Consumer-Based Brand Equity and Purchase Intention towards Counterfeit Goods

Master Thesis

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Consumer-Based Brand Equity and Purchase Intention towards Counterfeit Goods

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Consumer-Based Brand Equity and Purchase Intention towards Counterfeit Goods

A Study of the Non-Original Branded Athletic Footwear Market in the Philippines

Abstract

The problem of counterfeiting is a continually growing global concern for businesses, especially with the prevalence of international trade and emergence of manufacturing technologies. This is particularly true for multinational businesses with highly recognized brands, especially in the fashion retail industry, which counterfeiters imitate into lower-cost, lower-quality products available for public consumption. Due to the rise in demand in the market and relatively cheaper labour and resources in the region, Southeast Asia has grown into both a rising consumer base for branded products and a growing hotbed for counterfeit branded products. As such, businesses are advised to adapt the strength of their brands, quantified with the marketing concept of Consumer-Based Brand Equity (CBBE), to appeal to the decision of potential customers whether to buy authentic products of those brands.

Consumer-Based Brand Equity is seen from the perspective of the consumer: how they view the brand and its associated products, and the attributes of the product appealing to them the most from the associations made from the brand. In the context of the Philippines, a Southeast Asian market of interest, and the branded athletic footwear industry in that country, this study aims to investigate the connection between the equity of a brand and the probability of a consumer to buy an inauthentic product bearing that brand. The methods of independence testing and choice-based conjoint analysis are used to assess the present and future choices of buyers of branded athletic footwear in the Philippines. It is then found that the average Filipino buyer does put the quality of the branded athletic footwear product into top consideration, but must still meet an affordable price level, otherwise, there is still a considerable chance for them to buy an imitation product instead. Thus, branded footwear manufacturers are recommended to take note of this balance between quality and price.

Key words: consumer-based brand equity, branding, counterfeiting, marketing research, conjoint analysis, footwear market, Southeast Asia

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;

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1 Introduction

In the increasingly modernizing lifestyle of today, more and more people are participating in the global market for branded consumer goods, especially for the purposes of fashion and composing the best outfit for their own aesthetic needs. Athletic goods, particularly footwear, are one of the more common luxury consumer goods purchased in the current market, amounting to 51.4 billion US$ worth of revenue in 2020 (Shahbandeh, 2020). Brands such as Nike and Adidas are well-known market leaders for athletic goods, gaining worldwide recognition through sponsorships of arguably the best and most well-known athletes of their field (Wade, 2019), implanting a sense of good quality products from the respective brands they represent.

With the international renown and ubiquity of these brands comes the greater risk of other parties clinging on the same recognition to advance their own benefit, often to the detriment of these brands themselves. Perhaps the biggest example that calls to mind is counterfeiting. Globally, the counterfeit trade has been cited to reach US$ 300 to 500 billion in sales within the first few years of the 21st century; having accounted for about 7-8% of all world commerce (Gentry, 2001, Eisend and Schuchert-Güler, 2004) and having grown 17 times its size over ten years of the turn of the millennium (Chaudhry et al., 2006). Imitations of well-known brands also occur in the consumer market, seizing the benefits of people recognizing, even vaguely, their name and branding as "borrowing someone else's brand equity" becomes an attractive alternative (Gentry, 2001), allowing the imitating products to gain a considerable part of the overall revenue in the market.

The supply and mass production of sportwear in general are now more and more commonly found in developing countries in the Asia Pacific region, where labour and raw materials are relatively cheaper (Certeza, 2010), and as such, so do the imitation products, which will most likely be of a lower quality, shoddier design, and cheaper material. A handful of places fit that description in Southeast Asia, one of the more rapidly rising regions in terms of the market for both authentic and inauthentic branded consumer goods. Due to the increase in trade between China and Southeast Asian countries, counterfeit goods traded in the region are estimated to be in the hundreds of millions of US dollars, given the seizures of only about

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US$ 1 million worth of goods ending up in Punishment Decisions in court, estimated to be about 15% of the whole counterfeit trade (Redfearn, 2020).

And on the side of demand, for several different reasons, people choose to buy a counterfeit version of, for example, a pair of sports shoes of a well-known brand. For those who do, the "name of the brand" is what is more sought after than the actual quality of the goods (Gentry, 2001). Thus, the manufacturer of that brand will lose out what could have been a sale for them, and the counterfeiter would instead benefit from the purchase. Aside from this loss of revenue, counterfeit products also, due to their nature, are not as well-made than their genuine counterparts. This disparity in quality can potentially cause problems to the consumer (in the case of shoes, they might fall apart quite quickly, or at the worst case, lead to foot wounds or injury), that would also potentially affect the original brand negatively and indirectly from association (Scott, 2020).

It would then be in the best interests of the manufacturers of well-known and reliable brands to mitigate the effects of counterfeiting. Especially in the Southeast Asia region, the problem of counterfeiting has been a cause for alarm. Governments have realized losses in revenue due to this illegal behaviour, and so are cracking down on counterfeiters through their own methods (Li and Lin, 2018). However, these measures are out of the control of the manufacturing companies. What is within their control, though, is their manufacturing, design, and marketing of their own products. Especially for what can be viewed as among the best of the brands in the market, there are certain factors with their products that would encourage consumers to buy more of them, rather than fake counterparts.

In this study, we then take interest in these factors. The goal of this research is to attempt quantification and description of what will entice buyers to purchase authentic products, specifically branded athletic footwear, and on the other hand, what would make them favour fake products instead. This process of quantifying the various factors will entail assessing the purchase behaviour of consumers in the branded athletic footwear (BAF) market, in ways that they are directly aware and even unaware of. To do this, there are two main areas of interest for each consumer in this market: (1) their personal situation and method of decision-

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making; and (2) the factors in the product that attract them the most, enabling their decision of buying that product. This latter part can be summed up as a quality of that brand that is based on the evaluation of consumers, as a concept known as **Consumer-Based Brand Equity** (CBBE).

1.1 Statement of the Problem

This study then aims to form a concept of CBBE for branded athletic footwear (BAF) products in the Southeast Asian market, particularly in the Philippines, where counterfeiting is a common risk due to lower consumer incomes and lower production costs of counterfeit items. This defined CBBE concept is then assessed, namely in terms of what consumers deem to be most important to them for BAFs, culminating into an estimate of probability for whether they decide to buy an authentic product or an inauthentic one to fulfil their needs.

With this in mind, the aim of the study is to recognize the main problem: what factors there are for Filipinos interested in buying BAFs, and how they would favour authentic (ABAF) products against counterfeit (CBAF) ones, in light of the concept of Consumer-Based Brand Equity as a framework for describing the brand quality of BAFs.

1.2 Research Questions

To address this primary problem, we dissect it into three research questions that the research will aim to give a reliable answer to, namely:

Q1: *"What are the **most appealing qualities** for the best-selling and biggest global ABAF brands?"*. The study will examine the standing of the most well-known brands in the BAF market, why people buy these kinds of products, and how important are these qualities for them. Consumer-Based Brand Equity, or CBBE, appears to be a solid foundation for this understanding, as will be explained in more detail later.

Q2: *"What are the main factors for Filipinos to **purchase CBAFs instead of ABAFs**?"*. On the other hand, we also examine why people decide *not* to buy these products, instead going for counterfeits. It is examined what people prioritize in their purchase of BAFs, and what

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potential upsides counterfeit items can result for the fulfilment of their needs. Knowing this can then potentially be points that authentic BAF manufacturers and companies can reflect on, to make their products more appealing than counterfeit ones.

Q3: *"What **external and internal circumstances** can affect these factors into willingly purchasing CBAFs?"*. We answer the question if aside from the products themselves, there are other factors around the consumers themselves, through cultural, economic, social, or other standpoints, that must be considered by BAF brands and manufacturers, should they want to capitalize on the contextual situation of the Philippine market.

These questions are then addressed through statistical means, by rejecting or accepting possible hypotheses that would be the starting ground for the research methodology of this study.

1.3 Research Hypotheses

To answer the research questions statistically, it is important to test for specific hypotheses that will be proved by applying tests on consumer data collected throughout the duration of the study. This consumer data, further described as *independent variables* in Section 5.2, are then tested against a dependent variable, which answers the question "Does this particular consumer of branded athletic footwear choose to buy counterfeit?" affirmatively or negatively.

The independent variables used in the study are then based on the concept of Consumer-Based Brand Equity, so that a link between the value of the brand of such a good as athletic footwear, and the propensity of a consumer to buy a counterfeit version of that brand, can be established. Thus, the main null hypothesis of the research can be stated as H0:

H0: There is no relation between the strength of a brand, as quantified by Consumer-Based Brand Equity (CBBE), and the probability that a buyer of branded athletic footwear will purchase a counterfeit product that can be associated with that brand.

This research hypothesis is broken down into several null hypotheses that focus on specific areas of CBBE, as to be elaborated on in Section 2.2. For now, these are summarized into four main areas: (1) considerations about the price of the product, (2) considerations about the perception of others upon buying the product, (3) considerations about the specific traits of the brand of that product itself, and (4) considerations about the quality of the design of the product. In addition to these, a hypothesis for the (5) importance given by the consumer on each of these considerations when deciding to buy the product, and another (6) for general internal and external circumstances regarding the consumer's buying situation are also considered to answer the latter two research questions.

Thus, the hypotheses are worded as follows:

H1: *Consumers favour CBAFs over ABAFs regardless of price considerations*. Rejecting this hypothesis would then mean that the price point of a branded athletic footwear product would have something to do about the decision of whether a buyer purchases counterfeit. Intuitively, it would make sense that people would prefer to buy counterfeit items due to their cheaper price, but it remains to be verified whether this consideration is of the utmost importance for making this decision.

H2: *Consumers favour CBAFs over ABAFs regardless of the perception of others of their CBAF purchase*. Rejecting this hypothesis would mean that how other people would view a buyer's potential purchase of a counterfeit item would affect their decision of buying it in the first place.

H3: *Consumers favour CBAFs over ABAFs regardless of their loyalty to a particular brand of athletic footwear*. Rejecting this hypothesis would mean that when a particular consumer is loyal to a given brand, and includes the traits associated to that brand as part of their personal preference, it would affect their decision whether or not to buy a counterfeit version "bearing" (imitating) that brand.

H4: *Consumers favour CBAFs over ABAFs regardless of their personal perceived quality of the athletic footwear product*. Rejecting this hypothesis would mean that the quality of the BAF product in the end would factor into the likelihood of buying the counterfeit version. Generally, CBAFs are known to be of lesser quality than ABAFs due to their nature of being copies by however method, through reverse engineering or approximation of the design or by any other means. This hypothesis then investigates how the buyer themselves would personally assess the design quality of the product, and that decision of whether it is worth it for them to purchase the higher quality ABAF.

H5: *Consumers give equal importance to the aspects of the brand equity of branded athletic footwear*. Rejecting this hypothesis would mean that there are considerations as described in the previous four hypotheses that would matter more in the decision for buying a counterfeit product.

H6: *Other circumstances regarding the consumer do not have a significant relationship to the probability that that consumer purchases a counterfeit product*. Rejecting this hypothesis would mean that there are other factors in the market demographics that would be of interest when we want to know about the consumer's preference between CBAFs and ABAFs.

Each of these hypotheses are accepted or rejected based on the corresponding statistical tests on the data to be obtained about consumers of branded athletic footwear via survey, and as a whole, a conclusion can be reached about the overall research hypothesis H0.

1.4 Context of the Study

The branded athletic footwear market in the Southeast Asian region, especially as seen in the Philippines, is chosen for several reasons.

Firstly, there is a relatively faster growing market in this country. With one of the higher population counts in Southeast Asia as well as the whole Asia Pacific region, coupled with the prominence of the sport of basketball in Filipino culture, there is a market for BAFs in

this country that might very well be a unique and interesting market context for BAF brands to consider catering for.

Secondly, as a developing country, counterfeit products are quite common in the Philippines, accessible due to the preference of people for relatively cheaper goods. From a previous report, the National Committee on Intellectual Property Rights estimates a total of 35.2 billion Philippine pesos (PHP) (about US$ 83.8 million at time of reporting) of seized counterfeit goods since its establishment in 2005. The same source also puts 40% of all confiscated items to be imitations of branded merchandise, such as Gucci or Louis Vuitton. A majority (about 70%) of these counterfeit items are found to have been sourced from outside the country (80% of which come from China), while the remaining 30% are counterfeits made locally (Calunsod, 2013).

The places where people can buy counterfeit goods are quite common as well, with the word *tiangge* not unknown to many. This term can be defined as a flea market, bazaar, or any kind of market where affordable products can be found by buyers sold in individual stalls (Venzon, 2014, Bartolome, 2018). Some familiar names for ordinary Filipinos are in the accessible areas in the capital Manila such as Divisoria and Greenhills (Venzon, 2014); these are common places for those wanting to save to go to for their shopping needs. Due to the nature of carrying affordable products for sale, *tiangges* are then common hotspots where people can gain access to and buy counterfeit branded items (Pepino, 2016, Palisada, 2010), and despite efforts from the government, such shops selling fake items will continue to exist in the foreseeable future, fuelled on shopper demand for cheap consumer items.

1.5 Scope of the Study

The study will attempt to investigate the trends and consumer behaviours of Filipinos (citizens, Philippine residents, or overseas residents) towards buying branded athletic footwear, as well as their familiarity about and propensity to buy counterfeits of such products. Athletic footwear is regarded to mean so-called "rubber shoes" in general, rubber-soled footwear also known more broadly as sneakers.

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2 Literature Review

To be able to understand more about the nature of brand equity and investigate how it affects the purchase intention of consumers, it is first necessary to define the terms within the context and lay out which factors can be observed to determine the relationship between a brand's "strength" and the decision of consumers to avail of a counterfeit product bearing that brand.

2.1 Brands

Aaker (1991) defined a brand as the *distinctive feature of a seller, such as its name, logo, trademark, or package design, in order for its goods or services to be identified and differentiated among other competitors of that same goods or services*. Evidence from centuries ago confirmed that branding has been around since ancient Egypt where symbols are placed on bricks to distinguish the goods of a brickmaker from another. However, it was only until the early 16th century when brand names gained much attention (Farquhar, 1989). Kotler and Keller (2006) posit that a brand is the additional element separating others' products or services that were designed for the same need. The same authors further emphasized that differentiation can be tangible (i.e., either functional or rational) and intangible (i.e., either symbolic or emotional), relating to the performance and what the brand stands for.

2.1.1 Role of Brands

The role that brands play has also been explored in prior literature. Farquhar (1989) pointed out that a brand increases the value of a product beyond the bounds of its intended function. It can therefore be assumed that a brand (1) helps a product or service to become identifiable from other similar competitors, and (2) serves and expands consistent value across diverse contexts.

Arviddson (2012) discussed "global brands"—its preconditions, new roles, and functions, providing three approaches of global brand critique. Global brands as defined in the article "are brands that expose a coherent identity across diverse cultural and geographical contexts". The neoliberal wave of globalization may have paved the way for the increase of

the importance of global brands, as Arviddson argues that the phenomenon is not new for brands and was already an important element during 1870-1913, also known as the "first" wave of globalization.

In the most recent wave of globalization (1980s), preconditions for global brands creation have gone through quite extensive changes for managerial function as well as in its cultural significance. Three important preconditions were mentioned by Arviddson: (1) globalization of production where the growing effects of information and communications technologies and the opening up of Chinese market to foreign investment have led for material production to extend to small factories going beyond national borders; (2) globalization of media culture whereby national media systems have been dominated by a global market culture of similar products making it easier for global brands to relate across diverse culture and social contexts; and (3) arrival of global corporations that produce, sell, and operate on a global level despite having their origins in a specific national contexts. In this recent wave of globalization, global brands have brought in new managerial function as added value and differentiator among similar products abandoning the old notion of brands as merely a symbol. This function as a managerial response has given coherence to practices of production requiring firms to follow a higher goal, such as putting time and effort to social or ethical pursuits, rather than just simply making money. In this new context, global brands acquired functions as financial assets that strong brands are working toward increasing the value of their corporate assets.

Arviddson further explained how this new function of global brands has changed its cultural roles by offering more experiences for personal identity. However progressive global brands become, the concept has been heavily critiqued. In this article, three approaches by academics and activists were mentioned. It pointed out that global brands are nothing but: (1) an ideological cover of exploitation and unsustainable practices entrapping consumers into a bubble of a global order that widens the gaps between social classes; (2) a pre-organization of experiences where empty global consumer culture dismisses authentic life practices; and (3) an exploitative scheme enabling conversion of affective energies into economic value which in turn justifies financial equivalent.

