

An Empirical Study of the Effect of Brand Personality and Consistency between Marketing Channels on Performance within the UK Higher Education Sector

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Abstract

Over the past decade, increased pressure on Higher Education Institutions (“HEIs”) has contributed to additional national and international competition for students and funding. This has been compounded by policy decisions on the part of government. Such increasing competition has led to an increase in managerialism, with tools and practices traditionally associated with the corporate sector now being adopted and utilised by HEIs. Marketing and brand management has received special attention from such institutions, particularly in order to attract students and build reputation. Some authors argue that the concept of branding transfers directly to the education sector, whilst others argue that HEIs are more complex with more specialist approaches required. Research suggests UK universities do not consistently communicate across all audiences, whilst previous literature recognises brand consistency as important. However, this literature is based predominantly on anecdote, or on evidence from single cases.

In this study, sixty HEIs were selected to represent the full range of UK universities. For each HEI, a prospectus was obtained, and the websites and Twitter feeds of the institutions were downloaded. This provided 18,956,366 words to analyse. Brand personality was measured using Aaker’s brand personality scale and Opoku’s dictionary of synonyms. The frequency of words was used to assess brand personality across Aaker’s five dimensions for each marketing channel. The data was then analysed to test the research hypotheses, using statistical analysis techniques. These looked for relationships between brand personality, strength, consistency, and performance.

Results highlighted a positive correlation between brand personality consistency relating to the prospectus and website, and HEI research and recruitment performance. Those HEIs with a consistent brand personality between these two marketing channels performed better on RAE, UCAS Demand and points. This agrees with the existing literature, which suggests that brands represent crucial aspects of success in mature markets, and that consistency can be a key driver in creating strong brands. This research shows that these findings extend into the HE context. Our findings provide empirical support to anecdotal literature which has stated that brands are important differential tools within higher education, and that an online brand’s synonymity and consistency with its offline brand is crucial to performance. Social media participation and validation was also positively related to RAE and UCAS Points performance on all measures of Twitter and Facebook. Lastly, brand personality strength communicated via the prospectus

was significantly and positively related to performance in the dimension of Sophistication, but was significantly and negatively related to performance upon the dimensions of Competence, Excitement, Ruggedness and Sincerity.

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Glossary of Terms

<i>Abbreviation</i>	<i>Term</i>
<i>ARWU</i>	Academic Ranking of World Universities
<i>DWOM</i>	Digital Word of Mouth
<i>HE</i>	Higher Education
<i>HEFCE</i>	Higher Education Funding Council for England
<i>HEFCW</i>	Higher Education Funding Council for Wales
<i>HEI</i>	Higher Education Institution
<i>HESA</i>	Higher Education Statistics Agency
<i>KPI</i>	Key Performance Indicators
<i>NSS</i>	National Student Survey
<i>PPC</i>	Pay Per Click
<i>QAA</i>	Quality Assurance Agency
<i>RAE</i>	Research Assessment Exercise
<i>REF</i>	Research Excellence Framework
<i>SEO</i>	Search Engine Optimisation
<i>SHEFC</i>	Scottish Higher Education Funding Council
<i>UCAS</i>	Universities & Colleges Admissions Service
<i>WOM</i>	Word of Mouth

1. Introduction

Increased pressure on Higher Education Institutions (HEIs) is leading to increased national and international competition for students and research funding (Brandt *et al.*, 2009). This, in turn, is leading to an increase in managerialism and new public management techniques within the sector (Brown, 2011). This has meant that tools and practices traditionally used within the corporate sector are increasingly employed by HEIs. An area in which this change is particularly apparent is in the use of marketing and brand management, which is largely used in order to attract students and build reputation. (Chapleo *et al.*, 2011b).

The American Marketing Association defines brand as a “name, term, sign, symbol, or design, or a combination of them, intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of the competition”. This definition is widely used in the literature (Kotler *et al.*, 2008), but it does not encompass the complete meaning of brand. De Chernatony and McDonald (2003) agree, and criticise the above definition as reliant on the visual features of a brand rather than more intangible benefits. They define the brand as including unique added values; “an identifiable product or service augmented in such a way that the buyer or user perceives relevant unique added values which match their needs most”.

