumers









# **Planned Behavior** of Consumer Segments

#### **Counterfeit Attitudes**

All three consumer groups expressed higher cognitive than affective attitudes toward purchasing counterfeits, and both types of attitudes were rated higher by frequent buyers, followed by occasional and non-buyers, respectively. This indicates the important role of rationalized evaluations of counterfeit purchase in our sample.



 Anti-counterfeiting consumer
education should center their
efforts on changing frequent buyers' attitudes toward
buying counterfeits, given the significant role of attitudes in influencing future behaviors.





Means of affective and cognitive attitudes, by consumer segment







#### **Perceived Behavioral Control**

Interestingly, frequent buyers and non-buyers expressed similar levels of perceived behavioral control, which was significantly higher than that expressed by occasional buyers. This indicates that perceived behavioral control operates differently among the three consumer segments. Whereas for non-buyers, who expressed higher perceived behavioral control, the level of confidence in their own ability to protect themselves from counterfeit risks was instrumental in further employing protective behaviors to refrain from purchasing counterfeits. Contrast that with similar levels of perceived behavioral control for frequent buyers. Intuitively speaking, this group of consumers should have reported the lowest levels of behavioral control because it frequently engaged in the risky behavior of counterfeit purchase. However, it did not. This coupled with significantly higher counterfeit purchase intentions among frequent buyers, in comparison with the other two segments, indicates that the act of buying counterfeit is a planned behavior that follows rationalized decision-making for this consumer group. Altogether, these results suggest a pattern where high confidence in the ability to protect one's self is associated with high desire to continue buying counterfeits in the future. Therefore, we suggest that frequent counterfeit buyers may be especially resistant and reactant to attitude and behavior change messages, especially if such messages use direct, authoritative language. Past research has shown that those enacting the most risky behaviors are resistant to persuasion, which could be the case with frequent buyers of counterfeits. Messaging that does not resolve this resistance to persuasion might be wasteful and not effective. This conclusion is consistent with the psychological reactance theory (Brehm, 1966). The theory posits that when individuals face a threat to their freedom of action, they are motivated to regain their freedom, leading to the experience of psychological reactance. In such circumstances, if individuals perceive others as attempting to persuade them, they are more likely to experience stronger reactance and increase their risky behavior (Rosenberg & Siegel, 2018).

Anti-counterfeit messages should avoid elements triggering reactance while encouraging consumers to purchase authentic products voluntarily.



Figure 6.13

Means of perceived behavioral control, by consumer segment







#### **Social Norms**

Finally, normative perceptions varied across the three segments. Frequent buyers - compared to occasional and non-buyers expressed the highest normative perceptions of the acceptance (injunctive norms) and prevalence (descriptive norms) of counterfeit purchase behaviors among different reference groups. It is important to note that occasional buyers reported injunctive and descriptive norms that matched with the overall sample average while non-buyers' normative perceptions were lower than the sample average. As expected, frequent buyers reported the highest normative perceptions than the other two groups. This finding suggests that an intervention modeled after the social norms approach might be suitable to change frequent buyers' attitudes and behaviors toward counterfeit purchase. The premise of the social norms approach deals with adjusting normative perceptions as a strategy to inhibit risky behavior. An effective strategy targeting frequent buyers should provide social norms messaging that highlights that in real life, others do not engage in counterfeit purchase as much as they are thought to. This type of messaging may lead frequent buyers to employ mental calculations to adjust to the corrected social norms and refrain from buying counterfeit.

Leveraging the Social Norms Approach as an approach to persuasion through adjusting normative perceptions related to the prevalence and acceptance of buying counterfeits, especially among close friends and family members could be beneficial for targeting frequent buyers.









## **Counterfeit Purchase Intentions**



#### **Purchase Intentions**

Those who frequently bought counterfeits in the past 12 months expressed the highest intentions to continue buying counterfeits in the future. This findings is alarming and requires urgent strategies fo effectively educate frequent buyers about the risks associated with buying counterfeits.



#### Anti-counterfeiting efforts should prioritize

targeting frequent buyers as a group of consumers
who are vulnerable to counterfeit risks.







# **Protection Motivation** of Consumer Segments

#### **Threat Perceptions**

The three consumer segments did not vary much in terms of their threat severity perceptions. Minimal differences in the perceived scope of the counterfeit problem is important in informing brand protection professionals and communicators that the level of awareness on the issue is high. However, the three segments differed in their perceptions of how vulnerable (threat susceptibility) they are to counterfeiting risks when shopping online. This points to a conundrum as it relates to anticounterfeiting consumer education efforts, suggesting that consumers feel fatalistic when it comes to protecting themselves against the great risks they face online.



 Consumer education
efforts should amplify the effectiveness of protective behaviors in guarding consumers against counterfeiting risks.









#### **Efficacy Perceptions**

Frequent buyers expressed higher self-efficacy, or the confidence in protecting themselves against those risks. Combined with high levels of susceptibility, high self-efficacy perceptions among frequent buyers confirms the fatalistic nature of purchasing counterfeits. This group of consumers knows the risks and feels that vulnerable to them, but also has a high level of confidence that they can protect themselves against those risks. The complexities of the digital environment, given their frequent online shopping behaviors, trends toward accepting these risks and further enacting risky behaviors. It is also important to note the findings related to e-retail response efficacy. E-retail response efficacy was found to negatively predict counterfeit purchase intentions and behaviors within all three segments. On the contrary, social media response efficacy was the highest among frequent buyers.



 $\Box/$  Consumer education appealing to frequent buyers should focus on reframing self-efficacy within the context of actionable protective rewards, where consumers see the rewards of harmonizing their perceptions and behaviors, rather than any losses through fear-based tactics. Finally, anticounterfeiting efforts should also advocate for greater involvement by e-retail and social media platforms in providing the means with which consumers can protect themselves.









The following section provides a narrative description of the three consumer segments of non-buyers, occasional buyers, and frequent buyers of counterfeit products represented by fictitious consumer personas for each type of counterfeit buyers. The distinction of buying behavior is based on the frequency of knowingly buying counterfeit products (non-deceptive purchase) in the past 12 months. Non-buyers are consumers who reported they did not purchase any counterfeit products in the past 12 months (48% of the sample), whereas occasional buyers are those who purchased counterfeits at least once or once every few months in the past 12 months (31% of the sample), and frequent buyers are those who bought counterfeits products at least monthly in the past 12 months (21% of the sample). The narratives presented here are merely illustrative and do not fully represent all counterfeit buyers. We matched each persona with national attributes based on prevalence data for the different countries.









## Non-Buyer Consumer Persona "Seo-Jun"

Seo-Jun is not at all motivated to buy counterfeit products. Out of all motivations, including economic, hedonic, value-expressive, and social-adjustive, economic motivation for Seo-Jun is the strongest. This means that if she ever considers purchasing counterfeit, getting a good deal will be the most prevalent motive to buy it. Yet, the chances she will ever purchase counterfeit are low as Seo-Jun indicates a low intention to buy counterfeit in the future.

Seo-Jun has negative attitudes toward purchasing counterfeit. She does not like this behavior in general and considers it to be unethical. She believes that buying counterfeit is not beneficial to consumers and companies and the quality of counterfeit products is lower than that of original goods.

Seo-Jun thinks that others in her close social circles (immediate and extended family, close friends) are not likely to buy counterfeits. She is also not prone to believe that her friends on social media and Internet users like her are likely to engage in this behavior. Seo-Jun's perception of people buying counterfeit goods in her local community as well as her country is higher than that of her closer social circles, but it is underestimated when compared with the survey sample averages. Furthermore, Seo-Jun reports that her close friends and people of her age in her country would not approve of her purchasing counterfeit products.

Seo-Jun thinks that purchasing counterfeit online is a serious problem, but she believes she is not susceptible to the risks this behavior entails. She exhibits average levels of response efficacy toward buying counterfeit from e-retailers (online retail platforms) and on social media, meaning that she feels she is relatively equipped to avoid buying counterfeit on the Internet. She also feels in full control over her counterfeit buying behavior. At the same time, Seo-Jun shows a lower-than-average ability to tell the difference between original and not genuine products.









#### Occasional Buyer Consumer Persona

Valentina and Mateo are generally not motivated to buy counterfeit products as their economic, hedonic, value-expressive, and social-adjustive motivations fall below the survey sample average. When they buy counterfeit, they are predominantly driven by economic benefit (lower prices) rather than pleasure, status, and life values. They occasionally buy counterfeit goods; however, they express below-the-average intentions to purchase them in the future.

Valentina's and Mateo's attitudes toward purchasing counterfeit are somewhat negative. Similar to counterfeit non-buyers, they believe that counterfeit products are of lower quality than originals, buying counterfeit does not help companies and consumers, and this behavior is wrong.

Valentina and Mateo think that about one in three people in their close circles (immediate and extended family, close friends) engage in counterfeit buying. They also believe that Internet users like them and social media friends are more prone to buy counterfeit than their close friends and family. They estimate that about half of people in their community and country of residence purchase









counterfeit. In general, Valentina and Mateo express social normative beliefs that are close to the survey sample averages. In addition, they think that their close friends are less likely to disapprove of their buying counterfeits than people of their age in their country of residence. This suggests that occasional counterfeit buyers perceive this behavior to be less accepted on the social level, but this perception may be overridden if they think their close families and friends approve of it.

Like counterfeit non-buyers, Valentina and Mateo think that purchasing counterfeit online is a serious issue posing significant health and legal risks. However, unlike counterfeit non-buyers, they report an above-average level of vulnerability to such risks. While holding somewhat average levels of response efficacy toward buying counterfeit from e-retailers (online retail websites), they are less sure about their ability to avoid buying counterfeit through social media as well as tell the difference between original and counterfeit products. Valentina and Mateo exhibit an average level of control over their counterfeit buying behavior.











## Frequent Buyer Consumer Persona "Shankar"

Shankar is very motivated to buy counterfeit. The main driver of this behavior is economic where buying inexpensive goods overweighs other motives, such as value-expressive and social-adjustive. Shankar also enjoys buying counterfeits, which is why he frequently engages in this behavior. He intends to purchase counterfeit products in the future.

Shankar's attitudes toward purchasing counterfeit goods are generally positive. He thinks that there is not much difference in quality between genuine and fake products, but counterfeit is more affordable and accessible to consumers. Counterfeit products, Shankar believes, make legitimate branded merchandise more popular and, thus, buying counterfeit helps companies with publicity.

When comparing with survey sample averages, Shankar tends to overestimate the scope of buying counterfeit in his social environment. He believes that about half of his close and extended friends and family engage in counterfeit purchasing. Per his estimations, nearly 6 out of 10 of his social media friends, Internet users like him, people in his local community, and residents in his country buy counterfeit. Moreover, Shankar thinks that his close friends and people of his age in his country of residence are likely to approve of him buying counterfeit goods. The approval to purchase counterfeit products coming from Shankar's close friends is a stronger factor for Shankar than the social approval in general.

Despite positive attitudes toward purchasing counterfeit and frequent engagement in this behavior, Shankar understands the high risks that counterfeit purchasing entails and feels he is highly vulnerable to these risks. At the same time, he expresses an above-average ability to tell the difference between genuine and non-genuine merchandise, suggesting that counterfeit buyers may be more experienced in indicating fake goods. Shankar also feels he has an above-average control over his counterfeit buying behavior; however, the level of control is lower than that of counterfeit non-buyers. Shankar's response efficacy toward buying counterfeit from e-retailers (online retail websites) is somewhat average; however, he is less sure about his ability to avoid buying counterfeit on social platforms.







# **Country-Level Predictive Analytics** 07



In this section, we present country-level predictive analytics for consumers' intentions to purchase counterfeit products and their past behaviors of non-deceptively and deceptively buying counterfeit products. While country-level data provide a focused view of the peculiarities of each surveyed national sample, we preface these insights with overarching takeaways that highlight points of commonalities and differences in how demographics, counterfeit purchase motivations, and planned behavior and protection motivation factors predict the three behavioral outcomes of intentions, non-deceptive, and deceptive counterfeit purchase.



## **Demographic Predictors: Commonalities and Deviations**

#### Gender

The relationship between gender and intentions/purchase behavior does not present a consistent pattern among most surveyed countries.

- In six out of the 17 countries (Canada, Mexico, Nigeria, United Arab Emirates, United Kingdom, and United States), gender was a predictor of counterfeit purchase intentions. In all six countries, with the exception of Nigeria and the United Arab Emirates, males expressed higher intentions than females.
- In Canada, China, Italy, Mexico, Peru, and the United Kingdom, male participants were more likely to purchase counterfeit products non-deceptively compared to females.
- Male consumers from China, India, Italy, Kenya, South Korea, Spain, the United Kingdom, and the United States were more likely than females to be deceived into buying counterfeit products.








## Age

For the most part, age was a negative predictor of intention and purchase behavior. Younger participants indicated higher intentions as well as greater instances of non-deceptive and deceptive counterfeit purchase. Age was measured in years in our survey, therefore, the associated increase in counterfeit purchase behavior seems minimal given that the unit of increase is a single year. However, it is important to look at the impact of age within larger incremental increases in age such as generational levels, to see a more robust impact on counterfeit purchase behavior. For example, in some cases a one-unit increase in age (i.e., years) was associated with a 2% decrease in non-deceptive counterfeit purchase. So, a 40-year-old participant would be 2% less likely than a 39-year old to purchase counterfeits. However, a 40-year-old would be 20% less likely to purchase counterfeits than a 30-year-old.

- Age was a significant predictor of counterfeit purchase intentions in 10 surveyed countries, except China, India, Kenya, Mexico, Peru, South Korea, and the United Arab Emirates. Additionally, in all countries where age was a significant predictor, it had a negative relationship with intentions, except Egypt and Nigeria, where older consumers expressed higher intentions than younger ones.
- For non-deceptive and deceptive counterfeit purchase, each one-year increase in consumers' age was associated with roughly 2-5% decrease in purchase likelihood, with the exception of Egypt, Mexico, Nigeria, South Korea, and the United Arab Emirates, where age did not predict past counterfeit purchase behavior.



## Education

In general, educational attainment was predictive of counterfeit purchase intentions and behaviors in a few countries, and the findings varied by country.

- Among the Chinese, Indian, and Spanish samples, those who reported lower educational levels expressed greater counterfeit purchase intentions. It was the more educated in Mexico and the United States who wanted to purchase counterfeit products in the future.
- When looking at past behavior, Egyptian, Kenyan, and U.S. participants who were more educated were
  more likely than their less-educated counterparts to purchase counterfeit products non-deceptively.
  Higher-educated participants from India and the United Kingdom were more likely to purchase
  counterfeit products deceptively. At the same time, less educated Chinese respondents were more likely
  to purchase counterfeit products deceptively than more educated participants.









## **Marital Status**

Generally, participants who reported they were married were less likely to purchase counterfeits.

- Participants from Egypt, India, and Spain who were not married expressed greater counterfeit purchase intentions than those who were married. The opposite was true for Australian participants.
- Participants from China, Egypt, South Korea, and Spain who were not married indicated greater nondeceptive counterfeit past purchase than those who were married. Yet, married Nigerian participants were more likely to purchase counterfeit products non-deceptively than their counterparts who were not married.
- Participants from South Korea, the United States, and the United Kingdom differed in their deceptive counterfeit purchase, where those who reported they were not married purchased counterfeit products deceptively, while it was married UK participants who were more likely to engage in this behavior.



## **Household Count**

In general, the larger respondents' households were, the greater their counterfeit purchase intentions and behaviors were found to be.

- The relationship between household count and intentions was significant for Australia, China, Egypt, Italy, Kenya, Mexico, and Nigeria, with all these countries except Australia and Kenya presenting a positive association.
- Household count predicted non-deceptive purchase in five of the 17 countries (Australia, China, India, Italy, and Mexico), where all but China showed a positive relationship.
- In Australia, Canada, Mexico, Peru, Spain, the United Arab Emirates, and the United Kingdom, the larger the household was, the greater the deceptive counterfeit purchase was reported.



## Religiosity

Religiosity predicted counterfeit intentions and/or non-deceptive/deceptive counterfeit purchase behavior in 13 surveyed countries. The relationship was mostly positive, where higher religiosity was associated with greater intentions and likelihood of non-deceptive and deceptive counterfeit purchase. Only in Mexico and Egypt, more religious participants were less likely to purchase counterfeit products non-deceptively and deceptively.







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## **Online Shopping Frequency**

The higher the frequency of online shopping, the higher counterfeit intentions and/or past purchase behavior in 11 of the 17 countries.

- Results from Argentina, Brazil, South Korea, Spain, the United Arab Emirates, and the United States of America showed no relationship between online shopping frequency and intentions and behaviors.
- Across the 17 countries, all countries except Argentina, Brazil, South Korea, Spain, United Arab Emirates, and United States of America, showed a significant relationship between online shopping frequency and one or more of the three behavioral outcomes of purchase intentions, non-deceptive, and deceptive counterfeit purchase. In countries where online shopping frequency was a significant predictor, the sample from India showed a negative relationship between online shopping frequency was associated with lower likelihood of non-deceptive counterfeit purchase. Finally, the relationship between online shopping frequency and deceptive counterfeit purchase was positive in countries where that relationship was statistically significant.



### **Income Level**

In samples from Australia, China, India, Kenya, Mexico, Nigeria, Peru, the United Arab Emirates, and the United Kingdom, income level predicted counterfeit purchase intentions and behaviors. This relationship was negative for the most part.

- Wealthier respondents from Kenya and the United Arab Emirates expressed greater counterfeit purchase intentions.
- Kenyan participants were more likely to purchase counterfeit products non-deceptively.
- Participants from Nigeria were more likely to purchase counterfeit products deceptively, compared with their less wealthy counterparts.