It is therefore clear that beyond the name, trademark, or packaging of a product, the brand holds more weight than it has previously done from its first appearance in history as differentiator. This opens further study about the nature of a brand itself, and how branding leads a product to influencing the consumer base not just as individuals, but the consumer market as a whole.

2.1.2 Brands and Branding

To grasp the concept of branding, it is important to first understand the term brand. From earlier, a brand can be defined as a distinguishing name or design, but Jones (2017) offers a wider perspective about branding than what can be seen at face value. He argued that to accept the definition of branding as a mere symbol or name is to diminish the real power of brands, suggesting that brand is more about the product itself. To put in a specific context, he compares the Apple product versus the Apple brand, and what is it that people really value or if they see it as the same thing as it is difficult to separate the brand from the product. A brand is something extra on top of a product, which is the additional definition key to the power of branding. Brands can make people do things; they create more than just its nominal value but offer a more complex idea in people's minds. Jones further asserted that a product's brand is what it *stands for*, and a product itself is not a brand. This perspective is consistent with Kotler and Keller's (2006) definition of the brand as an additional element to a product.

Jones claims that branding is more than just a marketing scheme, and that it offers a wider activity which affects most of what organizations try to accomplish. Branding, as what many describe, depends on signs and images that give meaning. Even if the branding was done years ago through a campaign, he argued that branding is not fleeting, giving a bigger picture of the product, and in turn, making consumers love the product and purchase more of it. And though branding is initially set to create profits for businesses, it is also on the other hand a method used by many consumers to help make choices of the thousands of products to choose from. Consumers connect the abundance of products with meaning to form and strengthen their own identity. Branding is then something a brand owner does to create a brand, through meanings and ideas, to influence consumers in their decision-making.

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2.1.3 Brand Equity

This power that a brand gives to potentially influence consumers and in turn, allows consumers to differentiate between branded products and decide over which to purchase, is therefore an important entity to measure. Thus, the term *brand equity* is often used to capture the measurement of the qualities a brand has that can appeal to consumers' purchasing decisions.

Over the years, the definition of brand equity has varied among business and academic researchers. In the literature, one of the most common cited definition of the concept is that of Aaker (1991) as a *set of brand assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm and/or to the firm's customers.* However, there is no universally accepted definition and measures of brand equity (Christodoulides & de Chernatony, 2010; Chieng & Lee, 2011). In the same way, Farquhar (1989) offered a definition which almost all definitions recognize that brand equity as the "added value" with which a given brand endows a product. This same definition is consistent to that of Kotler and Keller (2006) as the added value endowed to products and services. Erdem et al. (1999) believed that Keller's definition is based on cognitive psychology perspective whereas this "added value" may be reflected in how consumers react towards the brand, as well as the prices and the marketing of such brands. Kohli and Leuthesser (2001) defined brand equity as the differential effect of brand knowledge on customer response, which also relates to a psychological perspective. Kotler and Keller (2006) believe that brand equity is an important intangible asset that has psychological and financial value to the firm.

The concept of brand equity has been receiving much attention as some researchers believe branding to be one of the most valuable assets of a company. Despite its relevance, there still is a lack of consensus about how brand equity should be measured. Kamakura and Russell (1993) argued that this could be because of the variety of definitions of this complex construct. They believed that there are two perspectives that may be adopted: the value of the brand to the firm, or the value of the brand to consumers. Keller (1993), whose idea is

consistent with Kamakura and Russell, wrote that there are two general motivations for studying brand equity, first, which is based on a financial motivation, also known as the financial/firm-based brand equity (FBBE), as many researchers view the valuation of brands as intangible assets to be included in the firm's published financial statements. Second, brand equity arising from a strategy-based motivation where the need to understand consumer behaviour is remarkably considered, the latter being known today as the consumer-based brand equity (CBBE).

2.2 Consumer-Based Brand Equity

Consumer-Based Brand Equity (or interchangeably, Customer-Based Brand Equity), or CBBE for short, refers specifically to the idea of brand equity as seen from the standpoint of the consumer, thus involving the understanding of the behaviour, tendencies, and preferences of consumers when assessing the value of a brand. The perspective of CBBE is believed to be primarily developed according to cognitive psychology and information economics, focusing on memory structure (Aaker, 1991; Keller, 1993; Christodoulides and de Chernatony, 2010). There are two mainly cited schools of thought as observed from the currently available bodies of work on the topic of CBBE.

Aaker (1991) observed that brand equity creates value for both customers and the firm. The associated dimensions that the brand equity creates for consumers are identified as brand awareness, brand associations, perceived quality, brand loyalty, and other proprietary brand assets. The first four dimensions represent consumers' response to the brand, while other proprietary brand assets do not necessarily add value to Consumer-Based Brand Equity.

On the other hand, Keller (1993) defined CBBE as the "differential effect of brand knowledge on consumer response to the marketing of the brand". He added that a brand can have both positive or negative consumer-based brand equity depending on how a consumer responds to the way a product is marketed, which is similar to Aaker's viewpoint, except that it is more closely taken from a cognitive psychology perspective. A consumer can react more favourably to a product and the way it was marketed compared to a brand when it is not, generating a positive CBBE. In the same way when a consumer reacts less favourably

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to a product (and its brand marketing) can therefore generate a negative CBBE. According to this conceptualization, Christodoulides and de Chernatony (2010) noted the way how the marketing mix of a particular brand resonates with consumers can be seen across the stages of purchase decision-making, particularly in preferences, choice intentions and making the actual choices.

2.2.1 Aaker's Dimensions of Brand Equity

In a literature review about the CBBE written by Chieng and Lee (2011) the authors adopted a conceptual framework for measuring CBBE using the conceptualization of Aaker's five dimensions of brand equity focusing mainly on the four dimensions, which represent consumers' response to the brand. Aaker (1991, 1996) grouped into five categories the assets and liabilities on which brand equity is based: (1) brand loyalty; (2) brand awareness; (3) perceived quality; (4) brand associations; and (5) other proprietary brand assets. A few years later, Aaker wrote about the *Brand Equity Ten*, a list of ten qualities (shown in Figure 1) evaluating brand equity among products and markets, based on his five categories of assets underlying in brand equity. The first four (Price Premium, Satisfaction/Loyalty, Perceived Quality, and Leadership) represent how customers view the brand, in line with the dimensions of brand equity, namely loyalty, perceived quality, associations, and awareness.

Loyalty Measures

- Price Premium
- Satisfaction/Loyalty

Perceived Quality/ Leadership Measures

- Perceived Quality
- Leadership

Awareness Measures

- Brand Awareness

Market Behavior Measures

- Market Share
- Price and Distribution Indices

Associations/ Differentiation Measures

- Perceived Value
- Brand Personality
- Organizational Associations

Figure 1 - The Brand Equity Ten (Aaker, 1996)

The rest are reflective of the brand itself and its performance compared to other brands of the same category.

For Aaker, **brand loyalty** is a core dimension of brand equity. He defined brand loyalty as *a measure of the attachment that a customer has to a brand*. He argued that loyalty reflects a customer's tendency to switch to another brand when that brand changes, either in its price or product features. Loyalty is an indicator of brand equity which is said to be linked to future profits as brand loyalty predicts future sales.

In almost all models, **brand awareness** is a key determinant of brand equity— delineated as measurement of recall, recognition, and familiarity (Agarwal & Rao, 1996; Na, Marshall & Keller, 1999). Aaker pointed out that this dimension is necessary, albeit undervalued at times. Na et al. (1999) argued that awareness, being linked to imagery, is that image alone cannot be assessed by attribute measurement and that it must include measurement of consumers' perspective by using the brand. The value of brand awareness as illustrated by Aaker was broken down into four ways as (1) anchor to which other associations can be attached; (2) familiarity/liking; (3) signal of substance/commitment; and (4) brands to consider.

Perceived quality can be defined as how the consumer assesses the overall excellence of a product, and how superior it ranks over other products of its same type (Zeithaml, 1988; Aaker, 1991; Netemeyer et al., 2004). Aaker emphasized that perceived quality has the important feature which is applicable across product classes and that it can be measured along the following scales, comparing alternative brands to another and this brand: has high quality vs. average quality vs. inferior quality; is the best vs. one of the best vs. one of the worst vs. the worst; has consistent quality vs. inconsistent quality. Finally, he mentioned that it involves a frame of reference from a competitor and may not be a decisive indicator in particular contexts which leads to the consideration of the leadership or popularity variable.

Brand association is anything *linked* to the node in memory of a brand (Aaker, 1991; Emari et al., 2012). This link to a brand can be stronger when there are many experiences or

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exposures to communications, therefore, association does not only exist but is also related to a level of strength. Aaker argued that a brand image is a set of associations in a systematic way. Further, brand positioning is also a conceptual factor for both association and image in the point of view of competition. A well-positioned brand has a competitive position linked by strong associations. There are eleven types of associations that were introduced by Aaker: (1) product attributes; (2) intangibles; (3) customer benefits; (4) relative price; (5) use/application; (6) user/customer; (7) celebrity/person; (8) lifestyle/personality; (9) product class; (10) competitors; and (11) country/geographic area.

2.2.2   Keller's Brand Awareness and Image

In a 1993 study by Keller, he introduced a framework of measuring CBBE, which he defined as the differential effect of brand knowledge on consumer response to the marketing of the brand. In contrast with Aaker's conceptual framework consisting of five dimensions, Keller's model was built on only two major dimensions: (1) brand awareness; and (2) brand image. He presented a background in brand knowledge and how important it is to understand the content and composition of the concept as they influence what consumers think about a brand and how they respond to its marketing activities. His work was believed to be strictly from the aspect of consumer psychology (Christodoulides & de Chernatony, 2010). From this work, he conceptualizes brand knowledge as that of a "node" accessible in consumer memory to which associations have been made. This node is then measurable with the two dimensions: the awareness of the brand in terms of recall and recognition; and the uniqueness, favourability, and strength of the associations made with it.

The first dimension, **brand awareness**, reflects how much consumers can identify and recognize the brand or, in other words, the "strength" of the node in consumer memory. It refers to how likely a consumer can summon the idea of the brand in their mind when given a particular cue or stimulus, and how easy it will be to do so. There are two sub-concepts to brand awareness, namely (1) *brand recognition* referring to the ability of the consumer to confirm exposure to this brand before when it is given as a cue; and (2) *brand recall* referring to the ability of the consumer to retrieve the idea of that brand on their mind when given a category or a product type as a cue.

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Brand recognition, in this regard, is also relatively more important than brand recall for purchases made inside the store, where consumers are exposed to the brands of the products in the shelves. In this way, the importance of both these factors are dependent on to what extent consumers make decisions in-store versus outside the store for a particular product.

Brand awareness is particularly important for three reasons:
  i.   A higher brand awareness increases the likelihood of the product bearing that brand being included as part of the *consideration set* (a set of products the consumer is seriously considering for purchase),
  ii. A higher brand awareness increases the likelihood of the product in the consideration set being picked among the other products in the set, and
  iii. A higher brand awareness influences the formation and strength of brand image associations made with that brand, making these associations easier to recall and weigh on the decision of the consumer to purchase the product.

The second dimension of **brand image** is described by Keller (1993) as *perceptions* about a brand reflected by associations linked to it, considering the brand being a node in the consumer memory network. In other words, the brand node is strengthened by other association nodes also embedded in memory: each additional quality which the consumer thinks about when talking about a brand builds up the *image* or the perception that consumer thinks about the brand itself. The factors of favourability, uniqueness, and strength of these associations determine the equity of the brand, and influence the decision of the consumer, to purchase or not, when faced with the brand.

There are several types of brand associations that build up brand image, namely:
  a) **Attributes**, which describe the features and characteristics of a product or service. These are what the consumer thinks the product is, or what will be involved when it is consumed or purchased. Attributes can be *product-related*, or related to the physical composition or requisites of a product or service, or they can be *non-product-related*, which relate to the external aspects connected to that product or

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service. The main types of non-product-related attributes are (1) price, (2) packaging or product appearance, (3) user imagery (what kind of users use this product), and (4) usage imagery (what situations or scenarios involve the use of the product).

b) **Benefits**, which describe the *personal value* attached to the product by those who consume it. These are what the consumer thinks the product can do for them. These are further divided into (1) functional benefits, which fulfil basic consumer needs such as safety or physiological needs, (2) experiential benefits, which fulfil needs based on consumer experience, such as sensory pleasure or variety, and (3) symbolic benefits, which fulfil related underlying needs not directly tied to the product, such as personal expression or social approval. The first two types of benefits are closely related to product-related attributes, while the last is closely related to non-product-related attributes. Symbolic benefits are thus much more relevant to products or services which are visible to society.

c) **Attitudes**, which describe the overall consumer evaluations of a brand, as opposed to the individuality expressed by benefits. Brand attitudes often are the foundation for how consumers behave, particularly on which brands they choose. They can be formed by attribute and benefit associations that are made about a brand as a whole.

These associations, therefore, are also evaluated by the following metrics:

a) **Favourability** of brand associations, or how much the consumer believes the brand attributes and benefits will bring about satisfaction, and thus, an overall positive attitude towards the brand. The favourability of a brand association also depends on *how important* a consumer thinks that brand association is to their own experience of the product (for example, speed and timeliness of a service is important to people who are constrained with respect to time, but not as much to people who are not in a hurry).

b) **Strength** of brand associations, or how deep the association is linked with the brand. The strength depends on how the information of that association enters consumer memory, and how long it lasts on consumer memory through the maintenance of brand image. It is also therefore a function of quantity (how much the consumer

thinks of the brand itself) and quality (how a consumer thinks about that association about the brand).

c) **Uniqueness** of brand associations, or how a brand sets itself apart with its *unique selling proposition*. The uniqueness relates to *why* this particular brand *should* be bought as opposed to other brands. Unless the product or service has no competitors, brands will share some associations with other competing brands under the same category. Thus, uniqueness also relates to the associations a brand has with the category it is included in (for example, for someone who has a negative perception about banks in general, specific banks are also viewed somewhat unfavourably despite being of different brands).

For both frameworks as presented by Aaker and Keller, brand equity is presented as a framework hinging on the brand itself, as well as peripheral associations linked with the brand. Aaker measures brand equity on the four consumer related bases (brand loyalty, name awareness, perceived quality, brand associations), while Keller focuses mainly on the two aspects of brand awareness and brand image. This lends to a few differences mainly on categorization, but with several significant similarities. The two frameworks can also be consolidated into an empirical view, and both can potentially measure the overall brand equity of a product (Agarwal and Rao, 1993). As such, even if brand equity as a concept is abstract, it is possible to make indirect measures of brand equity, leading to the understanding of consumer choice.

2.3 Counterfeiting

As brands are defined as important features that set apart and influence sales of a product, they are threatened by one major problem which has seen more widespread use over the years of improvements in manufacturing – counterfeiting. As the idea of the brand is essentially stolen by a counterfeit product, it also assumes the positive qualities that the brand could provide the product with its brand equity. The main thrust of this study then is to analyse counterfeiting and its possible effects on products with high brand equity, as well as on the willingness of consumers to purchase such products over authentic ones.

2.3.1 Counterfeit Products

The Organisation for Economic Co-operation and Development (OECD, 1998) defines counterfeiting only as cases of trademark infringement, although the term can apply to a broader nature of production of any commodity which has a relatively uncanny resemblance to an original product, with the intent to mislead a consumer and/or to profit from unauthorized production and distribution of genuine items protected by intellectual property rights. Many industries are affected by the counterfeit trade industry not only hurting the sales of authentic goods, but also pushing brand owners to innovate in attempts to set apart their brand (Qian, 2014).

Counterfeiting has a great scope and significant implications for manufacturers and the global economy. An updated 2016 report by the OECD estimates that the yearly volume of international trade for counterfeit products and products arising from piracy to be as much as US$ 509 billion, representing over 3% of all global trade. This amount, discounting domestic productions and consumptions of counterfeit products, grew from an estimate of 2.5% of all global trade from 2013 estimates, exhibiting significant rises in growth, in a period where overall global trade was also slowing down relative to previous years (OECD/EUIPO, 2019).

2.3.2 Typification of Counterfeit Products

As the scope of counterfeiting can vary wildly with respect to their intention and method of production, Berman (2008) classifies counterfeit products into four specific types:

(1) Products which are "knockoff", "lookalike", or "sound-alike", considerably lower-priced compared to the authentic goods due to lack of traditional packaging and unconventional distribution. Consumers who purchase this type of product are aware of its nature, thus, the loss in sales to the genuine owner is indirect, as very few genuine goods purchasers would buy knockoffs.