Researchers have attempted to measure brands and brand value, and these efforts have led to research in areas including brand equity, brand awareness, brand associations, brand experience and brand personality. This earlier work on measuring brand and brand value was performed with more traditional organisations in mind, and came about before many organisations developed an internet presence or related marketing channels. Since the development of such channels, the interest in online brands has increased. There are now two key streams of brand personality research. The first looks at the overall brand personality, while the other looks at online brand personality and website delivery. Although research has argued for the need for consistency within a brand (Matthiesen and Phau, 2005), little if any research has considered whether brand personality remains consistent between multiple marketing communication channels (Meyers and Gerstman, 2001), and whether this affects brand or organisational performance.

Most research in the area of online brands is orientated around assessing and measuring the performance of online brands, rather than how consistently brands communicate across marketing channels (Meyers and Gerstman, 2001). Methodologies which measure other

aspects of online branding do exist; however there are no methods currently established which can measure the consistency between a brand's online and offline channels. Research has also highlighted that transferring an existing brand to the internet can be problematic (Rangaswamy and Van Bruggen, 2005), indicating the importance of a robust methodology to measure consistency once the transfer is complete.

In order to measure consistency between offline and online text more effectively, a measure of online brand personality has been developed (Opoku *et al.*, 2007a). This specifically builds upon brand personality (Aaker, 1997) and the dimensions of sincerity, excitement, competence, sophistication and ruggedness. This is done by taking synonyms of the original dimension facets, and building a dictionary which can be used to analyse text content and position different marketing channels on a correspondence map. The correspondence map can then be used to observe consistency in brand personality between media.

Another key development for organisations since the original branding research was performed has been the use of social media to communicate with customers. Social media is designed to be consumed through interactions of a social nature, created to be widely available and scalable through the use of technology (Kaplan and Haenlein, 2010). Social media, particularly via platforms such as Facebook and Twitter, now represents an important part of a brand's online communication strategy (Owyang *et al.*, 2009, p.3). Organisations are using social media to cut the cost of their overall marketing budget, increase return on investment and ultimately boost their profit margins (Bernhardt *et al.*, 2012).

Strong and distinctive brand communication may increase the amount of attention paid to the brand by consumers, which in turn creates stronger and more favourable brand associations (Freling and Forbes, 2005). Empirical evidence suggests that stronger brands are able to communicate both quality and their uniqueness more effectively (Keller, 1993), which results in consistency (patterns of associations communicated) and also brand congruence (the level of agreement and synergy within the communication). These, in turn, improve organisational performance. As usage of the internet increases, brands are becoming highly important online differentiators, even more so than in other channels or environments (Bergstrom, 2000; Sääksjärvi and Samiee, 2011). Although there is much research on branding within marketing, less investigation has been carried out on how effectively these brands are transferred online. This is highly relevant and increasingly important, as more organisations establish internet

sites and more consumers rely on them to make both purchasing decisions and the purchase itself.

Some authors argue that the concept of branding transfers directly to the education sector (Hemsley-Brown and Oplatka, 2006), whilst others argue that HEIs are more complex and that this renders conventional brand management irrelevant. Such authors argue that more specialist approaches are needed (Jevons, 2006). Chapleo *et al.* (2011a) also found that UK universities do not consistently communicate across all audiences, and that brand communication does not involve enough stakeholders nor take a long term view.

From the literature review, it can be concluded that research into brand management in the higher education sector is still relatively undeveloped, and that further research is needed to better understand brand communication issues within HEIs. There is also a need for more research into how organisations consistently manage their brand and marketing (Brandt *et al.*, 2009) communications across multiple channels, including traditional methods, web-based methods, and social media. Although brand consistency is recognised as important (de Chernatony and Segal-Horn, 2003; M'zungu *et al.*, 2010; Arruda, 2009), existing studies are predominantly based on single cases. This research will therefore collect empirical data across a range of HEIs to establish whether or not brand personality consistency across multiple marketing channels affects HEI performance, and if so, how.

Many universities have found that their intake of students in 2012 has been smaller than in previous years, leading to a shortfall. This can be attributed to a number of factors, including the recent policy and structural changes in higher education, advocacy of new public management techniques by government and policy makers, increased tuition fees, increased competition from both national and international students, and the global recession. This environment increases the value of the findings of this study, both in building and adding to the literature, but also in providing practical guidance to both policy makers and HEI managers and administrators. It is submitted that this research provides a useful insight into whether ideas maintained within the literature actually apply within an environment of large scale change, and whether future findings will differ as the sector adapts to new conditions.

Further, the findings will provide guidance to HEI stakeholders in the UK wishing to better manage the way in which they conduct their marketing communications activities. This research provides up-to-date information on the current positioning of their communications

between marketing channels within the UK, and can provide valuable help to those institutions wishing to improve their brand personality communications.