It is important to note that our survey distinguished between different aspects of socio-economic status (SES) as demographic predictors of counterfeit buying behavior and intentions. In looking at our findings, it is important to examine how income, educational level, and household size collectively influence counterfeit purchase behaviors. In the findings present above, we see that in some countries, higher SES was associated with higher purchasing of counterfeits, such as samples from Kenya and the United Arab Emirates, whereas in other countries SES was a negative predictor of counterfeit purchase behavior, such as the samples from Australia, China, and Spain.







## **Psychological Predictors Counterfeit Purchase Motivations**

By far, the strongest counterfeit purchase motivation was hedonic. It positively predicted all three behavioral outcomes: counterfeit purchase intention, deceptive purchase, and non-deceptive purchase. It is worth noting that the motives were not as strong in predicting deceptive counterfeit purchase - that consumers made unintentionally - as non-deceptive counterfeit purchase and counterfeit purchase intentions.

- Without exception, in all 17 country samples, hedonic motive strongly increased the intention to purchase counterfeit products. Furthermore, in all countries except Kenya participants who reported higher hedonic motives were more likely to have knowingly purchased counterfeits. This finding is counter to what our research team expected. Our initial thinking, supported by previous evidence, was that the most powerful driver of counterfeit buying was economic. While this motive was the second strongest in predicting counterfeit purchase intentions (all countries except India, Italy, Mexico, South Korea, and Spain), it only predicted non-deceptive counterfeit purchase in over half of the surveyed countries and deceptive counterfeit purchase in seven countries. Respondents from Italy indicated that the economic benefits motive negatively predicted deceptive counterfeit purchase.
- Value-expressive motivation was the third strongest positive predictor of counterfeit purchase intentions in most countries except Argentina, Brazil, Canada, China, South Korea, and Spain. However, valueexpressive motive only predicted non-deceptive counterfeit purchase in China, India, and Peru, and did not predict deceptive counterfeit purchase in any of the countries.
- Social-adjustive motivation was the weakest predictor of behavioral outcomes. Findings from Mexico and South Korea showed that this motive negatively predicted behavioral intention, while this relationship was positive among participants from India and the United Arab Emirates. Only one country, Peru, showed a negative association between the social-adjustive motive and deceptive counterfeit purchase.







## **Psychological Predictors Counterfeit Purchase as Planned Behavior**

In our study, we used the theory of planned behavior to predict counterfeit-related behavioral outcomes. The basic premise of the theory emphasizes that certain behaviors, including risky behaviors like buying counterfeit products, are planned and in that they are impacted by psychological perceptions of the behavior itself (i.e., attitude), one's own self (i.e., perceived behavioral control), and others (i.e., social norms). Across the 17 surveyed countries, the theory of planned behavior was the most predictive of counterfeit purchase intentions as well as non-deceptive and deceptive counterfeit purchase.

- Attitudes. Cognitive attitudes were the strongest positive predictors of intentions (all countries); nondeceptive counterfeit purchase (all countries except the United Kingdom); and deceptive counterfeit purchase (only significant in Australia, Canada, Kenya, South Korea, and Spain). On the other hand, affective attitudes were positive predictors of intentions in all countries except Brazil, Kenya, and South Korea; non-deceptive counterfeit purchase in China, India, Mexico, Nigeria, Spain, and the United States; and deceptive counterfeit purchase in China, Egypt, India, and the United States.
- Perceived Behavioral Control. Generally, perceived behavioral control (PBC), or the perception that an individual has the power to refrain from buying counterfeit goods, was a negative predictor of behavioral outcomes. Specifically, PBC negatively predicted intention in all countries except Egypt, India, and the United Arab Emirates; non-deceptive counterfeit purchase in all countries except India, Nigeria, and South Korea; and deceptive counterfeit purchase in most countries except Argentina, Australia, Egypt, India, Mexico, Nigeria, South Korea, and the United Arab Emirates. Many of the countries where PBC did not impact behavioral intentions and behaviors are countries with collectivistic cultures, suggesting that intrinsic factors and self-confidence in one's ability to protect themselves against the dangers of counterfeit did not matter much in inhibiting their risky counterfeit purchase behaviors.
- **Social Norms.** In thinking about social norms, it is important to distinguish between injunctive and descriptive social norms. Injunctive norms refer to an individual's perception of the acceptance of a behavior by others, while descriptive norms deal with perceptions of the prevalence of that behavior among others. Per the social norms approach (Berkowitz, 2005), perceptions of injunctive and









descriptive social norms vary by reference groups. In the case of this survey, we differentiated between socially proximal (i.e., close friends, family members; personal norms) and distal (i.e., peers in the same country, town, or on the Internet; societal norms) groups. Across all countries, we see a stronger impact of injunctive personal norms, meaning that when individuals perceive that their close friends are accepting of the counterfeit purchase behavior, they are more likely to want to buy counterfeit products in the future and have done so in the past, mostly knowingly (non-deceptive purchase). While injunctive societal norms (i.e., peers in the country) positively predicted intention in most countries, it was a positive predictor of non-deceptive counterfeit purchase only in Egypt, India, South Korea, the United Kingdom, and the United States; a positive predictor of deceptive counterfeit purchase in Peru and the United Kingdom. Regarding descriptive norms, the results are mixed, with a more positive impact of proximal descriptive norms among immediate family members on purchase intention and behaviors.

## **Psychological Predictors Mitigating Risk Perceptions**

The Protection Motivation Theory (PMT) posits that an individual's intention to enact protective behaviors is facilitated by threat and coping appraisals. Threat appraisal refers to perceived issue severity and one's susceptibility to the risk the issue entails. Perceptions of threat severity and susceptibility can curb or facilitate the engagement in risky behaviors, which, in this study, deals with buying counterfeit products. Furthermore, coping appraisals deal with perceptions of one's ability to protect themselves against the risks and one's perceptions of the efficacy of their protective responses. Self-efficacy is intrinsic. Response efficacy is related to an individual's perception that they can protect themselves while browsing e-retail and social media platforms.

• **Threat Appraisals.** In risk research, it is typical that when individuals perceive a threat to be severe and feel vulnerable (susceptible) to this threat, they try to protect themselves. For example, during the early stages of the COVID-19 pandemic, higher perceptions of threat severity and susceptibility were associated with engagement in protective behaviors such as frequent handwashing and avoiding









touching one's eyes (Lahiri et al., 2021). Our survey illuminated a different pattern. Threat severity operated in an expected way – the more severe individuals thought counterfeit threats and risks were, the less likely they were to express intentions and buy counterfeit products knowingly (non-deceptive). However, threat susceptibility across all countries (with few exceptions) was a positive predictor of intentions, non-deceptive, and deceptive counterfeit purchase. This potentially suggests that there is a global sense of fatalism in dealing with counterfeit risks. The more susceptible we think we are, the less likely we are to protect themselves. We should also note that survey methodology does not provide evidence of causality. This means that, on the one hand, the strong feeling of vulnerability could affect intentions and behaviors related to counterfeit buying and, on the other hand, it could be that respondents' counterfeit-purchase behaviors and intentions increased the sense of fatalism and susceptibility to the risks of this behavior.

**Coping Appraisals.** PMT posits that if individuals feel they can protect themselves, they will enact protective measures against risks. This was not necessarily the case in our global sample. Atypically, self-efficacy was a positive predictor of intentions in all countries except Brazil, China, Kenya, and Peru. It was also a positive predictor of non-deceptive counterfeit purchase in more than half of the surveyed countries. For deceptive counterfeit purchase, the directionality of the relationship between self-efficacy and purchase behavior varied by country. In Argentina, Brazil, China, Egypt, Mexico, and Peru, the theory operated as expected, where the higher confidence in one's ability to protect themselves was associated with lower deceptive counterfeit purchase. However, in Australia, India, Italy, South Korea, and the United Arab Emirates, the opposite was true. Furthermore, e-retail response efficacy, or an individual's perceived ability to avoid counterfeit risks while shopping on e-retail platforms, was a negative predictor of intentions and behaviors. This means that having the confidence in assessing the e-retail environment for potential risks inhibited risk-taking behavior for counterfeit purchase. Finally, the level of confidence in the efficacy of protective behaviors on social media was less influential in predicting behavioral outcomes. In Brazil, India, and Nigeria, social media response efficacy enhanced intentions, while it curbed non-deceptive purchase in Argentina and Italy. For deceptive purchase, the behavior was inhibited by social media response efficacy in Brazil, South Korea, and the United Kingdom and facilitated in India and Italy.







## **How to Interpret Country-Level Predictive Analytics?**

In the upcoming section, we present country-specific analytics for the predictors of the three behavioral outcomes: intentions, deceptive, and non-deceptive counterfeit purchase, using three theoretical lenses of motivations, theory of planned behavior, and protection motivation theory (motives, TPB, and PMT).

- For each country, predictive analytics will be presented in three sets; one for each of the theoretical frameworks (motives, TPB, and PMT).
- In each set, we present results from regression analyses for each behavioral outcome of intention to buy counterfeit, non-deceptive counterfeit purchase, and deceptive counterfeit purchase.
- The infographics distinguish significant predictors by bolding the icons and statistical values, while non-significant coefficients are presented with lighter icons and no statistics.
- In the infographics related to counterfeit purchase intentions, the statistics represent standardized regression coefficients. A positive coefficient indicates a positive relationship, while a negative coefficient indicates a negative relationship. The higher the coefficient, the stronger the relationship between a predictor and counterfeit-related behavior/intention.
- In the infographics related to non-deceptive and deceptive counterfeit purchase, we present results of logistic binary regressions. Statistics are represented by odds ratios (number on the top) given that the two outcomes (non-deceptive and deceptive counterfeit purchase) are dichotomous (1 = purchased; 0 = did not purchase). We performed transformations of odds ratios into percentage increase or decrease. For odds ratio values greater than 1, the transformation entailed subtracting 1 from the value. For example, if an odds ratio value was 1.25, then this



translates in an odd of 1 to 1.25, thus each unit increase in the predictor is associated with a 25% increase in the outcome. For odds ratios less than 1, we divided 1 by the odds ratio value and subtracted 1 from it. For example, if an odds ratio value is 0.80, then 1/0.80 - 1 = 0.25. This means that a one-unit increase in the predictor was associated with a 25% decrease in the outcome.









## **Country Profile**

Population (Millions)	45.8
Median Age	32
% Below the Age of 35 (13-34)	34%
GDP (Billions), USD	\$632.8
Median Income (Annual, USD)	\$5,319
% Internet Users	87%
% Social Media Users	79%
Retail E-Commerce (Billions)	\$10.1
Top 2 E-Commerce Segments	1. Furniture & Appliances 2. Fashion

# Argentina











Consumers' age was a negative predictor of counterfeit purchase intentions. Hedonic and economic benefits motives positively predicted counterfeit purchase intentions.

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in Argentinian consumers' age was associated with a 4% decrease in non-deceptive counterfeit purchase. A one-unit increase in hedonic motives was associated with a 61% increase in the likelihood of non-deceptive counterfeit purchase. A one-unit increase in economic benefit motives increased the likelihood of nondeceptive counterfeit purchase by 21%.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in religiosity was associated with a 26% increase in the likelihood of deceptive counterfeit purchase.















and deceptive counterfeit purchase (bottom) among participants from Argentina. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .58,  $R^2_{adj} = .32$ , F(12, 697) = 29.24, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(12, N = 709) = 135.02$ , p < .001, Nagelkerke  $R^2 = .24$ Deceptive Counterfeit Purchase:  $\chi^2(12, N = 710) = 24.67, p < .05, Nagelkerke R^2 = .05$ 











The strongest positive predictor of counterfeit purchase intentions was cognitive attitudes, followed by injunctive societal norms, descriptive norms among immediate family members, and affective attitudes, respectively. Perceived behavioral control was a negative predictor of counterfeit purchase intentions.

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in Argentinian consumers' age was associated with a 3% decrease in non-deceptive counterfeit purchase likelihood. For each one-unit increase in cognitive attitudes, the non-deceptive counterfeit purchase likelihood increased by 50% and that likelihood increased by 48% with a one-unit increase in personal injunctive norms. A one-unit increase in perceived behavioral control was associated with a 37% decrease in non-deceptive counterfeit purchase likelihood. A one-unit increase in perceived descriptive norms among close friends was associated with a 1% decrease in nondeceptive counterfeit purchase likelihood.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in religiosity was associated with a 28% increase in the likelihood of deceptive counterfeit purchase. No TPB variables predicted deceptive counterfeit purchase.















Behavior Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Argentina. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for nondeceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .67,  $R^2_{adj.} = .43$ , F(20, 683) = 27.66, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(20, N = 703) = 195.09$ , p < .001, Nagelkerke  $R^2 = .33$ Deceptive Counterfeit Purchase:  $\chi^2(20, N = 704) = 35.50, p < .05, Nagelkerke R^2 = .07$ 









Age was a negative predictor of counterfeit purchase intention. Threat severity was the strongest negative predictor of intention, followed by threat susceptibility (positive), e-retail response efficacy (negative), and self-efficacy (positive).

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in age was associated with a 4% decrease in non-deceptive counterfeit purchase likelihood. The strongest predictor of non-deceptive counterfeit purchase was threat severity, where a one-unit increase in threat severity was associated with a 32% decrease in non-deceptive counterfeit purchase likelihood. A one-unit increase in e-retail and social media response efficacy decreased the likelihood of non-deceptive purchase by 27% and 15%, respectively. A one-unit increase in threat susceptibility increased non-deceptive purchase likelihood by 16%.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in religiosity increased the likelihood of deceptive counterfeit buying by 27%. A one-unit increase in consumers' age was associated with a 2% decrease in deceptive counterfeit purchase likelihood. Self-efficacy was a negative predictor in that a one-unit increase in self-efficacy decreased the likelihood of deceptive counterfeit purchase by 22%. A one-unit increase in threat susceptibility increased the likelihood of deceptive counterfeit buying by 16%, followed by threat severity, where one-unit increase contributed to the growth of deceptive counterfeit buying by 14%.





Country-Level Predictive Analytics



#### Figure 7.1.3

Regression analysis results for the relationship between demographics and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Argentina. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood. **Counterfeit Purchase Intention:** R = .42,  $R^2_{adj.} = .16$ , F(13, 696) = 11.20, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(13, N = 709) = 115.85, p < .001$ , Nagelkerke  $R^2 = .21$ 

**Deceptive Counterfeit Purchase:**  $\chi^2(13, N = 710) = 50.95, p < .05, Nagelkerke R<sup>2</sup> = .10$ 













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### **Country Profile**

Population (Millions)	26.4
Median Age	37.5
% Below the Age of 35 (13-34)	29%
GDP (Billions), USD	\$1,675
Median Income (Annual, USD)	\$17,076
% Internet Users	96%
% Social Media Users	83%
Retail E-Commerce (Billions)	\$44.5
Top 2 E-Commerce Segments	1. Food & Personal Care 2. Fashion

## Australia









Age and number of people in a household were negative predictors of counterfeit purchase intentions. Religiosity and frequency of online shopping were positive predictors of counterfeit purchase intentions. Hedonic motive was the strongest predictor of intentions, while economic and value-expressive motives were second, equally predicting counterfeit purchase intentions.

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in Australian consumers' age was associated with a 3% decrease in non-deceptive counterfeit. A one-unit increase in religiosity and online shopping were associated with a 26% and 25% increase in the purchase of non-deceptive counterfeit. A one-unit increase in hedonic motives was associated with a 62% increase in the likelihood of non-deceptive counterfeit purchase.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in Australian consumers' age and income were associated with a 2% and 47% decrease in deceptive counterfeit purchase. A one-unit increase in religiosity and frequency of online shopping were associated with a 36% and 22% increase in the deceptive purchase of counterfeits. A one-unit increase in economic benefit motive was associated with a 46% increase in the likelihood of deceptive counterfeit purchase.















Regression analysis results for the relationship between demographics and counterfeit purchase motives and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Australia. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood. Counterfeit Purchase Intention: R = .84,  $R^2_{adi} = .70$ , F(12,683) = 138.97, *p* < .001 Non-Deceptive Counterfeit Purchase:  $\chi^2(12, N = 696) =$ 421.18, p < .001, Nagelkerke  $R^2 = .61$ Deceptive Counterfeit Purchase:  $\chi^2(12, N = 696) = 299.50$ ,

p < .001, Nagelkerke  $R^2 = .47$ 











For Australian consumers, the strongest positive predictor of counterfeit purchase intention was injunctive personal norms, followed by cognitive and affective attitudes, and religiosity. Perceived behavioral control was a negative predictor of counterfeit purchase intentions.

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in Australian consumers' age was associated with a 2% decrease in non-deceptive counterfeit purchase likelihood. A one-unit increase in Australian consumers' religiosity and frequency of online shopping were associated with a 41% and 30% increase in non-deceptive counterfeit purchase likelihood. For each oneunit increase in cognitive attitudes, the non-deceptive counterfeit purchase likelihood increased by 50% and that likelihood increased by 55% with a one-unit increase in personal injunctive norms. A one-unit increase in perceived behavioral control was associated with a 37% decrease in non-deceptive counterfeit purchase likelihood.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in Australian consumers' age was associated with a 2% decrease in deceptive counterfeit purchase likelihood. A one-unit increase in Australian consumers' religiosity and frequency of online shopping were associated with a 32% and 22% increase in deceptive counterfeit purchase likelihood. Only cognitive attitudes predicted counterfeit purchase, with a one-unit increase in cognitive attitudes resulting in a 29% increase in the purchase of deceptive counterfeit.