(2) Products replicated by methods such as reverse engineering or through copied masters or blueprints. This type is meant to deceive consumers by posing as a genuine product thus, loss in sales to genuine owners is direct. Manufacturers may also hurt its brand image when consumers complain about the quality of the product unaware that it is a counterfeit.

(3) Products produced by external suppliers of a manufacturer employing them, former or current, using extra company time unbeknownst to their employer and since the products were made on the same machinery, this type of counterfeit is difficult to distinguish from the genuine one; and

(4) Products legitimately made by the manufacturer but did not meet their standards of quality and are thus labelled as castoffs or are to be destroyed accordingly, therefore making this type to be the most difficult to distinguish from legitimate goods.

In this study, it will be important to take note that the scope of the study will mostly cover Type 1 counterfeit products, and possibly some of Type 2. The main idea behind this scope is that the purchase behaviour of people who are aware that the products are counterfeit is investigated. These types could also fall under the term *non-deceptive counterfeiting*, or counterfeit products marketed towards consumers who seek apparel or luxury counterparts (Spink et al., 2013).

2.3.3   High-Equity Brands and Susceptibility to Counterfeiting

As this could generate the most profit for counterfeiters, products of brands with characteristics which appeal to more buyers are targeted and made into counterfeit versions. These can be generally described as brands with high brand equity. Pullig (2008) describes high-equity brands as (1) readily recognizable; (2) quickly and easily recalled when needed;

(3) recommended to others; and (4) when people are willing to pay a premium price for acquiring them.

An understanding of CBBE then is important in investigating products which have a higher probability to be counterfeited. There might not be a wealth of literature regarding the direct influences of these components on purchase intention, but the combination of these constructs can be used as a basis for understanding brand equity, and thus, purchase intention for these brands (Ashill & Sinha, 2008).

For some types of commodities, brand equity is taken importance of such that the brands of certain manufacturers are considered relatively more exclusive and prestigious. To do so, these brands must be more well-known to its target market (increased in brand awareness, and in some respects, also image), but also less accessible to them, most often in terms of cost. Perhaps counterintuitively, this difference between accessibility and awareness, and thus, the high equity of these brands can become breeding grounds for counterfeiting. The exclusivity offered by the high-equity brands are threatened by counterfeits and knockoffs, as the opportunity for producers of such products appears to be high. For example, a knockoff garment market as reported in 2007 for similarly designed high-value branded garments sold at about $500 cheaper can be valued to about $9 billion (Commuri, 2009).

When it comes to high-equity brands, if not all of counterfeit consumption, the problem of consumer complicity is present, as it is in consumers' interest, for a considerable amount of the time, to be seen obtaining or making use of products with such exclusive brands. Consumer complicity, which can be defined as how willing a consumer is to obtain counterfeit products or share about them, was inferred from a lack of concern about the ethics of consuming counterfeit products, as well as a generally hedonic shopping experience (Chaudhry & Stumpf, 2011). The problem with consumers patronizing counterfeit goods can be shown to reach significant worldwide implications, as an estimate provided by the International Chamber of Commerce marks the sale of counterfeit products all over the world to be as much as $650 billion per year (Berman, 2008).

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2.4 Related Literature: Purchase Intention of Counterfeit Goods

Several previous studies and literature are then reviewed regarding their coverage of purchase intention, or how willing consumers are to buy counterfeit goods, as well as what factors can potentially affect it.

When studying the effect of counterfeiting, it is important to take note of this purchase intention, or the conscious act of a consumer to seek out and buy counterfeit products (Eisend and Schuchert-Güler, 2006). It is noted by Eisend et al. that further research into the topic of *why* consumers decide to purchase counterfeits is therefore necessary. Most studies on this topic also come from North American or South Asian contexts, and that it is important to note as well that culture is expected to play a role in counterfeit purchases, as it is in media and software piracy. As such, the scope to be covered for such a study of purchase intention also hinges on the locale and the cultural context of the market to be studied.

2.4.1 Consumers' attitudes regarding non-deceptive counterfeit brands

With a setting in the United Kingdom and monitoring the purchase intentions of customers regarding counterfeit Rolex watches, Bian and Moutinho (2011) studied the effects of perceived brand image, among other factors, in the consumer demands of non-deceptive counterfeit goods. A conceptual model is built by the researchers and their hypotheses are tested with hierarchical regression analyses with a sample size of N = 321.

This study claims to be the first to establish *perceived brand personality*, or the factor of a brand allowing for consumers' self-expression as a symbolic function of that brand, to be a major contributor to the intent to purchase counterfeit goods, more than the benefits or attributes of the product. The proponents of the study aim to point future researchers on this topic towards the importance of brand influence relating to consumer behaviour for counterfeit products.

2.4.2 Stemming the sportswear counterfeit tide: Emerging market evidence of rational and normative drivers

Dhurup and Muposhi (2020) investigated the phenomenon of counterfeiting in the sportswear market especially in South Africa, particularly focusing on consumer *willingness* to purchase counterfeit goods, in contrast to intention. The researchers define willingness from the behavioural willingness construct, as a consumer decision which is on impulse and not intentional, contrary to intention as defined by Ajzen (1991) in the Theory of Planned Behavior, as a more direct and intended action. It is claimed that willingness is a more predictive metric than intention for purchasing counterfeits (Dhurup et al., 2020). The following diagram shows their proposed conceptual model about which properties would determine a consumer's attitude towards counterfeit products, which are mostly on the side of personal behaviour.
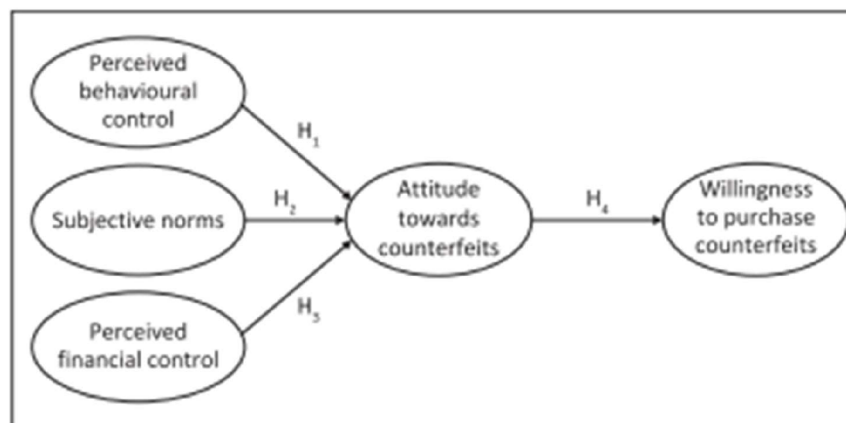
Figure 2 - Conceptual Model for Willingness to Buy Counterfeit (Dhurup et al., 2020)

A sample size of N = 390 was surveyed for this study, using a six-item scale for determining willingness to buy counterfeit goods (in this context, athletic sportswear in general such as jerseys) and a five-item scale for determining attitude towards counterfeit goods. It was found out the perceived financial control and subjective norm contribute towards favourable attitudes to counterfeit products, and this attitude in turn strongly contributes to willingness to actually purchase them.

2.4.3 Consumer Decision Making in a Counterfeit-Plentiful Market: an Exploratory Study in the Brazilian Context

Ferreira, Botelho, and Almeida (2008) investigated the factors influencing the consumer decision to buy counterfeit goods, as well as their relative importance to each other, with the use of *conjoint analysis*.

Conjoint analysis, or trade-off analysis, is a type of analysis based on the assumption that consumers decide on their purchase by weighing against multiple criteria and make trade-offs based on how they internally rank these criteria by preference (Leung, 2013). The researchers based their study on the Brazilian context, as this country is also said to be "plentiful" in counterfeit goods, or where abundant supply and availability can give consumers in this market opportunities to justify their purchase of these types of goods.

The factors investigated by Ferreira et al. are namely (1) durability; of which can be high or low quality, (2) product appearance; or how the counterfeit product looks as either the original, a sophisticated copy, or a modest copy, (3) price, and (4) retailer, where the product can be bought. Product appearance is seen in the study to be of highest value in the results, for study groups both of frequent counterfeit purchasers and frequent purchasers of authentic goods. As such, an example subset, shown in the following figure, of a combination of these factors is offered to the target respondents of the survey to assess which ones are more important:

Offer	Price	Product Appearance	Durability	Retailer
1	R$ 200.00	Sophisticated counterfeit	High	Counterfeit flea market
2	R$ 80.00	Original product	High	Counterfeit flea market
3	R$ 200.00	Original product	Low	Street vendor
4	R$ 200.00	Modest counterfeit	High	Shopping center
5	R$ 500.00	Original product	High	Shopping center
6	R$ 500.00	Sophisticated counterfeit	High	Street vendor
7	R$ 500.00	Modest counterfeit	Low	Counterfeit flea market
8	R$ 80.00	Sophisticated counterfeit	Low	Shopping center
9	R$ 80.00	Modest counterfeit	High	Street vendor

Figure 3 - Sub-set of offers presented to the respondent (Ferreira et al., 2008)

3 Theoretical Basis

As the underlying problem and questions have been established, this section describes the theoretical basis used for addressing them.

3.1 Research Design

In this study, the decision of consumers to buy counterfeit is set as the main information of interest. This decision is based on a consumer's response to these three questions:

- Have you obtained a CBAF product at some point in time?
- Have you willingly purchased that CBAF product for yourself?
- Do you plan on purchasing a CBAF product in the future for any reason?

Thus, the research is designed so that insight can be gained from the respondents about their preferences and answers to these questions. It is also examined what the respondents look for in branded athletic footwear, in line with the factors described in Aaker's and Keller's models of Consumer-Based Brand Equity.

3.2 Analysed CBBE Criteria

The following criteria are the points which are to be analysed in the data collection process, in line with CBBE theories.

3.2.1 Price

Price point is investigated, as part of Aaker's model. The strong equity of a brand, through its assets such as name recognition, associations, perceived quality, etc. can provide a *price premium* to that brand (Aaker, 1991). Brands with a strong brand equity can then gain additional revenue from the price that their manufacturers can set, since their established customer base will still purchase the product even at a higher price point.

Measurements of the price premium as part of brand equity can be obtained through comparison of price levels in the market, and through buyer-preference or purchase-likelihood measures for the branded product at different price points (Aaker, 1991). Thus,

the strength of the brand can be measured, specifically for the factor of price, by finding out at what price point would customers be willing to buy the product in the first place.

Given the context of the market investigated in this research, it would also be of interest to see the effect of income levels and budgets allotted for athletic footwear purchase on the decision to instead buy counterfeits of branded athletic products. As the purchasing power of an average resident of the Philippines is relatively weaker than a resident of a more developed country, the participants of the Philippine market will have to set aside a considerable percentage of their incomes for buying shoes should they want new ones.

3.2.2 Quality

Quality preference is investigated, as part of the Aaker and Keller models. In line with Aaker's model of perceived quality, a brand will have attached to itself some perceptions and connotations about its overall quality (Aaker, 1991). As such, consumers have an idea of what a brand like Nike or Adidas, for example, brings with their product in terms of the quality of the items that carry that brand, and thus, their decision to buy the product also hinges on their own perception of quality. This is also explored by Keller as *brand attitudes*, or consumer beliefs about certain attributes related to the product carrying that brand (Keller, 1993).

Included in the definition for quality considerations are durability, comfort, and aesthetic design. For this study, these attributes are consolidated into one parameter, specific qualities can be investigated in further studies on the topic. The highest value for overall quality is assigned to the authentic branded athletic footwear, while other non-original shoes are to be considered as of a lower level of quality.

3.2.3 Logo

Aaker (1996) discusses about brand personality as a component in brand equity, which is how brands can provide a sense of association through a perspective of brand-as-a-person, or how a brand might be perceived by others if it were a person. Brands, when personified, can be seen by others as bubbly, welcoming, cold, unfeeling, or any kind of trait attributable

to persons, and as such, new kinds of connections can be made about the brand. Thus, brands, among similar products of similar prices, can be distinguished among others by this "personality", which likewise can say something about the person making use of that product with the brand (Aaker, 1996).

It is then theorized that high equity brands can infuse their own "personality" to those of the users of their products. This can especially apply to products such as footwear, which are under the category of Fashion and are intuitively used as part of a person's "presenting" of their personality.

As such, it would be interesting to know how much the perception of other people who can see the users of these branded athletic footwear would affect the decision of whether to buy imitations of those brands. The proposed way for quantifying this response is through investigating how the brand is displayed through the footwear by the logo. The logo on the shoes is typically the gateway for onlookers for presenting what brand the shoes are of, and it is hypothesized that a bigger logo would present the pair of shoes more to be of a particular brand. On the other hand, other authentic footwear designs can tend to be subtle about the logo, and it might not be readily seen what brand of shoe it is.

3.2.4 Brand

Aaker also discusses *brand loyalty* as a strength of a brand with high equity that can provide much value for it, particularly by reducing marketing costs, attracting new customers, ensuring leverage in the market, and allowing time to respond to threats in the industry (Aaker, 1991). With this, it might also be of interest to find out how much a customer's loyalty to a specific brand would influence whether they will buy a counterfeit product. Intuitively, if a person would be truly loyal to a brand of their choice, they would want to support that brand through buying only authentic versions of that brand's products. Brand loyalty can then be measurable through the consumers' choices of brand of athletic footwear.

4 Data Collection

As the survey is the main instrument for putting the model of counterfeit purchase together, the creation and refinement process of the questionnaire, and some details about the final disseminated survey, are described in this section.

4.1 Pre-Testing of Survey

Before being distributed to respondents, a prototype of the survey questionnaire was first drafted and provided to a smaller number of reviewers as a pre-test. This is a common method to ensure validity, reliability, and ease of understanding the survey, to make sure that the consistent results can be obtained from the survey to reach a reasonable conclusion (Barribeau et al., 2012). The pre-test performed for this survey was also participatory, in other words, the reviewers were informed that they are accomplishing a practice run of the survey. There were 10 participants provided with the survey, and five returned live and post-survey comments via video conferencing as feedback, which are written down, assessed, and consolidated into the making of the final version of the questionnaire.

Of note particularly from these comments were making allowances for people who did not wish to disclose some information despite assurances of anonymity and proper handling of data (gender, income level, study / work status, etc.), and also by considering whether or not they obtained CBAFs through gifts, which leads to the A_2 correction of acquiring counterfeit (as explained further in Section 5.1).

4.2 Survey

The survey itself was written and created as a file in Google's Forms service, one of the most accessible survey methods online. It was conducted over a five-day period, opened for responses specifically for residents or overseas citizens of the Philippines who have had experience purchasing branded athletic shoes (also referred to as rubber shoes) in the various places in the country where such products can be bought.

The link for the survey hosted online was disseminated via social media, to both immediate friends and acquaintances and to outside the researcher's social circles; by referral to friends

of friends and to advertising in public Filipino researcher forums. The survey is written in both English and Filipino (Tagalog), the two official languages of the Philippines, for maximum accessibility for respondents. No personally identifiable information was asked for in the survey, with the birth year and gender asked only for assessing the general demographics of respondents of the survey.

The survey proper has three parts: (1) questions about the general purchase behaviour of the respondents, including how much they spend for athletic shoes and where they buy; (2) questions about whether they have acquired counterfeit branded athletic footwear, and their reasons for doing or not doing so; and (3) a simulated "market" where the respondents choose which of the two presented random choices would they hypothetically purchase (or none of the two).

The first part aims to describe the target audience of the study, to gain a clear view of about how many Filipinos can encounter the choice of buying a counterfeit branded athletic footwear product than an original counterpart. Aside from the age and declared income level, the survey also aims to investigate the purchasing habits of Filipinos, especially where, how often, and how much they end up spending for such products. In the first part, their focus of importance on the four proposed brand equity criteria (price, quality, brand, and logo) are also gauged, both on an absolute scale of 1 to 5 (5 being the most important) and on a relative scale based on the Analytical Hierarchy Process proposed by T. L. Saaty (1987), described further in Section 6.2.2.

The second part delves more into the question of acquiring counterfeit branded athletic footwear. When the respondent confirms with yes, the reason for them keeping and / or preferring counterfeit items is investigated, with several reasons drafted during the creation and pre-testing phase of the survey included in the final questionnaire. On the other hand, for respondents giving an answer of "no", there are likewise a proposed list of reasons for them to prefer original branded products.