1.1. Research Aims and Questions

Based on the gaps identified in the literature, this research aims to establish empirically whether there is a relationship between brand personality strength and consistency across multiple marketing channels and HEI performance. The research will be conducted in the UK HEI sector. Therefore this research was designed to answer the following research questions:

1. Is the HEIs' brand personality consistent between online channels (website and social media) and the offline communication channel (traditional paper based marketing media) across Aaker's model of brand personality?
2. Is brand personality consistency and strength positively related to UK university performance?
3. Is the impact of Social Media significant between brand personality strength, consistency and performance?

Answering these questions will involve taking these higher level research questions and formulating more detailed hypotheses.

1.2. Research Methodology

To answer the research questions, it was necessary to collect data from UK HEI marketing channels. Website, social media and prospectus information is readily available as secondary data. There is also a considerable amount of data available in the public domain on HEI performance, published in various league tables. The approach to this research was therefore to collect and analyse this secondary data. A positivist philosophy was adopted as brand personality can be relatively, objectively and quantifiably measured using brand personality measurement scales. Statistical analysis techniques can be used to search for relationships between the available data to test the research hypotheses. This research is therefore deductive and explanatory.

1.3. Structure of Thesis

This thesis is divided into eight chapters. Chapter 1 provides an introduction to the thesis. Chapter 2 concentrates upon published literature linked to the research objectives, providing

an overview and critique of research in the key fields. This chapter also highlights key gaps within the literature. Chapter 3 examines the Higher Education sector and how brand management has thus far been utilised. Chapter 4 subsequently introduces the research hypotheses, based upon the literature review. The methodology can be found in Chapter 5, including its epistemological and ontological underpinnings and subsequent research design based upon the research objectives. An overview of the positivist approach and the quantitative methods adopted is also outlined here. Chapter 6 outlines the statistical analysis of this research, details the outcomes of the correlation and regression analysis, tests the research hypotheses and presents the findings. Chapter 7 discusses the findings and links them back to the literature review and research questions. It highlights the key contributions of this research. Chapter 8 concludes this research and provides an overview of future research, the limitations of the research and its practical implications. The thesis structure is outlined in Figure 1 below:

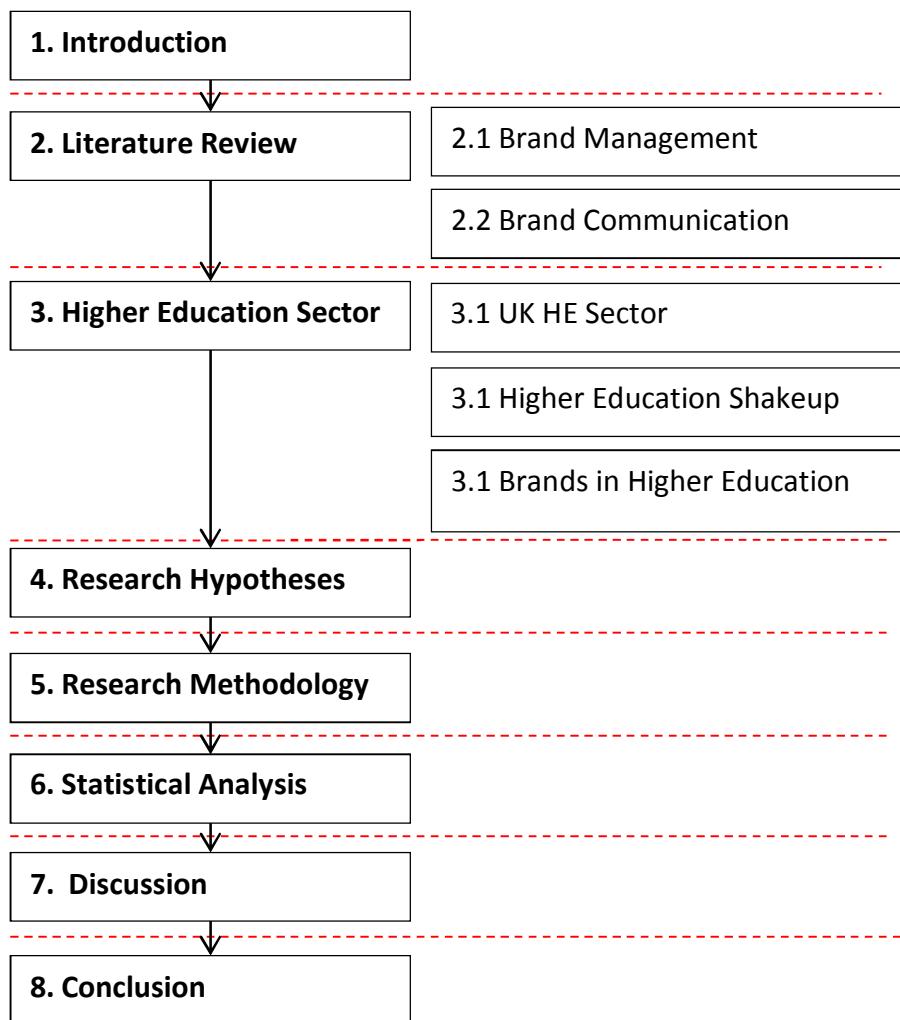


Figure 1 Thesis Structure

2. Literature Review

This chapter concentrates on published literature linked to the research objectives. The goals of this literature review are to “demonstrate a familiarity with the body of knowledge in this area and to establish their credibility; to show the path of prior research and how our study is linked to them; to integrate and summarise what is known in this area, and to learn from others and stimulate new ideas” (Neuman, 1997, p.89).

Hence the appropriate literature is established, reviewed and critiqued in two distinct sections:

1. **Brand Management.** This section reviews the brand literature from brand inception through to more contemporary definitions of brand identity. It considers how brands are measured, including brand personality, and discusses the relationship between brand consistency and organisational performance.
2. **Brand Communication.** This section discusses how brands are communicated across multiple media and from multiple perspectives, ranging from paper based documents to websites and social media, including discussing how these communications are made, consistently and through the use of brand metaphors, such as brand personality.

The literature review begins broadly by examining prior research surrounding brand management then focuses upon how brands are communicated, over multiple channels, through brand metaphors and specifically, consistently.

2.1. Brand Management

Previous research has argued that brands need to be managed (Kay, 2006) in such a way to create and sustain their strength. Kelly and Lewi (2008, p.38) describe strategic brand management as “the process of identifying and establishing a brand position, planning and implementing a marketing program, measuring and interpreting brand performance and lastly growing and sustaining brand equity”.

This section focuses firstly on the concept of brands, how they are defined and constructed. Secondly, it discusses the process by which brands are managed, including brand measures such as recall and awareness. Finally modern branding concepts including brand personality and brand consistency are examined and linked to the performance of organisations.

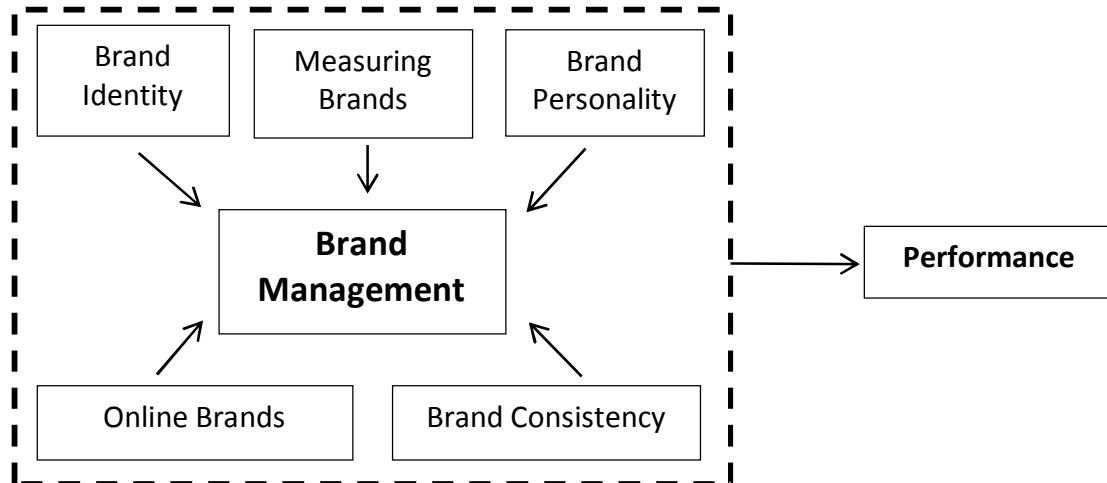


Figure 2 Diagram of Brand Management Subsection

Accordingly, this discussion is broken down into the following subsections, explained briefly as:

1. **Brand Identity** broadly discusses the processes by which a brand positions itself. It identifies brand positioning from multiple perspectives of brand definitions, ranging from the brand as a logo to anthropomorphisation. Strategic brand managers mix and match elements of these definitions to create marketing campaigns.
2. **Measuring Brands** involves tracking the equity and performance of a brand, in order to strategise actions which grow and sustain the brand further. These include measurements such as brand awareness (recall and recognition) and brand image, encompassing a variety of definitions such as brand personality.
3. **Brand Personality** is a concept originally coined within branding practice, but has since been adopted within academic research. Evolving from the discipline of psychology, specifically human personality literature, it recognises the humanistic aspect of brands. It emphasises the relationship that a brand has with customers, which explains its wide acceptance within branding literature.
4. **Online Brand Environment** is now a fundamental concept in brand management. How brands manage themselves within an online context represents a pivotal point of a brand's overall strategy, and its resultant success. Brands practitioners have therefore adapted to this new context through a variety of methods and processes, in order to effectively communicate brand elements and interact with consumers. The resultant

academic literature has dichotomised individual online brand elements, which are used by researchers to further analyse and understand brands within these online contexts.

5. **Brand Consistency** is the process of ensuring that a brand is continually (over time) consistent (across marketing communication), bringing many benefits such as increased efficiency of brand communications. These, in turn, can be linked to organisational performance.
6. **Brands and Performance** focuses on the crucial relationship between the two. Results achieved as a consequence of branding activities were once considered “unmeasurable”. However, in the current economic climate brand performance results are metrics upon which management rely to make “reactive” decisions, contradicting the traditional long term proactive view of branding. This shift in emphasis is attributed to a range of contemporary issues, with emphasis on financial performance.

The literature review in subsequent sections begins by examining multiple definitions and measures of brand equity which are used within the processes of strategic brand management. It then considers the most prominent measures within the literature, most notably measures which address the human relationship aspect of branding such as brand personality. The review then focuses on less developed areas such as brand consistency, with an emphasis on multiple channel consistency. Lastly the linkages between branding activities and organisational performance are discussed.

2.1.1. Brand Identity

This section identifies brand positioning from multiple perspectives and brand definitions.

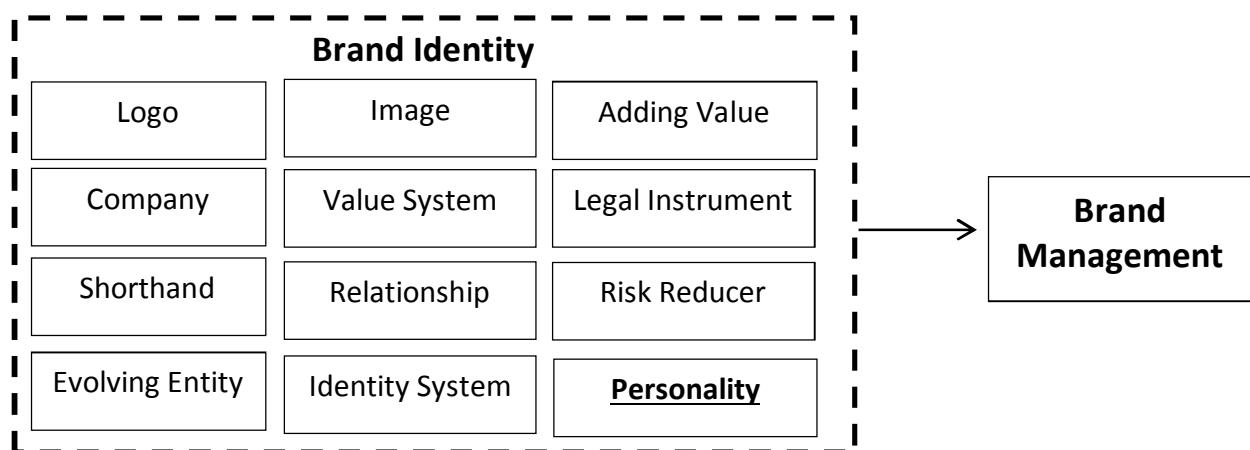


Figure 3 Diagram of Brand Identity Subsection

Kelly and Lewi (2008, p.38-41) describe identity positioning as producing a clear understanding of what the brand will represent, as well as how it will fit within the market and between competitors. This process enables brand managers to mix and match brand elements and metaphors to create marketing campaigns and communicate advantages, whilst alleviating disadvantage concerns.

Whilst the concept of strategic brand management is a relatively young concept, the literature provides examples of early proto-brands involving the communication of advantages and assurance of quality which date back to 2250BC.