## Country-Level 07 Predictive Analytics 07



#### Figure 7.2.2

Regression analysis results for the relationship between demographics and Theory of Planned Behavior Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Australia. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .89,  $R^2_{adj.} = .78$ , F(20, 658) = 123.33, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(20, N = 679) = 464.04, p < .001$ , Nagelkerke  $R^2 = .66$ 

**Deceptive Counterfeit Purchase:**  $\chi^2(20, N = 679) = 317.52$ , p < .001, *Nagelkerke*  $R^2 = .50$ 









Age was a negative predictor of counterfeit purchase intentions for Australian consumers, while marital status, religiosity and frequency of online shopping were positive predictors. Response efficacy for e-retail was the strongest negative predictor of intentions, followed by threat severity. Threat susceptibility and self-efficacy were positive predictors of counterfeit purchase intentions.

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in age was associated with a 3% decrease in non-deceptive counterfeit purchase likelihood, while a one-unit increase in religiosity, frequency of online shopping, and household size were associated with an 51%, 32%, and 18% increase in non-deceptive counterfeit purchase. The strongest predictor of non-deceptive counterfeit purchase was response efficacy for e-retail where a one-unit increase was associated with a 82% decrease in non-deceptive counterfeit purchase likelihood. A one-unit increase in threat severity resulted in a 19% decrease in non-deceptive purchase likelihood. A one-unit increase in threat susceptibility and self-efficacy increased the likelihood of non-deceptive purchase by 60% and 45%, respectively.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in Australian consumers' age was associated with a 2% decrease in deceptive counterfeit purchase likelihood. A one-unit increase in Australian consumers' household count, religiosity, and frequency of online shopping were associated with a 15%, 35% and 28% increase in deceptive counterfeit purchase likelihood. Threat susceptibility and self-efficacy predicted counterfeit purchase, with a one-unit increase in these predictors resulting in a 65% and 26% increase in the purchase of deceptive counterfeit.











#### Figure 7.2.3

Regression analysis results for the relationship between demographics and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Australia. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood. **Counterfeit Purchase Intention:** R = .64,  $R^2_{adj.} = .40$ , F(13, 682) = 36.15, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(13, N = 696) = 303.20, p < .001$ , Nagelkerke  $R^2 = .47$ Deceptive Counterfeit Purchase:  $\chi^2(13, N = 696) = 263.83$ ,







## Country Profile

Population (Millions)	216.4
Median Age	33.2
% Below the Age of 35 (13-34)	34%
GDP (Billions), USD	\$1,920
Median Income (Annual, USD)	\$4,559
% Internet Users	81%
% Social Media Users	70%
Retail E-Commerce (Billions)	\$48.24
Top 2 E-Commerce Segments	1. Electronics & Media 2. Food & Pers. Care
	Population (Millions)Median Age% Below the Age of 35 (13-34)GDP (Billions), USDMedian Income (Annual, USD)% Internet Users% Social Media UsersRetail E-Commerce (Billions)Top 2 E-Commerce Segments



## Brazil









Consumers' age was a negative predictor of counterfeit purchase intentions for Brazilian consumers. Hedonic and economic benefits motives positively predicted counterfeit purchase intentions, with hedonic motives being the strongest predictor.

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in Brazilian consumers' age was associated with a 2% decrease in non-deceptive counterfeit. A one-unit increase in economic benefit and hedonic motives was associated with 44% and 108% increases in the likelihood of non-deceptive counterfeit purchase.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in Brazilian consumers' age was associated with a 2% decrease in deceptive counterfeit. A one-unit increase in economic benefit motives was associated with a 31% increase in the likelihood of deceptive counterfeit purchase.













#### Figure 7.3.1

Regression analysis results for the relationship between demographics and counterfeit purchase motives and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Brazil. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .69,  $R^2_{adj} = .47$ , F(12, 702) = 54.51, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(12, N = 714) = 212.52, p < .001$ , Nagelkerke  $R^2 = .34$ 

**Deceptive Counterfeit Purchase:**  $\chi^2(12, N = 713) = 42.38, p < .001$ , *Nagelkerke*  $R^2 = .08$ 



(-2%)











The strongest positive predictor of counterfeit purchase intentions for Brazilian consumers was cognitive attitudes, followed by injunctive personal norms, and descriptive norms among Internet users and close friends. Perceived behavioral control, descriptive norms among peers in the country, and descriptive norms among social media friends were negative predictors of counterfeit purchase intentions.

#### **Non-Deceptive Counterfeit Purchase**

For each one-unit increase in cognitive attitudes, the non-deceptive counterfeit purchase likelihood increased by 118% and that likelihood increased by 18% with a one-unit increase in personal injunctive norms. On the other hand, a one-unit increase in perceived behavioral control was associated with a 20% decrease in non-deceptive counterfeit purchase likelihood and a one-unit increase in descriptive norms among peers in the country was associated with a 1% decrease in non-deceptive counterfeit purchase likelihood.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in perceived behavioral control was associated with a 49% decrease in the likelihood of deceptive counterfeit purchase.











Country-Level 07 Predictive Analytics 07



#### Figure 7.3.2

Regression analysis results for the relationship between demographics and Theory of Planned Behavior Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Brazil. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

688) = 36.71, *p* < .001 Non-Deceptive Counterfeit Purchase:  $\chi^{2}(20, N = 708) =$ 

231.01, *p* < .001, Nagelkerke *R*<sup>2</sup> = .37

**Deceptive Counterfeit Purchase:**  $\chi^2(20, N = 707) = 72.46, p < .001, Nagelkerke <math>R^2 = .14$ 











Brazil

#### **Counterfeit Purchase Intentions**

Age was a negative predictor of counterfeit purchase intentions for Brazilian consumers. Threat severity was the strongest negative predictor of intentions, followed by threat susceptibility (positive), e-retail response efficacy (negative), and response efficacy (positive).

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in age was associated with a 2% decrease in non-deceptive counterfeit purchase likelihood. The strongest predictor of non-deceptive counterfeit purchase was threat susceptibility, where a one-unit increase in threat severity was associated with a 46% increase in non-deceptive counterfeit purchase likelihood. A one-unit increase in threat severity and e-retail response efficacy decreased the likelihood of non-deceptive purchase by 39% and 37%, respectively.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in consumers' age was associated with a 2% decrease in deceptive counterfeit purchase likelihood. A one-unit increase in threat susceptibility increased the likelihood of deceptive counterfeit purchase by 35%. Self-efficacy, response efficacy for e-retail and response efficacy for social media were negative predictors in that a one-unit increase in self-efficacy decreased the likelihood of deceptive counterfeit purchase by 18%, 27%, 23%, respectively.













132

#### Figure 7.3.3

Regression analysis results for the relationship between demographics and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Brazil. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .51,  $R^2_{adj.} = .25$ , F(13, 701) = 18.84, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(13, N = 714) = 143.24, p < .001$ , Nagelkerke  $R^2 = .24$ 

**Deceptive Counterfeit Purchase:**  $\chi^2(13, N = 710) = 92.35, p < .001$ , *Nagelkerke*  $R^2 = .18$ 









## **Country Profile**

	Population (Millions)	38.78
	Median Age	41.8
	% Below the Age of 35 (13-34)	28%
	GDP (Billions), USD	\$2,140
	Median Income (Annual, USD)	\$18.652
	% Internet Users	93%
	% Social Media Users	85%
	Retail E-Commerce (Billions)	\$66.01
	Top 2 E-Commerce Segments	1. Fashion 2. Toys, Hobby, & DIY

## Canada









Gender was a negative predictor of counterfeit purchase intentions for Canadian consumers. Males had a greater intention to buy counterfeit than women in the Canadian sample. Frequency of online shopping positively predicted the intention to buy counterfeit. Hedonic and economic motives were positive predictors of counterfeit purchase intentions. Hedonic motive was the strongest predictor of intentions.

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in Canadian consumers' age was associated with a 2% decrease in non-deceptive counterfeit. Being male was associated with a 75% decrease in counterfeit products. A one-unit increase in religiosity was associated with a 25% increase in the purchase of non-deceptive counterfeits. A one-unit increase in hedonic and economic benefits motives was associated with a 66% and 43% increase in the likelihood of non-deceptive counterfeit purchase.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in Canadian consumers' age was associated with a 1% decrease in deceptive counterfeit purchase. A one-unit increase in household count and frequency of online shopping were equally associated with a 16% increase in the purchase of deceptive counterfeits. A one-unit increase in hedonic motivations was associated with a 57% increase in deceptive counterfeit purchases.















Regression analysis results for the relationship between demographics and counterfeit purchase motives and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Canada. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood. **Counterfeit Purchase Intention:** R = .77,  $R^2_{adj.} = .58$ , F(12, 687) = 82.16, p < .001**Non-Deceptive Counterfeit Purchase:**  $\chi^2(12, N = 700) =$ 

281.87, p < .001, Nagelkerke  $R^2 = .45$ Deceptive Counterfeit Purchase:  $\chi^2(12, N = 700) = 133.54$ , p < .001, *Nagelkerke*  $R^2 = .23$ 











For Canadian consumers, the strongest positive predictors of counterfeit purchase intention were injunctive personal norms and injunctive societal norms, followed by cognitive attitudes, descriptive norms of close friends, and affective attitudes. Perceived behavioral control was a negative predictor of counterfeit purchase intentions.

#### **Non-Deceptive Counterfeit Purchase**

Males were 56% more likely than females to purchase counterfeits non-deceptively. A one-unit increase in Canadian consumers' age was associated with a 2% decrease in non-deceptive counterfeit purchase likelihood. For each one-unit increase in cognitive attitudes, non-deceptive counterfeit purchase likelihood increased by 34% and that likelihood increased by 37% with a one-unit increase in personal injunctive norms. A one-unit increase in descriptive norms of close friends resulted in a 2% increase in non-deceptive purchases of counterfeit goods. However, a one-unit increase in perceived behavioral control was associated with a 41% decrease in non-deceptive counterfeit purchase likelihood.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in Canadian consumers' age was associated with a 1% decrease in deceptive counterfeit purchase likelihood. A one-unit increase in household size and frequency of online shopping were associated with a 17% and 15% increase in deceptive counterfeit purchase likelihood. Cognitive attitudes predicted counterfeit purchase, with a one-unit increase resulting in a 27% increase in the purchase of deceptive counterfeit. However, a one-unit increase in perceived behavioral control and local descriptive norms were associated with a 41% and 2% decrease in deceptive counterfeit purchase likelihood.











Country-Level 07 Predictive Analytics 07



### Figure 7.4.2

Regression analysis results for the relationship between demographics and Theory of Planned Behavior Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Canada. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .81,  $R^2_{adj.} = .64$ , F(20, 662) = 61.43, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(20, N = 683) = 332.12$ , p < .001, Nagelkerke  $R^2 = .52$ 

Deceptive Counterfeit Purchase:  $\chi^2(20, N = 683) = 205.02$ , p < .001, Nagelkerke  $R^2 = .35$ 









Canada

Being male and younger was associated with higher counterfeit purchase intentions for Canadian consumers. Threat susceptibility was the strongest positive predictor of intentions, followed by self-efficacy. Threat severity and response efficacy for e-retail were negative predictors of counterfeit purchase intention.

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in age was associated with a 3% decrease in non-deceptive counterfeit purchase likelihood, while a one-unit increase in religiosity was associated with a 28% increase in non-deceptive counterfeit purchase. The strongest positive predictor of non-deceptive counterfeit purchase was threat susceptibility, with a one-unit increase was associated with a 45% increase in non-deceptive counterfeit purchase likelihood. This was followed by self-efficacy, with a one-unit increase was associated with a 34% increase in non-deceptive counterfeit purchase likelihood. A one-unit increase in response efficacy for e-retail and threat severity resulted in a 59% and 28% decrease in non-deceptive purchase likelihood.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in Canadian consumers' age was associated with a 2% decrease in deceptive counterfeit purchase likelihood. A one-unit increase in Canadian consumers' household size and frequency of online shopping was associated with a 14% and 18% increase in deceptive counterfeit purchase likelihood. Threat susceptibility predicted counterfeit purchase, with a one-unit increase resulting in a 49% increase in the purchase of deceptive counterfeits. A one-unit increase in response efficacy was associated with a 30% decrease in purchase of deceptive counterfeit products.











#### Figure 7.4.3

Regression analysis results for the relationship between demographics and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Canada. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood. **Counterfeit Purchase Intention:** R = .51,  $R^2_{adj.} = .25$ , F(13, 686) = 18.78, p < .001**Non-Deceptive Counterfeit Purchase:**  $\chi^2(13, N = 700) =$ 

177.12, p < .001, Nagelkerke  $R^2 = .30$ Deceptive Counterfeit Purchase:  $\chi^2(13, N = 700) = 121.73$ , p < .001, Nagelkerke  $R^2 = .21$ 






## **Country Profile**

Population (Millions)	1,426
Median Age	38.4
% Below the Age of 35 (13-34)	29%
GDP (Billions), USD	\$17,963
Mean Income (Annual, USD)	\$4,214
% Internet Users	73%
% Social Media Users	72%
Retail E-Commerce (Billions)	\$1,535
Top 2 E-Commerce Segments	1. Fashion 2. Daily Necessities



# China









Education and income were negative predictors of counterfeit purchase intentions, while religiosity was a positive predictor of Chinese consumers' purchase intentions for counterfeit. Hedonic and value-expressive motives, respectively, positively predicted counterfeit purchase intentions, with hedonic motive being the strongest.

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in Chinese consumers' age and education was associated with a 3% and 19% decrease in non-deceptive counterfeit purchase. Being male was very strongly associated with a 233% increase in non-deceptive counterfeit purchase. A one-unit increase in hedonic and value-expressive motives was associated with a 35% and 57% increase in the likelihood of non-deceptive counterfeit purchase.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in Chinese consumers' age, education, and income was associated with a 4%, 36% and 59% decrease in deceptive counterfeit purchase. Being male was associated with a 96% decrease in deceptive counterfeit purchase. A one-unit increase in economic benefits motives was associated with a 60% increase in the likelihood of deceptive counterfeit purchase.













#### Figure 7.5.1

Regression analysis results for the relationship between demographics and counterfeit purchase motives and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from China. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .68,  $R^2_{adj.} = .45$ , F(12, 698) = 49.10, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(12, N = 712) = 214.98, p < .001,$ Nagelkerke  $R^2 = .35$ 

Deceptive Counterfeit Purchase:  $\chi^2(12, N = 712) = 162.67, p < .001,$ Nagelkerke  $R^2 = .28$ 











Household size and religiosity were positively associated with counterfeit purchase intentions in China. The strongest positive predictor of counterfeit purchase intentions was injunctive personal norms, followed by cognitive attitudes, descriptive norms among close friends, injunctive societal norms, and affective attitudes, respectively. Perceived behavioral control was a negative predictor of counterfeit purchase intentions among Chinese respondents.

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in Chinese consumers' age was associated with a 4% decrease in non-deceptive counterfeit purchase likelihood. Gender and marital status were associated with a decreased likelihood of non-deceptive counterfeit purchase. Being male increased the likelihood of non-deceptive counterfeit buying by 194%; and being married decreased such chances by 89%. For each one-unit increase in cognitive and affective attitudes and personal injunctive norms, the non-deceptive counterfeit purchase likelihood increased by 36%, 53%, and 54% respectively. On the other hand, a one-unit increase in perceived behavioral control was associated with a 72% decrease in non-deceptive counterfeit purchase likelihood.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in Chinese consumers' age, education, and income was associated with a 5%, 32%, and 52% decrease in deceptive counterfeit purchase. A one-unit increase in religiosity was associated with a 34% increase in deceptive counterfeit purchase. One-unit increases in affective attitudes, injunctive societal norms, and descriptive local norms were associated with 28%, 37% and 3% increases in deceptive counterfeit purchase likelihood. On the other hand, perceived behavioral control and country descriptive norms were associated with 61% and 3% decreases in deceptive counterfeit purchase likelihood.











Country-Level 07 Predictive Analytics 07



#### Figure 7.5.2

Regression analysis results for the relationship between demographics and Theory of Planned Behavior Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from China. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .81,  $R^2_{acj.} = .64$ , F(20, 675) = 62.29, p < .001

**Non-Deceptive Counterfeit Purchase:**  $\chi^2(20, N = 696) = 294.83$ , p < .001, Nagelkerke  $R^2 = .46$ 

Deceptive Counterfeit Purchase:  $\chi^2(20, N = 696) = 193.81, p < .001, Nagelkerke R^2 = .34$ 



Societa

0.62

0.66

Country Loca

0.97 (-3%)







China

#### **Counterfeit Purchase Intentions**

Education was a negative predictor of counterfeit purchase intentions for Chinese consumers, while religiosity was a positive predictor. Response efficacy for e-retail and threat severity were the strongest negative predictors of intentions. Threat susceptibility was a positive predictor of purchase intention for counterfeit products.

#### **Non-Deceptive Counterfeit Purchase**

Age and household size were associated with a 3% and 16% decrease in non-deceptive counterfeit purchase likelihood, respectively. Being male and not married increased the likelihood of non-deceptive counterfeits by 186% and 92%. A one-unit increase in religiosity increased the purchase likelihood by 22%. Response efficacy for e-retail and threat severity were the strongest negative predictors of non-deceptive counterfeit purchase, where a one-unit increase was associated with a 49% and 41% decrease in non-deceptive counterfeit purchase likelihood, respectively. Additionally, a one-unit increase in threat susceptibility increased the likelihood of non-deceptive purchase by 36%.

