

# Is Sharing Really Caring?

A Descriptive Investigation of Brand Sharing for Distinctive Asset Types

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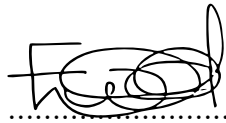
**My Big, Loud and Eccentric Family-** Thank you for your encouragement, love and humour during my years (and years) of study. My brothers Henry, Murray and Bear, you’ve left a gaping hole in my heart that only your silly and slobbery love could fill.

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# Declaration

*I declare that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university and that to the best of my knowledge it does not contain any materials previously published or written by another person except where due reference is made in text.*

A handwritten signature in black ink, appearing to be 'Ella Ward', written over a horizontal dotted line.

**Ella Ward**

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# Abstract

A “combination of the name, terms, signs, symbols and design”, brand identity describes the unique look and feel of a brand that helps to distinguish it from competitors (Kotler, 1991 pg. 442). A cornerstone to visual brand identity, Distinctive Assets are non-brand name identity elements such as colours, logos and taglines, that are used to symbolise the brand (eg. Keller, 2005; Zaichkowsky, 2010). When Distinctive Assets are introduced to the brand they add a layer of rich sensory information that expands the way the brand is encoded and processed in memory (Hartnett et al., 2016; Keller et al., 2008). As such, they can make products easy to find and purchase by acting as mental shortcuts in shopping environments (Gaillard et al., 2005; Olson, 2004).

To promote a strong identity, Distinctive Assets should ideally form unique brand associations in consumer memory (Aaker, 2001; Keller, 1993). When this is the case, the asset will act to reinforce the brand’s identity by uniquely evoking the brand name each time it is used. In stark contrast, a weak brand identity will foster Distinctive Assets with low uniqueness to the brand. Where multiple brands are associated with the same asset, any or all of those brands has a probability of being retrieved from consumer memory when it is used. Thus, it can no longer be used to distinguish any individual brand, and dilutes the identity of all associated brands.

Whilst the advantages of unique Distinctive Assets are well-defined, brands principally operate in highly competitive markets where competitor actions limit their ability to develop and maintain uniqueness. This research aims to better understand competition for Distinctive Assets by investigating how different types are owned by individual brands, or inversely shared by competitors. It utilises an empirical approach and investigates brand competition for 1512 Distinctive Assets of 11 different types in 13 categories across 19 countries. The research takes place across two stages, Stage One: Competitive Intensity of Asset Types, and, Stage Two: Consumer Response Types.

## Stage One: Competitive Intensity of Asset Types

The overarching aim of Stage One is to describe the prevalence of competitive sharing for different Distinctive Asset types, and reveal whether some types may harbour a better potential for unique ownership. This is achieved by calculating the competitive intensity of 1512 Distinctive Assets using the normalised Herfindahl-Hirschman Index (herein referred to as HHI\*). The HHI\* is a concentration ratio that, in this context, is adapted to calculate the concentration of uniqueness (or degree of sharing) for an individual Distinctive Asset. Use of the HHI\* is considered

advantageous to this thesis as it is highly sensitive to unequal distributions of uniqueness and also allows for easy comparison across Distinctive Asset types.

Once HHI scores are calculated for individual assets, they are aggregated to reveal the average competitive intensity of 11 different Distinctive Asset types. Results demonstrate that on average, characters, logos and fonts are the most unique asset types, whilst colours and ad styles are the most difficult to own. Across all asset types a high degree of variation in individual asset scores was found, suggesting that asset type is not the sole determining factor to unique ownership. Additionally, investigation of economy type as a boundary condition indicates that, generally, Distinctive Assets are easier to own in developed markets when compared to developing markets.

## Stage Two: Consumer Response Types

Stage Two continues to research the competitive sharing of Distinctive Asset types by investigating how assets are shared in the memory of individual consumers. This is realised by coding individual consumer responses to reflect whether a single brand, or multiple brands are retrieved when the respondent is presented with an asset. Once aggregated, results reveal that the vast majority of category buyers who give a response, elicit only a single brand when presented with a Distinctive Asset. Across consumers the specific brand mentioned varies, but consumers typically only provide one brand each. The high incidence of single brand responses transpires regardless of the type of asset presented, with single brands accounting for 90% or more of responses on average. Where differences between asset types do exist, it is found to have a strong negative correlation with the competitive intensity (HHI\*) of that type. Such that, as an asset type becomes more unique, the proportion of responses containing two or more brands decreases.

## Research Contribution

This research has important implications for both marketing theory and industry practice. Broadly, Stage One reinforces existing knowledge that characters, logos and fonts are important components of a brand's identity, by demonstrating that they also offer the best potential for unique association. For this reason, it is recommended that these asset types be prioritised by industry practitioners during the selection process. Contrariwise, the low average uniqueness of colour stipulates that it, as well as ad style, should be considered a supplementary branding device rather than reliable and unique brand prompt. In line with literary agreement, it was also discovered that, on average, developing economies are more competitive than

developed economies, emphasising the vital role of well branded and consistent execution of Distinctive Assets in these markets.

In regards to Stage Two, such a high incidence of single brand responses is previously unseen in brand awareness and brand attribute literature. As such, it is suggested that Distinctive Assets are stored differently to other brand attributes in memory and are consequently more likely to be unique. Concerning practical implications, it is denoted that when an asset lacks uniqueness it is because there are more category buyers who each think of a single, yet different brand. Thus, the appropriate strategy to build or reclaim uniqueness is dependent upon two factors: 1) whether or not the mental sharing is based on confusion or a true sharing of the asset, and 2) the proportion of category buyers who do not elicit any brands.

Principally, this thesis contributes by being the first of its kind to compare specific metrics for an extensive range of Distinctive Asset types, spanning 1512 assets of 11 different types in 13 categories and 19 countries. Where prior research typically focuses on only a single, or few asset types in depth, this multi-type thesis helps to break down the silos of type-based asset research and bridge the gap between academic knowledge and industry practice.

## Limitations and Future Research

Whilst the contributions of this thesis are emphasised, its limitations and subsequent avenues for future research are also duly noted. Secondary data was utilised for both Stage One and Stage Two of this thesis. Consequently, the researcher had to forgo a certain degree of control over the data collection and quality. Despite this, the use of secondary data allowed for a far greater scope to be achieved than would have been possible with costly and time intensive primary data collection.

Within Stage One: Competitive Intensity of Asset Types, a high degree of variation was seen in the competitive intensity of individual assets across all types. This poses an opportunity for future research to explore within-type variation. Memory theory suggests that familiar information is more readily processed and recalled ( Craik & Lockhart, 1972). The influence of brand size and brand usage are therefore key areas for future research; as larger brands have more users, with a greater capacity to retrieve stored brand information than non-users.

Regarding generalisability, future research should consider how alternative methods of data collection may affect the incidence of single versus multiple brand responses. Replication of Stage One and Stage Two across services and durables brands is also a viable means to expand the scope of the findings.

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# Glossary of Terms

**Brand Identity** The unique look and feel of a brand owing to a “combination of the name, terms, signs, symbols and design” that helps distinguish it from competitors (Kotler, 1991 pg. 442).

**Distinctive Assets** Non-brand name identity elements used to symbolise the brand. Typically including colours, logos, fonts, slogans, jingles, pack shapes, advertising styles and characters (Romaniuk et al., 2007; Zaichkowsky, 2010).

**Uniqueness** A metric developed by Romaniuk et al. (2007) that evaluates the strength of a Distinctive Asset by determining whether it is unique to a particular brand or is competitively linked to other brands in consumer memory.

**Competitive Intensity** The degree of sharing amongst competing brands for a Distinctive Asset in consumer memory. Measured using the Normalised Herfindahl-Hirschman Index.

# 1.0 Introduction

Chapter One of this thesis presents an introduction to the included research. First, background literature relating to brand identity and Distinctive Assets is briefly covered. The concept of uniqueness is introduced as the focus of this research, including potential issues that arise when brand assets lack uniqueness. The rationale behind Stage One and Two is argued, as well as a brief description of the method used for each. The contributions of this thesis to branding theory and practice are then outlined.

## 1.1 Background to Research

Consumer brand knowledge is the mental representation of a brand made up of all descriptive and evaluative brand-related information (Keller, 2003). As a factor of brand knowledge, brand identity is a “combination of the name, terms, signs, symbols and design that represent a brand and distinguish it from competitors” (Kotler, 1991 pg. 442). Rather than providing a reason to buy the brand, the key role of brand identity is to provide a tangible and proprietary representation of the brand, and establish a unique look and feel (Major, 2014; Perry & Wisnom, 2003). The principal advantage of a strong identity is that it makes the brand easy for consumers to find and purchase (Gaillard et al., 2005; Hartnett & Romaniuk, 2008; Hoek & Gendall, 2010; Olson, 2004). Consequently, when this unique brand look is disturbed or manipulated, it can leave consumers confused and unable to find the brand on shelf, resulting in loss of sales and weakened brand identity. A crucial factor in developing brand identity, Distinctive Assets are non-brand name identity elements used to symbolise the brand (Olson, 2004; Romaniuk et al., 2007; Zaichkowsky, 2010). These assets have many different formats; for example they may be primarily visual, such as colours or logos, text based like slogans or fonts, or have an auditory component such as a jingle (Gaillard, 2007; Hartnett et al., 2016; Keller, 2005).

When Distinctive Assets are introduced to the brand it adds a layer of rich sensory information that expands the way the brand is encoded and processed in memory (Hartnett et al., 2016; Keller et al., 2008). Beyond this neurological benefit, the creative flexibility of Distinctive Assets can enhance integrated marketing communications as they can be applied across various communication platforms (Nandan, 2005). This cross-platform synergy facilitates consistency and ensures the brand speaks with one voice across all consumer touchpoints. Consequently, Distinctive Assets that are central to a strong identity reduce the cognitive effort required by consumers to find and purchase a brand in-store. Distinctive Assets

therefore add value to a brand by acting as a heuristic device that makes it easy for consumers to find, recognise and purchase the brand among a competitive set (Gaillard et al., 2005; Hartnett & Romaniuk, 2008; Hoek & Gendall, 2010; Olson, 2004).

To promote a strong identity, Distinctive Assets should ideally form strong, favourable and unique brand associations in consumer memory (Aaker, 2001; Keller, 1993). When a Distinctive Asset is entirely unique to a brand, it will evoke only that brand each time it is used, strengthening the asset as a brand signal and reinforcing the core identity. In contrast, when an asset is shared by competing brands it loses uniqueness and can no longer be used to distinguish between them. As such, any or all associated brands may be retrieved when the asset is used, diluting the individual identity of each brand.

Despite the clear advantages of a unique Distinctive Asset, brands primarily operate in highly competitive markets, making unique development exceptionally challenging.

## 1.2 Stage One: Competitive Intensity of Asset Types

To successfully act as a unique brand identifier a Distinctive Asset must be exclusively 'owned' by a brand in consumer memory. To initially map the incidence of ownership, or inversely competitive sharing, Stage One of this Thesis was developed.

Distinctive Asset types have fundamental differences that affect the way they interact with the brain (Anderson & Bower, 1972). A slogan is entirely text for example and requires semantic processing, whereas characters are multi-dimensional images that are easier to process because of the picture superiority effect (Childers & Houston, 1984; Lutz & Lutz, 1978). Despite these known differences, the vast majority of Distinctive Asset research is siloed by asset type, restricting cross-type comparison and evaluation (eg. Kohli et al., 2007). To address this gap, and explore how competitive intensity varies across Distinctive Asset types, RQ1 was developed:

**RQ1: Does competitive intensity vary across different Distinctive Asset types to suggest that some types are easier for brands to uniquely own than others?**

As part of this exploration, the influence of economy type was considered an important boundary condition to investigate. Emerging markets are typically categorised by intense levels of competition (Luo et al., 2011). Additionally, lax

legal infrastructure makes the protection of Distinctive Assets comparably more difficult than in developed markets, and as a result imitation products are relatively commonplace (Shenkar, 2010; Van Horen & Pieters, 2012). To investigate the impact that economy type may have on the competitive intensity of Distinctive Asset types, RQ2 was established:

**RQ2: Does the competitive intensity of asset types vary across developed and developing economies?**

To answer these research questions, Stage One determines the competitive intensity of different Distinctive Asset types by looking at the individual asset level. Competitive intensity is calculated by first determining the uniqueness for all associated brands using the metric *Uniqueness*<sup>2</sup> (Romaniuk et al., 2007). These uniqueness scores are then applied to the Herfindahl-Hirschman Index (HHI), extended from economic literature (Calkins, 1983; Herfindahl, 1950; Hirschman, 1964). The Herfindahl-Hirschman Index is advantageous to this research as it is highly sensitive to unequal distribution of uniqueness (i.e. sharing), and facilitates easy comparison of assets and types when normalised (referred to as HHI\*). HHI\* scores fall on a scale between zero (pure competition) and one (pure ownership), giving a clear indication of whether asset ownership is fragmented amongst competitors, or entirely unique to a single brand.

Across 1512 assets, results show that characters are the most unique asset type, and subsequently the easiest type to own on average (HHI\*=0.69). Logos (HHI\*=0.61) and fonts (HHI\*=0.60) are also significantly more unique than others types. Whilst, advertising styles (0.28) and colour (0.31) are the least unique types on average and therefore the most difficult to uniquely own. Across all asset types variation is high, ranging from 50% to 86%, individual HHI\* scores vary by 73% of the mean value on average. Such high variation provides evidence that unique ownership of an individual asset is not a natural consequence of its type, but is influenced by additional factors such as execution. When comparing results across economy types, it was discovered that Distinctive Assets are less unique on average in developing economies, with a HHI\* of 0.37 indicating a high degree of asset sharing compared to moderate sharing (0.52) in developed economies ( $p < 0.001$ ). This result suggests that Distinctive Assets of all types are slightly easier to uniquely own in developed markets.

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<sup>2</sup> Italics are used when referring to the Uniqueness metric specifically, rather than the concept of uniqueness more generally.

## 1.3 Stage Two: Consumer Response Types

Whilst Stage One results demonstrate that, on average, some Distinctive Asset types are more unique than others, they do not reveal how more or less unique asset types are represented in the mind of individual consumers.

According to Associative Network Theories, Distinctive Assets are stored as nodes in consumer memory, that form part of a broader network of associated concepts (Anderson, 1983b; Anderson & Bower, 1979; Anderson & Bower, 1980; Collins & Quillian, 1969; Tulving et al., 1994). Retrieval of information from memory is considered probabilistic. That is, when multiple brands are associated with the same asset the retrieval of each individual brand is not certain, but determined by the influencing factors of association strength, recency of exposure and the number of alternative associations (Anderson, 1983b; Heil et al., 1994).

Applying these theories, low uniqueness could manifest in consumer memory in two ways: individual category buyers could each associate the asset with a single, yet different brand, or individuals could associate the same asset with multiple brands. Stage Two explores this unknown by assessing individual responses for different Distinctive Asset types to answer the following research question:

**RQ3: What is the incidence of single vs multiple brand responses for different Distinctive Asset types?**

To answer this question, individual consumer responses to Distinctive Assets were coded to reflect whether they gave a single or multiple brand response. These response types were then aggregated to determine the propensity of category buyers to give single or multiple brands responses for different Distinctive Asset types.

Rather than distinct differences by type, results show that single brand responses are the most typical across all Distinctive Assets, accounting for 93% of responses on average. Where between type differences occur, initial testing finds a strong negative correlation between competitive intensity (HHI\*) and multiple brand responses ( $r=-0.878$ ) ( $p<0.001$ ). Suggesting that, as asset types become more unique, the proportion of multiple brand responses decreases.



## 1.4 Contributions to Marketing Theory and Practice

The current research expands existing theoretical brand identity knowledge by taking an empirical approach and investigating the real world happenings of over 1500 Distinctive Assets, in 13 categories, across 19 countries. It compares 11 different Distinctive Asset types in two studies, and provides a new means of quantifying the concentration of Distinctive Asset Uniqueness via the Herfindahl-Hirschman Index.

Overall, the results of Stage One suggest that characters, logos and fonts offer industry practitioners the best potential for unique ownership. Conversely, the limitations of colour and ad styles as unique brand identifiers should be noted due to their highly competitive nature. Whilst these implications are based on the average uniqueness of asset types, it should also be acknowledged that high variation indicates asset success is not a natural consequence of type. Rather, execution plays a vitally important role. In addition to this, it was discovered that Distinctive Assets of all types are more difficult to own in developing countries. Whilst characters and logos are still the best bet for ownership, far fewer brands uniquely own assets, and higher variation means that well branded, consistent execution plays an even more vital role in these markets.

Concerning Stage Two, it is determined that the vast majority of category buyers who respond to a Distinctive Asset (upwards of 90%), will only elicit a single brand, regardless of asset type. Suggesting that highly competitive assets have low uniqueness because there are many individual consumers who each retrieve a single, yet different brand from memory. The challenge for industry practitioners is then to determine whether competitor associations are caused by misguided consumer confusion or genuine shared use of the asset.

The main body of this thesis begins with the following chapter, detailing key literature on brand identity and Distinctive Assets.

## 2.0 Brand Identity and Distinctive Assets

The following chapter outlines key concepts of brand identity and Distinctive Assets. The chapter opens with three case studies highlighting the importance of brand identity; the key benefits of Distinctive Assets are then discussed. The chapter concludes by emphasising the need for unique assets, and considering key market based barriers to achieving uniqueness.

### 2.1 Identity Crisis: Notorious Branding Downfalls

In January of 2009 the Tropicana Products Company took a drastic approach to refreshing their brand by replacing the existing packaging of its best-selling juice with a design they considered would “rejuvenate the category” (Peter Arnell, Chief Executive of Brand and Innovation Agency, the Arnell Group as cited in Ritson, 2009). Within three weeks of unveiling the new design, sales of Tropicana Pure Premium had plummeted by 20% and Tropicana announced it would return to its original packaging (Ritson, 2009). In all, the reverted brand overhaul reportedly cost the company upwards of \$65 million USD in lost sales and promotion investment (Andrivet, 2015). The following year, Gap became infamous for a similar branding blunder that resulted in its new logo being withdrawn only 6 days after it was released to the public. The hasty rollout was supposed to signal change and a fresh start for the declining brand but instead saw heavy negative backlash from consumers (Zmuda, 2010).

Coca-Cola Amatil followed suit only two years later, proving that even market-leading brands can make embarrassing brand strategy decisions with the collapse of their 2011 Coke holiday campaign. In an effort to disrupt consumers and raise awareness for World Wildlife Fund conservation efforts, Coke opted to boycott the signature red can for the first time in 125 years and adopt a white design adorned with silver Polar Bears and red font (Carbone, 2011; Esterl, 2011). Contrary to the stated intent to make consumers pay attention (Esterl, 2011), the new look design left many consumers confused as they unintentionally grabbed the beverage assuming it to be the low-calorie alternative Diet Coke. Upsetting more than just calorie conscious consumers the controversial design became somewhat of a health concern when it was reported that diabetic consumers were accidentally purchasing the full sugar beverage. Despite plans for a four-month campaign, the white cans were replaced with a red alternative only one month later (Carbone, 2011; Esterl, 2011).

But what went wrong? How could such substantial investment lead to such devastating results? The following section examines the role of brand identity and its importance for brand recognition.