2.1.1.1. Brand Evolution

Brands have been present for as long as has been possible to trace artefacts of human existence. Those dating to the early Bronze age (2250BC), however, should be discussed more as “prototype-brands” (Moore and Reid, 2008) as they display prototype characteristics when related to brands as we understand them in the modern world.

A typical prototype-brand attached information to a product or its packaging with three main purposes in mind. Firstly, it was intended to provide information regarding the source of origin, usually in the form of a known symbol, signature or even in the physical properties of a raw material. Secondly, it provided a basic marketing function which may have included sorting, transporting and storing. Thirdly, it provided information as to quality, which would reduce the risk for consumers during product recall situations. For example, the origin of a product could increase perceived quality.

Records and artefacts dating back to Egyptian times show that producers of bricks marked their products with symbols in order for them to be easily identifiable, as materials from certain areas were of better quality. Similarly, in medieval Europe, trade guilds required "trademarks" to be placed upon goods as a confirmation to a purchaser of consistent quality, while also offering a simplistic form of legal brand ownership (Farquhar, 1989).

The term “Branding” was extended from “Brand”, originally the process of stamping wrongdoers, harlots (Henning, 2000) or animals with embers or hot irons in order to be easily identifiable (Arnold and Hale, 1940).

The concept and term “Brand” developed further during the eighteenth century as “brand names” and images of animals, source of origin, and celebrities of the day replaced the

traditional approach of simply providing the producers' name. Producers recognised the strength of associating a brand name with a product, making products easier for consumers to recall and differentiate from those of their competitors. For example, in the nineteenth century, high-quality whiskey tended to be associated with smugglers and their unique process of distilling alcohol. Consequently, the "Old smuggler" brand was launched in 1935, taking advantage of these associations in the minds of consumers.

Whilst marketing practitioners had adopted the term "Brand" within the marketing environment by the 1920s (Stern, 2006), it did not become a focus of research until the 1950s, when studies which considered the consumer dimension of a brand (Gardner and Levy, 1955) led to the symbolic meanings and associations of brands becoming important. The concept of brands has evolved since the 1950s from being a simple identification device into a comprehensive identity system representing meaning, purpose and direction (Kapferer, 1994).

2.1.1.2. Brand Definitions

Brands have become invaluable as an intangible asset of an organisation, and therefore require strategic management (Keller, 2008). Creating and nurturing strong brands can be of significant advantage to organisations, but the process also poses considerable challenges.

The term "Brand" as we understand it today is defined in a number of different ways. De Chernatony and Dall'Olmo Riley (1998, p.418) acknowledge twelve main capacities of a brand. These include the brand as a "legal instrument, logo, company, shorthand device, risk reducer, identity system, image, values system, and personality, relationship, adding value and evolving entity".

Firstly, the brand as a "legal instrument" is simply the mark of the brand which designates legal ownership. Historically this involved the branding of cattle, with the concept developing more recently into that of a trade-mark, protecting an organisation's brand investment (Broadbent and Cooper, 1987).

The brand as "logo" has been define by the American Marketing Association as a "name, term, sign, symbol, or design, or a combination of them, intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competition". This is the aspect of brand which is fundamentally concerned with differentiation through name and visual identity. This definition of a brand is important when considering brand awareness, specifically brand recognition. The marketing and psychology literature emphasises that

repeated exposure to cues in the form of a logo increases the likelihood that the product will subsequently be judged acceptable for inclusion in consumer consideration within purchase situations (Janiszewski and Meyvis, 2001).

The brand as the “Company” uses the equity accumulated by the company name, applying it to its products which become an extension of the company (Cretu and Brodie, 2007). This technique is becoming increasingly dominant due to the growing instance of ‘own-labels’. This is demonstrated within the supermarket sector by companies such as Tesco, which provide branded products such as Tesco petrol, insurance, finest foods and many other own brands. This can be contrasted with a house of brands company such as Nestle, which has 6,000 product brands ranging from cereals to pet care (Aaker, 2004).

The brand as “Shorthand” views a brand as acting to increase speed and brevity, representing utilitarian and psychological individualities. This is to improve recollection of information, resulting in faster transaction judgments (Cohen, 2009; Jain and Golosinski, 2009).

The brand as a “Risk reducer” achieves an advantage due to the risk which consumers perceive before and upon making purchases (Kapferer, 2008). This allows brands to present their products in order to increase confidence and lower perceived risk. It becomes increasingly important for brands to provide consistent quality within products and services in order to realise potential as a risk reducer.