#### **Deceptive Counterfeit Purchase**

Gender, age, education, and income were associated with a 92%, 4%, 37%, and 56% decrease in deceptive counterfeit purchase likelihood, while the frequency of online shopping was associated with a 28% increase. A one-unit increase in threat susceptibility increased the likelihood of deceptive counterfeit purchase by 30%, while a one-unit increase in self-efficacy decreased this likelihood by 41% for Chinese consumers.







**Figure 7.5.3** 

likelihood.

Nagelkerke  $R^2 = .23$ 

< .001





Deceptive Counterfeit Purchase:  $\chi^2(13, N = 712) = 177.11, p < .001,$ Nagelkerke  $R^2 = .31$ 

Regression analysis results for the relationship between demographics

and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from China.

Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom)

counterfeit purchase, numbers reflect odds ratio values with transformed

Counterfeit Purchase Intention: R = .51,  $R^2_{adi} = .24$ , F(13, 698) = 18.70, p

Non-Deceptive Counterfeit Purchase:  $\chi^2(13, N = 712) = 132.99, p < .001,$ 

odds ratio into percentage increase/decrease in counterfeit purchase









# **Country Profile**

Population (Millions)	112.7
Median Age	24.1
% Below the Age of 35 (13-34)	36%
GDP (Billions), USD	\$476.8
Median Income (Annual, USD)	\$1,485
% Internet Users	72%
% Social Media Users	41%
Retail E-Commerce (Billions)	\$7.91
Top 2 E-Commerce Segments	1. Electronics & Media 2. Fashion
	Population (Millions) Median Age % Below the Age of 35 (13-34) GDP (Billions), USD Median Income (Annual, USD) % Internet Users % Social Media Users Retail E-Commerce (Billions) Top 2 E-Commerce Segments











Marital status was a negative predictor of counterfeit purchase intentions for Egyptian consumers, where participants who were not married expressed higher intentions than those who were married. Hedonic, economic benefits, and value-expressive motives, respectively, positively predicted counterfeit purchase intentions, with hedonic motives being the strongest predictor.

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in Egyptian consumers' education was associated with a 31% increase in non-deceptive counterfeit purchase. A one-unit increase in religiosity and frequency of online shopping was associated with a 56% and 15% increase in non-deceptive counterfeit purchase. Hedonic motivation was the strongest positive predictor of non-deceptive counterfeit buying, where one-unit increase resulted in 68% growth of the outcome behavior.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in Egyptian consumers' religiosity was associated with a 100% decrease in deceptive counterfeit.













Regression analysis results for the relationship between demographics and counterfeit purchase motives and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Egypt. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood. **Counterfeit Purchase Intention:** R = .83,  $R^2_{acj.} = .68$ , F(12, 648) = 119.10, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(12, N = 661) = 256.41, p < .001$ , Nagelkerke  $R^2 = .43$ Deceptive Counterfeit Purchase:  $\chi^2(12, N = 661) = 52.27, p < .001$ , Nagelkerke  $R^2 = .12$ 











For Egyptian consumers, age and household size were positively related to counterfeit purchase intention. Marital status was negatively related to the outcome, where not married respondents were more likely to want to buy counterfeits in the future. The strongest positive predictor of counterfeit purchase intentions was cognitive attitudes, followed by injunctive personal norms, injunctive societal norms, and affective attitudes, respectively.

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in Egyptian consumers' religiosity was associated with a 52% decrease in non-deceptive counterfeit purchase likelihood. For each one-unit increase in cognitive attitudes, injunctive societal norms, and close friends descriptive norms, the non-deceptive counterfeit purchase likelihood increased by 43%, 40%, and 2%. On the other hand, a one-unit increase in perceived behavioral control was associated with a 75% decrease in non-deceptive counterfeit purchase likelihood.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in Egyptian consumers' religiosity was associated with a 122% decrease in the likelihood of deceptive counterfeit purchase. A one-unit increase in affective attitude and Internet descriptive norms increased the likelihood of deceptive counterfeit purchase by 20% and 2%, respectively, while a one-unit increase in descriptive norms among close friends was associated with a 2% decrease in deceptive counterfeit purchase likelihood.











**Country-Level Predictive Analytics** 





#### ratio into percentage increase/decrease in counterfeit purchase likelihood.

**Figure 7.6.2** 

Counterfeit Purchase Intention: R = .89,  $R^2_{adi} = .78$ , F(20,626) = 115.96, *p* < .001

Regression analysis results for the relationship between

and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit

For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive

numbers reflect odds ratio values with transformed odds

(middle) and deceptive (bottom) counterfeit purchase,

**Non-Deceptive Counterfeit Purchase:** 
$$\chi^2$$
(20,  $N = 647$ ) = 324.29,  $p < .001$ , Nagelkerke  $R^2 = .53$ 

Deceptive Counterfeit Purchase:  $\chi^2(20, N = 647) = 82.24, p$ < .001, Nagelkerke  $R^2 = .19$ 









**Egypt** 

#### **Counterfeit Purchase Intentions**

Marital status was a negative predictor of counterfeit purchase intentions for Egyptian consumers, where not married individuals had a greater intention to engage in this behavior than those who were not married. Religiosity was a positive predictor. Threat susceptibility and self-efficacy were the strongest positive predictors of intention. Threat severity and e-retail response efficacy were negative predictors of counterfeit purchase intention.

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in education was associated with a 31% increase in non-deceptive counterfeit purchase likelihood. Married participants were 104% less likely to purchase counterfeits non-deceptively than their non-married counterparts. The strongest predictors of non-deceptive counterfeit purchase were threat severity and response efficacy for e-retail, where a one-unit increase in threat severity was associated with a 45% decrease and response efficacy for retail was associated with a 54% decrease in non-deceptive counterfeit purchase likelihood. Additionally, a one-unit increase in threat susceptibility increased the likelihood of non-deceptive purchase by 37%.

#### **Deceptive Counterfeit Purchase**

In this model, a one-unit increase in Egyptian consumers' religiosity was associated with a 56% decrease in deceptive counterfeit purchase likelihood. Self-efficacy and response efficacy for e-retail were negative predictors. A one-unit increase in self-efficacy decreased the likelihood of deceptive counterfeit purchase by 18%. A one-unit increase in e-retail response efficacy was associated with a decrease in the behavior by 37%. Threat susceptibility was the only positive predictor, where one-unit increase in susceptibility increased deceptive counterfeit buying by 43%.













Regression analysis results for the relationship between demographics and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Egypt. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .39,  $R_{adj.}^2 = .14$ , F(13, 647) = 9.13, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(13, N = 661) =$ 

114.01, *p* < .001, Nagelkerke *R*<sup>2</sup> = .21

**Deceptive Counterfeit Purchase:**  $\chi^2(13, N = 661) = 53.15, p < .001$ , *Nagelkerke*  $R^2 = .12$ 











# **Country Profile**

	Population (Millions)	1,429
2	Median Age	29.1
3	% Below the Age of 35 (13-34)	38%
	GDP (Billions), USD	\$3,385
	Mean Income (Annual, USD)	\$1,314
	% Internet Users	46%
	% Social Media Users	33%
	Retail E-Commerce (Billions)	\$79.92
	Top 2 E-Commerce Segments	1. Food & Personal Care 2. Fashion











Marital status and education were negative predictors of counterfeit purchase intentions for Indian consumers, while religiosity was a positive predictor. Hedonic, value-expressive, and social-adjustive motives positively predicted counterfeit purchase intentions, with hedonic motive being the strongest predictor.

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in Indian consumers' hedonic and value-expressive motives were the only predictors of non-deceptive counterfeit purchase. A one-unit increase in hedonic and value-expressive motives was associated with a 97% and 57% increase in non-deceptive counterfeit purchase.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in Indian consumers' age was associated with a 2% decrease in deceptive counterfeit. A one-unit increase in economic benefit motives was associated with a 90% increase in deceptive counterfeit purchase.











#### **Counterfeit Purchase Intentions** .05 .32 .19 Online Income Hedonic Edu. Marital HH Relig. Econ Value Count Shop. Motives Express. Adjust. Status Motives **Motives Motives** -.05 -.05

#### **Counterfeit Non-Deceptive Purchase**

Figure 7.7.1

Regression analysis results for the relationship between demographics and counterfeit purchase motives and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from India. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood. **Counterfeit Purchase Intention:** R = .91,  $R^2_{adi} = .82$ , F(12,

686) = 274.46, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(12, N = 699) = 374.25, p < .001$ , Nagelkerke  $R^2 = .64$ 

**Deceptive Counterfeit Purchase:**  $\chi^2(12, N = 699) = 167.97$ , p < .001, *Nagelkerke*  $R^2 = .39$ 



#### **Counterfeit Deceptive Purchase**













Marital status and frequency of online shopping were negative predictors of counterfeit purchase intention for Indian consumers. Positive predictors of counterfeit purchase intention for Indian consumers were injunctive personal norms, cognitive attitudes, followed by injunctive societal norms, and affective attitudes, respectively.

#### **Non-Deceptive Counterfeit Purchase**

For Indian consumers, with each one-unit increase in cognitive attitudes, injunctive societal norms, and affective attitudes, the non-deceptive counterfeit purchase likelihood increased by 52%, 48%, and 35%.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in age was associated with a 3% decrease in the likelihood of deceptive counterfeit purchase, while a one-unit increase in education was associated with a 28% increase in the likelihood of this outcome. A one-unit increase in affective attitudes was associated with a 31% increase in the likelihood of deceptive counterfeit purchase.











# Country-Level 07 Predictive Analytics 07





odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .94,  $R^2_{adj} = .87$ , F(20, 666) = 235.00, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(20, N = 687) = 400.05$ , p < .001, Nagelkerke  $R^2 = .68$ Deceptive Counterfeit Purchase:  $\chi^2(20, N = 687) = 153.97$ , p < .001, Nagelkerke  $R^2 = .37$ 





ndia

#### **Counterfeit Purchase Intentions**

Marital status and income were negative predictors of counterfeit purchase intentions for Indian consumers, while religiosity was a positive predictor. Threat susceptibility, self-efficacy, and social media response efficacy were positive predictors of intentions. Threat severity and e-retail response efficacy were negative predictors of counterfeit purchase intention.

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in household size and religiosity were associated with a 20% and 33% increase in nondeceptive counterfeit purchase likelihood. The strongest predictors of non-deceptive counterfeit purchase was threat susceptibility and response efficacy for e-retail, where a one-unit increase in threat severity was associated with a 134% increase and response efficacy for retail was associated with a 66% increase in non-deceptive counterfeit purchase likelihood. Additionally, a one-unit increase in threat severity and response efficacy for e-retail decreased the likelihood of non-deceptive purchase by 43% and 133%, respectively.

#### **Deceptive Counterfeit Purchase**

In this model, a one-unit increase in Indian consumers' age was associated with a 3% decrease in deceptive counterfeit purchase likelihood. Threat susceptibility, self-efficacy, response efficacy for social media were positive predictors in that a one-unit increase in each increased the likelihood of deceptive counterfeit purchase by 70%, 39%, and 28%, respectively. A one-unit increase in response efficacy for e-retail was associated with a 56% decrease in purchase of deceptive counterfeit.













#### Figure 7.7.3

Regression analysis results for the relationship between demographics and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from India. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .70,  $R^2_{adj.} = .48$ , F(13, 685) = 49.88, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(13, N = 699) = 206.53, p < .001$ , Nagelkerke  $R^2 = .39$ 

Deceptive Counterfeit Purchase:  $\chi^2(13, N = 699) = 115.84, p < .001,$ Nagelkerke  $R^2 = .28$ 





### **Country Profile**

al















Consumers' age was a negative predictor of counterfeit purchase intentions for Italian consumers. Hedonic and value-expressive motives positively predicted counterfeit purchase intentions, with hedonic motives being the strongest predictor.

#### **Non-Deceptive Counterfeit Purchase**

Being male was associated with a 56% decrease in purchase likelihood for nondeceptive counterfeit products. On the other hand, a one-unit increase in religiosity was associated with a 35% increase in purchase likelihood. A one-unit increase in hedonic motives was associated with a 67% increase in the likelihood of non-deceptive counterfeit purchase for Italian consumers.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in Italian consumers' age was associated with a 2% decrease in deceptive counterfeit, and being male was associated with a 67% increase in purchase likelihood of these counterfeit products. A one-unit increase in hedonic and social-adjustive motives was associated with a 60% and 61% increase in the likelihood of deceptive counterfeit purchase. A one-unit increase in economic benefit motives was associated with a 28% decrease in purchase likelihood for deceptive counterfeit products.













#### Figure 7.8.1

Regression analysis results for the relationship between demographics and counterfeit purchase motives and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Italy. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .77,  $R^2_{adj.} = .58$ , F(12, 665) = 79.73, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(12, N = 677) =$ 

274.53, p < .001, Nagelkerke  $R^2 = .46$ Deceptive Counterfeit Purchase:  $\chi^2(12, N = 678) = 121.99$ , p < .001, *Nagelkerke*  $R^2 = .22$ 









For Italian consumers, the strongest positive predictors of counterfeit purchase intentions were injunctive societal norms, followed by cognitive attitudes, descriptive norms of immediate family, affective attitudes, and frequency of online shopping. Perceived behavioral control was a negative predictor of counterfeit purchase intentions.

#### **Non-Deceptive Counterfeit Purchase**

Being male resulted in a 72% decrease in non-deceptive purchases of counterfeit, and a one-unit decrease in Italian consumers' religiosity was associated with a 39% increase in non-deceptive counterfeit purchase likelihood. For each one-unit increase in cognitive attitudes, non-deceptive counterfeit purchase likelihood increased by 87%. A one-unit increase in perceived behavioral control results in a 25% decrease in non-deceptive purchases of counterfeit.

#### **Deceptive Counterfeit Purchase**

Being male was associated with a 70% decrease in deceptive counterfeit purchase likelihood. A one-unit increase in Italian consumers' online shopping was associated with a 21% increase in deceptive counterfeit purchase likelihood. Descriptive norms for country predicted counterfeit purchase, with a one-unit increase resulting in a 1% increase in the purchase of deceptive counterfeit. However, a one-unit increase in perceived behavioral control was associated with a 33% decrease in deceptive counterfeit purchase likelihood.









Country-Level 07 Predictive Analytics 07





Regression analysis results for the relationship between demographics and Theory of Planned Behavior Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Italy. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .81,  $R_{adj.}^2 = .64$ , F(20, 643) = 60.93, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(20, N = 663) =$ 

303.88, p < .001, Nagelkerke  $R^2 = .51$ Deceptive Counterfeit Purchase:  $\chi^2(20, N = 664) = 164.83$ , p < .001, *Nagelkerke*  $R^2 = .29$ 









Italy

#### **Counterfeit Purchase Intentions**

Age was a negative predictor of counterfeit purchase intentions for Italian consumers, while household size and frequency of online shopping were positive predictors. Threat susceptibility and self-efficacy were positive predictors of intentions. Threat severity and e-retail response efficacy were negative predictors of counterfeit purchase intention.

#### **Non-Deceptive Counterfeit Purchase**

A one-unit increase in household size and religiosity were associated with a 16% and 41% increase in nondeceptive counterfeit purchase likelihood. Being male increased the likelihood of counterfeit purchase by 47%, while a one-unit increase in age was associated with a 2% decrease in purchase likelihood. The strongest predictors of non-deceptive counterfeit purchase was threat susceptibility and self-efficacy, where a one-unit increase in threat susceptibility was associated with a 59% and 25% increase in non-deceptive counterfeit purchase likelihood. A one-unit increase in threat severity, response efficacy for e-retail, response efficacy for social media was associated with a 25%, 61%, and 18% decrease in purchase of non-deceptive counterfeit.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in Italian consumers' age was associated with a 3% decrease in deceptive counterfeit purchase likelihood. Threat susceptibility, self-efficacy, and response efficacy for social media predicted deceptive counterfeit purchase, in that a one-unit increase increased the likelihood of deceptive counterfeit purchase by 70%, 39%, and 28%. A one-unit increase in response efficacy for e-retail was associated with a 56% decrease in purchase of deceptive counterfeit.











#### Figure 7.8.3

Regression analysis results for the relationship between demographics and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Italy. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .56,  $R_{adj.}^2 = .30$ , F(13, 664) = 23.62, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(13, N = 677) =$ 

165.96, p < .001, Nagelkerke  $R^2 = .30$ **Deceptive Counterfeit Purchase:**  $\chi^2(13, N = 678) = 135.47$ , p < .001, *Nagelkerke*  $R^2 = .24$ 





# **Country Profile**

7	Population (Millions)	55.10
7	Median Age	20
	% Below the Age of 35 (13-34)	41.60%
	GDP (Billions), USD	\$113.42
	Median Income (Annual, USD)	\$874
	% Internet Users	29%
	% Social Media Users	20%
	Retail E-Commerce (Billions)	\$3.38
	Top 2 E-Commerce Segments	1. Fashion 2. Electronics & Media















Online shopping frequency was a positive predictor of Kenyan participants' counterfeit purchase intentions. Hedonic motives were the strongest positive predictors of intentions, followed by economic benefits and value-expressive motives.

#### **Non-Deceptive Counterfeit Purchase**

A one-year increase in Kenyan participants' age was associated with a 2% increase in non-deceptive counterfeit purchase likelihood. Additionally, for each one-unit increase in each educational level and online shopping frequency, non-deceptive counterfeit purchase likelihood increased by 20% and 23%, respectively. Finally, a one-unit increase in economic benefits motive was associated with a 44% increase in non-deceptive counterfeit purchase likelihood.

#### **Deceptive Counterfeit Purchase**

A one-year increase in participants' age decreased the likelihood of deceptive counterfeit purchase by 4%. A one-unit increase in economic benefits motives was associated with a 79% increase in deceptive counterfeit purchase.