The third part is based on the concept of Choice-Based Conjoint (CBC) analysis, wherein the future or potential choices of survey respondents are tested. CBC analysis is a marketing strategy where participants are presented with a handful of choices of product with attributes distributed randomly, and their choice (or non-choice, as declining any option is allowed) is taken note of and scored for each attribute chosen. This has been used in at least one study when there is no market data available especially pertaining to purchase of counterfeit products, while several studies have found conjoint analysis data to be quite reliable in terms of gauging the demand for such products (Leung, 2013).

In the accomplishment of the questionnaire, the honour system is implemented such that overlaps between responses in the English and Filipino versions of the survey questionnaire are prevented, by requesting potential respondents to answer only one version, with random checks of data to ensure no two responses from different questionnaire versions are the same. To incentivize respondents to complete the survey, a voluntary chance to win in a small raffle was given to respondents reaching the end of the questionnaire successfully.

The full text of the English version of the survey is attached as Appendix A for reference.

4.3   Demographics

The survey obtained N = 304 responses over the research period, as a combined figure from the English version (214 responses) and the Filipino version (90 responses). Across the total response pool, the respondents were about sixty-five percent female, and more than half (52.3%) fall into the 25 to 34-year-old age group.

Almost three-fourths of all respondents (73.0%) reported being employed to at least one part-time job, showing that most answers to the survey come from respondents generating their own means of income. 80.2% of all the respondents also report monthly incomes or allowances less than PHP 77,000 (about CZK 33,700 or US$ 1,560 as of writing), corresponding to an upper limit of middle-class income in the Philippines as identified by a 2018 government study (Domingo, 2020). This segment also corresponds to a wide majority of Filipinos, wherein a survey by the Philippine Statistics Authority determined that a

combined 98.4% of the whole population of the country are either low-income or middle class in terms of socio-economic standing (Zoleta, 2020).

In terms of shoe budget allotment, most of the respondents (76.2%) put aside a purchasing budget from PHP 1,000 to 5,000 (CZK 430 to 2,100, or US$20 to 100) for athletic footwear. For comparison, less than half (135 products out of 361) of the men's shoes products in the Nike Philippines online store fall within this budget, as well as in the counterpart online shop of Adidas Philippines (492 products out of 1028) as of the time of writing. Nike and Adidas, as also shown in the survey (mentioned in 73.6% and 63.8% of all responses for brands owned), are the two leading branded athletic footwear brands in the Philippines.

As for where branded athletic shoes are bought, most of the responses (75.7%) mention malls as their source. Malls, akin to shopping centres in the Czech Republic and in Europe, are relatively more widespread in the Philippines, being a significant factor in the economy of the country, especially in the services industry. Online methods of purchasing are less frequently mentioned, most often being the official online stores (at 31.9% of all responses). *Tiangge*s, which more often sell counterfeit branded goods of all sorts, are only cited by about 15.5% of respondents as a source for their athletic shoes.

4.4 Segmentation

It is of interest in the study to compare across some distinctions in the pool of total survey respondents. The following segmentations of the collected data are considered:

1. *Across questionnaire languages accomplished*: Although the translation of the survey questionnaire is done as faithfully as possible by native English and Filipino speakers, there are connotations of societal differences between which of the two official languages of the Philippines are used more often. English, as used more often in education and everyday use of people in a relatively higher economic standing, can give a hint of a socio-economic gap (Béord, 2016).

Thus, it is posited that such a difference can still be reflected in the preference of a respondent to accomplish either the English or Filipino version of the questionnaire, having been asked to fulfil whichever version would be more comfortable for them to navigate through. Since price, and subsequently individual purchasing power, is a criterion investigated in the survey as possibly having influence over decisions to buy counterfeit, this possibility of segmentation is investigated.

2. *Across age groups*: Three main groups are identified: less than 25 years old, 25 to 34 years old, and above 34 years old. It is hypothesized that the age of the buyer, as well as their capacity for making decisions, can be a possible determinant to whether a potential customer could choose a counterfeit product over the genuine one.

3. *Across income levels*: The pool of responses is divided into three by this respect: lower-income, middle-income, or higher-income households. Only 24 responses out of the total 304 identified themselves as being in the higher-income segment, with a vast majority of people either in lower- or middle-income classifications.

The declared gender was also considered as a point for segmentation, but opposed to the criteria proposed to be investigated, a factor which can be thought of to have an indirect effect at best is beyond the scope of this study.

5   Methodology

The methodology of interpreting the data, including rationales for the measurements and the statistical bases for interpreting the data, are discussed here.

5.1   Dependent Variable

Firstly, it is considered in this study what it means to obtain and acquire counterfeit goods, be it in the context of Counterfeit Branded Athletic Footwear or otherwise. In this study, based on the observations from the pre-survey and through personal experience, there are different levels considered beyond just the possession of such goods, through focusing on the source of such goods. For the statistical analysis, Counterfeit Acquisition of all levels is considered a binary variable (1 when the criteria for the Level of Counterfeit Acquisition apply, 0 when they do not), as a variable denoted as A_X.

Level 1 Counterfeit Acquisition (named as variable A_1) is defined in this study as the possession of counterfeit goods. As such, it is answered within the survey as a Yes or No question of whether a person owns at least one pair of counterfeit goods, regardless of its source. This definition for possessing counterfeits implies a broad spectrum of attitudes, from either willingness to purchase counterfeit, being deceived into purchasing counterfeit, or being given counterfeit by someone else. It also can imply either remembering about once owning a counterfeit good, or actively keeping the good even long before it has been acquired. In the results of the survey, about 61.5% of the total number of respondents (187 responses) answered positively to this question phrased as such:

"Have you ever bought OR received a pair (from family or a friend) of athletic shoes that are Class A, replica, overrun, imitation, fake, or are otherwise non-original branded products?"

Level 2 Counterfeit Acquisition (named as variable A_2) is an initial response created as a correction for Level 1, because of feedback from the pre-survey. It was not enough simply to gauge ownership or possession of the counterfeit goods. A way to gauge whether they

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have decided to buy the counterfeit good for themselves is to identify the source of the good - whether bought in a store or given by another person. In the question on why they decided to keep the counterfeit good, a choice is added that signifies that the item was a gift and is to be kept anyway regardless of it being fake. In the survey responses, 102 of the 187 who fell under Level 1 also picked the choice phrased as such:

"It was given to me, so I am keeping it anyway."

when prompted with the question: "What do you like about this pair?" as one of their top three reasons. As such, it can be said that for Level 2 Counterfeit Acquisition, 27.96% of the total (85 responses) responded in the positive, thus they can be considered consumers who "Decided-to-Buy" their owned counterfeit goods.

Finally, Level 3 Counterfeit Acquisition (named as variable A_3) acts as a further investigative factor on the behaviour of Decided-to-Buy consumers. Taking into consideration their answers during the Simulated Market Choice-Based Conjoint survey, a positive value is recorded when the responded chooses to buy a non-original item at any point during the presentation of choices. Non-original items are given the terminologies "cheap-looking" and "class A replica", with the latter signifying a counterfeit product more indistinguishable from the original than the former. This signifies future or potential willingness to consider a non-original item when given the chance to, as even when presented two non-original choices, there is an option to choose neither of them. The following table shows the breakdown of responses comparing Level 2 and Level 3 Counterfeit Acquisition observed in the survey responses:

As such, 200 out of the 304 respondents (65.79%) have either bought a counterfeit item already OR will consider buying a hypothetical counterfeit item given the chance. This can potentially imply a number of connotations of interest: (1) a majority of Filipino consumers exhibit an openness to purchase counterfeit goods when presented with the opportunity; (2) a majority of Filipino consumers do not seek out and actually buy counterfeit items for

themselves, and instead only keep them when given by others; or (3) only a minority of Filipino consumers are open and willing about their purchase of counterfeit items, with the rest justifying being given as gifts as enough reason to keep counterfeit items.

Thus, as the main dependent variable, A_3 (Level 3 Counterfeit Acquisition) is given consideration in the further analysis of the survey responses, with all the corrections applied to investigate *past* and *potential future* purchasing of counterfeit items.

5.2   Independent Variables

The parameters serving as independent variables are derived from the individual questions in the survey. Each parameter is a category of information describing the responses and is composed of variables which are types under that category which each survey respondent might apply to. As such, if the description of the variable applies to the respondent, the value of its corresponding variable is 1. These parameters and variables are described in the following sections.

5.2.1   Variables for General Purchase Behaviour

The following parameters describe the general demographic of the survey respondents. Data from these are obtained in the first part of the questionnaire, with the questions asking for generic questions pertaining to themselves and their tendencies while shopping for branded athletic shoes in the market. They are denoted each with an uppercase letter for distinction, with the possible variables for that parameter each having a subscript number.

B: gender, with two variables; B_1 (female) or B_2 (male). It is possible for the respondent not to declare their gender, in such case, B_1 and B_2 are both 0.

C: age group. It is posited that there might be a factor of age for the decision making of people for purchasing goods, particularly counterfeit ones. From the survey results obtained, six age groups are considered, as variables C_1 through C_6:

-    C_1 – from 12 to 17 years old
-    C_2 – from 18 to 24 years old

- C_3 – from 25 to 34 years old
- C_4 – from 35 to 44 years old
- C_5 – from 45 to 54 years old
- C_6 – from 55 to 64 years old

D: social situation, either studying at least part-time (D_1 = 1) or working at least one part-time job (D_2 = 1). The nature of the question allows both variables to be equal to 0 or 1, accounting for people who study and do part-time work at the same time.

E: income bracket. This question is added to the survey since it is hypothesized that the level of income of a person wishing to purchase branded athletic footwear will influence whether they will willingly choose to buy counterfeit versions of such products. The variables under this parameter are of monthly incomes loosely based on the Philippine Institute for Development Studies classifications as of 2018 (Domingo, 2020):
- E_1 – below PHP 5,000 (roughly corresponding to *Poor*, but also used as classification for possibly only gaining income as allowance, i.e. for students)
- E_2 – from PHP 5,000 to PHP 9,999 (roughly corresponding to *Poor*)
- E_3 – from PHP 10,000 to PHP 21,999 (roughly corresponding to *Low-Income, but Not Poor*)
- E_4 – from PHP 22,000 to PHP 43,999 (roughly corresponding to *Lower Middle*)
- E_5 – from PHP 44,000 to PHP 76,999 (roughly corresponding to *Middle*)
- E_6 – from PHP 77,000 to PHP 131,999 (roughly corresponding to *Upper Middle*)
- E_7 – from PHP 132,000 to PHP 219,999 (roughly corresponding to *Upper Middle, but Not Rich*)
- E_8 – above PHP 220,000 (roughly corresponding to *Rich*)

F: Pair Ownership. This parameter roughly corresponds to the CBBE criterion of Brand Loyalty, with the hypothesis that people who own more pairs of shoes are more likely to be collectors of those shoes, which signify loyalty to particular brands of athletic footwear. The variables for this parameter are for how many pairs of athletic shoes the respondent currently

owns, with the rationale that those who collect or are loyal to specific brands would lean towards expanding their "collection" only with authentic products:

- F_1 – 1-2 pairs owned
- F_2 – 3-5 pairs owned
- F_3 – 6-10 pairs owned
- F_4 – more than 11 pairs owned

G: Shoe Purchase Frequency. Also as discussed in Parameter F, it is also expected that people who would expand their shoe inventory faster would also reasonably be more loyal to particular brands, and would be hypothesized to lean towards authentic products for such expansion of shoe inventory. The variables that follow describe the possible frequencies for buying shoes:

- G_1 – rarely buys shoes (no new pairs in the past 6 months)
- G_2 – sometimes buys shoes (1 pair in the past 6 months)
- G_3 – occasionally buys shoes (2 or 3 new pairs in the past 6 months)
- G_4 – often buys shoes (a new pair or two every 3 months)
- G_5 – always buys shoes (a new pair every month or more)

H: Qualities looked for in athletic shoes. These are checkboxes for whether they give importance to the following qualities denoted as variables:

- H_1 – Durability (do not break easily)
- H_2 – Usability (can be utilized anywhere and for any occasion)
- H_3 – Design (look appealing or "cool")
- H_4 – Price (are affordable)
- H_5 – Rarity (are hard to find, at least for some designs)
- H_6 – Comfort (are easy on the feet)

J: Shoe budget. This parameter defines how much people would usually spend for athletic shoes.

- J_1 – less than PHP 999 (~ less than US$20)
- J_2 – PHP 1000 - PHP 2999 (~ US$20 - US$60)

- J_3 – PHP 3000 - PHP 4999(~ US$60 - US$100)
- J_4 – PHP 5000 - PHP 6999(~ US$100 - US$140)
- J_5 – PHP 7000 - PHP 8999 (~ US$140 - US$180)
- J_6 – PHP 9000 above (~ more than US$180)

K: Shoe purchase destination. This parameter determines the location from which branded athletic shoes might be obtained.
- K_1 – Mall (through department stores, stalls, etc.)
- K_2 – brick-and-mortar official Outlet Stores
- K_3 – the *tiangge*s.
- K_4 – on the official online stores
- K_5 – through online marketplace platforms (like Lazada, Shoppee, etc.)
- K_6 – through social media marketplaces (such as in Facebook)
- K_7 – as secondhand items, from other people or resellers

The following parameters are Check-All-That-Apply (CATA) questions, which follow from specific answers from the question: "*Have you ever bought OR received a pair (from family or a friend) of athletic shoes that are Class A, replica, overrun, imitation, fake, or are otherwise non-original branded products?*". Parameters X and Y apply for an answer of "Yes", while Parameter Z only applies for an answer of "No". As such, these variables are not considered good to apply for Level 2 Acquisition as a dependent variable, as it is certain that only people who have bought counterfeits will have possibilities to answer X and Y, while it is impossible for these people to answer any questions for parameter Z. All these parameters though can be analysed for Level 3 Acquisition.

X: Answers for "*What do you like about this pair?*", referring to the counterfeit pair of branded athletic shoes acquired by the respondent (at Level 1). Respondents are asked to choose the *top three* reasons for preferring the counterfeit pair, to narrow down the most important factors for them in obtaining the fake product. Each of the following variables are reasons which may be chosen from to answer the question, based on attributes determined by Consumer-Based Brand Equity:

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- X_1: "It's cheaper than the original."
- X_2: "It was given to me, so I am keeping it anyway." This option is based on observed cultural norms in Asia, particularly in the Philippines, and also as an additional possibility for those who did not actually willingly buy their owned counterfeit product. An answer that does not include this choice is considered for Level 2 Counterfeit Acquisition, or intentional owning or purchasing of the counterfeit product.
- X_3: "I like the design anyway."
- X_4: "It looks the same as the original anyway."
- X_5: "People won't know it's fake."
- X_6: "My friends / family buy them as well."
- X_7: "I feel good owning a non-original brand despite knowing it is fake."
- X_8: "I don't really mind the quality of the imitation shoes."
- X_9: "The model / version I like is not available easily in a store near to me."
- X_{10}: "I don't care / don't know about the consequences or possible problems of buying fake shoes."
- X_{11}: "I have to have this particular pair, regardless of whether or not it is fake."
- X_{12}: "It has the logo of my favourite brand anyway."

Y: Answers for *"When would you prefer to buy original branded shoes?"*. This question gauges the willingness of the respondent to buy an authentic product over a counterfeit one in the future. Respondents are asked to check all the following variables that apply to them as a reason they would get authentic branded footwear products, as points of importance over their fake counterparts.
- Y_1: "If I know that the quality will last for a long time."
- Y_2: "If I feel I can afford it."
- Y_3: "If there are good and generous discounts for the brand."
- Y_4: "If the design I like is available in a nearby store / outlet."
- Y_5: "If there is an increase in my income / allowance."
- Y_6: "If there are proceeds going to a good cause when I buy."

- Y_7: "I don't see myself buying original ever." This variable is for when all other reasons do not apply, and the respondent does not intend to buy authentic versions of the products at all.

Z: Answers for *"What makes you prefer to buy original / authentic shoes?"*, referring to the negative answer to whether the respondent owns or has acquired counterfeit pairs of shoes. This parameter is for the specific reasons people have for choosing always to buy authentic branded footwear products. For each statement that applies, the corresponding variable has the value of 1. These reasons are based on attributes which are described in Consumer-Based Brand Equity models described in literature.