The brand as “Identity system” (Kapferer, 1994) can be defined by describing “the brand not as a product, but the product's essence, its meaning, and its direction; it defines its identity in time and space”. Kapferer's (1994) view is concerned with a deconstructionist attitude to the brand as logo, and brand as legal instrument. To realise the true value of this system, it is essential that the brands meaning is understood, aligned between the employee and the consumer and consistent through all facets of the organisation (Jones, 2001). In particular, this means that any gaps between the employees and consumers should be reduced (Davies and Chun, 2002).

The brand as an “Image” within a consumer's mind emphasises the commercial significance of image, suggesting consumers do not react to realism, but to perceived dimensions of it (Kapferer, 2008). Brands are able to convey a certain image through advertising strategies. These perceptions, beliefs and associations held by consumers provide a differential effect between brands and products (Mody-Kamdar and Srivastava, 2009).

The concept of brand as a “Values System” argues that consumers make decisions based on both their personal and cultural value systems. In order for a consumer to find value in a brand, it is required that alignment exists between themselves and the heritage of the brand.

The brand as a “Personality” is an anthropomorphisation, derived from the Latin “anthrōpos”. It involves attributing human characteristics to a non-human creature or physical object. It is a way to sustain individuality through emphasising psychological values, beyond a brand or product’s functional utility. Brand personality represents the character of the brand as if it were a person (Phau and Lau, 2001; Cappara *et al.*, 2001; Aaker, 1997; Grohmann, 2009).

The brand as a relationship requires the above concept of “brand personality” as a condition for a relationship between consumers and brands. If brands can be anthropomorphised, consumers will not only recognise, but interact and form relationships with them (Aaker *et al.*, 2004).

The brand as “Adding value” is a means of differentiating brands through creation of perceived value (Schau *et al.*, 2009), thus achieving competitive advantage. This can possibly lead to charging a premium price, for instance a better “quality” service.

The brand as an “Evolving entity” classifies brands as experiencing stages of progression. Through each stage, the emphasis of a brand progressively shifts from company to consumer (Rowley, 2006). For instance, an unbranded entity becomes a logo, then develops a personality and a relationship with consumers, and finally has values added to its original existence.

The brand as a logo is the most widely used in the literature (Aaker, 1991; Kotler *et al.*, 2008; Aaker, 1996a), however it is clear that such a concept does not encompass the complete meaning of brand. Crainer (1995) and De Chernatony (1998) criticise the definition as reliant on the visual features of a brand rather than more intangible benefits. Chaffey (2009, p.159) agrees with this and defines the brand as including unique added values; “an identifiable product or service augmented in such a way that the buyer or user perceives relevant unique added values which match their needs most. Furthermore, its success results from being able to sustain these added values in the face of competition”. Added values are more intangible, but of equal importance.

2.1.2. Measuring Brand Equity

Brands can be both created and destroyed by marketing management efforts. This section examines the methods that researchers and practitioners use to measure “brand equity”.