#### Figure 7.9.1

Regression analysis results for the relationship between demographics and counterfeit purchase motives and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Kenya. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .69,  $R^2_{acj.} = .47$ , F(12, 705) = 54.70, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(12, N = 718) = 201.01$ , p < .001, Nagelkerke  $R^2 = .33$ Deceptive Counterfeit Purchase:  $\chi^2(12, N = 717) = 96.84$ , p < .001, Nagelkerke  $R^2 = .23$ 











The strongest positive predictor of counterfeit purchase intentions among the Kenyan sample was cognitive attitudes, followed by injunctive personal norms and descriptive norms among peers in Kenya. Perceived behavioral control was a negative predictor of intentions.

#### **Non-Deceptive Counterfeit Purchase**

Each year increase in participants' age was associated with a 3% decrease in nondeceptive counterfeit purchase likelihood, while one-unit increases in educational level and online shopping frequency were associated with 19% and 20% increase in nondeceptive counterfeit purchase likelihood, respectively. For each one-unit increase in cognitive attitudes, the likelihood of non-deceptive counterfeit purchase increased by 57%. A one-unit increase in injunctive personal norms was associated with a 28% increase in non-deceptive counterfeit purchase likelihood. Finally, perceived behavioral control (PBC) decreased the likelihood of non-deceptive counterfeit purchase by 16% for each unit increase in PBC.

#### **Deceptive Counterfeit Purchase**

A one-year increase in Kenyan participants' age decreased deceptive counterfeit purchase likelihood by 5%. A one-unit increase in cognitive attitudes increased deceptive counterfeit purchase likelihood by 60%, while a one-unit increase in perceived behavioral control decreased that likelihood by 45%. Finally, for each additional increase in estimating descriptive norms among close friends, deceptive counterfeit purchase likelihood by 2%.









Country-Level 07 Predictive Analytics 07



#### **Figure 7.9.2**

Regression analysis results for the relationship between demographics and Theory of Planned Behavior Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Kenya. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .76,  $R_{adj.}^2 = .56$ , F(20, 691) = 46.01, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(20, N = 712) = 228.66, p < .001$ , Nagelkerke  $R^2 = .37$ Deceptive Counterfeit Purchase:  $\chi^2(20, N = 711) = 113.68, p < .001$ , Nagelkerke  $R^2 = .27$ 











Kenya

#### **Counterfeit Purchase Intentions**

Participants from smaller households in Kenya expressed greater counterfeit purchase intentions. Furthermore, higher online shopping frequency, income level, and religiosity were associated with greater counterfeit purchase intentions, as well. Kenyan participants with higher threat severity perceptions and perceived e-retail response efficacy expressed lower counterfeit purchase intentions than their counterparts with higher perceptions, yet the more participants perceived themselves to be vulnerable to counterfeit risks, the higher their counterfeit purchase intentions.

#### **Non-Deceptive Counterfeit Purchase**

Among demographics, income level was strongest in predicting non-deceptive counterfeit purchase, where an increase of one income level increased non-deceptive counterfeit purchase likelihood by 38%. For each one-unit increase in online shopping frequency, non-deceptive counterfeit purchase likelihood increased by 33%, while that likelihood decreased with each one-year increase in participants' age. Threat severity and e-retail response efficacy negatively predicted non-deceptive counterfeit buying, where one-unit increase in each decreased the behavior by 14% and 64%, respectively. Threat susceptibility was a positive predictor, with one-unit increase increasing the outcome by 20%.

#### **Deceptive Counterfeit Purchase**

Male participants were more likely to deceptively purchase counterfeit products than their female counterparts. A one-unit increase in online shopping frequency was associated with a 19% increase in deceptive counterfeit purchase. A one-year increase in age was associated with a 2% decrease in deceptive counterfeit purchase. Having the confidence that one can protect themselves against counterfeit risks browsing e-retail platforms curbed deceptive counterfeit purchase by 64% for each unit-increase in e-retail response efficacy. On the other hand, a one-unit increase in threat susceptibility increased deceptive counterfeit purchase likelihood by 46%.



17/3









#### Figure 7.9.3

Regression analysis results for the relationship between demographics and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Kenya. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .44,  $R^2_{adj.} = .18$ , F(13, 705) = 12.83, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(13, N = 719) = 118.16, p < .001$ , Nagelkerke  $R^2 = .20$ 

**Deceptive Counterfeit Purchase:**  $\chi^2(13, N = 718) = 79.97, p$ < .001, *Nagelkerke*  $R^2 = .19$ 









# Country Profile Population (Millions)

	Population (Millions)	128.5
	Median Age	29.3
	% Below the Age of 35 (13-34)	36%
	GDP (Billions), USD	\$1,414
- 22	Median Income (Annual, USD)	\$3,315
	% Internet Users	76%
	% Social Media Users	73%
	Retail E-Commerce (Billions)	\$43.74
	Top 2 E-Commerce Segments	1. Food & Pers. Care 2. Electornics & Media








The higher Mexican participants' income, the lower their counterfeit purchase intentions. Males expressed higher intentions than females. Participants from larger households expressed greater intentions than those from smaller ones. The strongest motive predicting intentions was hedonic (positive), followed by value-expressive (positive) and and social-adjustive (negative) motives.

# **Non-Deceptive Counterfeit Purchase**

Males were 67% more likely to purchase counterfeit products non-deceptively than females. Lower-income participants were more likely to purchase counterfeit products non-deceptively, where a one-unit decrease in income level increased non-deceptive counterfeit purchase likelihood by 70%. A one-unit increase in religiosity was associated with a 27% decrease in non-deceptive counterfeit purchase likelihood, while for each additional member in the household, that likelihood increased by 16%. A one-unit increase in hedonic and economic benefits motives increased non-deceptive counterfeit purchase likelihood by 69% and 38%, respectively.

# **Deceptive Counterfeit Purchase**

For each one-unit decrease in income, deceptive counterfeit purchase likelihood increased by 104%, while each additional household member increased that likelihood by 12%. No motives predicted deceptive counterfeit purchase.











# Figure 7.10.1

Regression analysis results for the relationship between demographics and counterfeit purchase motives and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Mexico. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .73,  $R^2_{adj} = .52$ , F(12, 693) = 63.86, p < .001

**Non-Deceptive Counterfeit Purchase:**  $\chi^2(12, N = 706) = 215.72$ , p < .001, Nagelkerke  $R^2 = .35$ 

**Deceptive Counterfeit Purchase:**  $\chi^2(12, N = 706) = 64.51, p < .001, Nagelkerke R<sup>2</sup> = .13$ 











Males and participants from lower income households expressed higher counterfeit purchase intentions, while higher educational level was associated with greater intentions. Perceptions of the acceptance of counterfeit purchase among close friends (injunctive personal norms) were the strongest positive predictors of intentions, followed by cognitive attitudes, extended family descriptive norms, affective attitudes, and immediate family descriptive norms, respectively, while perceived behavioral control decreased intentions.

# **Non-Deceptive Counterfeit Purchase**

A one-unit decrease in income was associated with a 72% increase in non-deceptive counterfeit purchase. Males were 67% more likely to purchase counterfeit products non-deceptively than their female counterparts. A one-unit increase in religiosity decreased that likelihood by 27%, while each additional household member increased that likelihood by 17%. For each one-unit increase in cognitive attitudes, affective attitudes, and injunctive personal norms, non-deceptive counterfeit purchase likelihood increased by 57%, 22%, and 21%, respectively, while a one-unit increase in perceived behavioral control decreased that likelihood by 19%.

# **Deceptive Counterfeit Purchase**

Mexican participants from lower income levels were 113% more likely to be deceived into buying counterfeit products, while each additional household member increased that likelihood by 16%. Each one-unit increase in injunctive societal norms (perception of acceptance of the behavior among peers in Mexico) increased deceptive counterfeit purchase likelihood by 17%. Finally, for each one-unit increase in estimates of descriptive norms among close friends, that likelihood increased by 1%.









Country-Level 07 Predictive Analytics 07



# Figure 7.10.2

Regression analysis results for the relationship between demographics and Theory of Planned Behavior Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Mexico. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood. **Counterfeit Purchase Intention:** R = .78,  $R^2_{adj} = .60$ , F(20,

678) = 53.07, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2$ (20, N = 699) = 226.04, p < .001, Nagelkerke  $R^2 = .37$ 

**Deceptive Counterfeit Purchase:**  $\chi^2$ (20, N = 699) = 77.41, p < .001, *Nagelkerke*  $R^2 = .15$ 











Mexico

Participants from lower-income households expressed higher counterfeit purchase intentions than those from middle- and high-income households, while online shopping frequency and household size were positively associated with intentions. Threat susceptibility and self-efficacy were positively associated with intentions, while threat severity and e-retail response efficacy were negative predictors of intentions.

# **Non-Deceptive Counterfeit Purchase**

Males were 41% more likely to purchase counterfeit products knowingly. Each one-unit decrease in income was associated with an 89% increase in non-deceptive counterfeit purchase, while one-unit increases in online shopping frequency and household size increased non-deceptive counterfeit purchase likelihood by 17% and 15%, respectively. Each one-unit increase in threat severity and e-retail response efficacy decreased non-deceptive counterfeit purchase likelihood by 43% and 19%, respectively, while a one-unit increase in threat susceptibility increased that likelihood by 38%.

# **Deceptive Counterfeit Purchase**

Each unit-decrease in income was associated with a 100% increase in deceptive counterfeit purchase likelihood, while a one-unit increase in online shopping frequency and household size increased that likelihood by 18% and 12%, respectively. For each one-unit increase in threat susceptibility, deceptive counterfeit purchase likelihood increased by 41%, while a one-unit increase in self-efficacy decreased that likelihood by 12%.











# Figure 7.10.3

Regression analysis results for the relationship between demographics and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Mexico. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood. **Counterfeit Purchase Intention:** R = .42,  $R^2_{adj.} = .16$ , F(13, 692) = 11.51, p < .001

**Non-Deceptive Counterfeit Purchase:**  $\chi^2(13, N = 706) = 116.29, p < .001$ , Nagelkerke  $R^2 = .20$ **Deceptive Counterfeit Purchase:**  $\chi^2(13, N = 706) = 84.69, p < .001$ , *Nagelkerke*  $R^2 = .16$ 





# **Country Profile**

	Population (Millions)	223.81
	Median Age	18.6
~	% Below the Age of 35 (13-34)	38%
J	GDP (Billions), USD	\$477.39
	Median Income (Annual, USD)	\$825
	% Internet Users	55%
	% Social Media Users	14.12%
	Retail E-Commerce (Billions)	\$8.07
	Top 2 E-Commerce Segments	1. Electornics & Media 2. Fashion
	Top 2 E-Commerce Segments	1. Electornics & Media 2. Fashion

# Nigeria









Nigerian female participants expressed higher intentions to buy counterfeit than males. Hedonic motives were the strongest positive predictors of intentions, followed by valueexpressive and economic benefits motives.

# **Non-Deceptive Counterfeit Purchase**

Married participants were 72% more likely to buy counterfeit products knowingly than those who were not married. A one-unit increase in hedonic and economic benefits motives increased non-deceptive counterfeit purchase likelihood by 40% and 19%, respectively.

# **Deceptive Counterfeit Purchase**

Each one-unit increase in income was associated with a 48% increase in deceptive counterfeit purchase, while a one-unit increase in economic benefits motives increased that likelihood by 57%.















## Figure 7.11.1

Regression analysis results for the relationship between demographics and counterfeit purchase motives and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Nigeria. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .68,  $R^2_{adj} = .46$ , F(12, 697) = 50.99, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(12, N = 710) = 179.97$ , p < .001, Nagelkerke  $R^2 = .30$ Deceptive Counterfeit Purchase:  $\chi^2(12, N = 710) = 45.52$ , p < .001, Nagelkerke  $R^2 = .11$ 













Participants from larger households expressed greater intentions than those from smaller households. Injunctive personal norms was the strongest positive predictor of intentions, followed by cognitive attitudes, injunctive societal norms, descriptive norms among peers in the same town/city/village (local), and affective attitudes, respectively, while perceived behavioral control was a negative predictor.

# **Non-Deceptive Counterfeit Purchase**

Married participants were 78% more likely to purchase counterfeit products knowingly than those not married. For each one-unit increase in injunctive personal norms, cognitive attitudes, and affective attitudes, non-deceptive counterfeit purchase likelihood increased by 65%, 41%, and 18%, respectively.

# **Deceptive Counterfeit Purchase**

Participants' income was a positive predictor of deceptive counterfeit purchase, where a one-unit increase in income level increased that likelihood by 48%.











# Country-Level 07 Predictive Analytics 07



Figure 7.11.2

Regression analysis results for the relationship between demographics and Theory of Planned Behavior Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Nigeria. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood. **Counterfeit Purchase Intention:** R = .76,  $R^2_{adj} = .57$ , F(20, 676) = 47.36, p < .001**Non-Deceptive Counterfeit Purchase:**  $\chi^2(20, N = 697) = 254.36$ , p < .001, Nagelkerke  $R^2 = .41$ **Deceptive Counterfeit Purchase:**  $\chi^2(20, N = 697) = 41.31$ , p < .01, Nagelkerke  $R^2 = .10$ 









Nigeria

# **Counterfeit Purchase Intentions**

Participants who shopped online frequently as well as those who were older in age expressed greater intentions to purchase counterfeit products. Higher threat severity and e-retail response efficacy perceptions were associated with lower intentions, while higher threat susceptibility, self-efficacy, and social media response efficacy were associated with greater intentions.

# Non-Deceptive Counterfeit Purchase

Each one-unit increase in online shopping frequency increased non-deceptive counterfeit purchase likelihood by 12%. For each one-unit increase in threat susceptibility and self-efficacy perceptions, non-deceptive counterfeit purchase likelihood increased by 33% and 14%, respectively, while that likelihood decreased by 33% and 28% for each one-unit increase in e-retail response efficacy and threat severity perceptions.

# **Deceptive Counterfeit Purchase**

The only predictor of deceptive counterfeit purchase for Nigerian consumers was threat susceptibility, where each one-unit increase was associated with a 49% increase in that likelihood.









# Figure 7.11.3

Regression analysis results for the relationship between demographics and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Nigeria. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .41,  $R^2_{adj.} = .15$ , F(13, 697) = 10.98, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(13, N = 711) =$ 70.81, p < .001, Nagelkerke  $R^2 = .13$ Deceptive Counterfeit Purchase:  $\chi^2(13, N = 711) = 54.58$ , p

< .001, Nagelkerke  $R^2 = .13$ 













# **Country Profile**

C	Population (Millions)	34.35
	Median Age	28.2
ς.	% Below the Age of 35 (13-34)	34.20%
$\tilde{c}$	GDP (Billions), USD	\$242.63
L.	Median Income (Annual, USD)	\$3,678
	% Internet Users	71%
	% Social Media Users	73%
	Retail E-Commerce (Billions)	\$9.01
	Top 2 E-Commerce Segments	1. Electornics & Media 2. Food & Pers. Care

# Peru









No demographic variables predicted intentions to purchase counterfeit products in the Peruvian sample. Hedonic motive was the strongest positive predictor of intentions, followed by value-expressive and economic benefits motives, respectively.

# **Non-Deceptive Counterfeit Purchase**

With each additional year in Peruvian participants' age, non-deceptive counterfeit purchase likelihood decreased by 2%. For each one-unit increase in hedonic, value-expressive, and economic benefits motives, non-deceptive counterfeit purchase likelihood increased by 76%, 70%, and 41%, while that likelihood decreased by 45% for each one-unit increase in social-adjustive motives.

# **Deceptive Counterfeit Purchase**

Each one-unit decrease in income level increased deceptive counterfeit purchase likelihood by 37%, while each one-unit increase in online shopping frequency and household size increased that likelihood by 20% and 14%, respectively. A one-unit increase in hedonic motives was associated with an 80% increase in deceptive counterfeit purchase.













# Figure 7.12.1

Regression analysis results for the relationship between demographics and counterfeit purchase motives and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Peru. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .67,  $R_{adj.}^2 = .44$ , F(12, 693) = 47.66, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(12, N = 706) =$ 

179.42, p < .001, Nagelkerke  $R^2 = .30$ Deceptive Counterfeit Purchase:  $\chi^2(12, N = 706) = 40.89$ , p

< .001, Nagelkerke  $R^2 = .09$ 













No demographics predicted intentions among Peruvian participants. Cognitive attitudes were the strongest positive predictors of intentions, followed by injunctive personal norms, injunctive societal norms, descriptive norms among immediate family members and Internet users, and affective attitudes, respectively, while perceived behavioral control was a negative predictor.

# Non-Deceptive Counterfeit Purchase

Male participants were 45% more likely to knowingly purchase counterfeit products than female participants, and each one-year increase in age that likelihood decreased by 3%. For each one-unit increase in cognitive attitudes and injunctive personal norms, non-deceptive counterfeit purchase likelihood increased by 60% and 52%, respectively, while a one-unit increase in perceived behavioral control decreased that likelihood by 32%.

# **Deceptive Counterfeit Purchase**

A one-unit increase in online shopping frequency increased deceptive counterfeit purchase likelihood by 19%. A one-unit increase in perceived behavioral control and injunctive societal norms decreased deceptive counterfeit purchase likelihood by 45% and 28%, respectively, while that likelihood decreased by 2% for a one-unit increase in each of descriptive norms among local peers and immediate family members. On the other hand, a one-unit increase in injunctive personal norms increased deceptive counterfeit purchase likelihood by 37%, while that likelihood increased by 2% with each one-unit increase in descriptive norms among peers in the same country and extended family members.