## 2.2 What is Brand Identity?

Consumer brand knowledge refers to the mental representation of a brand, made up of all descriptive and evaluative brand-related information (Keller, 2003). As a component of brand knowledge, brand identity is a term broadly used within literature despite lacking clear definition (de Chernatony & Dall’Olmo Riley, 1998; Keller, 1993, 2003). Simple conceptualisations define brand identity as the brand name, with other core components being the associated brand logo and slogan (Kohli & Thomas, 2013). More intricate conceptualisations, such as Aaker’s (1991), describe brand identity as a composition of 12 dimensions hosting any and all brand associations that brand managers aspire to create or maintain in the mind of the consumer (Aaker, 1991, 2012; Gylling & Lindberg-Repo, 2006). Conveyed through marketing communication, this broadly defined identity is said to not only include the company’s mission and values, but also its strategic associations and positioning, core identity attributes (i.e. physical representations of the brand) and overall brand experience (Gylling & Lindberg-Repo, 2006; Perry & Wisnom, 2003).

This research defines brand identity as “a combination of the name, terms, signs, symbols and design that represent a brand and distinguish it from competitors” (Kotler, 1991 pg. 442). This definition aligns with the visual identity literature by focusing on the subset of associations derived from the visual features that consumers use to identify different brands (Hartnett et al., 2016; Zaichkowsky, 2010). Whilst it is acknowledged that brand identity can also encompass auditory brand identifiers, such as jingles or music, visual representations are the focus of this thesis.

### 2.2.1 The Importance of Brand Identity

A commonality of the case studies outlined above is that each involved changes drastic enough to disturb established consumer perceptions of the brand’s identity. Described as an integrated system of visual cues, the purpose of visual brand identity is to provide a tangible and proprietary representation of the brand (Perry & Wisnom, 2003). In this sense, rather than providing a reason to buy the brand, the key role of brand identity is to harmonise all disparate brand elements by establishing a unique brand look and feel (Major, 2014; Perry & Wisnom, 2003).






In the case of Tropicana a number of core identity elements were altered by the redesign, causing disharmony with the brand's traditional look and feel. Most notably the signature orange with a straw was replaced by a simple glass of juice. In addition to this, the brand name underwent a number of changes including typeface, colour alteration, reduction in size and transformation from horizontal to vertical execution. The pack closure was also modified. Overall the combination of changes resulted in a drastic new look that diverted from Tropicana's identity and left consumers confused and unable to find Tropicana on shelf (See Figure 2A).

Figure 2A: 2009 Tropicana Brand Refresh



As seen in Figure 2B, the same explanation is true for Coke during the 2011 holiday campaign. By dropping their signature red can for the first time in 125 years, the brand caused severe disruption to their established brand identity. In doing so Coke not only discarded a historical component of their identity on shelf, but also heightened confusion by aligning the colour scheme of the full sugar beverage with that of the low calorie alternative Diet Coke. Despite attempting to downplay the case of mistaken identity, Chief Executive of Ozarks Coca-Cola/Dr Pepper Bottling Company, Ed Rice admitted "If you put the cans side by side and blink, you might have to take a second look" (as cited in Esterl, 2011).

Figure 2B: 2011 Coke and Diet Coke Holiday Design Comparison

	Original	Holiday Design	Revised Holiday Design
Coke			
Diet Coke			NA

As the majority of everyday household purchases reflect repeat-buyer behaviour from a repertoire of brands (Ehrenberg, 1972), shoppers typically spend less than 12 seconds choosing a brand in store (Dickson & Sawyer, 1990; Hoyer, 1984). Because of this speed, the brand cues that comprise a brand’s visual identity such as the colours or logos on pack, are paramount for a brand to be recognised and purchased (Hartnett et al., 2016; Romaniuk, 2015; Zaichkowsky, 2010). By disrupting integral aspects of their identities these brands jeopardised the ability of consumers to recognise the product on-shelf and consequently their ability to purchase the brand.







Tapping into this knowledge of buyer behaviour, the core benefit of a strong visual brand identity is its ability to make a brand easy to find and identify, facilitating consumer purchase (Gaillard et al., 2005; Hartnett & Romaniuk, 2008; Hoek & Gendall, 2010; Olson, 2004). By integrating a cohesive group of recurring elements, a distinct visual identity can clearly and directly communicate the brands look and feel to consumers (Zaichkowsky, 2010). Hence, a strong brand identity can catalyse a brand’s value by improving a number of memory metrics such as brand awareness and recall amongst consumers (Major, 2014; Perry & Wisnom, 2003).

### 2.3 Distinctive Assets

A critical component of a brand’s identity are any non-brand name identity elements used to symbolise the brand, known as Distinctive Assets (Romaniuk et al.,

2007; Zaichkowsky, 2010). Typically these assets include colours, logos, fonts, slogans, jingles, pack shapes, advertising styles and characters (See Table 2A for examples) (Gaillard, 2007; Hartnett et al., 2016; Keller, 2005; Olson, 2004; Zaichkowsky, 2010).

**Table 2A: Distinctive Asset Types**

	Definition	Example
Colour	A distinctive colour or colour palette.	
Logo	A symbol or other small design adopted by an organisation to identify its products.	
Font	A particular design of typeface, typically from the logo.	
Slogan / Phrase	A catchphrase or tagline, typically used in advertising.	<b>“Just do it”</b> <b>“I’m lovin’ it”</b>
Jingle	A short slogan, verse or tune designed to be easily remembered, used in advertising*.	<b>Down Down (Prices are Down)</b> <b>Banana Boat (it’s 30+)</b>
Pack	The pack as it would appear on shelf, often represented as the pack shape.	
Ad Style	A frequent or repeated style of advertising, either used in one media or across types.	
Character	A brand personality, typically animated and used across multiple media.	

\*Due to restrictions of the secondary data used jingles are not included within this study.

With the potential to be conveyed at all brand-to-consumer touch points, including branded communication and first-hand experience when buying (Hartnett & Romaniuk, 2008; Romaniuk & Gaillard, 2005), Distinctive Assets act as a heuristic device to help consumers identify brands (Gaillard et al., 2005; Hartnett & Romaniuk, 2008). Far from an immediate branding solution, Distinctive Assets are

learnt associations that must be built over time by consistently pairing an element with a brand to educate the consumer<sup>3</sup> (Romaniuk & Hartnett, 2010).

Take for example the Pepsi Globe logo. Use of the globe as a logo device began in 1950 when the iconic font of the brand name was placed inside the red, white and blue stripes of the bottle cap. The globe remained a prominent feature of the logo alongside the brand name from that time until approximately 2008 when Pepsi began to use the globe in isolation following a substantial brand overhaul (see Figure 2C). Today the globe is considered one of the world's most recognised corporate trademarks, demonstrating that with substantial investment a Distinctive Asset can become as synonymous with the brand as the name itself.

Figure 2C: Evolution of the Pepsi Globe



### 2.3.1 The Value of Distinctive Assets

The value of Distinctive Assets can be described by four key benefits: 1) added neurological richness to a brand in consumer memory, 2) improved brand memorability, recognition and recall, 3) enhanced integrated marketing communication and, 4) facilitated purchase in an in-store context.

When a consumer encounters a brand name, semantic processing occurs in memory whereby the meaning of the brand name is established and then related to similar words (Quillian, 1982). When Distinctive Assets are introduced to the brand it adds a layer of rich sensory information that expands the way the brand is encoded and processed in memory (Hartnett et al., 2016; Keller et al., 2008). Referred to as the

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<sup>3</sup> For more detail on the consumer learning process and the function Distinctive Assets in memory see Chapter 8.

picture superiority effect, many studies have shown that pictures are more readily recognised and recalled than words (Childers & Houston, 1984; Lutz & Lutz, 1978; Olson, 2004; Paivio, 1969; Perry & Wisnom, 2003). When applied to brands, the visual imagery that encompasses Distinctive Assets acts as a powerful mnemonic device, improving both learning and retention (Childers & Houston, 1984; Perry & Wisnom, 2003). In this way Distinctive Assets add neurological richness to a brand by expanding the brand's footprint in consumer memory and allowing them to become more accessible (Hartnett et al., 2016; Romaniuk, 2015; Romaniuk & Sharp, 2016).

Beyond these neurological benefits, Distinctive Assets also add value to a brand by enhancing integrated marketing communications, and supporting a cohesive brand identity (Nandan, 2005). The creative flexibility of Distinctive Assets means they can be applied across various communication platforms. Where a particular Distinctive Asset may be used as an alternative to direct branding in advertising, it can also be applied to the in-store context. This synergy in branding material facilitates a higher degree of consistency, ensuring the brand speaks with one voice and promotes a universal brand look and feel that replicates across all consumer touchpoints. As a flow-on effect, Distinctive Assets that are central to a strong identity reduce the cognitive effort required by consumers to find and purchase that brand in-store. While navigating noisy, time pressured environments, consumers use Distinctive Assets as mental short-cuts to help direct them to the brand on-shelf (Gaillard et al., 2005; Hartnett & Romaniuk, 2008; Keller, 1993; Rushton, 2006). Distinctive Assets therefore add value to a brand by acting as a heuristic device that makes it easy for consumers to find, recognise and consequently purchase the brand among a competitive set (Gaillard et al., 2005; Hartnett & Romaniuk, 2008; Hoek & Gendall, 2010; Olson, 2004; Romaniuk & Sharp, 2016).

## 2.4 The Need for Uniqueness

In order to optimise the value of Distinctive Assets it is necessary that these associations be strong, favourable and unique to the brand (Aaker, 2001; Keller, 1993). It is believed that unique associations will increase brand equity and provide a brand with the competitive edge necessary for success (Keller, 1993). When it comes to Distinctive Assets the need for uniqueness is also highly practical. If an asset is entirely unique to a brand, it will evoke only that brand each time it is used. This in turn strengthens the asset as a brand signal and reinforces core brand identity. Contrastingly, as an asset loses uniqueness and becomes a shared association amongst competing brands, it can no longer serve its core purpose of differentiation. Consequently, multiple brands may be retrieved when the asset is used, diluting the individual identity of each brand.



In order to evaluate how unique an asset is to a brand, Romaniuk developed the metric *Uniqueness*<sup>4</sup> (Romaniuk et al., 2007). *Uniqueness* determines the viability of a particular asset being a unique identifier by assessing the presence of competitor links in consumer memory, and calculating the proportion of brand associations devoted to one brand. Taking the colour purple for example, if 30 responses are for Cadbury, but a further 20 are for Milka, Cadbury will have a *Uniqueness* score of 60% (i.e.  $30/(30+20)=0.6$ ). In other words, 60% of brand associations to the colour purple are devoted to Cadbury. It is important to note that *Uniqueness* is a reflection of how unique the asset is perceived to be by consumers, regardless of whether or not multiple brands actually employ similar or identical brand elements. Given the importance of uniqueness from both a theoretical and practical stand point, a Distinctive Asset should ideally be 100% unique, evoking one brand, and only that brand, for the vast majority of category buyers (Romaniuk & Hartnett, 2010).

#### 2.4.1 Barriers to Uniqueness

Despite this ideal, Keller (1993) notes that, “unless [a brand] has no competitors, [it] will most likely share some associations with other brands” (pg. 6). This is because brands primarily operate in highly competitive categories, where the tendency to ‘flock to the same’ leaves little room for unique asset development. Within this section, three significant barriers to uniqueness are discussed: package design prototypicality, consumer trends and copy-cat brands.

##### Package Design Prototypicality

When deconstructed, holistic package design is comprised of many individual visual elements. Where any one of these attributes is reflected across the vast majority of brands, that attribute is said to be prototypical of the category (e.g. the rectangular cardboard carton of a cereal box). Product prototypicality then refers to the degree to which a product shares common design attributes and resembles other products in the category (Orth & Malkewitz, 2008; Veryzer & Hutchinson, 1998). There are perceived advantages to design prototypicality that encourage brand managers to be uniform in their pack design choices. Foremost, prototypicality is said to govern the extent to which consumers view a product as a member of the category (Keller, 1993). Where prototypical products are said to enter a consumer’s awareness set most quickly (Ward & Loken, 1986), there remains fear that diverting from category

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<sup>4</sup> Italics are used when referring to the Uniqueness metric specifically, rather than the concept of uniqueness more generally.

norms will exclude products from consideration when consumers notice and choose brands (Mocanu et al., 2012; Veryzer & Hutchinson, 1998). These prototypical attributes consequently become mirrored across all brands as they are perceived as essential to category representation (Keller, 1993; Orth & Malkewitz, 2008; Veryzer & Hutchinson, 1998).

In addition to category inclusion, it is said that consumers use prototypical products as a reference point to evaluate other less typical products in a category (Ward & Loken, 1986). In this sense prototypicality is seen as beneficial as it encourages consumers to generalise their beliefs on other product attributes, such as quality, to all products that conform to their perception of the category prototype. Whilst these perceived advantages may steer managers towards prototypical design, it represents a significant barrier to building Distinctive Assets as it promotes a homogeneity that is fundamentally conflicting to uniqueness.

### **Consumer Trends**

In addition to prototypicality, accommodating consumer trends causes brands to reflect similar design traits. Evidence of this can be seen with the recent trend towards a healthy lifestyle and the release of Coca-Cola South Pacific's slimline soft drink cans in late 2014. The 250ml cans were reportedly released in line with a business commitment to address issues of obesity by offering Australians the smaller portion sizes they were demanding (Australian Food News, 2014). Whilst addressing a potential gap in the market, the emergence of the slimline can was reflected across a range of company brands, including Coca-Cola, Lift, Sprite and Fanta. A similar example of this 'flight to the same' can be seen in the rebranding of Pepsi Next to green, mirroring that of competitor brand Coke Life. The release of Pepsi Next in 2012 marked the first lower-kilojoule cola product released in Australia naturally sweetened with Stevia (Herbison, 2015). Reportedly to address the consumer demand for a healthier alternative that tasted like traditional Coca-Cola, Coke has since followed suit with the launch of Coke Life in February of 2015 (Herbison, 2015). Besides the similar offering of a naturally sweetened alternative, the cola brands have sparked attention due to the recent rebranding of Pepsi Next from a pale blue to a green similar to that of Coke Life. The consequence of this highly competitive, homogenous branding space is that brand identity elements are often overlapping. As such, the uniqueness of Distinctive Assets is reduced, creating consumer confusion.

### **Copy-Cat Brands**

When a brand attaches itself to a design attribute that evokes the category without evoking the brand name specifically, it can make that brand vulnerable to imitation

(Romaniuk, 2015). Unlike a direct reproduction, imitation is about copying, or borrowing distinctive features of an original brand to create a look-a-like product (Van Horen & Pieters, 2012; Wilke & Zaichkowsky, 1999). "Nothing breeds imitation faster than success" (Green & Smith, 2002 pp.90), and it is the associations of these well-known brands that imitators hope to 'cash-in' on (Wilke & Zaichkowsky, 1999). By engaging in copy-cat behaviour the imitator enjoys a free ride by piggy-backing on the brand equity of the larger brand without suffering the burden of expensive R&D and advertising (Shenkar, 2010; Van Horen & Pieters, 2012).

Given it is uncommon for brand imitators to be of better or even equal quality to the original, there are many repercussions of imitators on the original brand, including unfavourable associations and unfair competition (Wilke & Zaichkowsky, 1999). From a branding perspective however, the most notable of these ramifications is consumer confusion (Lomax et al., 1999). In busy branded environments such as the supermarket, consumers use simple heuristics like Distinctive Assets, and will typically rely on single cues to help them make purchase decisions (Gaillard et al., 2005; Hartnett & Romaniuk, 2008; Rushton, 2006; Wilke & Zaichkowsky, 1999). When copy-cat brands imitate the Distinctive Assets of leading brands it can misguide consumers and lead to inadvertent purchase (Wilke & Zaichkowsky, 1999; Lomax et al., 1999). Over time as the number of imitators grows, it breaks down the ability of the brand to effectively communicate its identity with its customers, as the assets it uses to communicate become commonplace (Wilke & Zaichkowsky, 1999). This not only has financial impacts on the original brand, but it can erode the brand's identity and indeed equity by weakening perceived uniqueness of these assets (Wilke & Zaichkowsky, 1999).

Unfortunately, the problems that arise due to imitation are not easily solved. Unlike more obvious forms of trademark infringement like piracy or counterfeiting, imitation is difficult to define and therefore difficult to regulate (Wilke & Zaichkowsky, 1999). This is particularly true in emerging markets, where a lack of legal infrastructure fosters a zone of acceptance for copying behaviour (Luo et al., 2011; Wilke & Zaichkowsky, 1999). Even in the developed world, trademarking laws can vary from country to country and change over time, making the protection of Distinctive Assets an exceptionally expensive and time exhaustive process.

Take for example the case studies of Cadbury (vs.) Nestle in regard to the colour purple, and Kit Kat in regard to the four-finger shaped bar. In the latter half of 2004 Cadbury began the difficult task of trademarking its shade of purple in the UK, a Distinctive Asset that, at the time, had been used by Cadbury for 90 years. What followed was a decade long legal battle against rival brand Nestle. After the colour was approved for registration in 2011, Cadbury was finally granted the right to trademark the colour in May 2012 when Nestle's appeal was overruled. Shortly after however in 2013, the Court of Appeal overturned the decision of the High Court, saying Cadbury's description of the colour and its use was too ambiguous.

Cadbury's 2014 and 2016 appeals against the ruling have since been rejected, and once again the brand faces a battle to defend its asset (Azrights Solicitors, 2013). Another prominent example is Kit Kat's 2016 loss of a long running court battle to trademark the four-finger chocolate bar shape in Britain. Despite being used in Britain for more than 80 years, it was ruled that the bar did not acquire distinctive enough character to warrant a trademark (Herald, 2016). Whilst only highlighting two examples, the above case studies demonstrate the notoriously difficult process of legally protecting Distinctive Assets.

## 2.5 Chapter Summary

Within Chapter Two the concept and importance of brand identity were discussed using case studies of Tropicana and Coca-Cola. Distinctive Assets as a critical component of identity were also examined, including their value from both neurological and practical standpoints. The need for Distinctive Assets to be unique was explored and the *Uniqueness* metric introduced. The chapter concludes by reviewing potential barriers to uniqueness faced by brands in the competitive market, being prototypicality, consumer trends and copy-cat behaviour. The following chapter describes the need for asset ownership in a competitive market and explores the use of the Herfindahl-Hirschman Index as a means of measuring competitive intensity.

# STAGE ONE

## Competitive Intensity of Asset Types

Stage One of this research evaluates the ownability of different Distinctive Asset types by investigating aggregate levels of competitive intensity, that is, how they are shared amongst competing brands.

# 3.0 Measuring Competitive Intensity

Chapter Three introduces the concept of competitive intensity and the Herfindahl-Hirschman Index.

## 3.1 What is Competitive Intensity?

The purpose of Distinctive Assets is to attain recognition and trigger the brand name for consumers (Olson, 2004; Romaniuk & Gaillard, 2007). In order to be a successful brand identifier a Distinctive Asset must be exclusively owned by a brand within consumer memory, as it loses its distinctiveness once it is shared by competing brands. Considering retrieval of brand information is highly competitive, building a Distinctive Asset involves fighting for singular ownership of an identity element in consumer memory (Romaniuk & Hartnett, 2010).

Determining the difficulty a brand may have in achieving ownership, an asset's competitive intensity here refers to the degree of sharing amongst competing brands for that asset in consumer memory. To gain a solid understanding of how a Distinctive Asset may be shared across brands in a competitive market and determine whether some types are easier to own than others, this research measures the competitive intensity for various Distinctive Asset types using the Herfindahl-Hirschman Index in its normalised form.