- Z_1: "The quality of original shoes is better for me."
- Z_2: "I am aware of the consequences or possible problems of buying fake."
- Z_3: "The design of the original is better than the fake ones."
- Z_4: "I can afford the original price."
- Z_5: "I feel good when I wear original branded shoes."
- Z_6: "The official / partner stores near me give good discounts."
- Z_7: "I am loyal to the brand, and support the official products as much as I can."
- Z_8: "I don't want to buy fake because it is frowned upon."
- Z_9: "All my friends / family wear original branded shoes."
- Z_{10}: "My friends / family / other people who see me would know if it's original or not."
- Z_{11}: "I am a collector of original branded shoes."

Finally, the following parameters are absolute rating parameters, i.e. scores given by each respondent from 1 to 5, 5 being the most important,

L: stands for the absolute rating given by the respondent regarding the importance of the *price* of the product.

M: stands for the absolute rating given by the respondent regarding the importance of the *quality of the design* of the product.

N: stands for the absolute rating given by the respondent regarding the importance of the *visibility of the logo* in the product.

O: stands for the absolute rating given by the respondent regarding the importance of the *particular brand* of the product.

5.3 Correspondence to CBBE Criteria

Thus, the independent variables are each linked to a foundational CBBE criterion corresponding to what it describes.

5.3.1 CBBE Corresponding to General Purchase Behaviour

Traits of CBBE can be observed in some way from the general purchase behaviours, although due to their nature, often not directly. The following table shows some variables that could possibly align to the ideas presented by CBBE.

Table 1 - CBBE Criteria and Corresponding General Information Data

CBBE Criterion	Variable	General Information Data
Price Premium	E	Income level
	J	Shoe budget
Brand Personality / Image	B	Gender
	C	Age
Brand Loyalty	F	Shoe pair ownership
	G	Shoe purchase frequency
Brand Awareness Perceived Value / Quality	H	Qualities looked for in shoes

5.3.2 CBBE Corresponding to Counterfeiting Attitudes

The following variables pertaining to attitudes regarding buying CBAFs (as asked in the second part of the survey) are also in line with the four specific points of CBBE outlined earlier. As such, the respondents' attitudes toward CBAFs are checked for statistical independence against their eventual purchase or non-purchase of CBAFs.

Table 2 - CBBE Criteria and Corresponding Attitudes on CBAFs

CBBE Criterion	Variable	Attitude Regarding CBAF
Price Premium	X1	It's cheaper than the original.
	Y2	If I feel I can afford it.
	Y3	If there are good and generous discounts for the brand.
	Y5	If there is an increase in my income / allowance.
	Z4	I can afford the original price.
	Z6	The official / partner stores near me give good discounts.
Brand Personality / Image	X5	People won't know it's fake.
	X6	My friends / family buy them as well.
	X10	I don't care / don't know about the consequences or possible problems of buying fake shoes.
	Y6	If there are proceeds going to a good cause when I buy.
	Z2	I am aware of the consequences or possible problems of buying fake.
	Z8	I don't want to buy fake because it is frowned upon.
	Z9	All my friends / family wear original branded shoes.
	Z10	My friends / family / other people who see me would know if it's original or not.
Brand Loyalty	X9	The model / version I like is not available easily in a store near to me.
	Z3	The design of the original is better than the fake ones.
	Z7	I am loyal to the brand and support the official products as much as I can.
	Z11	I am a collector of original branded shoes.
Brand Awareness	X4	It looks the same as the original anyway.
	X11	I have to have this particular pair, regardless of whether or not it is fake.
	X12	It has the logo of my favorite brand anyway.
	Y4	If the design I like is available in a nearby store / outlet.
Perceived Value / Quality	X3	I like the design anyway.
	X4	It looks the same as the original anyway.
	X7	I feel good owning a non-original brand despite knowing it is fake.
	X8	I don't really mind the quality of the imitation shoes.
	Y1	If I know that the quality will last for a long time.
	Z1	The quality of original shoes is better for me.
	Z5	I feel good when I wear original branded shoes.

6   Results and Statistical Testing

The following chapter explores the resulting data obtain from the survey, the statistical tests applied to it, and what trends can be seen from the respondents. From here, conclusions can be made about the hypotheses and research questions.

6.1   Independence and Strength Testing

To answer the first four hypotheses, and subsequently hypothesis H0, it is important now to assess if there is some relationship between the dependent variable (propensity to purchase counterfeit product) and the independent variable (as described in the hypotheses), and how strong this relationship is. For this purpose, the Chi-Squared Test and Cramér's V are statistical tools used in the study.

6.1.1   Chi-Squared Test for Independence

For measuring the relationship between the independent and dependent variables, the Chi-Squared Test for Independence is used. The Chi-Squared Test is a statistical test used to assess differences between groups of categorical data, and whether these differences are significant (McHugh, 2013).

The way that this statistical test works is that when given two sets of data wherein each sample is represented once in both, the Chi-Squared statistic χ^2 is calculated. In the case for this study, the two sets of data are the answers of the respondents to acquiring counterfeit as Level 3 (A_3), and the different independent variables as outlined corresponding to CBBE theories (as discussed in Sections 5.3.1 and 5.3.2). A_3, by definition, only involves two categories: $A_3 = 0$ (respondent did not acquire counterfeit by Level 3 standards) or $A_3 = 1$ (respondent *did* acquire counterfeit by Level 3). However, the number of categories differ for the independent variables (for example, there are six possible age groups for variable C, while variables X_n, Y_n, and Z_n only have two categories as yes or no responses to their corresponding questions). So, a table of the respondent counts is constructed depending on the two data groups being investigated.

The Chi-Square Test procedure is shown as an example with the following, for assessing the relationship between variables A_3 and C. A table of *observed counts* is constructed with the counts of how many respondents correspond to the possible values for A_3 and C. For instance, there are 92 respondents falling under the C_3 age category, with their A_3 values equal to 1, as shown in the highlighted cell:

Table 3 - Chi-Square Test, A_3 vs. C: Observed Counts

	$A_3 = 0$	$A_3 = 1$	Sum
C_1	2	7	9
C_2	10	55	65
C_3	67	92	159
C_4	19	30	49
C_5	6	13	19
C_6	0	3	3
Sum	104	200	304

The row and column sums (or *marginals*) are then obtained, and the grand total of all these sums must be the sample size (in our case, N = 304).

Then, a table of *expected counts* is constructed. Each element of that is calculated as

$$E_{ij} = \frac{M_i \times M_j}{N} \qquad (1)$$

where E_{ij} is the *expected count* at the point (i, j), M_i is the row marginal (sum) in row i, M_j is the column marginal for column j, and N is the total sample size.

In the case of A_3 vs. C, the expected counts table looks like the following. Note that the row sums and column sums are still exactly the same.

Table 4 - Chi-Square Test, A_3 vs. C: Expected Counts

	$A_3 = 0$	$A_3 = 1$	Sum
C_1	3.079	5.921	9
C_2	22.237	42.763	65
C_3	54.395	104.605	159
C_4	16.763	32.237	49
C_5	6.500	12.500	19
C_6	1.026	1.974	3
Sum	104	200	304

With the observed and expected counts for each possibility (i, j) for the two variables being compared (A_3 and C in this case), the formula for finding the χ^2 value is

$$\chi_{ij}^2 = \frac{\left(O_{ij} - E_{ij}\right)^2}{E_{ij}} \qquad (2)$$

where O_{ij} is the observed count for a given possibility (i, j) and E_{ij} is the expected count (McHugh, 2013). The sum for all combinations of i and j, denoted as $\Sigma\chi^2_{ij}$ or simply χ^2, is then the final *chi-squared statistic* for that relationship.

The P-value is then obtained for the equivalent χ^2, determining if it is statistically significant for $\alpha = 0.05$ (or for 95% certainty), which is the case when it is less than 0.05. In this case, this condition is fulfilled, hence, an associated register can the P-value is obtained using Excel's `CHISQ.DIST.RT` function, which takes two arguments: the χ^2 value, and the degrees of freedom. Degrees of freedom are calculated as (the number of rows – 1) times (the number of columns – 1) (McHugh, 2013).

For the example, the final χ^2 value is calculated as in the following table:

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Table 5 - Chi-Square Test, A_3 vs. C: Values of χ^2

	$A_3 = 0$ (obs / exp)	$A_3 = 1$ (obs / exp)	Sum
C_1	0.378093 (2 / 3.1)	0.196608 (7 / 5.9)	0.574701
C_2	6.733884 (10 / 22.2)	3.501619 (55 / 42.8)	10.2355
C_3	2.921104 (67 / 54.4)	1.518974 (92 / 104.6)	4.440077
C_4	0.29848 (19 / 16.8)	0.155209 (30 / 32.2)	0.453689
C_5	0.038462 (6 / 6.5)	0.02 (13 / 12.5)	0.058462
C_6	1.026316 (0 / 1.0)	0.533684 (3 / 2.0)	1.56
Grand Total ($\Sigma\chi^2$)			17.32243193
Degrees of Freedom			5
P-value			0.0039272

Since the P-value calculated (0.0039272) is less than 0.05, then there is a **statistically significant relationship** between **A_3** and **C**. It means that the age of the individual might have something to do with whether they are more prone to buy counterfeit items. The biggest contributor to the final χ^2 sum is the age bracket C_2 (from 18 to 24 years old), and as such, this relationship is seen most strongly for this age bracket. Younger people around that age tend more towards the purchase of counterfeit branded athletic footwear, but the opposite is observed for the age category right after theirs (C_3, 25 to 34 years old).

It is also important not only to test for statistical significance, but also for the strength of that measured significance statistic (McHugh, 2013). The simplest measure for strength is the calculation of Cramér's V statistic. Given a score for χ^2, the Cramér's V can be calculated using this formula:

$$V = \sqrt{\frac{\chi^2}{N \cdot (k - 1)}} \qquad (3)$$

with N being the sample size (= 304) and k being the number of rows *or* the number of columns, whichever is smaller. Cramér's V is a number between 0 and 1, with its value possible to interpret with the following convention (Rea & Parker, 1992):

Table 6 - Interpreting Cramér's V (Rea & Parker, 1992)

Cramér's V	Interpretation
0.00 < 0.10	Negligible
0.10 < 0.20	Weak
0.20 < 0.40	Moderate
0.40 < 0.60	Relatively strong
0.60 < 0.80	Strong
0.80 < 1.00	Very strong

In the comparison between A_3 and C, a Cramér's V of about **0.2388** was obtained. Thus, this relationship between the age and willingness to purchase counterfeit has a **moderately** strong significance. It is also however said that a relatively weaker correlation may be expected at this stage when the phenomenon under observation is only partially explained by the independent variable (McHugh, 2013).

6.1.2   Independence Test for General IVs

Thus, the effect of the General Information variables as shown in Section 5.3.1 is calculated against A_3. The complete set of χ^2 and Cramér's V measures for variables C, E, F, G, and J shown in the following table (with adjustments to degrees of freedom done for smaller groups of variables):

Table 7 - Chi-Square Test, General IVs

	χ^2	df	p	Hyp?	V	Strength
C	17.32243193	5	0.0039272	Reject	0.238708366	Moderate
E	8.185230423	8	0.415588757	Accept		
F	10.06704954	3	0.018004704	Reject	0.181976082	Weak
G	4.856726496	4	0.302316654	Accept		
J	3.293711521	4	0.509929229	Accept		

It appears then that only the age bracket, which has a moderate effect according to Cramér's V, and the number of branded athletic footwear pairs owned, which has a weak effect, have significant enough relationships to the buyer decision of purchasing CBAFs. As previously discussed, younger buyers would tend more to buy counterfeit while more middle-aged buyers will tend to buy authentic.

Shown here in the following table is the Chi-Square Test for A_3 against F, with the **observed** and **expected** counts included in parentheses. By the effect of variable F, it can be noticed that people who own more pairs (specifically for F_3 = owning 6 to 10 pairs) tend to buy authentic. This can be construed as a contribution of the CBBE concept of brand loyalty to the counterfeit purchase decision. A slight effect is also seen in the other direction – when people own fewer shoes (F_1 = owning 1 or 2 pairs), they do not possess the same loyalty to the brand and would then tend to buy counterfeit for at least one of those few pairs.

Table 8 - Chi-Square Test, A_3 vs. F: Values of χ^2

	$A_3 = 0$ (obs / exp)	$A_3 = 1$ (obs / exp)	Sum
F_1	1.17120 (36 / 43.1)	0.60902 (90 / 82.9)	1.78022
F_2	0.00166 (42 / 41.7)	0.00086 (80 / 80.3)	0.00252
F_3	5.05344 (22 / 13.7)	2.62779 (18 / 26.3)	7.68123
F_4	0.39676 (4 / 5.5)	0.20632 (12 / 10.5)	0.60308
Grand Total ($\Sigma\chi^2$)			10.06705
Degrees of Freedom			3
P-value			0.018005

The variable K, which is the destination for shoe purchases, is not directly related to CBBE concepts, but is also an important factor for the purchase decision of counterfeit. This is due to some sources, such as flea markets, are known to have more availability of counterfeit products than others.

Table 9 - Chi-Square Test, A_3 vs. K: Values of χ^2

	$A_3 = 0$ (obs / exp)	$A_3 = 1$ (obs / exp)	$\Sigma\chi^2$	p	V	Strength
K_1	0.2118 (23 / 25.3)	0.1102 (51 / 48.7)	0.4256	0.51416	0.0374	
Not K_1	0.0682 (81 / 78.7)	0.0354 (149 / 151.3)				
K_2	0.4217 (33 / 36.9)	0.2193 (75 / 71.1)	0.9942	0.31871	0.0572	
Not K_2	0.2324 (71 / 67.1)	0.1208 (125 / 128.9)				
K_3	1.3961 (99 / 87.9)	0.7260 (158 / 169.1)	13.7254	0.00021	0.2125	Moderate
Not K_3	7.6338 (5 / 16.1)	3.9696 (42 / 30.9)				
K_4	0.1120 (68 / 70.8)	0.0582 (139 / 136.2)	0.5334	0.46520	0.0419	
Not K_4	0.2389 (36 / 33.2)	0.1242 (61 / 63.8)				
K_5	0.4469 (91 / 84.8)	0.2324 (157 / 163.2)	3.6879	0.05481	0.1101	
Not K_5	1.9793 (13 / 19.2)	1.0292 (43 / 36.8)				
K_6	0.2285 (91 / 86.6)	0.1188 (162 / 166.4)	2.0705	0.15017	0.0825	
Not K_6	1.1336 (13 / 17.4)	0.5895 (38 / 33.6)				
K_7	0.2077 (102 / 97.5)	0.1080 (183 / 187.5)	5.0511	0.02461	0.1289	Weak
Not K_7	3.1154 (2 / 6.5)	1.6200 (17 / 12.5)				

Tiangges are then seen to have this effect as shown in the Chi-Square test. This could mean that people who include a trip to the *tiangge* as their source for branded athletic footwear would influence their decision to buy counterfeit. A weak effect can be noticed as well for second-hand items, perhaps due to the inherent difficulty of verifying authenticity when items have passed owners.

6.1.3 Independence Test for Counterfeit Attitude IVs

A similar procedure is done with variables from Section 5.3.2, referring to answers by respondents about their own attitudes regarding purchase (or non-purchase) of CBAFs in line with the CBBE theories. The Chi-Squared Test is applied for two groups of data which are both only answers for yes or no questions (degree of freedom thus always being 1), the P-value is calculated, and the corresponding hypothesis is either Rejected or Accepted by grounds of that variable alone. The Cramér's V is then calculated and assessed on the grounds defined by Rea and Parker (1992).