Country-Level 07 Predictive Analytics 07



# Figure 7.12.2

Regression analysis results for the relationship between demographics and Theory of Planned Behavior Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Peru. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood. Counterfeit Purchase Intention: R = .71,  $R^2_{adi} = .49$ , F(20,(677) = 34.08, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(20, N = 698) =$ 210.40, p < .001, Nagelkerke  $R^2 = .35$ Deceptive Counterfeit Purchase:  $\chi^2(20, N = 698) = 79.84$ ,

p < .001, Nagelkerke  $R^2 = .17$ 







Peru

# **Counterfeit Purchase Intentions**

The more participants shopped online, the greater their counterfeit purchase intentions. Threat severity and e-retail response efficacy lowered those intentions, and threat susceptibility heightened them.

# **Non-Deceptive Counterfeit Purchase**

A one-year increase in participants' age was associated with a 2% decrease in non-deceptive counterfeit purchase. A one-unit increase in threat severity and e-retail response efficacy decreased non-deceptive counterfeit purchase likelihood by 41% and 27%, while a one-unit increase threat susceptibility was associated with a 29% increase in that likelihood.

# **Deceptive Counterfeit Purchase**

A one-unit increase in online shopping frequency and each additional household member increased deceptive counterfeit purchase likelihood by 24% and 17%. A one-unit increase in threat severity and e-retail response efficacy decreased deceptive counterfeit purchase likelihood by 25% and 14%, while a one-unit increase threat susceptibility was associated with a 33% increase in that likelihood.















Regression analysis results for the relationship between demographics and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Peru. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood. Counterfeit Purchase Intention: R = .37,  $R^2_{adi} = .12$ , F(13), (693) = 8.69, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(13, N = 707) =$ 97.26, p < .001, Nagelkerke  $R^2 = .17$ Deceptive Counterfeit Purchase:  $\chi^2(13, N = 707) = 53.14, p$ 

< .001, Nagelkerke  $R^2 = .13$ 







# **Country Profile**

	Population (Millions)	51.78
	Median Age	43.2
	% Below the Age of 35 (13-34)	25.40%
	GDP (Billions), USD	\$1,665
	Median Income (Annual, USD)	\$12,507
	% Internet Users	98%
	% Social Media Users	<b>92</b> %
	Retail E-Commerce (Billions)	\$109.84
	Top 2 E-Commerce Segments	1. Fashion 2. Food & Personal Care

# South Korea









The more religious South Korean participants were, the higher their counterfeit purchase intentions were found to be. Hedonic motives strongly and positively predicted intentions, while social-adjustive motives were negative predictors.

## **Non-Deceptive Counterfeit Purchase**

In terms of non-deceptive counterfeit purchase, participants who were not married were 150% more likely to purchase counterfeits than those who were married. Each one-unit increase in hedonic motives was associated with a 172% increase in non-deceptive counterfeit purchase.

# **Deceptive Counterfeit Purchase**

South Korean male participants were 54% more likely than their female counterparts to be deceived into buying counterfeit products. For each one-unit increase in religiosity, the likelihood of deceptive counterfeit purchase increased by 25%. Finally, for each one-unit increase in hedonic motives, deceptive counterfeit purchase likelihood increased by 56%.













# Figure 7.13.1

Regression analysis results for the relationship between demographics and counterfeit purchase motives and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from South Korea. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood.

**Counterfeit Purchase Intention:** R = .56,  $R^2_{adj.} = .30$ , F(12, 651) = 24.90, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(12, N = 664) = 137.46, p < .001,$ Nagelkerke  $R^2 = .27$ 

**Deceptive Counterfeit Purchase:**  $\chi^2(12, N = 663) = 64.76, p < .001, Nagelkerke <math>R^2 = .12$ 













In terms of positive predictors of intentions, societal injunctive norms were the strongest predictors, followed by personal injunctive norms and cognitive attitudes. On the other hand, perceived behavioral control and local descriptive norms were negative predictors of counterfeit purchase intentions.

# **Non-Deceptive Counterfeit Purchase**

Participants who were not married were 223% more likely to engage in non-deceptive counterfeit purchase than those who were married. A one-unit increase in societal injunctive norms and cognitive attitudes was associated with 57% and 56% increase in non-deceptive counterfeit purchase, respectively.

# **Deceptive Counterfeit Purchase**

Males were 70% more likely to be deceived into purchasing counterfeit products compared to their female counterparts. A one-unit increase in cognitive attitudes was associated with a 42% increase in deceptive counterfeit purchase, while a one-unit increase in local descriptive norms was associated with a 2% decrease in deceptive counterfeit purchase.











Country-Level Predictive Analytics 07



# Figure 7.13.2

Regression analysis results for the relationship between demographics and Theory of Planned Behavior Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from South Korea. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

**Counterfeit Purchase Intention:** R = .81,  $R^2_{adj.} = .65$ , F(20, 633) = 60.80, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(20, N = 654) = 249.73, p < .001$ , Nagelkerke  $R^2 = .46$ 

Deceptive Counterfeit Purchase:  $\chi^2(20, N = 653) = 131.61, p < .001, Nagelkerke R^2 = .24$ 









South Korea

Participants who were more religious expressed greater counterfeit purchase intentions than less religious ones. Perceived self-efficacy was the strongest positive predictor, followed by threat susceptibility, while threat severity and e-retail response efficacy were negative predictors.

# **Non-Deceptive Counterfeit Purchase**

Unmarried participants were 203% more likely to engage in non-deceptive counterfeit purchase than those who were married. A one-unit increase in religiosity increased non-deceptive counterfeit buying by 27%. A one-unit increase in self-efficacy and threat susceptibility was associated with a 57% and 25% increase in non-deceptive counterfeit purchase, while a one-unit increase in threat severity and e-retail response efficacy was associated with a 54% and 28% decrease in non-deceptive counterfeit purchase.

# **Deceptive Counterfeit Purchase**

Males were 59% more likely to be deceived into buying counterfeit products than females, and unmarried participants were 56% more likely to engage in deceptive counterfeit purchase than married participants. For each one-unit increase in religiosity, deceptive counterfeit purchase likelihood increased by 28%. A one-unit increase in each threat susceptibility and self-efficacy was associated with 31% and 30% increase in non-deceptive counterfeit purchase, while a one-unit increase in social media response efficacy decreased that likelihood by 15%.







Protection

**Motivation** 

Theory





# Figure 7.13.3

Regression analysis results for the relationship between demographics and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from South Korea. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .45,  $R^2_{adj.} = .18$ , F(13, 650) = 12.38, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(13, N = 664) = 110.54, p < .001$ , Nagelkerke  $R^2 = .22$ 

Deceptive Counterfeit Purchase:  $\chi^2(13, N = 663) = 62.45, p < .001,$ Nagelkerke  $R^2 = .12$ 

# Global Anti-Counterfeiting Consumer Survey 2023





# **Country Profile**

£	Population (Millions)	47.52
5	Median Age	43.9
1	% Below the Age of 35 (13-34)	22.30%
- Çi	GDP (Billions), USD	\$1,398
	Median Income (Annual, USD)	\$11,786
	% Internet Users	94%
	% Social Media Users	86%
	Retail E-Commerce (Billions)	\$39
	Top 2 E-Commerce Segments	1. Fashion 2. Food & Personal Care

# Spain









Consumers' age was a negative predictor of counterfeit purchase intentions for Spanish consumers. Hedonic motives was the strongest and the only positive predictor of counterfeit purchase intentions

# **Non-Deceptive Counterfeit Purchase**

A one-unit increase in economic benefit and hedonic motives was associated with a 34% and 133% increase in the likelihood of non-deceptive counterfeit purchase for Spanish consumers.

# **Deceptive Counterfeit Purchase**

A one-unit increase in Spanish consumers' age was associated with a 2% decrease in deceptive counterfeit, and being male was associated with a 61% increase in purchase likelihood of these counterfeit products. A one-unit increase in household size was associated with an 18% increase in deceptive counterfeit purchase likelihood. A one-unit increase in hedonic motives was associated with a 34% increase in the likelihood of deceptive counterfeit purchase.













# Figure 7.14.1

Regression analysis results for the relationship between demographics and counterfeit purchase motives and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Spain. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .80,  $R^2_{adj.} = .64$ , F(12, 673) = 100.71, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(12, N = 685) = 264.30, p < .001$ , Nagelkerke  $R^2 = .43$ Deceptive Counterfeit Purchase:  $\chi^2(12, N = 686) = 102.92, p < .001$ , Nagelkerke  $R^2 = .19$ 













For Spanish consumers, the strongest positive predictors of counterfeit purchase intentions were cognitive attitudes, injunctive personal norms, descriptive norms of immediate family, and affective attitudes. Perceived behavioral control was a negative predictor of counterfeit purchase intentions.

# **Non-Deceptive Counterfeit Purchase**

For each one-unit increase in cognitive attitudes, injunctive personal norms, affective attitudes, and descriptive norms of close friends, there was a 73%, 43%, 22% and 1% increase in non-deceptive counterfeit purchase likelihood. A one-unit increase in perceived behavioral control resulted in a 35% decrease in non-deceptive purchases of counterfeit goods.

# **Deceptive Counterfeit Purchase**

Being male was associated with a 59% increase in deceptive counterfeit purchase likelihood. A one-unit increase in Spanish consumers' age was associated with a 2% decrease in deceptive counterfeit purchase likelihood. A one-unit increase in household size is associated with an 18% increase in purchase likelihood of deceptive counterfeit. A one-unit increase in cognitive attitudes was associated with a 33% increase in purchase likelihood of deceptive counterfeit. However, a one-unit increase in perceived behavioral control was associated with a 25% decrease in deceptive counterfeit purchase likelihood.









Country-Level 07 Predictive Analytics 07



# Figure 7.14.2

Regression analysis results for the relationship between demographics and Theory of Planned Behavior Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Spain. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood. **Counterfeit Purchase Intention:** R = .82,  $R^2_{adj.} = .67$ , F(20, 656) = 68.99, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(20, N = 676) = 283.70, p < .001$ , Nagelkerke  $R^2 = .46$ Deceptive Counterfeit Purchase:  $\chi^2(20, N = 677) = 119.94, p < .001$ , *Nagelkerke*  $R^2 = .22$ 







Spain

# **Counterfeit Purchase Intentions**

Age, education, and marital status were negative predictors of counterfeit purchase intentions for Spanish consumers. Threat susceptibility and self-efficacy were positive predictors. Threat severity and e-retail response efficacy were negative predictors of counterfeit purchase intention.

# **Non-Deceptive Counterfeit Purchase**

A one-unit increase in age was associated with a 2% decrease in non-deceptive counterfeit purchase likelihood. Unmarried participants were 61% more likely to purchase counterfeit products non-deceptively compared to married ones. The strongest positive predictors of non-deceptive counterfeit purchase were threat susceptibility and self-efficacy, where a one-unit increase was associated with a 54% and 15% increase in non-deceptive counterfeit purchase likelihood. A one-unit increase in threat severity and response efficacy for e-retail was associated with a 33% and 37% decrease in purchase of non-deceptive counterfeit.

# **Deceptive Counterfeit Purchase**

A one-unit increase in Spanish consumers' age was associated with a 3% decrease in deceptive counterfeit purchase likelihood, and being male was also associated with a 59% increase in deceptive counterfeit likelihood. A one-unit increase in household size increased the probability of deceptive counterfeit buying by 17%. Threat susceptibility was a positive predictor of deceptive counterfeit purchase, in that a one-unit increase increased the likelihood of deceptive counterfeit purchase by 48%. A one-unit increase in response efficacy for e-retail was associated with a 49% decrease in purchase of deceptive counterfeit.











# Figure 7.14.3

Regression analysis results for the relationship between demographics and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from Spain. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

Counterfeit Purchase Intention: R = .52,  $R^2_{adj.} = .25$ , F(13, 672) = 18.69, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(13, N = 685) = 137.53, p < .001$ , Nagelkerke  $R^2 = .24$ Deceptive Counterfeit Purchase:  $\chi^2(13, N = 686) = 129.16$ ,

p < .001, Nagelkerke  $R^2 = .23$ 









	Country Profile	
Ś	Population (Millions)	9.52
<u> </u>	Median Age	38.4
	% Below the Age of 35 (13-34)	44.30%
P	GDP (Billions), USD	\$507.54
	Median Income (Annual, USD)	\$24,292
	% Internet Users	100%
	% Social Media Users	105%
	Retail E-Commerce (Billions)	\$12.45
	Top 2 E-Commerce Segments	1. Fashion 2. Electronics & Media

# United Arab Emirates









Gender, religiosity, and income were positive predictors of counterfeit purchase intentions for UAE consumers. Hedonic, value-expressive, social-adjustive, and economic benefits, motives, respectively, positively predicted counterfeit purchase intentions, with hedonic motives being the strongest predictor.

# **Non-Deceptive Counterfeit Purchase**

A one-unit increase in UAE consumers' hedonic and economic benefits motives was associated with a 96% and 30% increase in non-deceptive counterfeit.

# **Deceptive Counterfeit Purchase**

A one-unit increase in UAE consumers' household size was associated with a 11% increase in deceptive counterfeit purchase. A one-unit increase in hedonic motives was associated with a 45% increase in deceptive counterfeit purchases.








#### Country-Level Predictive Analytics **Counterfeit Purchase Intentions** 06 .06 .05 .10 .39 .20 .13 Q P Gender Marital HH Relig. Online Income Econ. Hedonic Value Social Age Benefits Motives Express. Adjust. Status Motives Motives Motives

#### Counterfeit Non-Deceptive Purchase

Age

Edu.

Marital

Status



ΗH

Count

Relig.

Online

Shop.

#### Figure 7.15.1

Regression analysis results for the relationship between demographics and counterfeit purchase motives and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from the United Arab Emirates. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood. **Counterfeit Purchase Intention:** R = .81,  $R^2_{acj} = .65$ , F(12, 675) = 105.04, p < .001**Non-Deceptive Counterfeit Purchase:**  $\chi^2(12, N = 688) = 249.86$ , p < .001, Nagelkerke  $R^2 = .42$ **Deceptive Counterfeit Purchase:**  $\chi^2(12, N = 687) = 60.94$ , p < .001, *Nagelkerke*  $R^2 = .13$ 

Income

Hedonic

Motives

Motives Motives











#### **Counterfeit Purchase Intentions**

For UAE consumers religiosity was positively related to counterfeit purchase intention. The strongest positive predictor of counterfeit purchase intentions was cognitive attitudes, followed by injunctive personal norms, injunctive societal norms, affective attitudes, and descriptive norms for the peers on the Internet, respectively.

#### Non-Deceptive Counterfeit Purchase

For each one-unit increase in cognitive attitudes and injunctive personal norms, the non-deceptive counterfeit purchase likelihood increased by 64% and 22%. On the other hand, a one-unit increase in perceived behavioral control was associated with a 28% decrease in non-deceptive counterfeit purchase likelihood.

#### **Deceptive Counterfeit Purchase**

A one-unit increase in UAE consumers' household size was associated with a 13% increase in the likelihood of deceptive counterfeit purchase.









#### **Counterfeit Purchase Intentions**



Country-Level Predictive Analytics

#### Figure 7.15.2

Regression analysis results for the relationship between demographics and Theory of Planned Behavior Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from the United Arab Emirates. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood. **Counterfeit Purchase Intention:** R = .87,  $R^2_{adj} = .74$ , F(20, 660) = 98.68, p < .001**Non-Deceptive Counterfeit Purchase:**  $\chi^2(20, N = 681) = 312.62$ , p < .001, Nagelkerke  $R^2 = .50$ **Deceptive Counterfeit Purchase:**  $\chi^2(20, N = 680) = 74.38$ , p < .001, Nagelkerke  $R^2 = .16$ 









#### **Counterfeit Purchase Intentions**

Gender, religiosity, and income positively predicted counterfeit purchase intentions among UAE consumers. Threat susceptibility and self-efficacy were the strongest positive predictors of intentions. Threat severity and e-retail response efficacy were negative predictors of counterfeit purchase intention.

#### **Non-Deceptive Counterfeit Purchase**

The strongest positive predictors of non-deceptive counterfeit purchase were threat susceptibility and self-efficacy, where a one-unit increase was associated with a 34% and 16% increase in non-deceptive counterfeit purchase likelihood. Additionally, a one-unit increase in threat severity and response efficacy for e-retail decreased the likelihood of non-deceptive purchase by 27% and 59%, respectively.

#### **Deceptive Counterfeit Purchase**

For UAE consumers, threat susceptibility and self-efficacy were positive predictors of deceptive counterfeit purchase in that a one-unit increase in threat susceptibility and self-efficacy for retail increased the likelihood of deceptive counterfeit purchase by 34% and 18%. A one-unit increase in response efficacy for e-retail decreased the likelihood of deceptive counterfeit purchase by 43%.







### Counterfeit Purchase Intentions



Country-Level Predictive Analytics

#### Figure 7.15.3

Regression analysis results for the relationship between demographics and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from the United Arab Emirates. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/ decrease in counterfeit purchase likelihood. Counterfeit Purchase Intention: R = .47,  $R^2_{adi} = .21$ , F(13), 674) = 15.02, *p* < .001 Non-Deceptive Counterfeit Purchase:  $\chi^2(13, N = 688) =$ 66.33, p < .001, Nagelkerke  $R^2 = .13$ Deceptive Counterfeit Purchase:  $\chi^2(13, N = 687) = 47.24, p$ < .001, Nagelkerke  $R^2 = .10$ 





	Country Profile	
	Population (Millions)	67.74
	Median Age	40.6
A.	% Below the Age of 35 (13-34)	26.80%
500	GDP (Billions), USD	\$3,071
	Median Income (Annual, USD)	\$14,793
	% Internet Users	97%
	% Social Media Users	84%
	Retail E-Commerce (Billions)	\$176.44
	Top 2 E-Commerce Segments	1. Fashion 2. Food & Personal Care

# United Kingdom









#### **Counterfeit Purchase Intentions**

None of the demographic variables predicted intentions for UK consumers. However, hedonic motive was the strongest positive predictor, followed by economic benefits and value-expressive motives.