## 3.2 The Herfindahl-Hirschman Index

Independently developed by economists Hirschman and Herfindahl<sup>5</sup>, a principal application of the Herfindahl-Hirschman Index is to measure an industry's

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<sup>5</sup> Contrary to popular assumption, the Herfindahl-Hirschman Index was not a result of cooperation between economists A. O. Hirschman (1945) and O.C. Herfindahl (1950), but rather independent development (Calkins, 1983; Herfindahl, 1950; Hirschman, 1964). Whilst it is evident the index was initially devised in the domain of industrial organisation, the namesake and true creative origin of the index remain debated within literature (Calkins, 1983; Hirschman, 1964; Weinstock, 1982). Often referred to as simply the Herfindahl Index, Herfindahl is credited with the index having utilised and published its use in 1950 within his dissertation *Concentration in the Steel Industry* (Herfindahl, 1950). Controversially, evidence of the index and its use as a measure of a country's foreign trade concentration was published by Hirschman five years prior to Herfindahl in 1945 (Hirschman, 1945, 1980). Given this debate many commentators and researchers have adopted the hyphenated 'Herfindahl-Hirschman Index'.

competition concentration (Calkins, 1983; Herfindahl, 1950; Hirschman, 1964). Drawing on economic theories of oligopoly, the metric achieves this by measuring market concentration as a function of the unequal market share distribution of firms within a market, weighted according to their size (Hirschman, 1964; Kwoka Jr, 1985; Weinstock, 1982). Traditionally, the index derives a value of market concentration by summing the squared market share of every firm in a market. Thus the value of the HHI, stated in decimal terms, ranges from  $1/n$ , a perfect competition, to 1, a pure monopoly (Hirschman, 1945, 1980). By squaring the market shares of each firm, the index implicitly gives heavier weight to firms with a large market share, corresponding to the economic notion that greater concentration of output from a smaller number of firms will result in weak market competition (Calkins, 1983). Because of this function the HHI is highly responsive to unevenness in market shares, thus the Index will be lowest when market shares are equal, and highest when one firm controls a proportionally high share of the market (Calkins, 1983).

To discover more about competition for Distinctive Assets, the HHI is applied to the current research to assess competition as a function of the distribution of uniqueness between brands. This is achieved by substituting market share for brand *Uniqueness* scores, and then normalising the index to provide a competitive intensity value between 0 and 1. Where the original index (HHI) is only comparable across assets with an equal number of associated brands, the normalised index (HHI\*) facilitates comparison of assets regardless of how many brands they are associated with. By substituting market share for brand *Uniqueness* scores, the normalised index not only reveals whether or not an asset is shared, but also indicates how intense that sharing is. The normalised HHI is therefore advantageous to this research as it is a highly sensitive way to measure how uniqueness is concentrated for a single asset, whilst also facilitating easy comparison across types. For further detail on calculating the HHI, and subsequently the HHI\*, see Chapter 5: Stage One Research Design.

### 3.2.1 Theoretical and Empirical Applications of the Herfindahl-Hirschman Index

Wide proliferation of the Herfindahl-Hirschman Index occurred in 1982 when the two US federal antitrust enforcement agencies, the Department of Justice and the Federal Trade Commission, released revised guidelines to horizontal mergers adopting the index (Calkins, 1983; Rhoades, 1993). The Herfindahl-Hirschman Index was elected to replace traditional concentration ratios (CR) as it addresses noted deficiencies of CR analysis and is considered superior to other summary measures of concentration (Calkins, 1983; Weinstock, 1982). The recognised intent behind the amendment was to facilitate and simplify antitrust laws by measuring the likely competitive impact of mergers and establishing post-merger concentration

benchmarks and safe harbours (Calkins, 1983; Rhoades, 1993). As a consequence of this, implementation of the Herfindahl-Hirschman Index quickly became regarded as the ideal measure of concentration, remaining the preferred method of evaluation within the most recent revision of the guidelines released in 2010 (Calkins, 1983; Federal Trade Commission and US Department of Justice, 2010; Schmalensee, 1977).

Following its adoption by the Department of Justice and the Federal Trade Commission, the HHI received high levels of visibility and widespread application across multiple disciplines (Rhoades, 1993; Whinston, 2006). Application of the index is prominent within the banking sector, where it has been utilised not only to evaluate mergers and market structure (e.g. Al-Muharrami et al., 2006; Bikker & Haaf, 2002; Titilayo & Victor, 2014), but also the effects of competition on management orientation (eg. Degryse & Ongena, 2007), and critical concentration levels for price-cost margins of loan approvals and lending relationships (eg. Daskin & Wolken, 1989; Petersen & Rajan, 1995).

In terms of broader business applications the index has been used to assess market structure and intensity of competition (eg. Pan, 2005; Wong et al., 2005), to capture inter-industry differences in pricing power (Gaspar & Massa, 2006), to determine collusion and cooperative behaviour (Porter & Zona, 1999), and to predict post-merger price change effects (Hausman et al., 1994). Beyond this, the HHI has been used for various managerial purposes such as measuring corporate diversification across industries or segments (eg. Jacquemin & Berry, 1979; Lang & Stulz, 1993), assessing the effect of competition on CEO turnover (DeFond & Park, 1999) and assessing concentration risk and diversification of collateral portfolios, asset holdings and investment (Seagroatt & Cockram, 2015; Yang et al., 2014). Novel approaches to the index have even broadened its utilisation to profit and tax outcomes of electronic gaming distribution (Sargent & Holmes, 2014a, 2014b). Thus both theoretical perspectives and empirical evidence support the notion that the HHI is the most practically relevant measure of business concentration (Djolov, 2013).

### **Application in Marketing Research**

Further use of the Herfindahl-Hirschman index has perforated into marketing research, where its application has extended beyond its core function of determining industry concentration, and into the measurement of competition intensity at market, category, brand, and sub-brand levels. One such example is the application of the HHI within advertising research. Within this body of literature it is frequently used to explore the effects of industry sales concentration on advertising intensity, that is, the probable effects of different market structures on advertising-sales ratios (the ratio of advertising expenditure to gross sales) (eg. Lee, 2002; Willis



& Rogers, 1998). The index is also frequently cited within private label (PL) brand research. Whilst one study utilises the HHI to determine brand proliferation and its effect on competitive pricing interactions between PLs and national brands (Putsis, 1997), it primarily appeared as a variable in estimating the determinants of PL price margins (eg. Ailawadi & Harlam, 2004; Connor & Peterson, 1992; ter Braak et al., 2013). One novel approach utilised the index to measure a household's private label brand patronage by quantifying the propensity of the household to buy private labels i.e. the concentration of private label purchases across categories (Sudhir & Talukdar, 2004).

Beyond these key areas the HHI has also been used to explore the relationship between industry concentration and the online consumer search process (Holland & Jacobs, 2015), evaluate line extensions and assist brand portfolio management (Carter & Curry, 2013; Morgan & Rego, 2009), investigate category sales fluctuation and price promotions (Macé & Neslin, 2004; Raju, 1992), determine sales concentration amongst marketing channels (Lobley et al., 2013) and even investigate the relationships between customer satisfaction and advertising efficiencies and customer satisfaction and company excellence in human capital (Luo & Homburg, 2007).

### **Application in Branding Research**

Of key interest to the present research is incidence of the Herfindahl-Hirschman index within branding research specifically. To the author's best knowledge there have been three instances in which a research study reports use of the Herfindahl-Hirschman Index for the purpose of evaluating branding material. Chronologically, the first two of these studies incorporate use of the index into a factor analysis aimed at constructing practical guidelines for brand managers to create, select and modify logos (Henderson & Cote, 1998; Henderson et al., 2003). Within these studies the HHI is used as a measure of response consensus for the perceived meaning of different logo designs. Respondents were presented with various logos and asked to report the first meaning or association that came to mind; a high HHI for a given logo indicated homogenous associations (i.e. the logo evokes clear meaning).

Whilst these papers are market specific to the United States (Henderson & Cote, 1998) and China and Singapore (Henderson et al., 2003), the most recent paper empirically expands upon this body of work by determining the underlying reactions to logos in 10 different countries (Van der Lans et al., 2009). In line with the prior studies, the research utilises the HHI to determine the shared meaning of logos as a means of investigating whether specific design dimensions exist across cultures. Given its extensive, cross-disciplinary use, both empirical and theoretical perspectives support the notion that the Herfindahl-Hirschman Index is a superior

measure of concentration (Calkins, 1983; Rhoades, 1993); thus it has been selected as the method for measuring competitive intensity within the current research. Branching out from prior studies, the present research intends to utilise the index to measure the competitive intensity of Distinctive Asset types in the mind of the consumer.

### 3.3 Chapter Summary

Within this chapter the need to establish the competitive intensity of Distinctive Assets was briefly discussed, before the Herfindahl-Hirschman Index was introduced as a means of achieving this. A short history on the economic origins of the index was given, prior to a more detailed dialogue on its application across many disciplines including marketing. It was determined that the HHI is a valuable tool for evaluating an asset's competitive intensity based on the distribution of ownership, or uniqueness amongst competing brands (Kwoka Jr, 1985).

## 4.0 Stage One Research Questions

The present chapter outlines the development of research questions for Stage One: Competitive Intensity of Asset Types.

### 4.1 The Need for Distinctive Asset Research Across Types

Distinctive Asset types have fundamental differences that affect the way they are encoded and processed in memory. For example, a slogan is entirely text and requires semantic processing, whereas characters may be more readily recognised and recalled because of their pictorial qualities (Anderson & Bower, 1972; Childers & Houston, 1984; Lutz & Lutz, 1978; Olson, 2004; Paivio, 1969; Perry & Wisnom, 2003).

Despite these apparent differences, current research in the field of Distinctive Assets is typically siloed, with many studies focusing on a particular type in great detail (eg. Garretson & Niedrich, 2004; Kohli et al., 2007; Romaniuk & Nenycz-Thiel, 2014). Because of this, little empirical guidance exists for brand managers wishing to select or evaluate different types of Distinctive Assets. It is well established that uniqueness plays a key role in the success of brand associations (Aaker, 2001; Keller), yet no advice is given as to which asset types may harbour the best potential to achieve unique ownership for the brand. To address this gap, RQ1 was developed:

**RQ1: Does competitive intensity vary across different Distinctive Asset types to suggest that some types are easier for brands to uniquely own than others?**

To explore the generalisability of asset type uniqueness, the potential boundary condition of economy type was then considered. Countries were classified as either developed or developing based on the United Nations Human Development Report which takes into account both income and non-income related factors (United Nations Development Program, 2015). Economy type was foreseen as an important mediating factor to ownership as emerging markets are typically categorised by intense levels of competition (Luo et al., 2011). These markets tend to lack the legal infrastructure required to protect intellectual property such as Distinctive Assets, and consequently imitation products fall largely into a zone of acceptance not evident in developed markets (Deephouse & Suchman, 2008; Wilke & Zaichkowsky, 1999). Based on these noted differences, it is reasonable to expect

that Distinctive Assets would suffer greater competitive sharing in developing economies when compared to developed economies. This projection lead to the development of RQ2:

**RQ2: Does the competitive intensity of asset types vary across developed and developing economies?**

The following chapter outlines the research design intended to answer these research questions. It covers the detail and scope of the secondary data used, and gives an in-depth overview as to how competitive intensity was calculated and analysed.

## 5.0 Stage One Research Design

The following chapter first details the data and scope of the study, then outlines the manner in which asset types were classified. It goes on to describe the analytic approach used to operationalise the dependent variable, competitive intensity, and address the research questions for Stage One: Competitive Intensity of Asset Types.

### 5.1 Secondary Data Detail

Secondary data was provided by the Ehrenberg-Bass Institute, University of South Australia and used for both Stage One and Stage Two analysis. The data was collected via consumer surveys for the purpose of Distinctive Asset benchmarking. Using an online survey, panel members were screened for category usage and then demographic variables, such as age and income, in line with ensuring a nationally representative sample. Respondents were then presented a series of de-branded Distinctive Assets for competitive brands in the category. For each asset, respondents were asked to freely recall which, if any, brands came to mind. Respondents could enter up to three category brands, or tick a 'none of these' box. The method was category prompted only, at no point were respondents provided a list of brands (see Appendix 5A for example of questionnaire framework).

The asset cued, brand un-prompted approach is the most conservative method of testing asset to brand links (Romaniuk & Nenycz-Thiel, 2014). In comparison to prompted approaches, this method reduces the tendency for consumers to guess and therefore does not inflate the success, or uniqueness of the Distinctive Assets tested. For further detail on the empirical validation of the chosen survey method refer to Romaniuk and Nenycz-Thiel (2014). To accommodate the cognitively difficult task, additional safeguards were set in place to ensure the reliability and validity of results. To mitigate respondent fatigue, surveys were restricted to 15 to 20 minutes. This included demographic questions at the end of the survey, and so time spent responding to Distinctive Assets was likely 10 to 15 minutes. In addition to this, each survey contained distractor assets that did not belong to any brand<sup>6</sup>. These acted as mental rest stops for consumers to alleviate cognitive strain, as there should be no brand links in memory. The very low response rate for these distractor assets indicates that they were used as intended by consumers.

Although the use of secondary data means the researcher had limited control over the collection process and data quality (Neuman, 2011; Zikmund et al., 2011), it ensures a lack of bias in the asset selection and coding of results considered

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<sup>6</sup> Distractor assets were excluded from analysis and did not impact the results of this thesis.

fundamental to the integrity of this research. Additionally, it is worthwhile to mention that through collaboration with the Ehrenberg-Bass Institute the researcher was able to attain a great deal of detail about the data despite its secondary nature. Thus the researcher has been able to personally ascertain the quality and appropriateness of the data provided. Further, where costly and time consuming primary data collection would have limited analysis capabilities, the use of secondary data enabled a far broader research scope to be realised. Consequently, the use of secondary data is considered of benefit to the present research.

## 5.2 Scope of the Research

Within the present research a total of 1512 Distinctive Assets were tested. The scope of the research spans 13 consumer packaged goods categories including 6 consumable goods categories (bottled beverages, breakfast foods, coffee, chocolate, dairy products and snacks) and 7 household goods categories (air freshener, dishwashing detergent, food storage, haircare, household cleaners, insect sprays and laundry detergent). The data was collected globally from 19 different countries including Argentina, Australia, Brazil, China, France, Germany, India, Italy, Japan, Mexico, the Netherlands, Norway, Poland, Russia, South Africa, Spain, Thailand, the UK and the USA.

In order to compare across asset types, it was necessary to merge the data from each study into a single data set. This decision was justified on the basis that the data collection process remained consistent across all executions. In all cases the data was collected online, and Distinctive Assets were presented and labelled in the same manner. To address any concerns regarding disparate levels of brand knowledge in each country, only assets that were known by at least 20% of the sample group were included for analysis. Each survey also included a selection of assets that reflected various types and belonged to brands of varying size. For further detail regarding the treatment of the data to employ a more homogenous data set, see section 5.3.1, Exclusion Criteria. In total 26,755 respondents were surveyed. For a detailed breakdown of the data see Table 5A.

### 5.2.1 In-Built Replication

Utilising the broad scope of data available, this research aims for in-built replication by testing asset competitiveness across economy types (developed vs. developing). Replication has been referred to as a “pillar of normal scientific investigation” (Uncles & Kwok, 2013 pg.1398), as it is required to create generalisable findings that hold true meaning and value for the real world (Lindsay & Ehrenberg, 1993).

Replication not only determines whether a finding holds across time, but also acts to explain the conditions under which it holds. Thus replication is the corner stone to building law-like patterns known as empirical generalisations (Ehrenberg, 1995).

Empirical generalisations are of critical importance to marketing research as they add both theoretical and practical value to research findings (Bass, 1995; Ehrenberg, 1995). At a theoretical level, empirical generalisations act as building blocks to develop theories for explaining phenomenon and their influencing variables. Practically, the development of empirical generalisations can establish standards and benchmarks that improve the accuracy of routine predictions (Ehrenberg & Bound, 1993; Uncles & Kwok, 2013).

Table 5A: Data Sample Detail

Consumables					
Collection Period	Category	Purchased from the category at least once in the past:	Sub-Category	Country	n
July 2015	Bottled Beverages	3 months	Carbonated Soft Drinks	Norway	602
			Water Iced Tea	Norway	406
December 2014	Breakfast Foods	6 months	Cereal Liquid B/fast	Australia <sup>7</sup>	623
			Cereal	France	400
				Germany	400
				Italy	400
				Spain	400
				UK	400
Cereal/toaster pastries	USA <sup>8</sup>	400			
February 2015	Coffee	3 months	NA	France <sup>9</sup>	512
				Germany	300
				Poland	300
				Russia	300
September 2015	Chocolate	3 months	NA	Australia	402
				Germany	404
				Russia	420
				South Africa	406
				UK	404
July 2015	Dairy Products	6 months	Chilled	Australia	617
			Frozen	Australia	620
August 2015	Snacks	6 months	Cookies	USA	407
			Salty Snacks	Japan	412
				Mexico	407
				UK	402

<sup>7</sup> Data collected June 2015

<sup>8</sup> Data collected December 2015

<sup>9</sup> Data collected January 2015, purchased at least once in the past 6 months.



Household Goods					
Collection Period	Category	Purchased from the category at least once in the past:	Sub-Category	Country	n
March 2015	Air Freshener	12 months	NA	USA	409
February 2015	Dishwashing Detergent	Dishwasher in household	NA	France	607
				Netherlands	600
April 2015	Food Storage	12 months	NA	USA	411
December 2014	Haircare	6 months	NA	China	627
				India	628
				USA	622
March-August 2015	Household Cleaners	12 months	Drain Cleaner	USA	412
			Bathroom Cleaner	Argentina	600
				Brazil <sup>10</sup>	401
				France	400
				Germany	401
				Russia	400
				Thailand	400
				UK <sup>11</sup>	600
			Furniture Care	Argentina	403
				Argentina	400
				Brazil	412
				UK	406
				UK	400
				USA	404
USA <sup>12</sup>	349				
Glass Cleaner	USA	400			

<sup>10</sup> Data collected June 2014

<sup>11</sup> Data collected June 2014, purchased at least once in the past 6 months.

<sup>12</sup> No screening based on category purchasing was used in this survey.

April 2015	Insect Sprays	12 months	Insecticide	Italy	402
				France	408
				Argentina	421
				Australia	410
				Brazil	408
				China	406
				India	403
				USA	420
June 2015			Personal repellent	Argentina	400
				Brazil	403
				Germany	406
				Italy	413
				USA	410
March 2015	Laundry Detergent	12 months	NA	USA	409

Where  $n$  is the total number of respondents

Note: where a country appears more than once within a category, a separate study testing different Distinctive Assets was conducted.

### 5.3 Distinctive Asset Classification











Prior to calculating competitive intensity, all Distinctive Assets were categorised into variable groups based on type<sup>13</sup>. This included traditional Distinctive Asset types of Colour, Logo, Font, Slogan/Phrase, Advertising Style and Character (as defined in Table 2A) (Gaillard, 2007; Olson, 2004); and also new types not previously researched.

The new types were added as a means to refine existing type definitions and increase the accuracy of type based results. As such, Image on Pack is included due to the functional differences of a holistic pack shape, and graphic images when identifying brands on shelf. Likewise, Ad Moment and Image from Ad are included to extend the presence of advertising based assets. Similar to Ad Style, an Image from Ad must be used across campaigns, however it does not need to exude an overall style or feel. In the case of Ad Moment, it differs from Ad Style in that it may occur only in a single execution or campaign rather than requiring continuity. In addition to this, Product Form is introduced. Product Form is considered different from any existing type and provides an intriguing investigation into the potential of the product itself to be a branding device. In total 11 different Distinctive Asset types are compared; to the researcher's best knowledge this is the first piece of work to have such a range of assets examined.

<sup>13</sup> When used as variable labels, asset types are capitalised.

Table 5B provides the definitions used to classify all Distinctive Assets into types as well as example assets that were assessed within the present research.