Table 10 - Chi-Square Test, A_3 vs. X

	χ^2	df	p	Hyp?	V	Strength
X_1	20.7607	1	0.00001	Reject	0.261	**moderate**
X_3	17.3989	1	0.00003	Reject	0.239	**moderate**
X_4	19.0866	1	0.00001	Reject	0.251	**moderate**
X_5	8.0254	1	0.00461	Reject	0.162	weak
X_6	0.5885	1	0.44301	Accept		
X_7	3.3849	1	0.06580	Accept		
X_8	5.4570	1	0.01949	Reject	0.134	weak
X_9	3.9790	1	0.04607	Reject	0.114	weak
X_{10}	6.4964	1	0.01081	Reject	0.146	weak
X_{11}	3.7170	1	0.05386	Accept		

Table 11 - Chi-Square Test, A_3 vs. Y

	χ^2	df	p	Hyp?	V	Strength
Y_1	18.1584	1	0.00002	Reject	0.244	**moderate**
Y_2	24.8742	1	0.00000	Reject	0.286	**moderate**
Y_3	17.4822	1	0.00003	Reject	0.240	**moderate**
Y_4	3.5561	1	0.05933	Accept		
Y_5	5.6415	1	0.01754	Reject	0.136	weak
Y_6	3.4722	1	0.06241	Accept		

As can be seen for most of the questions asked when respondents said "Yes" to having obtained CBAF at some point in time, most of the reasons exhibit some significant relationship to Level 3 counterfeit acquisition, rejecting their corresponding null hypotheses. Of note are these questions which yielded moderate effects:

- X_1: [I bought / kept the CBAF product because] "It's cheaper than the original."
- X_3: [I bought / kept the CBAF product because] "I like the design anyway."
- X_4: [I bought / kept the CBAF product because] "It looks the same as the original anyway."
- Y_1: [I would prefer to buy ABAFs instead of CBAFs] "If I know that the quality will last for a long time."
- Y_2: [I would prefer to buy ABAFs instead of CBAFs] "If I feel I can afford it."
- Y_3: [I would prefer to buy ABAFs instead of CBAFs] "If there are good and generous discounts for the brand."

These reasons revolve around the themes of Brand Perception (by the consumer of the quality of the branded product they have acquired) and Price Premium. Thus, it appears that these two qualities of CBBE so far make the strongest rejections of the null hypotheses and thus make a difference during the decision to buy counterfeit.

Similar themes are seen even for the questions asked when respondents said "No" to having obtained CBAFs at some point, reflected in the Chi-Square Test comparing the variables A_3 and Z:

Table 12 - Chi-Square Test, A₃ vs. Z

	χ^2	df	p	Hyp?	V	Strength
Z_1	28.7219	1	0.00000	Reject	0.307	**moderate**
Z_2	13.6388	1	0.00022	Reject	0.212	**moderate**
Z_3	15.6083	1	0.00008	Reject	0.227	**moderate**
Z_4	3.9616	1	0.04655	Reject	0.114	weak
Z_5	20.7225	1	0.00001	Reject	0.261	**moderate**
Z_6	4.6107	1	0.03177	Reject	0.123	weak
Z_7	4.3573	1	0.03685	Reject	0.120	weak
Z_8	1.0877	1	0.29698	Accept		
Z_9	0.6780	1	0.41028	Accept		
Z_{10}	4.7357	1	0.02954	Reject	0.125	weak
Z_{11}	0.1528	1	0.69589	Accept		

These questions for variable Z yielded significant relationships and moderate effects:

- Z_1: [I do not buy CBAFs because] "The quality of original shoes is better for me."
- Z_2: [I do not buy CBAFs because] "I am aware of the consequences or possible problems of buying fake."
- Z_3: [I do not buy CBAFs because] "The design of the original is better than the fake ones."
- Z_5: [I do not buy CBAFs because] "I feel good when I wear original branded shoes."

These reasons on the side of only buying authentic goods pertain more to the quality of the original branded products, as perceived by these buyers in their own assessment, thus proving the influence of Brand Perception as an attribute in Consumer-Based Brand Equity to the purchase decision against counterfeit. It can be of note that Z_4 and Z_6 have relatively weaker effects, both of which are questions regarding the attribute of price. Authentic products are still not very accessible based on the metric of their price point, and as such, other qualities prioritized by buyers have a greater effect on their purchasing decisions. Brand loyalty also has a relatively weaker, but still significant, effect on the decision as portrayed by the Chi-Square statistic strength of Z_7.

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6.2 Ratings

Aside from the previously discussed categorical questions, a handful of items in the survey also ask for how important they think a particular attribute of branded athletic footwear is for the respondent, and how might it influence their decision to buy that pair of shoes, answering the hypothesis H5. This information is collected as numerical ratings, from 1 (worst, or least important) to 5 (or best, or most important).

There are two types of numerical ratings provided by respondents. Firstly, it is asked what their rating is of on a specified attribute, on an *absolute* scale from 1 to 5, thus encouraging the respondent to think about the attribute only by itself as compared to other attributes of the product.

6.2.1 Absolute Pre-Purchase Ratings

For the absolute ratings, the following table shows the average number for each of the four attributes across N=304.

Table 13 - Average Absolute Pre-Purchase Ratings

	Average Rating	Standard Deviation	Standard Error
Price **of Product (L)**	**4.303**	0.896187	0.05140
Quality **of Product (M)**	**4.743**	0.606941	0.03481
Logo **Visibility (N)**	**2.727**	1.303259	0.07475
Brand **Preference (O)**	**3.408**	1.199535	0.06880

From here, it is observed that generally, the **quality** of the product is the most important consideration, with its **price** following as a close second. The **brand** associations are not given as high importance as expected, this most likely due to the relative indifference of which brand is bought, compared to the former two attributes.

For the market segments, the following averages are obtained:

Table 14 - Average Absolute Pre-Purchase Ratings for Market Segments

		Ratings for Cluster 1	Ratings for Cluster 2	Ratings for Cluster 3
By Gender:	**Price**	4.345	4.219	
Cluster 1 (Female)	**Quality**	4.775	4.688	
Cluster 2 (Male)	**Logo**	2.740	2.760	
	Brand	3.340	3.635	
By Age:	**Price**	4.473	4.283	4.169
Cluster 1 (<25)	**Quality**	4.716	4.748	4.761
Cluster 2 (25-34)	**Logo**	2.892	2.642	2.746
Cluster 3 (>34)	**Brand**	3.527	3.365	3.380
By Income:	**Price**	4.475	4.210	3.917
Cluster 1 (Lower)	**Quality**	4.742	4.726	4.792
Cluster 2 (Middle)	**Logo**	2.875	2.742	2.167
Cluster 3 (Upper)	**Brand**	3.342	3.516	3.583
By Language:	**Price**	4.341	4.211	
Cluster 1 (English)	**Quality**	4.706	4.833	
Cluster 2 (Filipino)	**Logo**	2.860	2.411	
	Brand	3.416	3.389	

Some noticeable trends from the segmentation are as follows: (1) It appears that for gender differences: females tend to be more mindful of the price than males, while males tend to take note of the particular brand more than females do, (2) as for age, older people tend to be more mindful of the quality of the footwear product while younger people put more importance on the price and the preferred brand, (3) across incomes, while the income level of a person increases, they tend to take less care about the price or the visibility of the logo but more on the quality of the product and its brand, and (4) people who answered the Filipino version of the questionnaire tended to care more about the quality of the product and less about the price.

6.2.2 Relative Pre-Purchase Ratings

The relative ratings are acquired from the survey as an implementation of Saaty's (1987) Analytic Hierarchy Process (or AHP), a method of determining the weights of importance of independent variables against each other by pairwise comparisons taken from measurements or from scales determining relative strength of preferences.

The step-by-step process followed to perform AHP is as follows.

Firstly, a scale is set up as a basis for the pairwise comparisons. For this procedure, two attributes or qualities that are used for the overall measurement are picked out of a pool and compared against this scale until all combinations have been used up. The scale is described in the following table, partly based on the original study, with intensity values in the middle of the included numbers possible for some compromises (Saaty, 1987):

Table 15 – The AHP Fundamental Scale (based on Saaty, 1987)

Intensity (Value)	Definition	Explanation
1	Equal importance	Two activities contribute equally to the objective
3	Moderate importance of one over another	Experience and judgment strongly favour one activity over another
5	Essential or strong importance	Experience and judgment strongly favour one activity over another
7	Very strong importance	An activity is strongly favoured, and its dominance demonstrated in practice

This means that when a given attribute i is compared to another attribute j; if the importance of i is greater than j, the intensity value is scored for i in terms of the degree of importance described in the explanation for the table. This score is listed as an element of a matrix of

size N x N (where N is the total number of attributes) denoted as a_{ij}. The transverse element of that matrix a_{ji} is then the reciprocal of the intensity value, since attribute *j* is regarded to be of *less* importance than attribute *i*. Thus, for example, if attribute *i* has a *very strong importance* over *j* according to the scale, the value of element a_{ij} will be 7, while element a_{ji} of the matrix is 1/7. In the case of the study, there are four attributes in total to be assessed (importance of price, quality, logo visibility, and brand). Thus, a 4x4 *Pairwise Comparison Matrix* is built with all the combinations of pairwise comparisons among these four were asked in the questionnaire. This is possible to be done with six comparison questions, covering all unique combinations exactly once. These comparisons amount to a total of 12 cells in the 4x4 matrix (each score and its reciprocal representing two elements), and the remaining four elements belong to the diagonals, which are the attributes compared to themselves (which is always of equal importance by nature).

An example response then looks like the following matrix (with the highlighted values being the ones actually provided by the respondent through the questionnaire). Note that the left-hand side attribute is at the left side of the comparison, i.e., Price is of a *very strong importance* against Logo Visibility and Preferred Brand (both with values of 7) while of *equal importance* with Design Quality (with a value of 1).

Table 16 - Example of AHP Pairwise Comparison Matrix

	Price	Design Quality	Logo Visibility	Preferred Brand
Price	1	1	7	7
Design Quality	1	1	7	1
Logo Visibility	1/7	1/7	1	1/7
Preferred Brand	1/7	1	7	1

Due to the technical limitations of the survey questionnaire format, the comparison questions in the survey are presented as scores instead from 1 to 7, instead of this scale from 1/7 to 7, as in the following figure:

Which is MORE important for you between the two? *

Select the number nearer to the thing you think is more important. If 4, these two things are equally important.

	1	2	3	4	5	6	7	
PRICE	○	○	○	○	○	○	○	BRAND

Figure 4 - Example comparison question in the survey

As provided in the questionnaire, the responses collected are values from 1 to 7. The values must be mapped to the AHP scale such that the intensity value for a response of "1" will actually be equivalent to 7, while "7" will be equivalent to 1/7. When the two attributes are equally important, the score of "4" will be given by the respondent, which should be equivalent to the intensity value of 1.

This mapping is then most closely approximated by a quartic (degree 4) polynomial equation shown in the following graph, with an R^2 score of 99.89%:

Saaty's Method Score vs Value Best Fit (Quartic)

$y = -0.0214x^4 + 0.3586x^3 - 1.7905x^2 + 1.2853x + 7.1497$
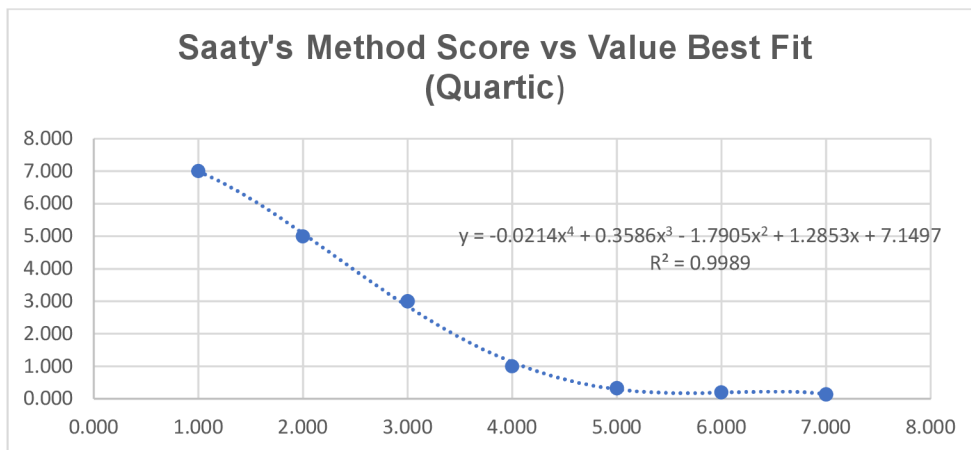$R^2 = 0.9989$

Figure 5 - Graph of Quartic Function for Converting Survey Scores

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Thus, entering a value of x according to the survey will yield the desired y for the AHP scale. All the responses are averaged out to gain the six x scores necessary to build the overall pairwise comparison matrix, based on the conversion to y intensity values based on the quartic function. In the case of averages from N = 304 respondents, the quartic function conversion is shown on the table below, keeping in mind that a lower Average Score means that the left-hand side attribute is more important than the one on the right.

Table 17 - AHP Survey Average Scores converted into Intensity Levels (y)

Comparison	Average Score	y	1/y
Price vs. Brand Preferred	3.585526	1.741506	0.574216
Design Quality vs. Price	3.740132	1.495039	0.668879
Price vs. Logo Visibility	2.398026	4.174991	0.239521
Brand Preferred vs. Logo Visibility	2.618421	3.673799	0.272198
Brand Preferred vs. Design Quality	5.194079	0.232095	4.308575
Logo Visibility vs. Design Quality	5.953947	0.187786	5.325217

The overall Pairwise Comparison Matrix then looks like this:

Table 18 - AHP Pairwise Comparison Matrix for Overall Data

	Price	Design Quality	Logo Visibility	Preferred Brand
Price	1	0.668878732	4.174990816	1.741505799
Design Quality	1.495039313	1	5.325216622	4.308574883
Logo Visibility	0.239521485	0.187785788	1	0.272197832
Preferred Brand	0.574215716	0.232095305	3.673798549	1

It can be noted from the overall matrix that once averaged out, Price is still somewhat more important than the visibility of the logo (between intensity values 3 and 5), while against brand preference, it is only a little more important (between intensity values 1 and 3).

The next step of AHP is to normalize the values inside the Pairwise Comparison Matrix. It means that the sum down each column must be equal to 1. This is done by dividing each element in the matrix by the sum of all elements in its same column. The *Normalized* Pairwise Comparison Matrix from the overall data then would look like this:

Table 19 - AHP Normalized Pairwise Comparison Matrix for Overall Data

	Price	Design Quality	Logo Visibility	Preferred Brand
Price	0.302226517	0.320227689	0.294552635	0.237836596
Design Quality	0.451840524	0.478752984	0.375703004	0.588419967
Logo Visibility	0.072389744	0.089903006	0.070551685	0.037173925
Preferred Brand	0.173543216	0.11111632	0.259192677	0.136569512

The final step then is to sum up the values across each row, which would be the weight for that row. For example, the weight for Price would then be the sum of all the elements in the first row. Due to the normalization process from the previous step, all resulting weight sums must add up to 4, the number of attributes being compared to one another (as each column adds up to 1, and there are four columns).

The weight percentage can then be obtained by dividing each attribute weight by the number of attributes, which can then be expressed as a percentage value. For the overall data, these weights are as outlined in the following table:

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Table 20 - AHP Percentage Importance for Overall Data

	Weight	% Importance
Price	1.154843437	28.87%
Design Quality	1.894716479	47.37%
Logo Visibility	0.27001836	6.75%
Preferred Brand	0.680421724	17.01%

From this result, the overall *percentage of importance* of each attribute is obtained. The design quality of the footwear product then carries the most weight of importance at about 47%, while the price follows not too far behind at about 29%. It means that overall, when examined against the other attributes, the design quality is still the most important, on average, for all the respondents. The visibility of the logo is seen to be the least important on average, which appears then to be not a major consideration point for the average Filipino branded footwear buyer.

Across clusters, the percentages of importance look like this:

Table 21 - AHP Importance Ratings, by Market Segment

		Ratings for Cluster 1	Ratings for Cluster 2	Ratings for Cluster 3
By Gender:	Price	29.99%	26.48%	
Cluster 1 (Female)	Quality	46.23%	49.43%	
Cluster 2 (Male)	Logo	6.87%	6.48%	
	Brand	16.90%	17.61%	
By Age:	Price	33.31%	28.61%	25.04%
Cluster 1 (<25)	Quality	44.03%	48.36%	45.53%
Cluster 2 (25-34)	Logo	6.83%	6.59%	7.86%
Cluster 3 (>34)	Brand	15.83%	16.44%	21.56%

By Income:	Price	33.48%	26.75%	19.97%
Cluster 1 (Lower)	Quality	43.90%	48.39%	53.36%
Cluster 2 (Middle)	Logo	6.90%	6.53%	6.53%
Cluster 3 (Upper)	Brand	15.73%	18.32%	20.13%
By Language:	Price	28.55%	29.78%	
Cluster 1 (English)	Quality	48.45%	44.04%	
Cluster 2 (Filipino)	Logo	6.67%	7.03%	
	Brand	16.33%	19.14%	

Some interesting observations about the relative pre-purchase importance ratings across the segments are as follows:

- Across genders, female respondents tend to give more importance to the price of the product, while male respondents emphasize more of the quality.

- Across age groups, the importance of price decreases as the age increases. Also, older respondents tend to give more importance on the brand preference by average.