#### **Non-Deceptive Counterfeit Purchase**

For each additional year in UK consumers' age, the likelihood of non-deceptive counterfeit purchase decreased by 3%, while each one-unit increase in online shopping frequency increased that likelihood by 31%. Hedonic motive was the only significant motive predicting non-deceptive counterfeit purchase, where a one-unit increase in hedonic motive increased that likelihood by 109%.

#### **Deceptive Counterfeit Purchase**

In this model, each one-year increase in participants' age decreased the deceptive counterfeit purchase likelihood by 2%, while a one-unit increase in religiosity increased the likelihood by 26%, a one-unit increase in online shopping frequency increased it by 17%, a one-unit increase in household size increased it by 17%, and a one-unit increase in educational level increased it by 14%. Hedonic motive was a significant positive predictor, where each unit increase was associated with 101% increase in deceptive counterfeit purchase.







# United Kingdom



#### **Counterfeit Purchase Intentions**



Country-Level Predictive Analytics

#### **Counterfeit Non-Deceptive Purchase**



#### Figure 7.16.1

Regression analysis results for the relationship between demographics and counterfeit purchase motives and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from the United Kingdom. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood. **Counterfeit Purchase Intention:** R = .78,  $R^2_{adi} = .60$ , F(12,

Counterfeit Purchase Intention: R = .78,  $R^2_{adj.} = .60$ , P(12), 666) = 86.36, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(12, N = 679) =$ 

277.72, p < .001, Nagelkerke  $R^2 = .46$ 

Deceptive Counterfeit Purchase:  $\chi^2(12, N = 679) = 195.52$ , p < .001, Nagelkerke  $R^2 = .33$ 













#### **Counterfeit Purchase Intentions**

Males (vs. females) expressed higher intentions to buy counterfeit in the future. Higher injunctive personal norms, cognitive attitudes, descriptive norms among immediate family members, affective attitudes, injunctive societal norms, and descriptive norms among Internet users were associated with increased counterfeit purchase intentions. Higher perceived behavioral control and descriptive norms among peers in the United Kingdom were associated with lower intentions.

#### **Non-Deceptive Counterfeit Purchase**

Each year increase in participants' age was associated with a 3% decrease in non-deceptive counterfeit purchase, while one-unit increase in religiosity and online shopping frequency was associated with 34% and 28% increase in non-deceptive counterfeit purchase. A one-unit increase in perceived behavior control lowered the likelihood of non-deceptive counterfeit purchase by 75%, while a one-unit increase in injunctive personal norms increased that likelihood by 64%. Finally, a one-unit increase in descriptive norms among immediate family members increased that likelihood by 2%, while a one-unit increase in descriptive norms among extended family members decreased it by 2%.

#### **Deceptive Counterfeit Purchase**

Males were 75% more likely to be deceived into purchasing counterfeit products compared to females. Married participants were 29% more likely to purchase counterfeit products deceptively than unmarried ones. Each year increase in the UK respondents' age decreased the chances of deceptive counterfeit buying by 3%. A one-unit increase in religiosity, household size, and online shopping frequency was associated with 32%, 19%, and 17% increases in deceptive counterfeit purchase. A one-unit increase in perceived behavioral control and injunctive social norms was associated with a 79% and 5% increase in deceptive counterfeit purchase. Finally, a one-unit increase in injunctive personal norms and descriptive norms among social media friends was associated with a 25% and 2% increase in deceptive counterfeit purchase.







United Kingdom



# Counterfeit Purchase Intentions



Country-Level Predictive Analytics

#### Figure 7.16.2

Regression analysis results for the relationship between demographics and Theory of Planned Behavior Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from the United Kingdom. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood.

**Counterfeit Purchase Intention:** R = .82,  $R^2_{adj} = .67$ , F(20, 648) = 68.12, p < .001

Non-Deceptive Counterfeit Purchase:  $\chi^2(20, N = 669) = 320.58, p < .001$ , Nagelkerke  $R^2 = .53$ Deceptive Counterfeit Purchase:  $\chi^2(20, N = 669) = 248.14$ ,

p < .001, Nagelkerke  $R^2 = .41$ 















#### **Counterfeit Purchase Intentions**

Males, younger participants, and participants with lower income expressed greater intentions than females, older participants, and higher income participants, respectively. Threat severity and e-retail response efficacy were negative predictors of intentions, while threat susceptibility and self-efficacy were positive predictors.

#### **Non-Deceptive Counterfeit Purchase**

Each year increase in age was associated with a 4% decrease in non-deceptive counterfeit purchase, and a one-unit increase in religiosity and online shopping frequency was associated with 35% and 23% increase in non-deceptive counterfeit purchase. A one-unit increase in e-retail response efficacy and threat severity was associated with 64% and 47% decrease in non-deceptive counterfeit purchase, while a one-unit increase in threat susceptibility and self-efficacy increased that likelihood by 48% and 21%.

#### **Deceptive Counterfeit Purchase**

Males were 82% more likely to be deceived into buying counterfeit products, and each additional year in the UK respondents' age was associated with a 4% decrease in deceptive counterfeit purchase. A one-unit increase in religiosity, household size, and online shopping frequency was associated with a 30%, 19%, and 17% increase in deceptive counterfeit purchase. A one-unit increase in threat susceptibility increased deceptive counterfeit purchase likelihood by 52%, while a one-unit increase in social media response efficacy decreased that likelihood by 32%.







**United Kingdom** 



### Country-Level 07 Predictive Analytics 07



![](_page_227_Picture_4.jpeg)

Regression analysis results for the relationship between demographics and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from the United Kingdom. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/ decrease in counterfeit purchase likelihood. Counterfeit Purchase Intention: R = .53,  $R^2_{adi} = .26$ , F(13), 665) = 19.61, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(13, N = 679) =$ 194.05, p < .001, Nagelkerke  $R^2 = .34$ Deceptive Counterfeit Purchase:  $\chi^2(13, N = 679) = 193.31$ , p < .001, Nagelkerke  $R^2 = .33$ 

![](_page_227_Picture_6.jpeg)

![](_page_228_Picture_0.jpeg)

![](_page_228_Picture_1.jpeg)

Real Providence	

#### **Country Profile**

Population (Millions)	334		
Median Age	38.5		
% Below the Age of 35 (13-34)	29.70%		
GDP (Billions), USD	\$25,463		
Median Income (Annual, USD	\$19,306		
% Internet Users	92%		
% Social Media Users	74%		
Retail E-Commerce (Billions)	\$982.31		
Top 2 E-Commerce Segments	1. Food & Pers. Care 2. Toys, Hobby, & DIY		

# **United States**

![](_page_228_Picture_6.jpeg)

![](_page_228_Picture_7.jpeg)

![](_page_228_Picture_9.jpeg)

![](_page_229_Picture_0.jpeg)

![](_page_229_Picture_1.jpeg)

#### **Counterfeit Purchase Intentions**

No demographic variables predicted intentions. Hedonic motive was the strongest positive predictor, followed by value-expressive and economic benefits motives, respectively.

#### **Non-Deceptive Counterfeit Purchase**

Each year increase in age was associated with a decrease of 2% in non-deceptive counterfeit purchase. A one-unit increase in hedonic motives increased non-deceptive counterfeit purchase by 63%.

#### **Deceptive Counterfeit Purchase**

U.S. respondents who were not married were 96% more likely to purchase counterfeit products deceptively compared to those who were married. Males were 82% more likely to purchase counterfeit products deceptively than females. Each year increase in age was associated with a 2% decrease in deceptive counterfeit purchase. No motives predicted deceptive counterfeit purchase in the U.S. sample.

![](_page_229_Picture_8.jpeg)

![](_page_229_Picture_9.jpeg)

![](_page_230_Picture_0.jpeg)

![](_page_230_Picture_1.jpeg)

![](_page_230_Figure_2.jpeg)

![](_page_230_Picture_3.jpeg)

Regression analysis results for the relationship between demographics and counterfeit purchase motives and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from the United States of America. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratios into percentage increase/decrease in counterfeit purchase likelihood. Counterfeit Purchase Intention: R = .89,  $R^2_{adi} = .79$ , F(12,666) = 227.32, *p* < .001 Non-Deceptive Counterfeit Purchase:  $\chi^2(12, N = 718) =$ 499.62, *p* < .001, Nagelkerke *R*<sup>2</sup> = .67 Deceptive Counterfeit Purchase:  $\chi^2(12, N = 718) = 315.31$ ,

p < .001, Nagelkerke  $R^2 = .49$ 

![](_page_230_Picture_6.jpeg)

![](_page_230_Picture_7.jpeg)

![](_page_231_Picture_0.jpeg)

![](_page_231_Picture_1.jpeg)

![](_page_231_Picture_2.jpeg)

#### **Counterfeit Purchase Intentions**

Males expressed greater intentions than females. Cognitive attitudes was the strongest positive predictor of intentions, followed by injunctive societal norms, injunctive personal norms, descriptive norms among immediate family members, and affective attitudes, respectively. Perceived behavioral control was the only negative predictor of intentions.

#### **Non-Deceptive Counterfeit Purchase**

Each year increase in age was associated with a 3% decrease in non-deceptive counterfeit purchase. A one-unit increase in cognitive attitudes and injunctive personal norms was associated with 55% and 39% increase in non-deceptive SFF purchase, while a one-unit increase in perceived behavioral control decreased that likelihood by 21%.

#### **Deceptive Counterfeit Purchase**

Males were 117% more likely than females to be deceived into buying counterfeit products, those not married were 82% more likely to engage in that behavior, and each year increase in age decreased that likelihood by 2%. Perceived behavioral control decreased deceptive counterfeit purchase by 43% for each one-unit increase, while a one-unit increase in affective attitudes and descriptive norms among social media friends increased that likelihood by 17% and 2%.

![](_page_231_Picture_9.jpeg)

![](_page_231_Picture_10.jpeg)

![](_page_231_Picture_12.jpeg)

United States

![](_page_232_Picture_1.jpeg)

Counterfeit Purchase Intentions

![](_page_232_Figure_3.jpeg)

**Country-Level Predictive Analytics** 

#### Figure 7.17.2

Regression analysis results for the relationship between demographics and Theory of Planned Behavior Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from the United States of America. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood. Counterfeit Purchase Intention: R = .92,  $R^2_{adi} = .85$ , F(20,648) = 193.94, *p* < .001 Non-Deceptive Counterfeit Purchase:  $\chi^2(20, N = 707) =$ 523.39, p < .001, Nagelkerke  $R^2 = .70$ 

**Deceptive Counterfeit Purchase:**  $\chi^2(20, N = 707) = 350.41$ , p < .001, *Nagelkerke*  $R^2 = .54$ 

![](_page_232_Picture_7.jpeg)

![](_page_232_Picture_8.jpeg)

![](_page_233_Picture_0.jpeg)

![](_page_233_Picture_1.jpeg)

#### **Counterfeit Purchase Intentions**

Younger, more educated, and more religious participants expressed higher intentions to buy counterfeit products than their counterparts who were older, less educated, and less religious. Threat severity and e-retail response efficacy were negatively associated with intentions, while threat susceptibility and self-efficacy were positive predictors.

#### **Non-Deceptive Counterfeit Purchase**

Each year increase in age was associated with a 4% decrease in non-deceptive counterfeit purchase, while a one-unit increase in religiosity and educational level increased that likelihood by 41% and 31%, respectively. A one-unit increase in threat susceptibility and self-efficacy increased non-deceptive counterfeit purchase likelihood by 58% and 21%, while a one-unit increase in e-retail response efficacy decreased that likelihood by 59%.

#### **Deceptive Counterfeit Purchase**

Participants who were not married were 96% more likely than their married counterparts to be deceived into buying counterfeit products. Male respondents were 75% more likely than female respondents to be deceived into buying counterfeit products. Each year increase in age was associated with a 3% decrease in deceptive counterfeit purchase. A one-unit increase in religiosity was associated with a 23% increase in deceptive counterfeit purchase in deceptive counterfeit purchase, while a one-unit increase in e-retail response efficacy decreased that likelihood by 41%.

![](_page_233_Picture_8.jpeg)

![](_page_233_Picture_9.jpeg)

![](_page_233_Picture_11.jpeg)

**United States** 

![](_page_234_Picture_1.jpeg)

Country-Level 07 Predictive Analytics 07

![](_page_234_Figure_3.jpeg)

![](_page_234_Picture_4.jpeg)

Regression analysis results for the relationship between demographics and Protection Motivation Theory Predictors and counterfeit purchase intentions (top), non-deceptive counterfeit purchase (middle), and deceptive counterfeit purchase (bottom) among participants from the United States of America. Bolded icons and values indicate significant regression coefficients. For counterfeit purchase intentions (top), numbers reflect standardized beta coefficients, while for non-deceptive (middle) and deceptive (bottom) counterfeit purchase, numbers reflect odds ratio values with transformed odds ratio into percentage increase/decrease in counterfeit purchase likelihood. Counterfeit Purchase Intention: R = .70,  $R^2_{adi} = .48$ , F(13, 704)= 52.82, p < .001Non-Deceptive Counterfeit Purchase:  $\chi^2(13, N = 718) =$ 289.94, p < .001, Nagelkerke  $R^2 = .44$ **Deceptive Counterfeit Purchase:**  $\chi^2(13, N = 718) = 258.79, p < 100$ 

.001, Nagelkerke  $R^2 = .42$ 

![](_page_234_Picture_7.jpeg)

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![](_page_236_Picture_0.jpeg)

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# Appendices 09

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#### **Demographic Variables**

**Country** refers to the geographical location of respondents in which they reside. In this survey, participants were recruited from the following 17 countries: Argentina, Australia, Brazil, Canada, China, Egypt, India, Italy, Kenya, Mexico, Nigeria, Peru, South Korea, Spain, UAE, the UK, and the USA.

**Gender** refers to how an individual identifies as male, female, or other gender category (Holmes, 2007). While sex focuses on biological differences between the sexes, gender is a socially produced phenomenon that relies on self-identification of how an individual perceives themselves internally and within the social world. Bearing in mind that the countries where we conducted this survey vary in cultural understandings of gender identification, we resorted to asking respondents to self-identify as male or female.

**Age** refers to an individual's age in years, calculated based on the difference between the year the survey was conducted (2022) and their birth year.

**Employment status** distinguished between working and non-working categories of respondents. Working category included paid employees and self-employed individuals. The non-working category included: temporary layoff from a job, looking for work, retired, disabled, or student.

**Industry** shows types of work (business) for which respondents are currently employed. Cambridge University Press & Assessment (2023) defines industry as the system of "people and activities involved in one type of business." The following sectors were used to distinguish among industry types: accommodation or food services; architecture and engineering; arts, entertainment, sports, design, or media; building, grounds cleaning and maintenance; business, financial, or insurance services; computer and mathematical operations; construction, mining, or extraction services;

education, training, or library services; emergency or protective services; farming, fishing, forestry, hunting, or agriculture; healthcare, personal care, and social services; installation, maintenance, and repair; legal services; management; manufacturing or production; military services; office and administrative support; sales, retail, or wholesale trade; transportation, warehousing, and materials moving; waste management or remediation; and other.

**Educational level** is a socioeconomic indicator, where respondents reported their highest educational degree earned. The survey measure categories included: no formal education; less than high school degree; high school graduate (high school diploma or equivalent); some college but no degree; associate degree in college (2-year); bachelor's degree in college (4-year); master's degree; doctoral degree; professional degree (JD, MD); and other.

**Marital status** is a respondent's current state of being married, widowed, divorced, separated, or never married.

**Number of children** is the number of children under the age of 18 who live with a respondent in the same household.

**Household count** is the number of people living or staying at least half the time in a respondent's household, not including the respondent. US Census Bureau (n.d.) defines a household as "the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit" and categorizes it as "family" and "nonfamily." A family household includes people related to a householder "by birth, marriage, or adoption", while in a nonfamily household, people who are unrelated to each other share a home (US Census Bureau, n.d.).

**Religion** is individuals' beliefs and behavioral norms (Smith, 1998). It is associated with religious activities like prayer and spirituality (Lepherd, 2014; Tzeng & Yin, 2008). However, religion may also represent cultural values and traditional morals of a specific group (Paul Victor & Treschuk, 2020). Respondents selected the religion they associate with or belong to (if any) from the list, including Asian Folk Religion, Buddhist, Christian, Hindu, Jewish, Muslim, or non-religious.

**Religiosity** is used to measure the degree to which respondents find themselves religious, focusing on not the number of religious actions but their

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perception on a scale from not religious to very religious.

**Frequency of online shopping** is the number of shopping activities on the Internet (e.g., e-commerce platforms) in the past 12 months.

**Income level** represents the monthly household income in the previous year before taxes. In the survey, it was tailored to each country's income amount using nation-specific currency. To account for country-level differences, participants' income level was reduced to a three-category variable of low, medium, and high income.

#### **Counterfeit and Legitimate Products**

**Counterfeit products** (also, counterfeit goods, counterfeit commodities) refer to products that are substandard, falsified, and/or counterfeit. In this survey, and for ease of interpretation across different language and cultural contexts, we referred to counterfeit products with the term "counterfeit." We provided participants with the following operational definition of counterfeit products: "Often referred to as "knock-offs," counterfeit products are fake. They may be contaminated, contain the wrong ingredients or materials, or sold illegally by unauthorized sellers."