**Table 5B: Distinctive Asset Type Classification and Examples from the Data Set**

	Definition	Example
Colour	Could be a single block colour, colour combination or gradual gradient represented by a single square swatch.	
Logo	Either the entire logo, or a feature component of the logo where typeface would otherwise be present.	
Font	The holistic typeface and style as taken from the logo and rearranged to disguise the brand name.	
Slogan / Phrase	A short catchphrase or defining statement, used in advertising or on pack.	<b>“Gives you wiings”</b> <b>“What else?”</b>
Pack	The holistic pack as it would appear on shelf, or a specific design feature such as the closure.	
Image on Pack	A particular image that features on packaging.	
Ad Style	A frequent or repeated style of advertising, portrayed as a short video or still image montage.	
Ad Moment	A pivotal advertising moment represented as either a short video clip or still image.	
Image from Ad	A particular image that is repeatedly used across advertising executions.	
Character	An animated brand ambassador. To classify as a character and not a logo the animation had to demonstrate personality or an active role in advertising.	
Product Form	An image of the product within the pack.	

### 5.3.1 Exclusion Criteria

When finalising the sample of Distinctive Assets to be assessed within the present research a number of screening criteria were applied to ensure valid and reliable results. Firstly, competitive intensity was only calculated for assets known by at least 20% of respondents. The basis for these criteria is that the Uniqueness score for any given brand is a proportionate measure of all respondents who indicate they know that asset by giving at least one brand response. For example, if 20% of respondents mention at least one brand for a particular asset, the Uniqueness metric will be based on 20% of the total sample. However, if only 5% of the sample give a brand response, Uniqueness will be based on only a small subset of the sample. Where Uniqueness is based on a small sample the metric becomes artificially inflated and so loses value at both a mathematical and practical level.

In addition to this, where an asset appeared across multiple consumer surveys within the same market, irrespective of the survey sub-category or data collection period, only one execution was included. The included execution was selected at random. This was to eliminate the possibility of any one asset being duplicated and receiving more weight in the data set. Finally, assets were excluded where clear type classification was not possible. Figure 5A presents an example of an unclassifiable asset as it is a short clip from advertising (Ad Moment) where the predominant image is that of the brand character (Character). Exclusion of these assets is not considered of detriment to the research given the robust sample size of assets. At the conclusion of this screening process the competitive intensity of 1512 Distinctive Assets was calculated. For a breakdown of this total across the country, category and type variables see Table 5C.

Figure 5A: Example of an Unclassifiable Asset



Table 5C: Sample Breakdown of Assets by Country, Category and Asset Type

Country	n	Category	n	Asset Type	n
USA	276	Insect Sprays	325	Pack	270
Australia	141	Household Cleaners	307	Phrase	235
UK	134	Chocolate	208	Logo	180
Argentina	125	Breakfast Foods	143	Colour	170
Russia	106	Coffee	135	Image on Pack	164
France	102	Haircare	94	Ad Moment	142
Brazil	97	Snacks	77	Product Form	94
Germany	94	Dairy Products	49	Character	90
India	72	Bottled Beverages	46	Font	79
China	70	Dish Washing Detergent	43	Ad Style	48
Italy	54	Air Freshener	36	Image from Ad	41
South Africa	47	Food Storage	29		
Norway	46	Laundry Detergent	20		
Poland	38				
Thailand	33				
Mexico	28				
Netherlands	24				
Spain	16				
Japan	9				
Total n					1512

Where n= number of assets tested

## 5.4 Operationalising the Dependent Variable: Competitive Intensity

For the purpose of analysis, it was necessary to operationalise the concept of competitive intensity, this involved three progressive metrics: *Uniqueness*, the Herfindahl-Hirschman Index (HHI), and finally the normalised Herfindahl-Hirschman Index (HHI\*).

### 5.4.1 Calculating Uniqueness at the Brand Level

Prior to calculating the competitive intensity of an asset, it was necessary to determine how many brands were attached to the asset, and to what degree. Calculated at the brand level, the *Uniqueness* metric evaluates the strength of a Distinctive Asset by determining whether or not the asset is unique to a particular brand or is competitively linked to other brands in consumer memory. The

*Uniqueness* measure is calculated as the proportion of total brand responses that are devoted to a single brand for any given asset (Romaniuk et al., 2007):

$$\text{Uniqueness} = \frac{\text{No. of times a given brand is linked to the asset}}{\text{No. of times any brand is linked to the asset}} \times 100$$

*Uniqueness* is then represented as a percentage at the individual brand level whereby 100% indicates the asset is entirely unique, or owned by that brand and 0% suggests that the brand received no brand mentions for the given asset. At the asset level, *Uniqueness* will always tally to 100%. The distribution of *Uniqueness* scores however is dependent upon the number of brands linked to the asset and the number of mentions each of those brands received.

Figure 5B presents a hypothetical example of the effect of competitor links on the distribution of *Uniqueness* for the same Distinctive Asset, a de-branded pack from the instant coffee category.

Figure 5B: Example *Uniqueness* Distributions for a Debranded Pack from the Instant Coffee Category



Example Distribution 1

Brand	No. of mentions	<i>Uniqueness</i> (%)
Nescafe	150	100
<b>Total</b>	<b>150</b>	<b>100</b>

Example Distribution 2

Brand	No. of mentions	<i>Uniqueness</i> (%)
Nescafe	100	67
Moccona	50	33
<b>Total</b>	<b>150</b>	<b>100</b>

Example Distribution 3

Brand	No. of mentions	<i>Uniqueness</i> (%)
Nescafe	60	40
Moccona	30	20
Carte Noir	20	13
Robert Timms	15	10
Jarah	15	10
Bushells	10	7
<b>Total</b>	<b>150</b>	<b>100</b>

#### 5.4.2 Calculating the Herfindahl-Hirschman Index at the Asset Level

To operationalise the distribution of *Uniqueness* scores at the asset level, the Herfindahl-Hirschman Index (HHI) was selected as a measure of competitive intensity.

Traditionally a measure of market concentration, the HHI is typically calculated by summing the squared market share of all firms in the market. Where  $S_i$  is the market share of brand  $i$  and  $N$  is the total number of firms in the market such that:

$$HHI = \sum_{i=1}^N S_i^2$$

Thus the value of the HHI, stated in decimal terms, ranges from  $1/n$ , a perfect competition, to 1, a pure monopoly (Hirschman, 1945, 1980).

Within the current research the HHI is employed to calculate the concentration of ownership for a Distinctive Asset, or, the degree of asset sharing between linked brands in consumer memory.

To calculate this competitive intensity, Market Share is replaced with *Uniqueness* such that:

$$HHI = \sum_{i=1}^N U_i^2$$

Where  $U_i$  is the *Uniqueness* of brand  $i$  for a given asset and  $N$  is the number of brands retrieved for that asset. The HHI of an individual asset is therefore equivalent to the sum of all *Uniqueness* squared for that asset.

To ensure robust results, a HHI was calculated only when a Distinctive Asset was known by at least 20% of respondents in its respective survey. Subsequent to this screening criteria, HHI calculations excluded any brand that received a *Uniqueness* score of less than 5%, or accounted for less than 5% of total brand mentions. This was to reduce sampling error based on brand responses given by only one, or very few respondents. To illustrate, in a sample of 400 an asset needed to be known by at least 80 category buyers. Subsequent to this, the retrieved brands needed to account for at least 5% of responses. So in this example, if the 80 respondents

provided a total of 100 brand responses, a single brand had to be mentioned at least five times to be included in analysis.

### 5.4.3 Calculating the Normalised Herfindahl-Hirschman Index

To withhold the influence of number of brands retrieved for an asset (N), and make asset scores comparable on a 0 to 1 scale, the normalised Herfindahl-Hirschman Index (HHI\*) was equated as follows:

$$HHI^* = \frac{(H - 1/N)}{1 - 1/N}$$

Where N is the total number of brands retrieved and H is the usual HHI.

Figure 5C illustrates calculation of the index for Example Distribution 3 outlined in Figure 5B in section 5.4.1 above.

**Figure 5C: Illustrative Example of HHI\* Calculation for a Debranded Pack from the Instant Coffee Category**



Brand	Uniqueness	Uniqueness <sup>2</sup>	HHI	HHI*
Nescafe	0.40	0.16	0.255	0.069
Moccona	0.20	0.04		
Carte Noir	0.15	0.0225		
Robert Timms	0.15	0.0225		
Jarrah	0.10	0.01		

Normalisation of the Index facilitates comparison of different assets by manipulating the score to fall on a scale of 0 to 1, where 1 implies an asset is 100% unique to a particular brand, and 0 denotes pure competition among competing brands. Whilst it is clear that pure ownership can only occur when a solitary brand is linked to an asset (Figure 5B, Example Distribution 1), competition, and in fact pure competition, can reflect various scenarios at the brand level. To illustrate, consider competition for a Distinctive Asset as a game of tug-O-war in memory.



It is possible for an individual to compete against a team of competitors and still win the match, so long as they are stronger than their opponents tugging in the opposite direction. In the same way, it is possible for a brand to own an asset even when other brands are linked in consumer memory, provided that brand's *Uniqueness* marginally exceeds the combined *Uniqueness* of all other brands. As the competition becomes more equal, it becomes increasingly difficult to win a game of tug-O-war, and indeed as HHI\* approaches 0, it is more difficult for a brand to own an asset due to high levels of sharing.

A HHI\* of 0 is the branding equivalent to a stale mate; competition has reached a level of equality such that neither side has enough leverage to win. Pure competition of this nature can take many forms. For example, an asset may be shared amongst a number of brands that all have equally low *Uniqueness*, it may be shared between one brand with high *Uniqueness*, and several brands with low *Uniqueness*, or it could simply reflect two brands sharing the *Uniqueness* of an asset equally. This variability is highlighted in Table 5D, where HHI\* is calculated for several distributions of *Uniqueness*.

**Table 5D: Example HHI\* Values Based on Competitive Sharing Scenarios**

Asset	Uniqueness Score %*				HHI*
	Brand A	Brand B	Brand C	Brand D	
1	100	-	-	-	1
2	90	10	-	-	0.64
3	60	20	20	-	0.16
4	50	25	25	-	0.06
5	50	50	-	-	0
6	40	40	10	10	0.12
7	25	25	25	25	0

\*For the purpose of analysis *Uniqueness* scores were converted from a percentage into decimal format.

To illustrate, Asset 1 is associated only with Brand A, thus the brand receives a *Uniqueness* score of 100%, and the asset receives a HHI\* of 1 as it is entirely unique to a single brand. Comparatively, Asset 3 is shared by Brands A, B and C resulting in *Uniqueness* scores of 60%, 20% and 20% respectively. This sharing increases the competitive intensity of Asset 3 such that the HHI\* is reduced to 0.16.

By rating each asset individually on a scale of 0 to 1, the normalised Herfindahl-Hirschman Index facilitates easy comprehension of how *Uniqueness* is concentrated for an asset, irrespective of the specific competitive makeup. For this reason, it is an appropriate measure of competitive intensity, and the final form of the dependent variable as operationalised for Stage One aggregate analysis.

## 5.5 Analysis Technique

The purpose of analysis is to determine whether there is significant difference in the mean competitive intensities of Distinctive Asset types. In other words, to establish whether some asset types are more ownable on average. To answer this question, analysis of variance (ANOVA) was utilised to facilitate the comparison of all 11 means simultaneously (Field, 2009), where HHI\* was the dependent variable and asset type the independent variable.

During assumption testing, a Levene's test revealed the data set was of unequal variance and thus Walch's ANOVA was used. Although ANOVA is renowned for being robust to all distribution types, particularly when sample size is ample<sup>14</sup> (Field, 2009), a secondary non-parametric equivalent (Kruskal-Wallis) was conducted to ensure validity of results. As ANOVA is an omnibus test, post-hoc testing was required to determine the true nature of significance amongst the asset types. In line with the heterogeneous spread of the data, a Games-Howell equal variance not assumed post-hoc comparison test was conducted at significance level 0.05.

To investigate the proposed boundary condition of RQ2, the data was split by economy type (developed and developing). A country was classified as either developed or developing based on the United Nations Human Development Report (United Nations Development Program, 2015). Once the data was split, ANOVA, Kruskal-Wallis and Games-Howell tests were conducted on each economy type independently. To test for significant difference in the mean competitive intensity of Distinctive Assets for each economy type an Independent T-test was used at a significance level of 0.05.

Finally, matched asset analysis was conducted to control for the effect of the specific assets tested within each economy type. Matched asset analysis involved a comparison of HHI\* scores for assets that were tested across multiple countries of both developed and developing economies. The average HHI\* score of an asset in developing economies was deducted from the average HHI\* of that same asset in developed countries to determine a difference figure. A positive difference would indicate that developing countries have higher competitive intensity for that asset and a negative figure would imply the contrary.

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<sup>14</sup> In order to meet the criteria for analysis, an asset type had to have a minimum of 40 assets.

## 5.6 Chapter Summary

Chapter Five began by explaining the secondary nature of the data, and stating the scope of 1512 individual Distinctive Assets, across 13 packaged goods categories in 19 countries. Asset classification and exclusion criteria were then described. The operationalisation of competitive intensity was rationalised through the progressive calculation of three metrics, *Uniqueness*, the Herfindahl-Hirschman Index and the normalised Herfindahl-Hirschman Index. Lastly, the specific analytical technique was explained, including the use of ANOVA, Walch's ANOVA, Kruskal-Wallis and Games-Howell post-hoc testing. The following chapter articulates the results of Stage One that were attained by utilizing the research design as outlined above.

## 6.0 Stage One Results

Chapter Six covers the results for Stage One of this research, Competitive Intensity of Asset Types. First, RQ1 is addressed, detailing results for the competitive intensity of Distinctive Asset types across the entire data set. Following this, RQ2 is independently covered, exploring the condition of economy type.

### 6.1 Mean Competitive Intensity of Distinctive Asset Types

Within economic literature merger guidelines provide parameters of market concentration based on the classic Herfindahl-Hirschman Index (Federal Trade Commission and US Department of Justice, 2010). As the normalised index was used within this study, based on a scale of 0 to 1 instead of 0 to 10,000, these guidelines are no longer applicable. To provide a context for the HHI\* ratings calculated within this study, common levels of the traditional concentration ratio are adapted to the present research and provided in Table 6A:

**Table 6A: Concentration Levels of the Normalised HHI**

HHI* Range	Concentration Level
0	Perfect Competition: the asset is equally shared amongst competing brands. Nobody owns the asset.
0-0.5	Low Uniqueness Concentration: there is a high degree of sharing, but uniqueness is not divided amongst competing brands equally.
0.5-0.8	Medium Uniqueness Concentration: One brand has the majority share of uniqueness although other brands are still sharing the asset.
0.8-1	High Uniqueness Concentration: The asset is primarily unique to one brand, but minor competitor links still exist.
1	Total Ownership: The asset is entirely unique to one brand.

In response to RQ1 the mean competitive intensity (HHI\*) was calculated for each Distinctive Asset type (see Table 6B). With a HHI\* of 0.69, Character is the most unique asset type, falling into the Medium Uniqueness Concentration range. Consequently, it is the easiest asset type for brands to own on average. Contrastingly, Ad Style is the least unique type and hence the most difficult type to own with the lowest HHI\* of 0.28. Also clustered towards the top as the most unique types are Logo with a mean HHI\* of 0.61 and Font with mean HHI\* of 0.60; and towards the bottom, Colour with mean intensity of 0.31. The average concentration of uniqueness across all asset types was low at HHI\* =0.46, implying

that it is more common for Distinctive Assets to be shared amongst competing brands than it is for them to be owned by single brands within a category.

**Table 6B: Mean Competitive Intensity of Distinctive Asset Types**

Asset Type	No. of Assets	HHI*
Character	90	.69
Logo	180	.61
Font	79	.60
Product	93	.49
Pack	270	.48
Image from Ad	41	.42
Image on Pack	164	.41
Ad Moment	142	.41
Phrase	235	.39
Colour	170	.31
Ad Style	48	.28
<b>Total/Average</b>	<b>1512</b>	<b>.46</b>

To test whether the mean intensities of different asset types are significantly different ANOVA was conducted<sup>15</sup>. The between-groups ANOVA returned a significance result of  $P < 0.001$ , indicating significant variation between types. As ANOVA is an omnibus test, post-hoc testing was required to determine the true nature of significance amongst the asset types. The mean HHI\* of each asset type was tested for significant difference against the mean HHI\* of every other asset type, in total 110 pairs were tested. In line with the heterogeneous spread of the data, a Games-Howell equal variance not assumed comparison test was conducted.

Reading from left to right, Table 6C indicates the degree of significant difference between the uniqueness of asset types. Where any given pair of asset types is not listed, the difference in means is *not* statistically significant. The mean HHI\* for Character is significantly greater than all other types except for Logo and Font; this supports the finding that it is the most unique asset type. Logo is also statistically more unique, with the mean HHI\* being highly significant against Ad Style, Colour, Phrase, Ad Moment and Image on Pack ( $p < 0.001$ ) and significant against Pack

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<sup>15</sup> A Levene's test of homogeneity of variances returned a result of  $p < 0.001$ . To accommodate heterogeneous variance, Welch's ANOVA was used and variation in the mean HHI\* of types remained significant at  $p < 0.001$ . As the normal distribution assumption of ANOVA was violated, the non-parametric equivalent was also used to confirm significance. The Kruskal-Wallis test (ANOVA of Ranks) returned an identical result of  $P < 0.001$ .

( $p < 0.05$ ). Although the mean HHI\* of Font is 0.60, this is only statistically significant against Ad Style, Colour, Phrase, Image on Pack ( $p < 0.001$ ), and Ad Moment ( $p < 0.05$ ). As such, Font is more unique than some types, but not to the same extent as Character and Logo. In regards to the most competitive types, the mean HHI\* of Ad Style and Colour<sup>16</sup> were significantly lower than Character, Logo, Font, Product and Pack types ( $p < 0.001$ ), meaning these asset types are consistently the least unique and therefore the most difficult to own.

**Table 6C: Testing for Significant Difference in the Mean Competitive Intensity of Distinctive Asset Types**

	Ad Style	Colour	Phrase	Ad Moment	Image on Pack	Image from Ad	Pack	Product
Character	**	**	**	**	**	*	**	*
Logo	**	**	**	**	**		*	
Font	**	**	**	*	**			
Product	**	**						
Pack	**	**						

\*  $P < 0.05$  \*\*  $p < 0.001$

When considering the central cluster of asset types, no statistical difference was found between them. It can therefore be said that, on average, Character and Logo are the most unique asset types, followed closely by Font. Whereas Colour and Ad Style are the least unique types. However, there is little difference in the ownership potential of those asset types with a HHI\* between 0.39 and 0.49 (Phrase, Ad Moment, Image on Pack, Image from Ad, Pack and Product).

## 6.2 Measures of Within-Type Variation

Comparing the mean HHI\* of different asset types is not enough to conclusively determine whether some types are more or less difficult to own than others. In order to explore the issue further, RQ1 considers in detail the variation, that is coefficient of variation (CV), range and distribution, of each asset type (See Table 6D).

<sup>16</sup> To test whether colour combinations resulted in higher average uniqueness than single colours additional analysis was conducted. Results indicated that colour combinations were slightly more unique with a mean HHI\* of 0.35 compared to 0.33 for single colours, however this was not found to be statistically significant. For full details of analysis see Appendix 6A.

### 6.2.1 Coefficient of Variation

To compare different asset types easily, the coefficient of variation (CV) was calculated as it expresses variability as a percentage relative to the mean. Ranging from 50% to 86%, variability is high across all asset types, with individual HHI\* scores varying by 73% of the mean value on average (results shown in Table 6D). Such high variation provides evidence that the success of an individual asset is not solely determined by its type but by other factors such as execution.