- Across income levels, the highest disparity between quality and price is observed with the Upper Income level group (about 33.3 percentage points difference). Intuitively, people with relatively more disposable income available to them do not mind the price of the product too much, if it is of the best quality available. Upper Income level respondents also even regard the preference of brand to be more important than the price level (the only segment-cluster combination where this is true). Lower Income level respondents, in effect, also have the closest difference between Price and Design Quality (about ten percentage points), but even among them still, Quality wins out as the most important trait.

Overall, in conclusion, through the results of both absolute and relative ratings systems, the hypothesis H5 is rejected. Certain CBBE qualities then prove to be more important to people than others, particularly, the price point at which a pair of branded athletic footwear can be obtained, and the quality of the design with which they come.

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This also gives insight about the first two research questions: the quality level of the production at which authentic branded athletic footwear are made, in terms of comfort, style, and durability, is still the main selling point for the leading brands in this industry. Filipino consumers thus seek out this value for their needs when buying footwear, with the second important quality of price still playing a big role – branded athletic shoes must still be at some price affordable for its buyers.

6.3   Simulated Market

The third section of the survey questionnaire makes the use of choice-based conjoint (CBC) analysis to determine the consumers' decision-making process in hypothetical situations in the market. *Choice-based conjoint* analysis, or *stated choice* experiments, is a type of market study that lets respondents determine a preferred concept, or product, from a group of products that can be chosen from, instead of ranking or rating their chosen products. The available choices then possess several attributes quantified in different levels such that the ideal combination of such qualities present in one product which will be bought most of the time can be derived from the choice data by the respondents.

The requirement asked from CBC survey respondents is a relatively straightforward and understandable task, also mirroring what people naturally do when participating in the market, for example, in buying from stores. Also, CBC allows for the option of None, when not one of the choices satisfy the buyer's needs or wants, which also reflects real-life market scenarios (Sawtooth Software, 2017).

6.3.1   Defining the Simulated Market

The process of CBC involves several steps. First, the market to be simulated is defined, including the attributes that are to be analysed. In this case, there are four attributes being investigated in which scale they impact the decision to purchase counterfeit items. They each are quantified arbitrarily in several levels, namely:

    (1) The price of the product, in three levels: PHP 1,500 (relatively cheap), PHP 3,000 (average price), and PHP 5,000 (above-average price)

(2) The quality of the product, in three levels: cheap-looking imitation (counterfeit), "class A" quality (counterfeit, but more closely resembling the authentic), and original (authentic)

(3) The size of the logo in two levels: obvious (big) or subtle (small)

(4) The brand of the product in two levels: either a Nike or an Adidas. The survey reinforced the two being the biggest brands in the athletic footwear market.

Thus, there are (3 x 3 x 2 x 2) thirty-six possible product combinations, a third of which (twelve possibilities) are ABAFs. These are randomly presented within 16 choice questions to respondents, two possibilities at a time. The survey respondent can either pick one of the choices or none of them if they are not satisfied with any of the offers. The randomisation is based on a study about constructing the most optimal conjoint choice experiment as generated by the no-choice multinomial logit (NCMNL) model, as there are considerations for the No Choice option (Vermeulen et al., 2008).

6.3.2 Mathematical Basis of Conjoint Analysis

The creation of market models using conjoint analysis, especially the variant of CBC known as *aggregate logit*, is based on the concept of multinomial logistic regression. Multinomial logistic regression, or multinomial logit, is a technique used for calculating the probability of the occurrence of a dependent variable based on multiple independent variables, allowing for more than two categories for any of the chosen independent variables (Starkweather and Moske, 2011).

The multinomial logit model accounts for the probability p that a binary dependent variable will occur (that is, be equal to 1), which in this case, that a product i from a choice set C will be chosen. In our scenario, we will be interested if a counterfeit product is selected, but for the simulated market, it is first investigated whether any product with a combination of any of the attributes will be chosen. This probability is calculated under the multinomial logit model as

$$p(i \mid C) = \frac{e^{U_i}}{\sum_{j=1}^{m} e^{U_i}} = \frac{e^{x_i \beta}}{\sum_{j=1}^{m} e^{x_i \beta}} \tag{4}$$

where U_i is known as the *utility* of the alternative i, x_i is a vector of the values for each attribute used in the model for that alternative i, and β is a vector of the *part-worths* of each level of each attribute (Lemmens, 2018). The part-worths are the coefficients of the model which indicate the contribution of a level of an attribute to the overall utility U_i of that product.

The goal of the analysis then is to maximize the *log-likelihood* of the probability p, which is obtained by the formula

$$\sum_{j=1}^{N} \left[\sum_{i=1}^{m} x_{ij} \ln p_{ij} \right] \tag{5}$$

with N being the number of trials, m being the number of alternatives, x_{ij} being how many times the choice i out of m is selected, and p_{ij} is the probability calculated with the known utility U_i. Since at the start, β are not known, this log-likelihood is determined iteratively by changing the values of all β until the log-likelihood of p reaches its maximum value (Lemmens, 2018).

6.3.3 Interpreting the Choice Data

The survey then delivers how many people chose which kind of product among the choices for 16 times a different set of combinations are presented. This gives the counts required for variable x_{ij}. Now, p_{ij} must be defined through the following steps.

In the case of this study, U_i can be expressed in this formula:

$$U_i = \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_0 \tag{6}$$

In this case, there are β_n for n=0 to n=10, with each value of n standing for the following:

0. *None* of the choices
1. Price level low (PHP 1,500)
2. Price level medium (PHP 3,000)
3. Price level high (PHP 5,000)
4. Quality level low (cheap looking)
5. Quality level medium (class A replica)
6. Quality level high (original)
7. Logo visibility low (subtle logo)
8. Logo visibility high (obvious logo)
9. Brand Nike
10. Brand Adidas

So, the utility, for example, of a low-price level, class A replica, subtle logo, Adidas product would be $U_i = \beta_1 + \beta_5 + \beta_7 + \beta_{10} + \beta_0$, because x_1 in this case would be 1, effectively x_2 and x_3 will be 0 (as there can only be one possibility for price level). Thus, utility is calculated for each of the randomized choices for 16 trial questions based on the number of respondents selecting that choice in the simulated market.

From Equation (6), *p* is then calculated as $\frac{e^{U_i}}{\sum_{j=1}^{m} e^{U_i}}$, for m = 3 as there are three possible choices (Choice 1, Choice 2, or no choice for each question) for all sixteen simulated market trials. Since it is not yet known what the values of all β_n are, *p* cannot be calculated at this point.

Thus, the final step is to determine all values of β such that the *log-likelihood* of p will be *maximized*. This is expressed as:

$$\sum_{j=1}^{16}\left[\sum_{i=1}^{3} x_{ij}\ln p_{ij}\right]\qquad(7)$$

or the sum of each $x_i \ln(p_i)$ over sixteen questions, i being for three possibilities: Choice 1, Choice 2, and No Choice. This yields a relatively large negative number that we will want to maximize by modifying the values of β until the final log-likelihood number will not increase anymore.

		Part-Worth β_i	Part-Worth β_i, Centered	Std. Error	t-statistic	p-value	
Price (A1)	1	0.4354113	0.53749	0.026829	20.03391	0.00000	p < 0.01
	2	0.0414822	0.14356	0.027121	5.293508	0.00113	p < 0.01
	3	-0.7831394	-0.68106	0.019852	-34.3062	0.00000	p < 0.01
Quality (A2)	1	-0.537469	-0.43539	0.022111	-19.6911	0.00000	p < 0.01
	2	-0.963188	-0.86111	0.020874	-41.2522	0.00000	p < 0.01
	3	1.1944155	1.29650	0.028380	45.68314	0.00000	p < 0.01
Logo (A3)	1	-0.0006699	0.15245	0.026465	5.760449	0.00069	p < 0.01
	2	-0.3055759	-0.15245	0.028269	-5.39293	0.00102	p < 0.01
Brand (A4)	1	0.0215994	0.17472	0.028615	6.105913	0.00049	p < 0.01
	2	-0.3278461	-0.17472	0.024183	-7.2249	0.00017	p < 0.01
NONE		0.3062417		0.028664	10.68401	0.00001	p < 0.01

Figure 6 - CBC, Excel implementation of Multinomial Logit Model calculation

As shown in Figure 6, In Microsoft Excel, this is achieved by making use of the Solver Add-In's GRG Nonlinear functionality. A cell is assigned the final log-likelihood value of the model, with an initial value known as the *null log-likelihood* (since the value of all β are 0) and chosen as the Set Objective cell. The variable cells are chosen as the cells which contain the values of β_n (Scappini, 2021).

In the figure, the part-worths β_n are indicated in blue, with initial values equal to 0. The discussed settings are used for the Solver Add-In in Excel, which will eventually calculate the desired values for β_n such that the *objective* cell will be of its highest value. The following figure shows the Objective cell highlighted in yellow, which after the Solver's run, would display the maximum value it can attain.

Max. Log-Likelihood	-4023.5578		
Null Log-Likelihood	-5343.6502		
Diff	1320.0924		
χ2	2640.1848		
df	7	0.00000	p < 0.01
Akaike Info Criterion	10701.300		
Bayesian Info Criterion	10727.320		

Figure 7 - CBC, Maximizing the Target Log-Likelihood

The calculations for Log-Likelihood are checked for statistical significance through obtaining a Chi-Squared value, which for the multinomial logit model can be defined as $2[LL - LL_0]$, where LL is the obtained maximum log-likelihood, while LL_0 is the null log-likelihood (when all $\beta_n = 0$). Thus, for the data obtained in the survey, the multinomial logit model calculated is of statistical significance ($p < 0.01$) for 7 degrees of freedom (calculated as number of levels minus number of attributes) (Orme and Chrzan, 2017). More information such as the Akaike and Bayesian information criteria can be calculated for this model.

Likewise, as shown in Figure 6, statistical significance can also be shown in the part-worths β_n. The standard error is calculated for each level of each attribute, by determining the proportion of respondents choosing that level for all times it has come up within the sixteen simulated market scenarios. For such proportions, standard error SE is calculated as:

$$SE = \sqrt{\frac{p(1-p)}{N-1}} \qquad (8)$$

where p is the proportion being examined, and N is the sample size (in our case, N = 304) (Orme, 2010). A t-statistic can then be obtained as β_n divided by SE_n, and a p-value can be calculated from the t distribution, showing if that obtained β_n is statistically significant (Lemmens, 2018). Shown as well in Figure 6, all calculated β_n values are indeed of statistical significance using the t-test.

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The final step for interpreting the conjoint analysis choice data is to then calculate the *importance* weights of each level of each attribute now that the full multinomial logit model is known. First, the obtained β_n for each attribute are *centralized* (β_n minus the average of all βs in the attribute), such that all βs for each attribute will add up to 0. The *range in absolute value* is then calculated for each attribute, as maximum value of β in that attribute minus the minimum value of β. The *importance* is then a percentage value calculated as the range for that attribute divided by the sum of the ranges for all attributes. Importance percentages are shown here for the whole dataset (N = 304):

Table 22 - CBC, Range and Importance for each Attribute

	Range	Importance
Price (A1)	1.2185506	**30.23%**
Quality (A2)	2.1576034	**53.53%**
Logo (A3)	0.304906	**7.56%**
Brand (A4)	0.3494455	**8.67%**

Interestingly, very similar weights of importance are observed with the pre-purchase ratings (as calculated in absolute and relative comparisons) versus the obtained importance values in Choice-Based Conjoint Analysis. The most importance is still given to the quality of the product, while price remains second. The choice of the brand is then assessed in this importance calculation in CBC as lower than of the ratings scale.

6.3.4   Utility Predictor

With a model created through the CBC process, it is essentially possible to select a new arbitrary product with the available attributes and then calculate the probability that the market will purchase this hypothetical product. The attribute levels can be selected via drop-down to set the desired qualities of that imagined product.

Utility Predictor				
	Product 1	Product 2	U1	U2
Price	Php 3,000	Php 5,000 ▾	041482234	-0.78313939
Quality	class A replica	Php 1,500	6318798	1.194415466
Logo	obvious logo	Php 3,000	0557589	-0.30557589
Brand	Nike	Php 5,000	1599424	-0.32784612
Total Util	0.299487617			
Predicted Share	27.22%	72.78%		

Figure 8 - CBC, Utility Predictor in Microsoft Excel

A graphical user interface was also created in Excel such that two such products can be compared, and a predicted percentage share of the market who will buy one of the products will be calculated. An example is shown in Figure 8. From this, an additional perspective can be quickly obtained by comparisons as to which attribute and which level would get more of the market. This percentage share is calculated by the comparison between the total utility scores calculated for each hypothetical product.

7 Analysis

With the results in the statistical tests, we now return to the research questions and analyse whether they can be answered with enough statistically significant evidence. Sufficient reason for the rejection of the proposed null hypotheses will lead to the answers to these questions and support the overall inference that the strength of a brand's equity as determined by consumers will influence their purchase decision when facing counterfeit branded products.

For Research Question Q1 (*"What are the **most appealing qualities** for the best-selling and biggest global ABAF brands?"*): It appears to be consistent with pre-purchase absolute ratings, pre-purchase relative ratings, and post-purchase simulated market importance weights that the most important quality sought after by consumers in the branded athletic footwear market is the **quality** of the product, which is followed closely by the **price** of the product. More or less half of the total factors of importance are allotted to quality.

For Research Question Q2 (*"What are the main factors for Filipinos to **purchase CBAFs instead of ABAFs?**"*): The main factors as shown for the argument of buying CBAFs over ABAFs are shown in the independence testing results. The strongest reasons for buying counterfeits are due to their affordability (X_1), relative similarity to the authentic design thus the counterfeit can obtain strengths from the authentic branded product and peoples' associations with it (X_4), and the design of the counterfeit appealing to potential consumers anyway (X_3).

And for Research Question Q3 (*"What **external and internal circumstances** can affect these factors into willingly purchasing CBAFs?"*): As an external circumstance, the destinations where consumers usually make their purchase of CBAFs can potentially affect their purchase decisions. The *tiangge*, or flea market, is such a place to keep in mind, as the appeal of lower prices can entice more people to buy counterfeit product. For internal circumstances, it appears that the young adult age group (18 – 24 years old) is more susceptible to lean towards counterfeit purchase, but the slightly relatively more adult age group (25 – 34 years old) tend to stay away from buying fakes.

8 Conclusion and Recommendations

From the results, the general null hypothesis can be rejected, as a relationship has been established between most aspects of branded athletic footwear in line with the concepts of Consumer-Based Brand Equity and the likelihood that a potential consumer would purchase a counterfeit branded athletic footwear product instead of an authentic one. It appears to be also a multi-faceted relationship in overall, with many independent factors having moderately strong statistically significant relationships to the probability of purchasing counterfeit products. CBBE, in the general scheme of things, plays a role in influencing the probability of a consumer buying CBAFs as it quantifies what consumers truly look for in a branded item, and what that brand hopes to deliver to its buyers. If a brand has equity not strong enough that some of the requirements of consumers are not met, counterfeit versions could be more attractive as they carry the similar strengths of the brand through association, and potentially filling in the other needs of the consumers, particularly in terms of price.

However, it remains that quality is more important for the Filipino consumer. Authentic branded athletic footwear, especially of the brands leading the market, lean on their strengths of design quality as reinforced by associations about those brands: durable, comfortable, visually appealing offerings for whichever purpose. However, it can be shown still to be a moot point when the price of authentic footwear cannot be afforded. Due to the economic and social context, price continues to play an important role, as a prohibiting price point would deny consumers of the attributes that they look for the most, leading to them being able to settle to substandard but more affordable alternatives in counterfeit products. It remains that since quality has consistently shown a bigger priority than price across the statistical tests, it appears that Filipino consumers would still be willing to pay to achieve quality for branded athletic footwear to a certain extent.

Thus, the recommendations that can be derived from this study is to *emphasize the quality* of the authentic branded footwear product, which is the strength of the brand equity of the biggest footwear brands, and at the same time, try to *set the price of products to a more accessible level* to the Filipino market. Several approaches can be suggested to achieve this:

- Authentic branded athletic footwear products can be sold at lower prices through resale points: either with authentic brand outlets themselves, as their own program, akin to IKEA's "second chance" corner (IKEA Czech Republic, 2021) or through licensed distributors, maybe through sale of yet unbought older shoe models and through attractive yet reasonable discounts.
- The top-notch quality of ABAFs in the long run can be emphasised via marketing, reinforcing the idea to potential consumers that this will translate to lower expenditures on footwear in the long run. Although this might mean potentially lessening production, it can be also an appeal to the CSR policies to decrease carbon emissions due to manufacturing.
- Major brands can partner up with local manufacturers (reminiscent of Czech brand Bat'a having license to also sell Nikes) to produce authentic branded footwear at a lower price point, likely at a relatively lower labour and resource cost. The shoemakers of the city of Marikina, for example, are widely known in the Philippines as manufacturers of exemplary quality footwear (Tan, 2018).
- Discounts in official stores or authentic distributors can be strategically deployed based on periods of relatively higher demand of authentic footwear.