**Legitimate or genuine products** (also, authentic products) are defined as products that contain the appropriate materials and/or ingredients and are properly produced, labeled, and packaged by legally authorized manufacturers.

#### Motivations to Purchase Counterfeit Products

Generally, **motivations** refer to an individuals' underlying drive for perceptions and behaviors. Motivations explain an individual's disposition to think or act in a particular way and can be understood as reasons for forming and changing attitudes, as well as adopting and changing one's behavior (Wang, 2009). Motivations are attributed to personal (e.g., the pursuit of economic or hedonic benefits) or social (e.g., value-expressive motives or social-adjustive motives) needs (Shavitt, 1990), among others. In the context of the current study, motivations to purchase counterfeit products refer to a participant's expressed disposition to engage in knowingly or unknowingly buying counterfeit products. Based on prior literature, we identified four major motivation types: economic benefits, hedonic, value-expressive, and social-adjustive.

**Economic benefits motives** refer to an individual's drive to buy counterfeits that are economically oriented, such as financial gains or money saving. Individuals who are driven to purchase counterfeit products, rationally consider their value for money, durability, and performing functions (Reid et al., 2015).

**Hedonic motives are motives** to buy counterfeit products for aesthetic fulfillment and positive emotional value, such as enjoyment, pleasure, and excitement (Dubois & Laurent, 1994). Buying counterfeit apparel because an individual is motivated by the sensory pleasure and gratification from wearing luxury brands is an example of hedonic counterfeit purchase motives.

**Value-expressive motives** refer to individuals' tendency to purchase a product that reflects their beliefs and values as they relate to their self-image (Katz, 1960). Rather than personally oriented, value-expressive motives are socially driven and let people show and express their central values to others through their purchase decisions (DeBono, 1987). For example, buying electric cars may reflect one's desire to stay environmentally conscious and reduce carbon footprint.

**Social-adjustive motives** are motivations to perform behaviors in accordance with perceived behaviors of other people and the intent to gain approval from peer groups (Debono, 1987). These motives are also related to people's tendency to minimize penalties and maintain relationships with their social group members (Katz, 1960; Wilcox et al., 2009). For instance, buying a counterfeit accessory (e.g., a bag or scarf) labeled with a luxury brand name may be motivated by the desire to show high social status to others.

#### **Theory of Planned Behavior (TPB)**

The **theory of planned behavior** is a theoretical model designed to predict human actions using a combination of attitudes, perception of ease or difficulty in performing an action, and what important others think about a particular action on intention to perform an action (Ajzen, 1991). The major premise of the planned behavior/reasoned action approach is that certain behaviors are not simply the product of attitudes, normative perceptions, and self-perceptions,

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but rather that actual behaviors are predicted from behavioral intentions, thus, the emphasis is on the "planned" aspect of the behavior. In this survey, we approach purchasing counterfeit products as a planned or reasoned behavior. Following are brief definitions of the main components of the theoretical model.

Attitude is an individual's tendency to respond to and evaluate something (Fishbein & Raven, 1962). In this survey, we examine attitudes of two types: affective and cognitive. Affective attitudes deal with an affective evaluation of an object, person, or behavior (e.g., the behavior of buying counterfeit products) on a continuum from bad to good. An individual can have a positive or negative attitude toward buying counterfeit products or fall somewhere in between. Cognitive attitudes represent a tendency to reflect one's values and attributes about something (Ostrom, 1969). These values or attributes are still evaluated on a continuum from bad to good. "Fossil fuels contribute to climate change" is an example of a cognitive attitude. Within the context of counterfeit products, cognitive attitudes deal with the attributes and benefits that individuals attribute to purchasing counterfeit products. For example, an individual may think that buying counterfeit products helps the legitimate brands with publicity.

**Perceived behavioral control (PBC)** is related to the extent to which a person believes that they can exert control over their actions; that is, how easy or difficult does a person believe it will be to perform a specific behavior (Ajzen, 1991). For example, an individual with high PBC believes they can refrain from buying counterfeit products regardless of how good of a deal it is.

Perceptions about the prevalence and acceptance of a behavior are referred to as **normative perceptions** (aka, social or societal norms), which are thought to drive actual behavior. **Descriptive norms** are based on an individual's perception that others within one's social environment perform a behavior (e.g., counterfeit buying), thus indicating a perception of the prevalence of that behavior (Rivis & Sheeran, 2003). On the other hand, **injunctive norms** deal with one's perception of what significant others (e.g., friends, close family members) think they ought to do (Rivis & Sheeran, 2003). Injunctive norms are perceptions of how acceptable a behavior is. In the context of counterfeit products, an individual may think that most of their friends and family members purchase counterfeit products, which indicates descriptive norms. They can also think that their friends and family members think it is acceptable to buy counterfeit products, which indicates injunctive norms.

In the current survey, we differentiated between **descriptive and injunctive norms** by adjusting the **reference groups** for respondents' normative perceptions. These reference groups varied in terms of social and psychological proximity to the participants. **Societal norms** deal with our perceptions of what is prevalent or accepted among distal reference groups (e.g., people one's age living in the same country/city/community). **Personal norms** deal with our perceptions of the prevalence or acceptance of the behavior among close friends, family members, etc.

#### **Protection Motivation Theory (PMT)**

The protection motivation theory (Rogers, 1975) explicates the mechanism that individuals use to assess risky situations and adjust their behaviors to account for their perceptions of these risks and coping strategies. The focus of PMT is predicting how individuals employ risk assessment to protect themselves from risky situations. It is also used as a framework to explain instances and situations when individuals fail to enact protective behaviors. According to PMT, an individual's performance of protective behaviors is determined by two parallel appraisals of the threat and their capacity to cope with the threat.

Threat appraisals refer to an individual's perceptions regarding the nature of the threat and the likelihood that they would be affected by this threat. Threat severity refers to an individual's assessment of the intensity of the threatening situation, while threat susceptibility or vulnerability deals with an individual's assessment of the likelihood that they would be affected by the perceived threat. For example, smokers recognize that smoking causes lung cancer (threat severity) and, given that they smoke, their chances of getting lung cancer increase (threat vulnerability). The assessment of both aspects severity and susceptibility - could drive protective behavior (refraining from smoking) (Norman et al., 2015). Within the context of counterfeit product purchase, we predict that an individual's protective behaviors of refraining from purchasing counterfeit products could be facilitated by their perceptions of the risks associated with buying counterfeit products (severity) as well as their own susceptibility to such risks. For example, an individual may think that buying counterfeit products is illegal and that if they were to buy counterfeit products, they would likely face legal refractions from law enforcement authorities. This, in turn, may lead them to decide to not buy counterfeit products. In contrast, lower levels of threat severity and susceptibility perceptions could drive

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increased likelihood of purchasing counterfeit products.

**Coping appraisals** refer to an individual's coping strategy when encountering a threat and the factors affecting the potential for adaptive responses (i.e., following behavior-related recommendations) (Norman et al., 2015). Belief about an individual's capability to follow recommended behavior is called **self-efficacy**, which deals with an individual's perception of their ability to perform the protective behavior (Norman et al., 2015). Additionally, **response efficacy** deals with an individual's perception that enacting protective behavior will lead to removing or decreasing the effect of a threatening situation. In the context of counterfeit product purchase, an individual's self-efficacy deals with their perception that they are able to protect themselves against the dangers of buying counterfeit products as they can tell the difference between genuine and fake merchandise. In terms of response efficacy, we have identified two major aspects dealing with participants' perception in relation to their encountering the counterfeit threats on **e-retail websites** and **social media platforms**.

#### **Counterfeit Purchase Behaviors**

**Behavioral intentions** are related to individuals' plans to perform a given behavior in the future. Individuals' behavioral decision-making is sometimes done spontaneously and without careful consideration, while sometimes people's behavior is significantly predicted by their behavioral intention (Ajzen, 1991). People with higher behavioral intentions are more likely to conduct the behavior.

**Non-deceptive counterfeit purchase** refers to an instance when an individual has bought a counterfeit product knowing that the product is counterfeit.

**Deceptive counterfeit purchase** refers to an instance when an individual buys a counterfeit product without knowing that the product is counterfeit. In other words, the individual is deceived into buying a product and later on finds that the product is counterfeit.

**Counterfeit purchase sources**. Individuals buy counterfeit products from various sources and through various routes. Sources of counterfeit purchases can be an e-commerce platform (e.g., Amazon, Alibaba), social media, friend, coworker, close associate, and physical marketplace (e.g., brick-and-mortar

store, street seller), among others.

**Social media counterfeit purchase sources**. Counterfeit products are traded through various social media platforms. Due to the limited regulations and ease of advertising and communication, social media can serve as an effective channel to sell fake products. In this survey, the options for social media platforms include Instagram, YouTube, Facebook, WhatsApp, WeChat, TikTok, Sina Weibo, QQ, Snapchat, Telegram, Kuaishou, Qzone, Pinterest, Reddit, Quora, LinkedIn, and others.

**Type of counterfeit products** purchased refers to the broad product category of the counterfeit product purchase. This survey includes the following options for counterfeit products: handbag or purse, watch, jewelry, shoes, clothing, electronics, sunglasses, medications, optical media, computers or computer accessories, personal care products, homegoods, art pieces, medical equipment and devices, toys, and non-fungible token (NFT).

**Counterfeit product performance** refers to the perceived quality of counterfeit products compared to authentic (original) goods with three levels of evaluation: equal, better, or worse.

**Counterfeit product use type** deals with whether consumers bought the counterfeit products for personal use, to give to a friend or family member, to gift to someone, or other.

Actions taken after unknowingly purchasing counterfeit products deal with what consumers did after knowing the product they purchased was counterfeit. The survey options include: keeping the product, returning it to the seller or manufacturer, disposing it, posting about the experience on social media, writing an online review or other.

**Electronic Word-of-Mouth (eWOM)**. eWOM refers to the use of social and digital media to discuss products and share information about them. In our survey, eWOM entailed asking participants whether they posted on their social media or wrote an online review after buying a product and later discovering it was counterfeit.

**Counterfeit product purchase consequences**. In the survey, we inquired about whether participants experienced health, economic, and/or psychological consequences after purchasing counterfeit products.

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#### **Segmentation Analysis**

**Segmentation** is a marketing strategy that has proven to be successful in commercial and not-for-profit (social) communication campaigns (Lee & Kotler, 2011). This strategy is based on tailoring products and communications to consumers grouped into the same or different segments depending on demographic and psychographic characteristics they possess or identify with (Weinstein, 1994). Segmentation implies that marketing approaches should vary across different segment audiences for greater effectiveness in achieving business objectives (Smith, 1956). For example, to reach and successfully appeal to the following two segments – college students and midlife working professionals – with the call to buy genuine (not counterfeit) products, marketers may use different message and media tactics.

Segmentation as a communication strategy replaced less sophisticated approaches associated with 1) mass production and general marketing (i.e., when the same product or the same message "fits" all); 2) lack of any marketing effort typically driven by the high demand for a product or service (also, idea, attitude, and behavior, etc.); and 3) aggressive sales promotions that are often run at the point of purchase. As the general (mass) market became saturated and product/service diversification increased, businesses started to pay more attention to the specifics of consumer audiences (Smith, 1956).

Marketers divide general markets to segments based on demographic, geographic, and psychographic characteristics (Weinstein, 1994). Demographic characteristics refer to the basic description of the population in focus, such as age, sex, gender, sexual orientation, marital/relationship status, ethnicity, race, nationality, household size, income, occupation, education, religion, home or vehicle ownership, parental status, immigration status, and many others.

Geographic characteristics are related to locations where consumers are targeted. Geographic areas can be of different scopes, from international and global that involve several countries or culturally similar world regions (e.g., Middle East) to national (e.g., one country) and local. Local target markets can be defined by state/province, local media coverage areas (e.g., designated market area (DMA®) in the United States) (The Nielsen Company, n.d.), census areas (e.g., Metropolitan Statistical Area (MSA) in the United States) (US

Census Bureau, n.d.), zip codes, supermarket radius areas, and so on.

Psychographic characteristics are based on individual values, beliefs, attitudes, lifestyles, psychological qualities (e.g., personality), and behaviors. In early literature, psychographic characteristics are labeled as "activities, interests, and opinions" or AIO (Wells & Tigert, 1971). While demographic characteristics (e.g., income, education, marital and parental status) and geographic characteristics (e.g., urban, suburban, rural place of residence) can define psychographic characteristics, they are not the same. Examples of psychographic segments include individuals who hold positive vs. negative attitudes toward buying counterfeit goods, individuals holding different beliefs about buying counterfeit (e.g., buying counterfeit as a rebellion against big corporations vs. as a dangerous activity), individuals who engage in counterfeit products buying at different rates (e.g., heavy buyers vs. light buyers). Behavioral segmentation is sometimes distinguished as its own segmentation type.

Each segment can be defined by one or several characteristics. For example, marketers may choose to target only homeowners (vs. home renters) or only married couples with children (as opposed to single, divorced, widowed individuals and married individuals without children). Marketers can also choose to appeal to more complex segments defined through a number of demographic, geographic, and psychographic (including behavioral) characteristics. Many market research companies, such as Mediamark

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# 09.02 Appendix 2: Survey Measures

Survey Measures, Items, Reliability, and Validity

Variable & Items	Factor Loadings	Eigenvalue	% of Variance Explained	Cronbach's α
Motives: Economic Benefits I buy counterfeit products because genuine products are too expensive. I buy counterfeit products because I cannot afford to buy genuine products. I buy counterfeit products because they are readily available. I buy counterfeit products because I want to get a better deal on expensive brands. I buy counterfeit products because it is hard to distinguish between the counterfeits and the genuine products. I boast about counterfeit products as if they are the genuine brand products.	.758 - .875	4.23	70.50%	.916
Motives: Hedonic Benefits         I buy counterfeit products because they imitate genuine products.         I buy counterfeit products because counterfeiters are "little guys" who fight big businesses.         Buying counterfeit products demonstrates that I am a wise shopper.         I buy counterfeit products because it is like playing a practical joke on the manufacturer of the genuine products.         I prefer to buy counterfeit products even if I could easily afford to buy the genuine products.	.780 - .895	3.74	74.81%	.914
Value-Expressive Motives I buy counterfeit products because they reflect the kind of person I see myself to be I buy counterfeit products because they help me communicate my self-identity I buy counterfeit products because they help me express myself	.928 - .934	2.61	86.86%	.924
Social-Adjustive Motives I buy counterfeits because they are a symbol of social status I buy counterfeit because they help me fit into important social situations I buy counterfeits because I like for others to know I use these products I buy counterfeit because I want others to know that I buy such products	.899 - .918	3.31	82.79%	.931
Affective Attitudes toward Buying Counterfeit Products: As it relates to your own experience, buying counterfeit products is BadGood NegativePositive UnfavorableFavorable	.893 - .957	2.63	87.67%	.927
Cognitive Attitudes toward Buying Counterfeit Products Buying counterfeit products generally benefits the consumers There is nothing wrong with buying counterfeit products Generally speaking, buying counterfeit products is a better choice Counterfeit products are as reliable as original products Without counterfeits, man people would not be able to enjoy certain products Counterfeits help companies Counterfeits make products more popular Counterfeit products have the same guality as legitimate (genuine) products	.663 - .875	5.24	65.52%	.922

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Variable & Items	Factor Loadings	Eigenvalue	% of Variance Explained	Cronbach's α
<b>Perceived Behavioral Control</b> For me, it is easy to refrain from buying counterfeit products regardless of how competitive the price is.	.587 - .807	2.84	56.69%	.799
I have the resources, knowledge, and ability to not buy counterfeit products. Whether or not I buy counterfeit products is completely within my control. If I want to, I can easily refrain from buying counterfeit products. It is easy for me to refrain from buying a product promoted on social media regardless of how good of a bargain it looks like.				
Injunctive Societal Norms: Most people my age in the country where I live approve of me buying counterfeit products endorse my buying of counterfeit products would support that I buy counterfeit products	.937 - .942	2.65	88.25%	.933
Injunctive Personal Norms: <i>Most of my close friends…</i> approve of me buying counterfeit products endorse my buying of counterfeit products would support that I buy counterfeit products	.958 - .959	2.76	91.88%	.956
Behavioral Intentions to Buy Counterfeit Products in the upcoming 12 months I intend to buy counterfeit products I will likely buy counterfeit products It is possible that I buy counterfeit products	.915 - .949	2.61	86.96%	.925
<b>Threat Severity</b> Buying counterfeit products poses a severe threat to my health when shopping online. Buying counterfeit products poses a severe threat to my safety Buying counterfeit products online is a serious illegal/criminal behavior.	.751 - .878	2.08	69.32%	.777
<b>Threat Susceptibility</b> When shopping online, I am at a high risk of buying counterfeit products. It is likely that the products I buy counterfeit products when shopping online. When shopping online, it is possible that the products I buy are counterfeit.	.837 - .875	2.22	73.95%	.824
<b>Self-Efficacy</b> I can identify counterfeit products online I can distinguish between counterfeit and legitimate (genuine) products online. I am confident in my ability to identify counterfeit products online.	.920 - .925	2.55	85.08%	.912
Response Efficacy – E-Retailer: Assessing the legitimacy of an online retailer Reading customer reviews Assessing the reputation of the e-retail store or website Searching for more information about the online sellers Verifying the legitimacy of the seller	.750 - .838	3.31	66.18%	.871
<b>Response Efficacy – Social Commerce</b> Refraining from clicking on product referrals on social media platforms. Refraining from purchasing products from sellers on social media platforms.	.880	1.55	77.50%	.710

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Center for Anti-Counterfeiting and Product Protection MICHIGAN STATE UNIVERSITY