Notably, a pattern of variability seems to exist such that more unique asset types have less variation than less unique asset types. With the exception of Image from Ad and Ad Style types, variation trends in line with competitive intensity. The CV is lowest for Character and Logo, the most ownable types, at 50% and 58% respectively whilst the highest variation is evident for Phrase and Colour types at 86%. As discussed earlier, high variation across all types indicates that type does not dictate asset success. Further to this, this pattern indicates that there is even less stability in the success of assets belonging to highly competitive types.

**Table 6D: Measures of Distribution for Different Distinctive Asset Types**

Asset Type	Mean HHI*	CV%	Skewness	Min HHI*	Max HHI*
Character	.69	50	-.67	.011	1.0
Logo	.61	58	-.23	.011	1.0
Font	.60	61	-.25	.002	1.0
Product	.49	70	.33	.002	1.0
Pack	.48	71	.38	.0004	1.0
Image from Ad	.42	81	.67	.013	1.0
Image on Pack	.41	79	.70	.009	1.0
Ad Moment	.41	84	.71	.006	1.0
Phrase	.39	86	.70	.0003	1.0
Colour	.31	86	1.2	.001	1.0
Ad Style	.28	78	.54	.001	.75
<b>Average</b>	<b>.46</b>	<b>73</b>			

### 6.2.2 Range

Further reinforcing that asset uniqueness is not a natural consequence of type, all asset types have a wide range, spreading across the entire 0 to 1 scale of possible HHI\* scores. Besides Ad style at 0.75, all asset types had a maximum HHI\* value of 1 and a minimum value close to 0. This indicates that, regardless of how competitive the asset type is on average, individual assets vary greatly in their

uniqueness. Again this provides evidence that more unique assets are in fact earned, and not simply a natural consequence of their type.

### 6.2.3 Skewness

Also presented in Table 6D is the measure of distribution shape for different asset types, skewness. A positive skew indicates that the data is skewed to the right, meaning the bulk of the data is to the left with a long right tail. In the current research this suggests that the majority of individual assets of a certain type receive HHI\* scores lower than 0.5. Inversely, a negative skew suggests the majority of the data sits to the right and the left tail is longer. Here this indicates that the majority of individual assets receive a HHI\* score of 0.5 or greater.

In terms of results, the most unique asset types Character, Logo and Font each have a negative skew whereby the incidence of ownership ( $\text{HHI}^* > 0.5$ ) is greater than that of competition ( $\text{HHI}^* < 0.5$ ). Observing the shape of the data for these types, the distribution is relatively uniform until a noticeable spike caused by the high proportion of individual assets that receive a HHI\* of 1 (for histograms of HHI\* by asset type see Appendix 6B). Evidently, other than assets that are entirely owned by a single brand, there seems to be an even spread of assets receiving HHI\* scores between 0 and 1. In other words, whilst a higher proportion of assets of these types are owned, those that are not owned spread evenly between Perfect Competition and High Uniqueness Concentration.

As to be expected, as an asset type becomes less unique the skew in data shifts to positive, whereby the incidence of competitive sharing is greater than that of ownership. This is particularly evident for Colour assets where a large number of assets receive HHI\* scores between 0 and 0.2 and very few score higher than 0.6. However it should be noted that for a number of asset types there is a spike in the number of assets with a HHI\* of 1, despite the overall positive skew. Again this suggests that, whilst the majority of brands experience of a high degree of competitive sharing for these assets, there are a number of brands that own assets of these types. For Phrase and Ad Moment types in particular, the shape of the distribution shows that most assets of these types either perform exceptionally well (total ownership) or exceptionally poorly (high degree of competitive sharing), with few assets receiving a HHI\* of between 0.2 and 0.8.

## 6.3 Comparison of Developed and Developing Economies

In response to RQ2 the data was split by economy type (being either developed or developing) and the mean competitive intensity (HHI\*) was calculated for each



Distinctive Asset type (see Table 6E). For both economies, the range of competitive intensity was Low to Medium Uniqueness Concentration, or 0.32 to 0.77 in developed economies and 0.26 to 0.55 in developing. Yet Distinctive Assets are less unique on average in developing economies, with a HHI\* of 0.37 indicating a high degree of asset sharing compared to moderate sharing (0.52) in developed economies<sup>17</sup>. Generally, the higher uniqueness concentration evident in developed economies would indicate that Distinctive Assets are slightly easier to uniquely own in these markets.

To ensure the difference in overall uniqueness is a factor of economy type and not an effect of the specific assets tested in each market, matched asset analysis was conducted on 101 assets across six categories. It was found that in 62% of cases the difference between developed and developing countries was positive, in 23% of cases the difference was negative and in 15% of cases there was no difference between economy types. This finding further supports the result that, on average, Distinctive Assets are less unique in developing economies when compared to developed economies. For detailed results of the matched asset analysis refer to Appendix 6C.

**Table 6E: Mean Competitive Intensity and Variance of Distinctive Asset Types in Developed versus Developing Economies**

Asset type	Developed	Developing	Developed	Developing	Developed	Developing
	No. of Assets	No. of Assets	HHI*	HHI*	Coefficient of Variation (%)	Coefficient of Variation (%)
Character	59	31	.77	.53	37	75
Font	53	26	.69	.40	49	86
Logo	113	67	.65	.55	54	65
Image from Ad	21	20	.52	.31	72	87
Ad Moment	67	75	.51	.31	71	95
Pack	174	96	.50	.43	69	76
Product	77	16	.49	.49	71	64
Phrase	140	95	.47	.28	75	98
Image on Pack	99	65	.45	.35	74	87
Colour	73	97	.33	.29	89	82
Ad Style	20	28	.32	.26	80	74
<b>Total/Average</b>	<b>896</b>	<b>616</b>	<b>.52</b>	<b>.37</b>	<b>67</b>	<b>81</b>

<sup>17</sup> Independent T-test determined significant difference between the means at  $p < 0.001$ .

### 6.3.1 Comparison of Variation in Developed and Developing Economies

Also presented in Table 6E, variation in the individual success of Distinctive Assets is high across both economy types, at 67% in developed economies and 81% in developing economies. This once again reinforces the conclusions of RQ1 that asset type does not definitively determine asset ownership, regardless of economy type. There does however appear to be a noticeable increase in the level of variation evident for developing economies. Where the minimum level of variation in developed economies is 37% for Character assets, it rises to 65% for Logo in developing economies. In fact, in developing economies the uniqueness of Phrase varies by up to 98%. This leads to the conclusion that assets are not only more difficult to own on average in these economies, but fluctuation in the success of individual assets is even greater than the already high variability seen in developed economies.

### 6.3.2 Comparison of Developed versus Developing Hierarchy of Asset Types

Regarding the hierarchy of asset types, there are a number of similarities between economies. Primarily, Character and Logo remain two of the most unique asset types on average whilst Colour and Ad Style remain two of the least unique. Recognising noteworthy shifts in the hierarchy, in developing economies Font is actually less unique than Product and Pack types, while Phrase shifts to become one of the least unique asset types. It is speculated that Font and Phrase are both relatively less unique in developing economies due to their linguistic properties. A notable characteristic of emerging economies is lower literacy levels, consequently aural and pictorial assets would be better received than those that require language comprehension (Fletcher & Melewar, 2002). As with RQ1, ANOVA was conducted to determine whether any variation in the competitive intensity of difference types was statistically significant<sup>18</sup>. The means were significantly different for both economy types at a level of  $p < 0.001$ , warranting post hoc testing.

Read from left to right, Table 6F illustrates the degree of statistical significance between the mean HHI\* values of different Distinctive Asset types in developed economies. Reflecting the overall results, Character is significantly more unique than all other types except for Font, Logo and Pack ( $p < 0.001$ ). Fonts are also easier to own; significantly more unique than all types except Character, Logo, Pack and Ad Moment. In slight contrast to RQ1, Logo is only significantly more unique than Pack,

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<sup>18</sup> As with RQ1, Welch's ANOVA and non-parametric Kruskal-Wallis test were conducted to confirm significance despite non-normality in the data (Levene's test result of  $p < 0.005$  for developed economies, and  $p < 0.001$  for developing economies). Under both tests the means were significantly different in developed and developing economies ( $p < 0.001$ ).

Image on Pack, Colour and Ad Style. So Logo is an easier type to own on average, but only in comparison to a select few asset types. Again mirroring RQ1 results, Ad Style and Colour are the least unique asset types. Yet in developed economies this is no longer significant against Product assets.

**Table 6F: Testing for Significant Difference in the Mean Competitive Intensity of Distinctive Asset Types in Developed Economies**

Developed Economies	Ad Style	Colour	Image on Pack	Phrase	Product	Pack	Ad Moment
Character	**	**	**	**	**	**	**
Font	**	**	*	*	*	*	
Logo	**	**	**	*		*	
Pack		*					

•  $P < 0.05$  \*\*  $p < 0.001$

In developing economies, there is far less significant difference between asset types (Table 6G). As the most ownable type on average, Logo is only significantly more unique than Pack, Ad Style, Colour, Phrase and Ad Style. As the second most unique type, Character is only more ownable than Ad Style. Comparatively, Pack is significantly easier to own than Colour, Phrase or Ad Style in these economies. Principally, this level of analysis determines that differences between asset types are far less clear in developing economies than in developed economies. It is significantly easier for brands to develop unique logos when compared to a number of alternatives, just as it is significantly more difficult to develop unique ad styles, but for the most part asset types have statistically equal uniqueness potential.

**Table 6G: Testing for Significant Difference in the Mean Competitive Intensity of Distinctive Asset Types in Developing Economies**

Developing Economies	Ad Style	Phrase	Colour	Ad Moment	Image on Pack
Logo	**	**	**	*	*
Character	*				
Pack	*	*	*		

$P < 0.05$  \*\*  $p < 0.001$

## 6.4 Chapter Summary

The preceding chapter outlines results specific to Stage One: Competitive Intensity of Asset Types. In response to RQ1 and RQ2, hierarchies of asset types based on their competitive intensities have been formulated and tested for specific between group significance. Broadly, Character, Logo and Font types are found to be the most unique, whilst Colour and Ad Style are the most competitive types. Variation in the individual success of assets is generally high, suggesting that unique assets are earned through additional means and not simply a natural consequence of type. When exploring the boundary condition of economy type, it is found that across all asset types competitive intensity and variation are higher in developing economies. This indicates that, in general, assets are more difficult to own in developing economies and individual asset success diverges to an even greater extent than is evident in developed economies.

The following chapter discusses the results outlined above more extensively, with specific focus on theoretical rationalisations for the key findings.

## 7.0 Stage One Discussion

The overarching aim of Stage One has been to determine whether different Distinctive Asset types vary in their levels of competitive intensity, and therefore in their level of relative ownability for brands. To achieve this, Chapter Seven discusses in detail the key results of Stage One analysis. The results are discussed with relevant literature and interpretation for academia and industry.

### Key Finding 1: Character, Logo and Font Are Significantly More Unique than other Distinctive Asset Types, on Average

The first key finding of Stage One is that, based on the calculation of competitive intensity, Character is the most unique type on average, significantly more ownable than all other types except for Logo and Font. Although no studies have specifically investigated the uniqueness potential of characters as Distinctive Assets, related literature can be drawn upon to provide theoretical explanation as to why this asset type outperforms others. One possible rationalisation is the unrivaled ability of characters to personify brands, not only by communicating desirable brand attributes, but also by providing a humanistic visual representation (Garretson & Burton, 2005; Orth et al., 2014). By emulating human-like features, characters tap into the innate perceptual bias of humans to see faces in ambiguous visual information (Orth et al., 2014; Tsao & Livingstone, 2008). As faces play a central role in how we navigate the social world, humans have a remarkable ability to process faces far more fluently than objects (De Haan et al., 2002; Wallis, 2013). As such, characters can improve the speed and ease with which brand information is processed, supporting Key Finding 1 that they are the most unique asset type.

In addition to this, much of the literature on characters focuses on their appeal to children (Lawrence, 2003; Mizerski, 1995; Morley, 1968). Not only are characters typically used to endorse children's products, but their cartoonish qualities appeal to this demographic broadly across all brands (Callcott & Alvey, 1991; Callcott & Phillips, 1996; Schnakenberg, 2000a). Because of this, characters are typically introduced early in life and can create nostalgic, long-term memories when used consistently over time (Schnakenberg, 2000a). In this sense characters can act as effective long-term memory prompts because they prime personal memories and remind consumers of brands they may have used as a child (Callcott & Alvey, 1991). Notable examples of nostalgic brand characters that maintain a strong contemporary presence include Kellogg's Snap, Crackle and Pop introduced by Rice Krispies in the 1950's, and Toucan Sam introduced by Froot Loops in 1963 (Schnakenberg, 2000b).

Further to Character, a key finding of this thesis is that Logo is significantly more unique than Ad Style, Colour, Phrase, Ad Moment and Image on Pack types. This result is supported by Major, Tanaka and Romaniuk who found logos to be the best way to create unique associations, compared to colours and taglines in the alcoholic beverage category (2014). The propensity for logos, to perform well could be explained by the way they are handled by industry practitioners. Firms spend an enormous amount of time and money developing and promoting logos (Henderson & Cote, 1998). Considered a signature to accompany products (Snyder, 1993), significant changes are rarely seen in logos, although modifications and updates are more common (Kohli et al., 2007). This tendency for consistency gives consumers greater opportunity to learn and reinforce these brand assets over time, thus improving the strength and distinctiveness of logos as unique brand cues. Within this research, Font is used to describe a brand's font as typically shown in the logo. As such, it alludes to more than simply typeface, but rather a holistic font style including colour and shape. Because of this, the rationale behind the uniqueness of fonts aligns with that of logos.

Finally, memory literature can be used as a lens to provide theoretical rationale as to why Character, Logo and Font have a lower competitive intensity than other types. Unlike unidimensional asset types like colour or phrase, characters, logos and fonts contain multiple dimensions of colour and shape. Using multiple dimensions provides the consumer with a robust pool of cues to draw upon at the time of brand retrieval. By providing more retrieval cues and enhancing the richness of the asset through amalgamation, characters, logos and fonts can promote easier brand matching and less proneness to error (Anderson, 1983a; Anderson & Bower, 1972). Once again this supports the result that, on average, characters, logos and font harbour the best potential for unique development.

Key Finding 1 demonstrates that, on average, Character, Logo and Font have the lowest levels of competitive sharing amongst the 11 different Distinctive Asset types tested. This suggests that these asset types offer brands the best potential for unique asset development, making them the easiest asset types to own. Moving forward, brands that do not currently utilise a character or logo as a part of their branding strategy should consider the competitive advantage they offer by way of unique asset development.

## Key Finding 2: Ad Style and Colour Are Significantly Less Unique than other Distinctive Asset Types, on Average

In contrast to Character and Logo, Key Finding 2 denotes that Ad Style and Colour experience a significantly higher degree of competitive sharing than Character, Logo, Font, Product and Pack types.

The fact that ad styles are difficult to uniquely own is not altogether surprising when considering the manner in which they are taught to consumers. Unlike packs, which can be learnt through direct experience with the brand, ad styles can only be communicated to the consumer indirectly through exposure to advertising. This is an important consideration as the literature suggests direct experience has a stronger impact on developing brand associations than indirect experience (Kempf & Smith, 1998; Romaniuk et al., 2010; Singh et al., 2000). The sole reliance on advertising as a consumer touch point is unto itself a barrier, as it relies entirely on consumers receiving exposure to advertising material. If consumers are not exposed to the campaign(s) that utilise the advertising style, there would be no alternative opportunity to learn or reinforce this brand association and so the memory link would either fail to form or decay.

Further to this, Key Finding 2 is in line with prior research that finds colour to be one of the most competitive Distinctive Asset types (Major et al., 2014; Romaniuk et al., 2010). It is worthwhile to note however that, contrary to Major et al., the current research found Colour to be less unique than Phrase (taglines). From a practical stand point colours may be particularly competitive as they are an asset type that all brands must have. Even if a brand elects to have no true colour, the use of black and white would still be considered a colour combination. With the necessity of colour selection and the limited number of core colours for brands to choose from it is an exceptionally difficult, if not impossible task to select a colour that is entirely unique. (Hoek & Gendall, 2010). As evidenced in the additional examination of combinations, a colour combination can help to improve uniqueness although this improvement is only minor.

Colour is typically used as a cue for entire categories, as well as flavours or variants within categories (e.g. brown for chocolate or yellow for citrus). Rather than signalling the brand, prototypical colours may simply reinforce particular category attributes in the mind of the consumer. Furthermore, legal barriers to colour ownership also exist as they are notoriously difficult to trademark (Hoek & Gendall, 2010). In Chapter Two it was recognised that trademarking laws differ greatly across countries, and change over time, making the protection of Distinctive Assets expensive and time exhaustive. The example of Cadbury provides industry evidence that colour is amongst the most competitive, and difficult asset types to defend as

the brand has fought for over a decade to protect its shade of purple (Azrights Solicitors, 2013).

Key Finding 2 indicates that, on average, Ad Style and Colour are the least unique of the 11 different Distinctive Asset types tested. Within these types, consumer memory links are spread across multiple brands in the category. Regarding practical recommendations, it is necessary to consider the limitations of using an advertising style as a cornerstone Distinctive Asset for the brand. The nature of advertising means that it is difficult to develop a unique ad style as it is heavily dependent on exposure and indirect experience to teach consumers. It is therefore best to consider advertising as a supplementary media for reinforcing Distinctive Asset links, but perhaps deter from asset types that rely solely on this medium to communicate with consumers.

Looking specifically at colour, it is important to be realistic in terms of benchmarking the competitive sharing expected. Much like advertising styles, colour should be thought of as an additional means to incorporate branding rather than a dependable device to uniquely signal the brand each time it is used. Despite this, the inclusion of colour into a brand's Distinctive Asset palette is of immense value. Consumers rely on colour as a key tool for recognition as it is known to quickly capture attention in both advertising and in-store contexts (Gaillard, 2007; Heath, 1997). In fact, it has been reported that up to 60% of the first impression of in-store displays is derived from colour alone (Heath, 1997). For this reason it is important that brand managers do not overlook the significance of colour in communicating to consumers despite the evident difficulties in owning this type of Distinctive Asset (Bottomley & Doyle, 2006; Klink, 2003).

### Key Finding 3: Variation in the Success of Individual Assets is High Across all Distinctive Asset Types

Although a hierarchy of asset type uniqueness has been defined, Key Finding 3 determines that the individual success of Distinctive Assets varies greatly, regardless of asset type. This is reinforced by the wide variation in data points found by Major et al. (2014), who discovered the uniqueness of logos, colours and taglines varied between 16% and 94%

High variation prescribes that asset success and uniqueness are not wholly determined by asset type. That is, highly competitive types like colours and advertising styles can still harbour ownership and produce highly unique assets, just as more unique types such as characters and logos can produce highly competitive, shared assets. This leads to the conclusion that there are other important factors that contribute to an asset's success such as execution. From a practical stand point



the primary implication of Key Finding 3 is that selecting a highly unique asset type does not ensure the success of that asset. Rather than an 'easy win' for brand managers, there are factors outside of competitive sharing that influence how ownable a brand asset will be.

## Key Finding 4: Competitive Intensity and Variation Are Higher in Developing Economies than in Developed Economies, on Average

Although the primary focus of this thesis is Distinctive Asset types, the following section discusses supplementary results relating to the effects of economy type on the competitiveness of Distinctive Assets overall, that is, across all types.

Key Finding 4 shows that, on average, Distinctive Assets are less unique and more variable in developing economies when compared to developed economies. The competitive intensity of individual Distinctive Assets is high overall and widely spread around the mean, indicating that assets are more heavily shared in these markets with high inconsistency of ownership. Although no study has directly looked at the influence of economy type on the uniqueness of Distinctive Assets, literature on branding and brand extension into developing economies may provide insight into this finding.