Counterfeiting remains to be a problem even despite many efforts by stakeholders such as the government and manufacturers to combat it head on, through seizures, closures, or other similar measures. This is due to the sheer volume of producers willing to make counterfeit for the demands of the market, at a relatively lower price of production. Thus, it is the overall recommendation of the study to contribute to the fight against counterfeiting by indirect means – methods that do not necessarily confront the makers of counterfeit products, but instead work on something that can be controlled by the manufacturers of authentic brands themselves: their own product. Knowing the context of the specific market, and catering to those needs, would be able to lessen the effects of counterfeiting by decreasing the demand of the market for those types of products, leading to the strengthening of the authentic brand and the product and the brand manufacturer in the process.

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APPENDIX A: Survey Questionnaire

Survey on Purchasing Branded Athletic Footwear

Hi! My name is Krizzia, and I am a master's student of Business Administration at the Technical University of Liberec in the Czech Republic.

For my master's thesis, I am looking into consumer buying behavior regarding branded athletic footwear, such as rubber shoes, basketball shoes, etc. in the Philippines. As such, I am collecting data on whether or not some specific factors will make a Filipino shopper buy a particular pair of shoes or not. The conclusions I can draw from the survey will potentially help consumers and manufacturers take note of some behaviors associated with the brands of athletic footwear that are out there in the market.

Please take note that the responses you will give in this survey are COMPLETELY ANONYMOUS, and will not be tied to any personally identifiable information. I have no way to trace a specific person's identity to their answers. As such, I give importance to your privacy, especially during your answering of the survey.

Thank you in advance for participating in the survey, and every response you make will go a long way.

For any questions, please do not hesitate to contact me at my email address: krizzia.mae.navarro@tul.cz.

* Required

General Information	We would like to ask about some general information to determine the demographics of our survey respondents.

1. Gender *

   Mark only one oval.

   ( ) Female

   ( ) Male

   ( ) Prefer not to say

   ( ) Other: _____

2. Year of birth (e.g. 1991) *

_____

3. Are you currently working or studying? *

Mark only one oval.

◯ Working (at least 1 full-time job)

◯ Studying (at least part-time)

◯ Both

◯ Neither

4. How much do you estimate your monthly income or allowance to be? *

We ask this question solely for understanding the general consumer's ability to buy branded athletic shoes.

Mark only one oval.

◯ Below P5,000 monthly income / allowance

◯ P5,000 to P9,999

◯ P10,000 to P21,999

◯ P22,000 to P43,999

◯ P44,000 to P76,999

◯ P77,000 to P131,999

◯ P132,000 to P219,999

◯ P220,000 and above monthly income

◯ Prefer not to say

Owning and Buying Athletic Shoes	We would like to know more about your purchase and ownership of athletic shoes, that is, shoes that are used for athletics, physical training, exercise, or any other similar purpose. These can refer to what are commonly known as "rubber shoes".

8. Which brands of athletic shoes among these do you own? (CHECK ALL THAT APPLY.) *

Check all that apply.

☐ Nike

☐ Adidas

☐ Under Armour

☐ Skechers

☐ New Balance

☐ Asics

☐ Saucony

☐ Puma

☐ Reebok

☐ Fila

☐ Anta

☐ PEAK

Other: ☐ _____

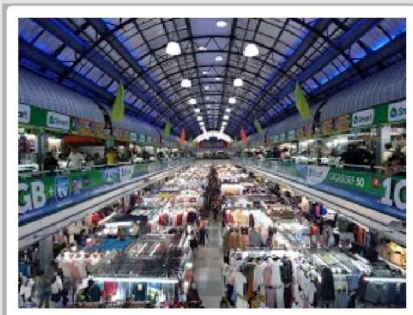10.   Where do you usually shop for athletic shoes? (CHECK ALL THAT APPLY.) *
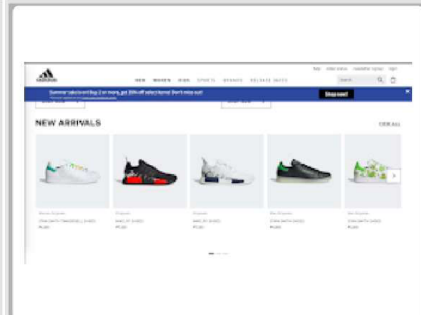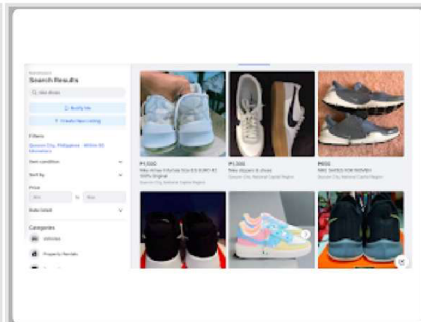
Check all that apply.

[ ] Mall

[ ] Outlet Store

[ ] Tiangge / Flea Market (Divisoria, Greenhills / "GH", Quiapo, Cubao / Farmer's Market, Taytay Tiangge, etc.)

[ ] Official Online Store (for Nike, Adidas, etc.)

[ ] Online Marketplaces (Lazada, Shopee, Zalora, etc.)

[ ] Online Retailer / Distributor via social media or FB Marketplace

Other: [ ] _____

☐ Secondhand (previously owned by another person)

Criteria for Buying Branded Athletic Shoes	We would like to know what goes in your mind when buying a new pair of branded athletic shoes. What is important for you?

11. How important is the price for you when buying branded athletic shoes? *

Mark only one oval.

	1	2	3	4	5	
Not very important	◯	◯	◯	◯	◯	Very important

12. How important is the quality of the design for you when buying branded athletic shoes? *

The quality of the design includes the comfort, looks, and the durability of the shoes.

Mark only one oval.

	1	2	3	4	5	
Not very important	◯	◯	◯	◯	◯	Very important

13. How important is the size (or visibility) of the brand logo for you when buying branded athletic shoes? *

If it is not very important: the logo can be subtle or not very visible in the design of the shoes. If it is very important: the logo must be big or very obvious in the design of the shoes.

Mark only one oval.

	1	2	3	4	5	
Not very important	◯	◯	◯	◯	◯	Very important

14. How important is the brand itself for you when buying branded athletic shoes? *

If it is not very important: I can buy shoes of any brand. If it is very important: the brand of the shoes must be the one I want, or am collecting.

Mark only one oval.

	1	2	3	4	5	
Not very important	◯	◯	◯	◯	◯	Very important

15. Which is MORE important for you between the two? *

Select the number nearer to the thing you think is more important. If 4, these two things are equally important.

Mark only one oval.

	1	2	3	4	5	6	7	
PRICE	◯	◯	◯	◯	◯	◯	◯	BRAND

16. **Which is MORE important for you between the two? ***

Select the number nearer to the thing you think is more important. If 4, these two things are equally important.

Mark only one oval.

	1	2	3	4	5	6	7	
DESIGN QUALITY	◯	◯	◯	◯	◯	◯	◯	PRICE

17. **Which is MORE important for you between the two? ***

Select the number nearer to the thing you think is more important. If 4, these two things are equally important.

Mark only one oval.

	1	2	3	4	5	6	7	
PRICE	◯	◯	◯	◯	◯	◯	◯	LOGO VISIBILITY

18. **Which is MORE important for you between the two? ***

Select the number nearer to the thing you think is more important. If 4, these two things are equally important.

Mark only one oval.

	1	2	3	4	5	6	7	
BRAND	◯	◯	◯	◯	◯	◯	◯	LOGO VISIBILITY

19. **Which is MORE important for you between the two? ***

Select the number nearer to the thing you think is more important. If 4, these two things are equally important.

Mark only one oval.

	1	2	3	4	5	6	7	
BRAND	◯	◯	◯	◯	◯	◯	◯	DESIGN QUALITY

20. **Which is MORE important for you between the two? ***

Select the number nearer to the thing you think is more important. If 4, these two things are equally important.

Mark only one oval.

	1	2	3	4	5	6	7	
LOGO VISIBILITY	◯	◯	◯	◯	◯	◯	◯	DESIGN QUALITY

Non-Original Branded Athletic Shoes	In the Philippine market, there are also a number of options for branded athletic shoes available in the market, which are not of the original manufacturer.

21. **Have you ever bought OR received a pair (from family or a friend) of athletic shoes that are Class A, replica, overrun, imitation, fake, or are otherwise non-original branded products? ***

Mark only one oval.

◯ Yes   *Skip to question 22*

◯ No   *Skip to question 25*

| Non-Original Branded Athletic Shoes	In the Philippine market, there are also a number of options for branded athletic shoes available in the market, which are not of the original manufacturer.

22. Where did you get this particular pair, or where do you think was it bought from? *
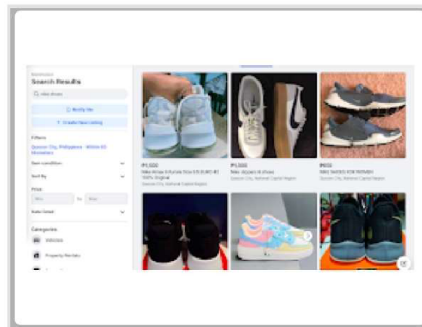
Mark only one oval.

◯ Tiangge / Flea Market (Divisoria, Greenhills / "GH", Quiapo, Cubao / Farmer's Market, Taytay Tiangge, etc.)
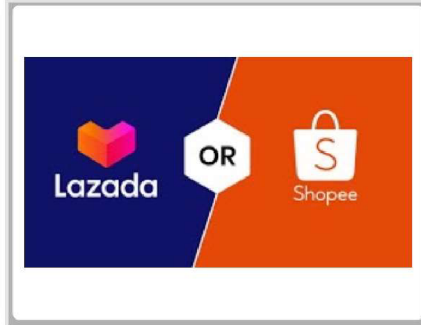
◯ Online Marketplaces (Lazada, Shopee, Carousell, etc.)

◯ Online Retailer / Distributor via social media or FB Marketplace

◯ I do not know.

◯ Other: _____

23.   What do you like about this pair? (Please check your TOP THREE (3) reasons) *

Check all that apply.

☐ It's cheaper than the original.

☐ It looks the same as the original anyway.

☐ People won't know it's fake.

☐ I don't really mind the quality of the imitation shoes.

☐ I like the design anyway.

☐ It has the logo of my favorite brand anyway.

☐ My friends / family buy them as well.

☐ I feel good owning a non-original brand despite knowing it is fake.

☐ The model / version I like is not available easily in a store near to me.

☐ I have to have this particular pair, regardless whether or not it is fake.

☐ I don't care / don't know about the consequences or possible problems of buying fake shoes.

☐ It was given to me, so I am keeping it anyway.

Other: ☐ _____

24.   When would you prefer to buy original branded shoes? (CHECK ALL THAT APPLY.) *

Check all that apply.

☐ If there is an increase in my income / allowance.

☐ If there are good and generous discounts for the brand.

☐ If the design I like is available in a nearby store / outlet.

☐ If there are proceeds going to a good cause when I buy.

☐ If I know that the quality will last for a long time.

☐ If I feel I can afford it.

☐ I don't see myself buying original ever.

Other: ☐ _____

Skip to question 26

Non-Original
Branded
Athletic Shoes

In the Philippine market, there are also a number of options for branded athletic shoes available in the market, which are not of the original manufacturer.

25. What makes you prefer to buy original / authentic shoes? (CHECK ALL THAT APPLY.) *

Check all that apply.

- [ ] The official / partner stores near me give good discounts.
- [ ] The quality of original shoes is better for me.
- [ ] I feel good when I wear original branded shoes.
- [ ] My friends / family / other people who see me would know if it's original or not.
- [ ] All my friends / family wear original branded shoes.
- [ ] I can afford the original price.
- [ ] I am a collector of original branded shoes.
- [ ] The design of the original is better than the fake ones.
- [ ] I am loyal to the brand, and support the official products as much as I can.
- [ ] I don't want to buy fake because it is frowned upon.
- [ ] I am aware of the consequences or possible problems of buying fake.
- [ ] Other: _____

Simulated Market Scenario

We would like to then, finally, bring you to our "imagine" store. Say you are buying a new pair of branded athletic shoes for yourself today, and you find yourself at our store --- which one of these choices will you buy? There will be a number of choices presented to you per question. Please pick one of the choices according to what you prefer, or if you prefer none of them, choose None of these.

26. Among the choices, which pair of these branded athletic shoes will you buy? *

Mark only one oval.

- ( ) Nike: Php 1,500; cheap-looking; obvious logo
- ( ) Adidas: Php 5,000; class A replica; obvious logo
- ( ) None of these

27. Among the choices, which pair of these branded athletic shoes will you buy? *

Mark only one oval.

( ) Nike: Php 3,000; original; obvious logo

( ) Adidas: Php 5,000; cheap-looking; subtle logo

( ) None of these

28. Among the choices, which pair of these branded athletic shoes will you buy? *

Mark only one oval.

( ) Nike: Php 3,000; cheap-looking; obvious logo

( ) Adidas: Php 1,500; class A replica; subtle logo

( ) None of these

29. Among the choices, which pair of these branded athletic shoes will you buy? *

Mark only one oval.

( ) Nike: Php 1,500; original; obvious logo

( ) Adidas: Php 5,000; cheap-looking; obvious logo

( ) None of these

30. Among the choices, which pair of these branded athletic shoes will you buy? *

Mark only one oval.

( ) Nike: Php 3,000; original; subtle logo

( ) Adidas: Php 1,500; cheap-looking; obvious logo

( ) None of these

31. Among the choices, which pair of these branded athletic shoes will you buy? *

Mark only one oval.

( ) Nike: Php 1,500; original; subtle logo

( ) Adidas: Php 3,000; class A replica; obvious logo

( ) None of these

32. Among the choices, which pair of these branded athletic shoes will you buy? *

Mark only one oval.

( ) Nike: Php 3,000; cheap-looking; obvious logo

( ) Adidas: Php 5,000; class A replica; subtle logo

( ) None of these

33. Among the choices, which pair of these branded athletic shoes will you buy? *

Mark only one oval.

( ) Nike: Php 3,000; class A replica; subtle logo

( ) Adidas: Php 1,500; cheap-looking; obvious logo

( ) None of these

34. Among the choices, which pair of these branded athletic shoes will you buy? *

Mark only one oval.

( ) Nike: Php 1,500; class A replica; obvious logo

( ) Adidas: Php 3,000; original; obvious logo

( ) None of these

35. Among the choices, which pair of these branded athletic shoes will you buy? *

Mark only one oval.

○ Nike: Php 3,000; class A replica; obvious logo

○ Adidas: Php 5,000; original; subtle logo

○ None of these

36. Among the choices, which pair of these branded athletic shoes will you buy? *

Mark only one oval.

○ Nike: Php 1,500; original; obvious logo

○ Adidas: Php 3,000; class A replica; subtle logo

○ None of these

37. Among the choices, which pair of these branded athletic shoes will you buy? *

Mark only one oval.

○ Nike: Php 1,500; class A replica; obvious logo

○ Adidas: Php 5,000; cheap-looking; subtle logo

○ None of these

38. Among the choices, which pair of these branded athletic shoes will you buy? *

Mark only one oval.

○ Nike: Php 1,500; class A replica; obvious logo

○ Adidas: Php 3,000; cheap-looking; subtle logo

○ None of these

39. Among the choices, which pair of these branded athletic shoes will you buy? *

Mark only one oval.

( ) Nike: Php 5,000; cheap-looking; obvious logo

( ) Adidas: Php 3,000; class A replica; subtle logo

( ) None of these

40. Among the choices, which pair of these branded athletic shoes will you buy? *

Mark only one oval.

( ) Nike: Php 3,000; original; subtle logo

( ) Adidas: Php 5,000; class A replica; obvious logo

( ) None of these

41. Among the choices, which pair of these branded athletic shoes will you buy? *

Mark only one oval.

( ) Nike: Php 5,000; original; obvious logo

( ) Adidas: Php 3,000; cheap-looking; obvious logo

( ) None of these