Of initial discourse is the intense competition that typically categorises emerging markets (Luo et al., 2011). Within these deeply competitive countries, brands, and in particular global brands, do not have a historical presence. Thus, they suffer from less consolidated brand identities that leave them vulnerable to local emerging economy copycats (EECs) (Luo et al., 2011). As a means to enter the market, EECs will mimic distinctive features of market leading brands to create look-alike products (Luo et al., 2011; Van Horen & Pieters, 2012; Wilke & Zaichkowsky, 1999). In doing so copycats are able to piggy-back on the brand equity of those leading brands without bearing the expense of R&D and advertising (Shenkar, 2010; Van Horen & Pieters, 2012). Governing the widespread incidence of imitation in emerging markets is exceptionally difficult, as copying tends to fall into a zone of acceptance that does not foster black and white legitimacy (Deephouse & Suchman, 2008; Luo et al., 2011; Wilke & Zaichkowsky, 1999). Confounding this, copycat behaviour is particularly rife in developing economies because they lack standardisation, compliance, enforcement and the legal infrastructure to protect these assets (Sheth, 2011). The obvious concern with this type of imitation is that Distinctive Assets are frequently shared amongst competing brands, leading to consumer confusion and therefore low uniqueness levels and a high degree of competitive intensity in these markets.

Given the focal point of this thesis is differences across asset types, further comparison of developed and developing economies is beyond the scope of this research. However thorough investigation of the factors leading to low uniqueness in developing economies provides a useful avenue for future research.

## 7.1 Chapter Summary

Within Chapter Seven the key results of Stage One: Competitive Intensity of Asset Types have been discussed. Key Finding 1 stipulates that, on average, Character, Logo and Font are the most unique asset types. In contrast, Key Finding 2 states that Colour and Ad Style are the least unique asset types on average. Literary explanations for these findings are also discussed, including the human facial recognition bias, the ability to trademark, single versus multi-cue assets, ad exposure, and the inevitable proliferation of certain asset types. Key Finding 3 denotes that variation in the success of individual assets is high across all asset types, suggesting assets with high average uniqueness do not represent an 'easy win' for brand managers. Finally, Key Finding 4 is introduced, stating that on average, Distinctive Assets are more difficult to own in developing economies. It is ventured that this is related to a lack of historical presence of brands, local copycats, and a lack of legal infrastructure to protect branding assets.

# STAGE TWO

## Consumer Response Types

In Stage One: Competitive Intensity of Asset Types, it was established that, on average, some Distinctive Asset types are more unique than others. Leading from this, the principal objective of Stage Two is to investigate how this uniqueness is reflected in the memory associations of consumers. Where Stage One is concerned with aggregate levels of competitive intensity, Stage Two takes a more in-depth approach by assessing individual responses for different Distinctive Asset types.

# 8.0 Human Memory Theory and Distinctive Assets

Evidence from Stage One analysis indicates that, on average, some Distinctive Asset types are more unique than others. However, the results do not shed light on how more or less unique asset types are represented by the structure of associations in the mind of individual consumers. To illustrate, consider the colour red as an example. Stage One finds that colour is a particularly competitive asset type; but is this because consumers have a single memory association to a brand and that brand varies from person to person (ie. Person A thinks of Mars but Person B thinks of KitKat?), or is it that competitive asset types share associations at the individual level? (i.e. Person C thinks of both Mars *and* KitKat)? Whether a lack of uniqueness is caused by across consumer sharing, or individual level sharing has implications for how that lack of uniqueness can be rectified. As such, understanding the way these memory links form is of key value for brands with low uniqueness assets. In order to fully appreciate these implications however, it is important to first develop an understanding of how Distinctive Assets are stored in, and retrieved from memory.

## 8.1 Storage of Information in Memory

Memory storage refers to where, how, and for how long, information is stored in memory. Whilst many theories of memory storage exist, this research adopts the widely accepted and empirically validated Associative Network Theories (Anderson, 1983b; Anderson & Bower, 1979; Anderson & Bower, 1980; Collins & Quillian, 1969; Tulving et al., 1994).

The Associative Network Theories view human memory as a series of nodes with interconnecting links. The nodes represent stored information or concepts and the links represent how associated the concepts are to one another (Anderson, 1983b; Anderson & Bower, 1979). As new information is stored in memory it connects with existing knowledge based on common associative links, forming a weblike structure known as an associative network (Anderson, 1983b; Anderson & Bower, 1979; Collins & Loftus, 1975). Figure 8A illustrates an associative network in memory where Nike is the central node, connected to related nodes such as *shoes* and the colour *black*.

Figure 8A: Example Associative Network for Nike



Associative networks are formed when information from the external environment is encountered and encoded into memory. During this process a transient copy of the information is placed in working (short-term) memory, containing only the information currently available for processing (Anderson, 1983a; Anderson, 1983b; Baddeley & Hitch, 1974). Each transient memory trace then has a probability of being stored in declarative (long-term) memory. Once storage has occurred and a trace is formed in long-term memory this information cannot be lost, and so declarative memory acts as a filing cabinet for all permanent memory traces (Anderson, 1983a; Cowan, 1988).

## 8.2 Retrieval of Information from Memory

The ability to raise information from this mental filing cabinet is referred to as retrieval, the final phase of memory. Although various theories of memory retrieval exist, (e.g. Generation-Recognition (Bahrick, 1970), retrieval as search (Atkinson et al., 1968), and compound-cue theories (Ratcliff & McKoon, 1988)), this thesis adheres to the most dominant of these models, the spreading activation theory (Anderson, 1983b; Collins & Loftus, 1975; Collins & Quillian, 1969; Quillian, 1982). According to the spreading activation theory, retrieval of information begins when any given node becomes the source of activation due to a cue in the external environment (Anderson, 1983b; Tulving, 1972). This activation will then spread from node to node through the network until the activation intersects, or exceeds the level of activation required for that node to be retrieved (Anderson, 1983b; Collins & Loftus, 1975).

It is important to note that, just because an item is stored in memory does not mean it is accessible for retrieval. It is generally believed that it will only ever be possible to retrieve a subset of all known information due to the limited capacity of working memory (Baddeley & Hitch, 1974; Burke & Srull, 1988; Miller, 1956). As such, retrieval is considered a probabilistic process with each piece of associated information having a prospect of being retrieved (Anderson, 1983b). In this sense, retrieval from memory is a competitive process as all linked items in memory compete to be activated (Anderson & Neely, 1996; Romaniuk & Sharp, 2004). The probability of any given node of information being retrieved is mediated by three factors: association strength, recency of exposure and number of alternative associated links.

### **8.2.1 Factors that Influence the Probability of Retrieval**

Each time two concepts are associated in memory a link forms; strong associations are therefore those that have a greater number of associative links connecting them. The stronger an association between a concept and the source node, the more likely it is to be retrieved, as each additional link enhances the probability of that particular concept being activated. Association strength is not stable, and although a long term memory trace can never be lost, it will decay without reinforcement (Anderson, 1983b). Hence recency also impacts retrieval propensity as associations that have been accessed or reinforced more recently remain fresh and are easier to access (Atkinson et al., 1968). Finally, retrieval can be influenced by the number of alternative concepts linked to the node. Where there is only one association, the activation only needs to spread to a single link and so remains strong. However as additional nodes become associated with the source, the activation must spread thinly across many links. Referred to as the Fan Effect, this dilution reduces both the probability and rate of retrieval for any one associated concept (Heil et al., 1994).

## **8.3 Application of Memory Theory to Distinctive Assets**

In order to apply memory theory to Distinctive Assets, consider brands as individual nodes in consumer memory (such as Nike above), where brand identity is reflected in all linked associations that represent the brand (Keller, 1993, 2003). Distinctive Assets are learnt through both direct and indirect experience at any touchpoint between the brand and consumer (Hartnett & Romaniuk, 2008; Romaniuk & Gaillard, 2005). Direct experience entails contact with the brand, for example on pack and within shopping environments, whilst indirect experience typically occurs through advertising. To form the preliminary link between the brand and the asset, the consumer must encounter that asset alongside the brand name. For example,

when a consumer is first exposed to marketing material for Kellogg's Frosties using Tony the Tiger, a link would form in memory between the character and the brand. Subsequently, each time that consumer is exposed to branded material with Tony the Tiger additional links would connect the two nodes, increasing the strength of the association. In this way the strength of Distinctive Assets are built with repeated exposure and additional learning opportunities (Anderson, 1983b; Van Osselaer & Janiszewski, 2001).

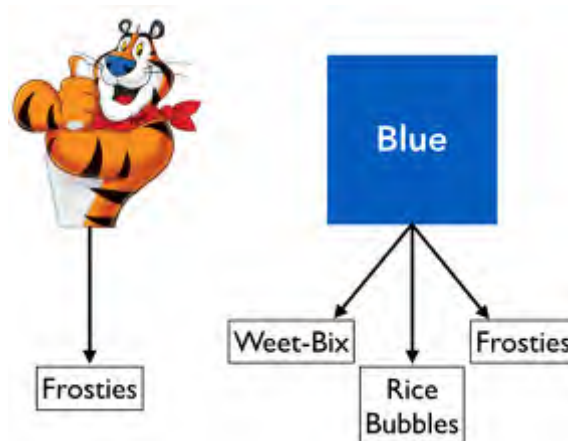
### 8.3.1 Competition for Retrieval

Retrieval of brand information can be triggered by a variety of different cues, such as brand cues (e.g. Cadbury), category cues (e.g. chocolate) or category entry points (e.g. I feel like something sweet) (Hartnett, 2011). Cues can also be classified as functional (e.g. thirst quenching), evaluative (e.g. 'lasts longer than others') or physical identifying factors (e.g. logos, colours) (Gaillard et al., 2005; Holden & Lutz, 1992; Keller, 1993).

As brand identifiers, Distinctive Assets can and should be uniquely associated in a consumer's memory (Aaker, 2001; Keller, 1993; Romaniuk & Gaillard, 2007). Unlike other brand associations, Distinctive Assets do not require subjective evaluation by consumers and so they should only form part of a brand's associative network if a genuine link between the brand and asset exists. To clarify, we would not expect a consumer to retrieve Weet-Bix when presented with the Frosties character Tony the Tiger, because the character is not used to promote any other cereal brands. Only in instances where multiple brands share Distinctive Assets would we expect this sharing to be reflected in the mind of consumers, for example the colour blue is used widely across the cereal category and so it would be more readily anticipated that consumers have multiple brand associations for this colour.

Figure 8B illustrates an example in which a consumer uniquely associates Tony the Tiger with Frosties, and therefore uniquely evokes the brand each time they encounter the character. Comparatively the same respondent has multiple brand associations, Weet-Bix, Rice Bubbles and Frosties, for the colour blue, where sharing impedes the retrieval propensity of all three brands.

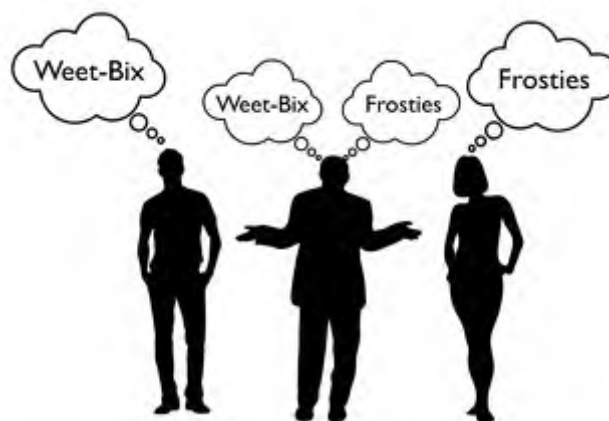
Figure 8B: Competitive Links for Tony the Tiger and the Colour Blue



Where an individual consumer associates multiple brands with the same Distinctive Asset, competition for retrieval increases, as each linked brand creates a potential pathway for retrieval. From the brand perspective, the presence of competitive brand links poses a continual risk to uniqueness as a competitor may be retrieved whenever the asset is used as a cue. This risk increases as more brands become linked to the same asset because the network activation must spread thinly across all competing brands (Anderson & Neely, 1996; Burke & Srull, 1988; Collins & Loftus, 1975; Raaijmakers & Shiffrin, 1981).

Currently it is unknown whether certain asset types have low uniqueness because different consumers think of different brands, because individual consumers think of multiple brands, or a combination of both. Based on the colour blue in the cereal category, Figure 8C illustrates the different ways that a lack of uniqueness may manifest in consumer memory.

Figure 8C: I Think of Weet-Bix, You Think of ....?





Determining the memory structures that lead of a lack of uniqueness has important implications for building uniqueness, as it may not be appropriate to apply a blanket strategy to building uniqueness generally. Further, understanding the way that Distinctive Assets are stored and compete in memory could provide insight as to why some asset types are less unique on average. Colours may be less unique, for example, because they have more individual level competition, demonstrated by a greater proportion of multi-brand responses. To investigate this, Stage Two of this research examines the response types of individual consumers, and quantifies the propensity to give a single, or multiple brand response for different Distinctive Asset types.

## 8.4 Chapter Summary

Within this chapter, human memory theory relating to the storage and retrieval of information was reviewed. Associative Network Theories were discussed, which depict the storage of information as an interrelated web of associated information. The spreading activation theory of retrieval was then considered, including the key mediating factors to retrieval probability: association strength, recency of exposure and number of alternative associated links. The chapter continued by applying the discussed memory theory to branding information and in particular Distinctive Assets. The practicalities of learning Distinctive Assets were discussed, as were issues of competitive retrieval when multiple brand associations are present.

It is emphasised that determining whether consumers have single or multiple brand associations is key to understanding the cause of low uniqueness. As such, this is the core focus of Stage Two as developed in the following chapter.

## 9.0 Stage Two Research Question

The present chapter outlines development of the primary research question for Stage Two: Consumer Response Types.

### 9.1 Investigating Single vs Multiple Brand Associations in Consumer Memory

Stage Two of this research details how the sharing of Distinctive Assets is reflected in the memory associations of an *individual* consumer. That is, whether they think of a single or multiple brands when presented with an asset of a particular type. This builds on Stage One, which instead offers insight as to how a Distinctive Asset is shared by competing brands *across* consumers.

In the previous chapter, Associative Network Theories were considered. According to these theories, Distinctive Assets are stored as nodes in consumer memory, that form part of a broader network of associated concepts (Anderson, 1983b; Anderson & Bower, 1979; Anderson & Bower, 1980; Collins & Quillian, 1969; Tulving et al., 1994). It was also discussed that memory retrieval is probabilistic, so when multiple brands are associated with the same asset they must compete to be retrieved. Applying these theories, it is possible that low uniqueness can be reflected in consumer memory in two ways: individual category buyers may each associate the asset with a single yet different brand, or individual category buyers associate the same asset with multiple brands.

The manner in which brands share, or do not share assets in the mind of individual consumers has important implications for building uniqueness in the long term. As such, RQ3 was developed:

**RQ3: What is the incidence of single vs multiple brand responses for different Distinctive Asset types?**

By investigating the incidence of single versus multiple brand responses for different Distinctive Asset types, this research not only reveals which asset types are the most unique, but also what this uniqueness looks like in consumer memory.

# 10.0 Stage Two Research Design

The following chapter outlines the method used to answer RQ3: what is the incidence of single vs multiple brand responses for different Distinctive Asset types? For full detail of the secondary data used, see Chapter Five: Stage One Research Design.

## 10.1 Coding of Consumer Response Types

The primary objective of Stage Two is to determine the incidence of single versus multiple brand responses for different Distinctive Asset types. In order to meet this objective, coding took place at the respondent level to reflect their particular response type when presented with a Distinctive Asset. Stage Two is not concerned with which specific brands are associated with any given asset, but rather the *number* of brand associations for a single consumer. As such the three independent codes include: did not respond/did not give a valid brand response, gave a single valid brand response, gave multiple valid brand responses. A response was deemed invalid where the brand provided was outside of the stated category. The data was input into a coding spreadsheet by either the primary researcher, or a trained research assistant. The spreadsheet required manual input of data, but automated the output of objective response codes. As a fail-safe, an additional code was included to indicate a coding error. A coding error would occur, for example, if a respondent had written the same brand twice. Although two text boxes were filled, it is not a true multi-brand response. Including the error code ensured that any inconsistencies in consumer responses, or potential input errors were detected prior to analysis.

It is important to note that for this stage of analysis the specific brands provided by the respondents are not of significance. Rather than determining whether the asset actually belongs to the retrieved brand (i.e. is correct or incorrect), the primary objective of this stage is simply to determine the incidence of multiple brand associations.

### 10.1.1 Exclusion of Assets that Received HHI\* of 1

For the purpose of Stage Two analysis assets were removed where they received a HHI\* of 1, this resulted in a sample size of 1182 assets. As explained in Chapter Five: Stage One Research Design, a HHI\* of 1 implies that the asset is uniquely owned by one particular brand because no competitor links are observed. In order to be entirely unique, that asset would have to receive only single brand responses.

Consequently, including these assets in the sample would outweigh the incidence of single brand responses. As Stage Two is concerned with the impact of competitive links on brand retrieval, it is not appropriate to include these assets in the sample.

## 10.2 Conducting Descriptive Statistics

Once coding was complete basic descriptive statistics were calculated to determine the proportion of category buyers who gave at least one response, and subsequently whether that response contained a single brand or multiple brands. To test for significant difference in response types between Distinctive Asset types a two-tailed z test was used. The sample size used for significance testing was the number of assets tested and not the number of respondents/responses. The significance level was set at 0.05.

# 11.0 Stage Two Results

Chapter Eleven covers the descriptive results for Stage Two of this research, Consumer Response Types. It details the incidence of single versus multiple brand responses for Distinctive Asset types.

## 11.1 Single vs Multiple Brand Responses for Distinctive Asset Types

In response to RQ3, Table 11A first shows the average percentage of category buyers who gave at least one valid brand response for an asset type, and then details the subsequent proportion who elicited either one, or two or more brands. To illustrate, an average of 53% of category buyers gave a branded response for Pack assets, and of those, 92% of responses contained a single brand and 8% included more than one brand. Rather than distinct differences, what is clearly demonstrated by the table of results is that single brand responses are the most typical across all Distinctive Asset types. In fact, single brand retrieval accounts for 93% of responses on average.

**Table 11A: Breakdown of Consumer Responses for Distinctive Asset Types**

Asset Type	Gave at least one response (%)	(% of those who gave a response, who elicited:	
		One brand	Two or more brands
Pack (n=205)	53	92	8
Product Form (n=72)	51	92	8
Character (n=49)	50	94	6
Logo (n=113)	45	96	4
Ad Style (n=45)	45	90	10
Image from Ad (n=33)	44	92	8
Ad Moment (n=114)	44	91	9
Phrase (n=197)	42	91	9
Font (n=53)	40	95	5
Image on Pack (n=138)	40	93	7
Colour (n=163)	33	90	10
<b>Average</b>	<b>44</b>	<b>93</b>	<b>7</b>

Obtaining the highest proportion of single brand responses is Logo, where single brands account for 96% of total responses. Even for Colour and Ad Style, which receive the highest proportion of multi-brand retrieval, single brands still account for 90% of responses overall. As such, Stage Two of this research *does not* find that the proportion of single versus multiple brand responses varies significantly by Distinctive Asset type. Instead, the overwhelming result indicates that 90% or more of category buyers who respond to Distinctive Assets will only elicit a single brand, regardless of that asset's type. This would imply that although some Distinctive Asset types are more unique than others on average, the underlying memory structures that determine this uniqueness are remarkably similar, i.e. the majority of category buyers will elicit only a single brand for both highly unique and highly competitive asset types.

Although not the dominant finding of Stage Two, it worthwhile to note that subtle differences do exist between Distinctive Asset types, and that these differences reflect the competitive intensity scores seen in Stage One results. As the most unique asset types on average, Logo, Font and Character receive the lowest proportion of multiple brand responses at 4%, 5% and 6% respectively. Similarly, the most competitive types, Colour and Ad Style, receive the highest proportion of multiple brand responses, with 10% of brand responses containing two or more brands. To test for correlation between the competitive intensity of asset types (HHI\*), and the proportion of responses containing multiple brands, a Pearson's correlation was conducted. Results indicate that there is a strong negative correlation between competitive intensity and multiple brand responses,  $r=-0.878$  ( $p<0.001$ )<sup>19</sup>. As such it is demonstrated that, as HHI\* increases (i.e. asset types get more unique), the proportion of multi-brand responses decreases.

## 11.2 Chapter Summary

Within the preceding chapter Research Question 3 was addressed, providing incidence rates of single and multiple brand responses for different Distinctive Asset types. Rather than significant differences, the key result of Stage Two finds that the vast majority of the category buyers who give a response will only elicit a single brand, irrespective of asset type. A Pearson's correlation illustrates that, as uniqueness increases, the proportion multi-brand responses decreases, explaining the subtle differences that do exist between types. The following chapter discusses the practical implications of these findings, as well as their theoretical grounding.

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<sup>19</sup> A scatter plot of this correlation is provided as Appendix 11A for illustrative purposes.

## 12.0 Stage Two Discussion

The overarching aim of Stage Two has been to explore the makeup of uniqueness in consumer memory by assessing individual consumer responses to Distinctive Asset types. Results indicate that, rather than between type differences, the majority of category buyers will elicit only a single brand regardless of asset type. The following chapter discusses this key result in the context of relevant literature.

### Key Finding 5: The vast majority of category buyers who give a response, elicit only a single brand

Contrary to Stage One which found significant difference in the average uniqueness of asset types, Stage Two *does not* find that the proportion of single versus multiple brand responses varies significantly by type. Instead, it was determined that the vast majority of category buyers who respond to a Distinctive Asset will elicit only a single brand, regardless of that asset's type. What this suggests about asset types with low uniqueness is that they have more category buyers who each think of a single, yet different brand, rather than a higher proportion of category buyers retrieving multiple brands.

Although it is not the dominant finding of Stage Two, subtle differences in multi-brand retrieval between asset types were observed. A Pearson's correlation revealed that competitive intensity (HHI\*) and the proportion of multi-brand responses are strongly, and negatively correlated ( $r=-0.878$ ) (Cohen, 1988). This suggests that as an asset type becomes less unique, a greater proportion of multiple brand responses are given.

#### Key Finding 5.1 Existing Brand Awareness and Perceptions Research

Brand Awareness is the extent to which consumers can recognise or recall a brand (Keller, 1993). Like the present research, these studies involve the retrieval of brands, or brand information from consumer memory, either by prompted or unprompted means. Based on the existing body of brand awareness research, the high proportion of single brand responses in Stage Two of this thesis was a relatively unexpected result.

In three experiments conducted by Alba and Chattopadhyay (1986) the recall abilities of a high salience and control group were compared. All respondents were cued with a single brand from the category, but the high salience group was given

an additional minute to focus their attention on the brand. All respondents were then asked to recall all other brands in the category they could think of.

In the first experiment, respondents were cued with a shampoo brand and given 4 minutes to recall brands. Those in the high salience group retrieved significantly fewer brands than the control group, 8.88 vs 10.44 brands on average. In a smaller category, coffee, the two groups were only given 2 minutes for recall and still an average of 3.78 brands were retrieved by the high salience group and 5 for the control group. In the third and final experiment, cereal was tested as a more familiar category. This resulted in an even higher brand recall rate of 17.61 for the control group and 14.3 in the high salience group. Even amongst the high salience group where a rehearsal activity was imposed to hinder brand recall, the minimum average number of brands recalled was 3.78. This is in stark contrast to the present research where single brand retrieval prevails.

Similarly, such a high proportion of single brand responses is unusual in brand perception research. For instance, Romaniuk and Gaillard (2007) tested for unique brand associations across 94 brands belonging to eight categories in the UK. Using a brand prompted method, a consumer was considered to maintain a unique brand association if they linked only one brand in the category to a certain attribute. In six of the eight categories, an average of 50% to 78% of brand customers had no unique brand associations. In other words, less than half provided a single brand response for any given attribute. Expanding upon this, Gaillard and Romaniuk (2007) conducted a further study across 130 brands in 13 product and service categories. Using a pick-any approach, respondents were provided with a list of brands and attributes and asked to indicate which brands they associated with which attributes. In stark contrast to the present research, the study found that the number of respondents giving multiple brands far outweighed those only giving a single brand. In fact, only one in five respondents, on average, uniquely associated an attribute with any brand, with the average level of uniqueness for a single brand on a single attribute only 3%. Overall it was determined that consumers rarely associate an image attribute with only one brand in the category, rather, they are much more likely to associate multiple brands, or no brands at all.

In a related study by Vieceli (2011) consumers were prompted with three categories independently, shampoo, banking and cars, and asked to recall as many brands as they could think of. Following this exercise, they were asked to list brand associations for the first three brands they had recalled for each category on a free elicitation basis. Across the three categories an average of 72 to 87% of associations were unique, implying they were only assigned to a single brand by the respondent. Compared to a prompted approach, such as that used by Gaillard and Romaniuk (2007), this was a cognitively taxing task, as respondents not only had to recall brands but they also had to freely recall associations for those brands (du Plessis, 1994; Romaniuk, 2006). Given the difficult nature of the activity, it is logical that



fewer attributes were retrieved for each brand, resulting in a higher proportion of unique associations. Despite this, the proportion of unique associations was still less than evident in the asset prompted recall task of the present research.

In Stage Two of this research, 90% or more of respondents elicited only a single brand when presented with a Distinctive Asset. To emphasise the weight of this finding, it should be remembered that entirely unique assets ( $HHI^*=1$ ) were removed from the sample to leave only those that faced some sort of mental competition. In essence, this has accentuated the proportion of multi-brand responses. Such a high proportion of unique associations is unprecedented in recall tasks for other brand attribute types, so why do Distinctive Assets foster such a high proportion of single brand responses?

### **Key Finding 5.2 Distinctive Assets belong to Brands, not Categories**

A primary explanation for the different response pattern seen for Distinctive Assets is that they are vastly different to the perceptual cues typically tested in brand awareness and attribute research. Where perceptual cues such as 'tastes good' require a high degree of subjective interpretation, Distinctive Assets are typically an objective, physical representation of a brand. As such, they can and should form unique associations in consumer memory. The tendency for category buyers to elicit only a single brand provides evidence for this theory, suggesting that Distinctive Assets are inherent to the brand as opposed to the category as a whole.

Consider breakfast cereal as an illustrative example. In order for a brand to be considered a member of the category there are certain attributes a consumer would expect that brand to have (Rosch & Mervis, 1975). It would be expected that all brands of cereal be edible for example, but would it be expected they all come in a blue box? Referring back to the results, even for the least unique types, Colour and Ad Style, 90% of respondents elicited only a single brand, despite high degrees of competitive sharing. Category prototypicality therefore does not seem to pose as a significant barrier to unique asset development, as Distinctive Assets are not a key consideration when consumers conceptualise the normal attributes that make up a category.

## **12.1 Chapter Summary**

Chapter Twelve has discussed the key findings derived from Stage Two of this research; on average, over 90% of category buyers who respond to a Distinctive Asset will only elicit a single brand.

As illustrated by the examples of Alba and Chattopadhyay (1986), Romaniuk and Gaillard (2007) and Vieceli (2011), such a high proportion of single brand responses has not been seen in prior brand awareness or perception research. It is speculated that this is due to the vastly different nature of Distinctive Assets as predominantly objective brand cues, compared to other attributes linked to brands. Unlike perceptual cues that frequently elicit multiple category members, Distinctive Assets can and should be unique to brands. As such, it is concluded that such a high proportion of single brand responses is indicative that Distinctive Assets are inherent to brands, and not to categories.

# 13.0 Implications and Contributions of this Research

Chapter Thirteen outlines the implications and contributions of this research to both marketing theory and industry knowledge and practice. Firstly, broad contributions of the thesis are portrayed, and then specific contributions and implications are detailed as related to Stage One: Competitive Intensity of Asset Types, and Stage Two: Consumer Response Types.

## 13.1 Overall Contributions to Marketing Theory

Much of the current research into brand identity is theoretically based (Aaker, 1991; Keller, 1993, 2003; Kotler, 1991). The current research expands the empirical body of knowledge in this area by investigating the real world happenings of over 1500 Distinctive Assets in 13 categories across 19 countries. In addition to this, the limited research that does investigate the importance of Distinctive Assets is typically siloed by asset type (eg. Henderson & Cote, 1998; Kohli & Thomas, 2013). The present research helps to breakdown these silos and make brand identity research more practical by comparing 11 different Distinctive Asset types in two related studies. Further, Stage One of this research has taken the Herfindahl-Hirschman index from the field of economics and extended its use in Distinctive Asset research, expanding the scope in both fields. This is the first multi-type study to compare specific metrics across such a broad range of Distinctive Assets. The results of this research therefore provide a sound platform for replication and generalisability, and provide a base for quantifying the uniqueness of Distinctive Assets types.

## 13.2 Contributions and Implications of Stage One

Existing research shows that unique brand associations are preferable (Keller, 1993); the current research helps to bridge the theory and practice gap by recommending which asset types offer brands the best potential to achieve this uniqueness. Key Finding One provides evidence that Character, Logo and Font have the highest concentration of uniqueness on average, and thus are the easiest to own. This finding compliments existing literature on the importance of brand characters for personifying brands and establishing positive attitudes (Fournier, 1998; Garretson & Niedrich, 2004). It also supports work by Major et. al. (2014), reinforcing logos as

viable means to create unique brand associations. Finally, the finding reiterates those of Doyle and Bottomley (2004), that a font, being inclusive of the typeface, colour and pictogram, can in fact enhance a brand's identity.

Comparatively, Key Finding 2 finds Colour and Ad Style to have the lowest uniqueness concentration, that is, they are the most difficult types to own on average. Whilst this finding is in line with existing knowledge, that it is difficult for brands to adopt a unique colour (Hoek & Gendall, 2010; Major et al., 2014), it is less clear why advertising styles are highly competitive. To the researcher's best knowledge, the uniqueness of ad styles as a branding asset has not previously been researched. Further research could help to determine whether low uniqueness for this type is related to its reliance on indirect exposure through advertising.

Based on these findings the key implication of Stage One for industry is that characters, logos and fonts should be prioritised ahead of other assets types where uniqueness is the key objective. On the contrary, advertising styles and colours should be thought of as additional means to incorporate branding rather than dependable devices to uniquely signal the brand each time they are used. In saying this, due consideration must be given to Key Finding 3, that variation in asset success is high across all types. High variation emphasises the importance of well-branded, clear and consistent execution to build assets, and stipulates that successful ownership is not simply a natural consequence of type. Rather than a guaranteed win for brand managers, the selection of characters, logo, and fonts should be considered a practical head start in achieving unique brand associations.

Supplementary to these key findings it was discovered that, on average, competitive intensity and variation are higher in developing economies than in developed economies. This is in line with literary agreement that developing markets are intensely competitive (Luo et al., 2011), and also with literature that describes the prevalence of copy-cat behaviour in these markets (Shenkar, 2010; Van Horen & Pieters, 2012). This has important implications both for brands who are operating in developing economies, as well as those that hope to extend their brands into these markets. In terms of competitive intensity, a greater degree of sharing is evident across all asset types in developing economies. Multiple brands are competing for the same assets in memory, meaning that far fewer brands are uniquely owning their Distinctive Assets on average. In addition to this, higher average variation means that well-branded, consistent execution plays an even more vital role in ultimately determining the success of an asset.

Whilst characters and logos are still harbour the best potential for ownership in these markets, it is important to recognise the added difficulty in developing unique brand associations. Brand managers must emphasise the importance of correct execution and consumer education within developing economies to minimise competitive sharing and promote unique Distinctive Assets.

### 13.3 Contributions and Implications of Stage Two

Key Finding 5 reveals that the majority of category buyers who respond to a Distinctive Asset elicit a single brand, regardless of that asset's type. The prominence of single brand responses is previously unseen in existing brand awareness and brand perception research (Alba & Chattopadhyay, 1986; Romaniuk & Gaillard, 2007; Vieceli, 2011). Expanding on human memory theory, this research suggests that Distinctive Assets are more likely to be unique in the mind of an individual consumer, indicating they are stored differently to other attributes linked to brands.

In regards to industry practice, this designates that if an asset lacks uniqueness it is because there are more category buyers who each think of a single, yet different brand, rather than a greater portion of consumers who elicit multiple brands. This suggests two factors that determine the best strategy to build or regain uniqueness: 1) whether competitor associations are based on misguided consumer confusion or genuine competitor use of the asset, and 2) the proportion of category buyers who do not elicit any brand.

If the single brand that gets retrieved is a competitor, steps must be taken to determine whether or not that competitor actually uses the asset in question. If the competitor does not use the asset, elicitation is likely based on consumer confusion due to poorly branded execution by the target brand. In this case, regaining uniqueness may simply be a matter of waiting for the misguided competitor association to decay, as it should not receive any reinforcement (Anderson, 1983b). Where the competitor brand(s) do use the asset, regaining or building uniqueness is more difficult as the association will likely be reinforced by competitor action. Under these circumstances it is recommended that the brand consider the proportion of consumers who do not elicit any brand. If the proportion of consumers who do not elicit any brand is greater than the portion who elicit competitor brands, uniqueness could be built by establishing the association amongst unaligned consumers. This recommendation is based on memory literature that describes how a memory association cannot be lost once it has formed (Anderson, 1983a; Cowan, 1988).

### 13.4 Final Summary

Taking place over 1512 real Distinctive Assets, in 13 categories and 19 countries, this research is the first of its kind to compare specific metrics across such a wide range of asset types. It merges the fields of economics and marketing through

application of the Herfindahl-Hirschman Index, and provides a valuable means of quantifying the competitive sharing behaviour of brands for Distinctive Assets.

The research holds valuable implications for industry, as it prescribes characters, logos and fonts offer brands a practical head start to developing unique Distinctive Assets. The vital role of well-branded and consistent execution in building uniqueness however, should not be understated. It was revealed that, regardless of asset type, low uniqueness is driven by a large number of consumers who each elicit a single, yet different brand. These findings decree that the best strategy for regaining uniqueness then depends on the cause of the mental sharing, as well as the relative proportion of consumers who do not elicit any brand.

# 14.0 Limitations and Future Research

Chapter Fourteen is the final chapter of this thesis. Limitations of the current research are acknowledged, before promising avenues for future research are considered.

## 14.1 Limitations of Secondary Data

The use of secondary data may be considered a limitation to the present research as it lacks a certain degree of specificity that could have been achieved with primary data collection (Neuman, 2011; Zikmund et al., 2011). In addition to this, lack of control over data collection and quality is often cited as a potential weakness of secondary data. Whilst this is acknowledged, it is not considered a limitation of the current research due to the researcher's personal involvement in the data collection as an employee of the Ehrenberg-Bass Institute. Furthermore, the costly and time intensive nature of primary data collection made secondary data an appropriate alternative as it allowed for a far greater scope to be achieved.

## 14.2 Opportunity to Explore Within-Type Variation

Within Stage One: Competitive Intensity of Asset Types, a high degree of variation was seen in the competitive intensity of individual assets across all types, indicating that the average ownability of an asset type cannot affirm the success of individual assets. This raised subsequent questions such as: why are some ad styles uniquely owned despite the type being more competitive on average?, and, why do some characters perform so poorly given these are the easiest type to own?

Whilst further exploration of within-type differences was beyond the scope of this thesis, it represents an opportunity for future research to further understand why some Distinctive Assets are more unique than others. A potential avenue could be to investigate type-specific factors that affect asset ownership, for example primary versus tertiary colours, long versus short phrases or human versus animal characters.

## 14.3 Is There a Brand Size Effect?

One possible explanation for variation in the uniqueness of Distinctive Assets is brand size. Whilst exploring the influence of brand size was beyond the scope of this thesis, it could be speculated that larger brands have more brand users within a

sample who have a higher likelihood of retrieving brand information (Craik & Lockhart, 1972). Evidence of a size effect has been seen for other attribute types (eg. Barwise & Ehrenberg, 1985), however no research has specifically investigated whether brand size has an influence on the uniqueness of brand assets. As such, investigating the relationship between uniqueness and brand size provides a rich source of future research into Distinctive Asset types.

## 14.4 Brand Usage and its Effect on Correct Retrieval

Relating specifically to Stage Two: Consumer Response Types, it was discovered that the vast majority of category buyers who respond to a Distinctive Asset elicit only a single brand. The present research is principally concerned with the number of brands an individual retrieves, and not with whether the retrieved brand is a correct association or not. The next question to then arise is, is the single brand that is retrieved correct, in terms of the asset being a component of that brand's identity? Whilst brand usage is not considered of influence to the present research, it does need to be recognised as a mediating factor for future research into correct/incorrect retrieval for Distinctive Assets.

Familiar information is more easily processed than non-familiar information, making it more readily accessible (Craik & Lockhart, 1972). In turn, this gives brand users a heightened ability to retrieve stored brand information than non-users. This is an important consideration for future research as it could be speculated that brand users are more likely to provide correct brand responses than non-users. As such, the incidence of correct versus incorrect brand retrieval, and the mediating effect of brand usage is an exciting avenue for future research into Distinctive Assets. By the same regard, it could be speculated that category buyers who use more brands in the category (i.e. have larger repertoire sizes), have a greater pool of familiar brand information to draw upon. It is therefore plausible that they are more likely to give multi-brand responses for more competitive asset types. A comparison of asset uniqueness amongst heavy and light category buyers therefore presents a further opportunity for future research.

## 14.5 Alternative Methods of Data Collection

Again relating to Stage Two, it is important to recognise that the tendency for consumers to elicit only a single brand could be an artefact of the data collection method. The secondary data used in this research was collected whereby consumers were prompted with the category only and not a list of brands, making it a difficult cognitive task in comparison to a pick-any approach. Exploring how



alternative methods, such as a pick any approach, affect the incidence of single versus multiple brand responses is an important means to generalise Stage Two findings. Unfortunately, this is beyond the scope of the current research and so presents an important opportunity for future research to extend the work of Romaniuk and Nenycz-Thiel (2014).

## 14.6 Opportunity to Extend Scope

In order to promote generalisability, it is recommended that future research investigate the competitive sharing of Distinctive Assets beyond national brands in consumer goods categories. The secondary data utilised within this research was coded to assess national brands competing in a category. As such no private label Distinctive Assets were tested within this research and private label brands and manufactures were excluded from analysis. Whilst this may be considered a limitation it also presents an opportunity for extension in future research.

Additionally, it would be worthwhile to investigate competitive intensity and the incidence of single brand retrieval for durables and services brands. Services and durables experience higher share loyalty than consumer goods as they fall under the classification of subscription type markets (Sharp et al., 2002). Thus, it could be anticipated that they would receive an even greater number of unique associations. To test this theory and expand the scope of the current research, future research should move beyond consumer goods brands.

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# Appendix

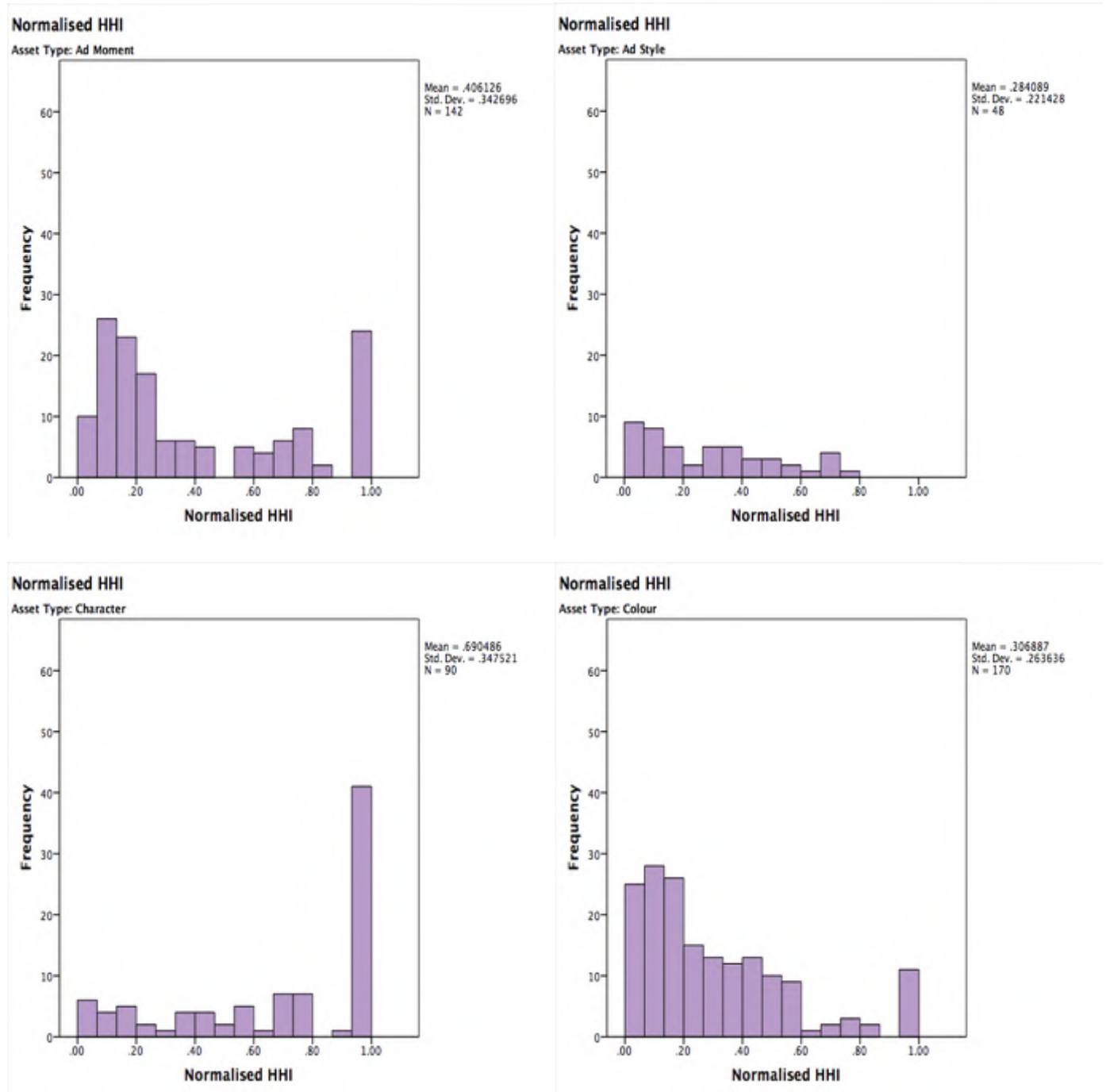
## Appendix 5A: Example Questionnaire Framework

	First brand	Other brand	Other brand	No brands
hello	<input type="text" value="Pepsi"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
Maximum kick. No Sugar	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>
	<input type="text" value="Redbull"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
	<input type="text" value="Coke"/>	<input type="text" value="Diet Coke"/>	<input type="text"/>	<input type="checkbox"/>

## Appendix 6A: Comparison of Competitive Intensity for Single Colours vs. Combinations

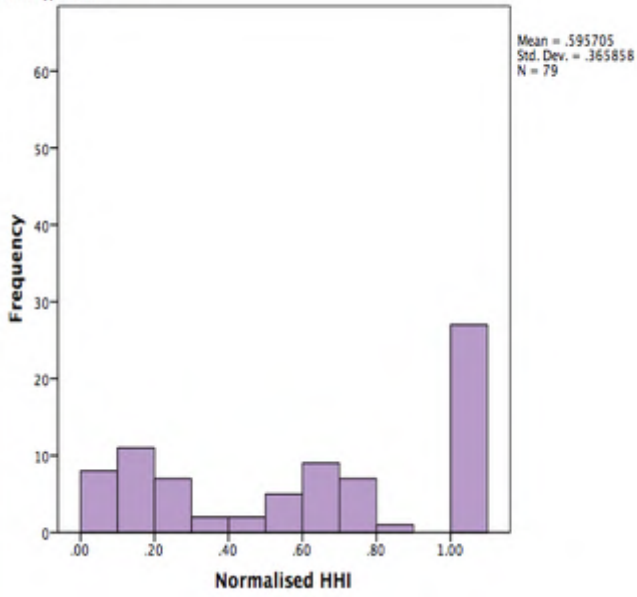
Country	Category	Single (HHI*)	Combo (HHI*)
USA	Household Cleaners		0.36
Thailand	Household Cleaners	0.07	0.10
		0.13	0.19
		0.13	
		0.14	
		0.32	
South Africa	Chocolate	0.10	0.23
		1.00	0.34
		0.35	0.56
UK	Chocolate	0.07	0.46
		0.30	
		1.00	
Argentina	Household Cleaners	0.02	0.68
		0.15	
		0.15	
		0.57	
USA	Insect Sprays		0.37
		0.40	0.50
Mexico	Snacks		0.05
		0.08	0.23
Argentina	Insect Sprays	0.41	0.28
		0.18	0.15
		0.40	
		0.52	
		0.57	
Norway	Bottled Beverages	1.00	
		0.15	0.02
		0.19	0.72
USA	Laundry detergents	0.14	0.10
Australia	Breakfast Foods		1.00
	<b>Average</b>	<b>0.33</b>	<b>0.35</b>

## Appendix 6B: Histograms of HHI\* by Asset Type



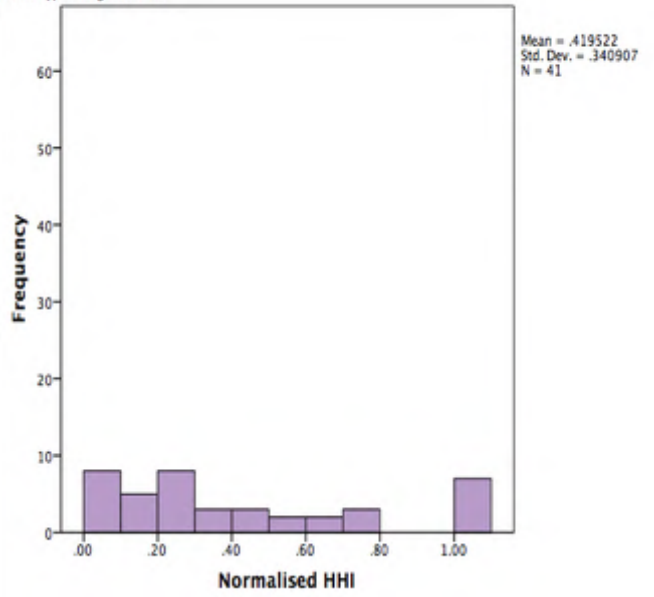
### Normalised HHI

Asset Type: Font



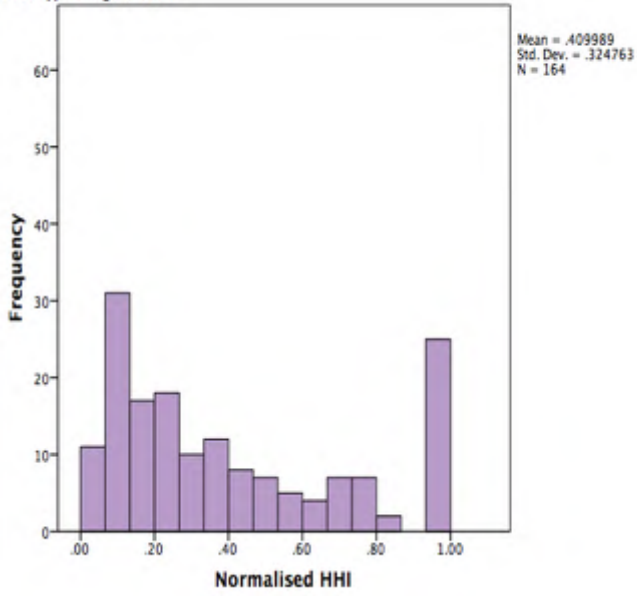
### Normalised HHI

Asset Type: Image from Ad



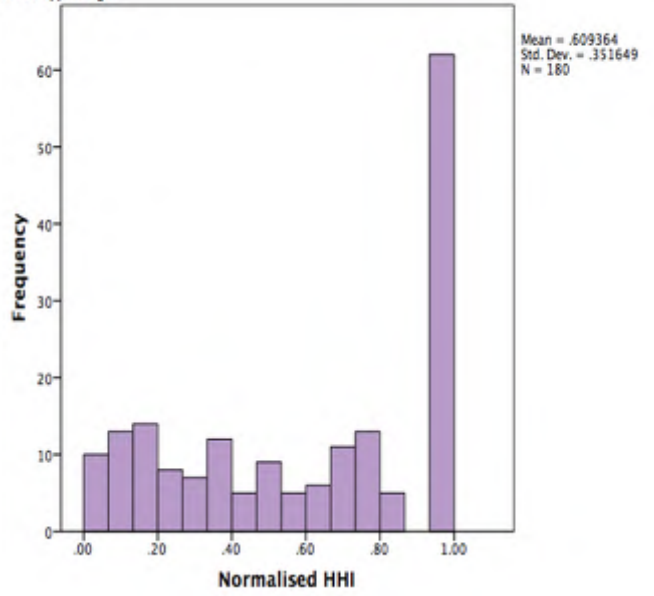
### Normalised HHI

Asset Type: Image on Pack



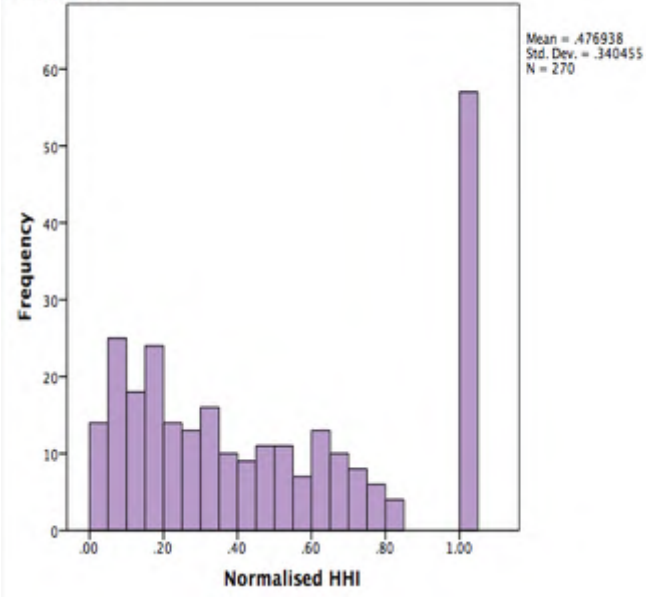
### Normalised HHI

Asset Type: Logo



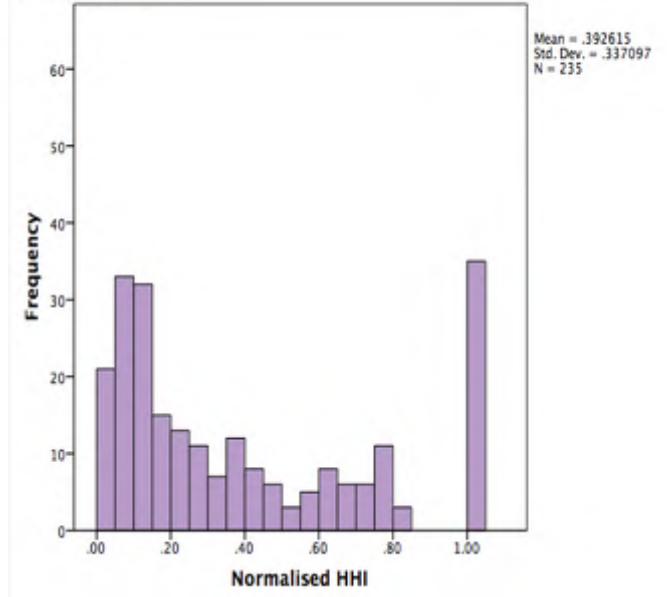
### Normalised HHI

Asset Type: Pack



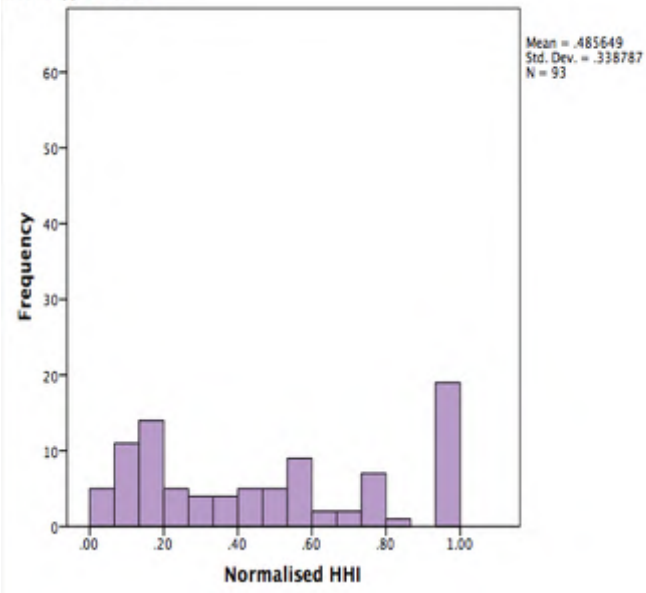
### Normalised HHI

Asset Type: Phrase



### Normalised HHI

Asset Type: Product





Appendix 6C: Matched Asset Analysis to Compare Developed and Developing economies

Haircare	Developed	Developing	Difference
	Ave.	Ave.	
Ad Moment (Brand A)	1.0	.37	.63
Ad Moment (Brand A)	.08	.09	0.0
Ad Moment (Brand C)	.43	.19	.23
Ad Style (Brand A)	.56	.30	.26
Colour (Brand A)	.09	.15	-.07
Colour (Brand C)	.11	.06	.05
Colour (Brand D)	1.0	.31	.69
Image from Ad (Brand C)	1.0	.31	.69
Image on Pack (Brand D)	.66	.43	.23
Logo (Brand A)	1.0	.53	.47
Logo (Brand B)	.73	.25	.48
Pack (Brand B)	.65	.13	.53
Pack (Brand C)	.19	.12	.07
Phrase (Brand A)	.09	.13	-.04
Phrase (Brand A)	.10	.07	.03
Ad Moment (Brand A)	1.0	.37	.63

Bathroom Cleaner	Developed	Developing	Difference
	Ave.	Ave.	
Ad Moment (Brand A)	.24	.31	-.07
Ad Moment (Brand A)	.25	.11	.14
Ad Moment (Brand A)	.14	.09	.04
Ad Moment (Brand B)	.13	.07	.06
Ad Moment (Brand B)	.12	.19	-.06
Character (Brand A)	1.0	1.0	0.0
Colour (Brand A)	.10	.30	-.20
Image on Pack (Brand C)	.35	.13	.21
Logo (Brand A)	1.0	1.0	0.0
Pack (Brand A)	1.0	1.0	0.0
Pack (Brand B)	.16	.03	.13
Pack (Brand B)	.14	.15	-.01
Pack (Brand C)	.08	.04	.03

Household Cleaner	Developed Ave.	Developing Ave.	Difference
Colour (Brand A)	.34	.45	-.11
Colour (Brand B)	.53	.02	.50
Logo (Brand A)	1.0	.53	.47
Logo (Brand C)	.64	.68	-.04
Pack (Brand A)	.36	.27	.09
Phrase (Brand B)	.61	.66	-.05

Insect Repellent / Insecticide	Developed Ave.	Developing Ave.	Difference
Ad Moment (Brand B)	.49	.13	.36
Character (Brand B)	.50	.37	.13
Colour (Brand A)	.37	.65	-.27
Colour (Brand B)	.15	.17	-.02
Colour (Brand B)	.49	.52	-.03
Colour (Brand C)	.13	.17	-.04
Image on Pack (Brand B)	.30	.39	-.09
Image on Pack (Brand B)	.42	1.0	-.58
Image on Pack (Brand C)	.16	.20	-.04
Logo (Brand A)	1.0	.80	.20
Logo (Brand B)	.38	.38	0.0
Logo (Brand B)	.43	.33	.10
Logo (Brand C)	.20	.08	.12
Phrase (Brand B)	.51	.15	.36
Phrase (Brand B)	.24	.14	.09

Potato Chips	Developed Ave.	Developing Ave.	Difference
Ad Moment (Brand A)	.84	1.0	-.16
Character (Brand A)	1.0	1.0	0.0
Colour (Brand A)	.11	.08	.03
Font (Brand A)	1.0	.22	.78
Image from Ad (Brand A)	.90	.28	.62
Logo (Brand B)	1.0	.75	.25
Pack (Brand A)	.86	1.0	-.14
Product Form (Brand A)	.74	.59	.15

Chocolate	Developed Ave.	Developing Ave.	Difference
Ad Moment (Brand A)	.72	.31	.41
Ad Moment (Brand D)	1.0	1.0	0.0
Ad Moment (Brand G)	.73	.09	.65
Colour (Brand A)	.08	.08	0.0
Colour (Brand A)	.41	.34	.07
Colour (Brand C)	.24	.35	-.11
Colour (Brand D)	1.0	1.0	0.0
Colour (Brand G)	1.0	.57	.43
Colour (Brand I)	.35	.22	.13
Font (Brand A)	.70	.20	.50
Font (Brand B)	.78	.60	.19
Font (Brand C)	1.0	.57	.43
Font (Brand D)	1.0	1.0	0.0
Font (Brand F)	1.0	.76	.24
Font (Brand G)	1.0	.70	.30
Image on Pack (Brand B)	1.0	1.0	0.0
Image on Pack (Brand D)	1.0	1.0	0.0
Image on Pack (Brand F)	.91	.65	.26
Logo (Brand A)	1.0	.45	.55
Logo (Brand B)	1.0	.16	.84
Logo (Brand D)	1.0	1.0	0.0
Logo (Brand D)	1.0	.79	.21
Logo (Brand D)	1.0	1.0	0.0
Logo (Brand E)	.78	.68	.10
Pack (Brand A)	1.0	1.0	0.0
Pack (Brand B)	.71	1.0	-.29
Pack (Brand C)	.52	.06	.47
Pack (Brand D)	1.0	.81	.19
Pack (Brand E)	.92	.74	.18
Pack (Brand F)	.84	1.0	-.16
Pack (Brand G)	1.0	.53	.47
Pack (Brand I)	1.0	.74	.26
Phrase (Brand A)	.13	.29	-.16
Phrase (Brand A)	.53	.12	.40
Phrase (Brand D)	1.0	.80	.20
Phrase (Brand E)	.77	.75	.02
Phrase (Brand I)	1.0	.86	.14
Product (Brand F)	.89	.29	.61
Product Form (Brand A)	1.0	.87	.13
Product Form (Brand C)	.59	.08	.51
Product Form (Brand D)	.40	.44	-.04
Product Form (Brand G)	.42	.06	.37
Product Form (Brand I)	.90	.77	.13

Appendix 11A: Correlation between Competitive Intensity and Multi-Brand Responses