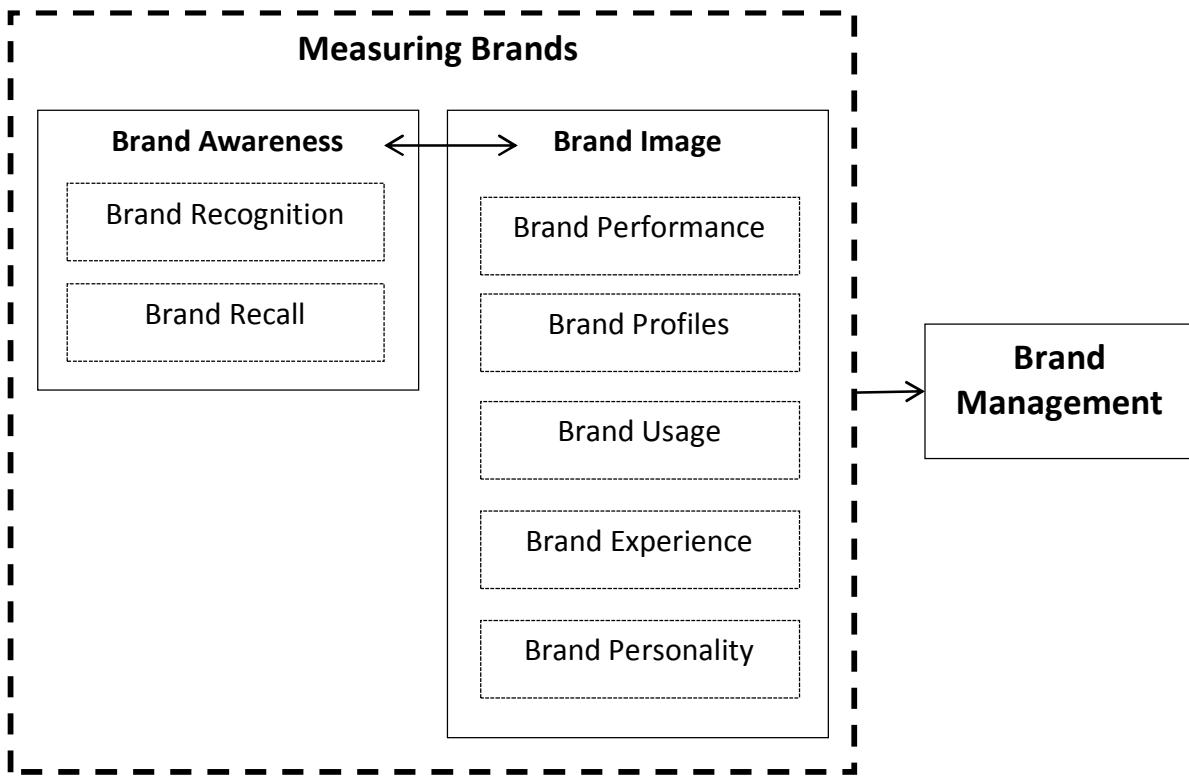


Figure 4 Diagram of Measuring Brands Subsection

The equity in a brand can be defined as the differential outcome for a particular branded product or service, when contrasted with a similar product which did not have the brand name (Keller, 2003). Therefore the values of brands reside within the minds of stakeholders, and brand equity is the degree to which the brand can influence a consumer's thoughts, words, and actions.

Much research has already been conducted into the measurement of traditional aspects of brand. The most prominent early conceptual frameworks within the literature are consumer-related bases of brand equity (Aaker, 1991; Aaker, 1996b) such as brand loyalty, awareness, and perceived quality. These are related to other associations which tend to measure the consumer response to the brand and knowledge-related bases of brand equity (Keller, 1993), including awareness (recognition and recall) and image (brand metaphors and associations). These two schools of thought have arrived at very similar conclusions and effectively offer two terms for near-identical frameworks.

Many measures of “other brand associations” have been developed including brand personality, experience and activity. A multitude of methods for measuring each individual source further contributes to the study of consumer based brand equity.

2.1.2.1. Brand Awareness

In order for a brand to be successful, consumers must have an “awareness” of it. For this reason, researchers began to adopt methods of measuring levels of awareness, and today, whilst there are various methods, the most prominent of these are recognition and recall.

Brand awareness concentrates upon the power of a brand “node” or “trace” within the memory, as revealed by stakeholder capability to “recall” or “recognise” branded stimuli in varying circumstances. The depth of awareness reflects the probability that brands can be recognised or recalled, whilst breadth relates to the range of consumption circumstances in which the brand is recalled (Kapferer, 2008; Van Gelder, 2003).

The decision which measurement researchers choose to examine is dependent upon the range of purchase situations for the brand. If research highlights that consumers make their decisions at the point-of-purchase, as can be the case if there are many brand names with differing packaging, it will be of increased importance that the consumer is able to recognise and be aware of the brand visually.

- **Brand Recognition** is a judgment between different stimuli, for instance words and objects, versus something which has been previously viewed. This can involve a variety of situations, aimed to probe how likely recognition is in a particular circumstance. At their simplest, brand recognition procedures involve providing a visual or oral stimuli, whilst stakeholders discriminate against those which they have previously seen or heard. This specific type of brand awareness test is used mainly in situations during which stakeholder decisions are made at the point of sale. If the brand is not able to act visually, recall is of greater importance.
- **Brand Recall** measures recall level, as reflected by stakeholder ability to recall brands under varying conditions. However, rather than relying on visual reinforcement, prompts are given in the form of probes and cues. These prompts typically take the form of two different categories of probe. The first, “unaided”, takes the form of a category brand such as reciting known car brands, or more simply naming a fruit juice brand (Netemeyer *et al.*, 2004). The second “aided”, involves a higher level of

intervention in the initial phrase, such as “high performance German sports cars”, which may yield the Audi TT.

Some studies have attempted to relate brand awareness to performance (Homburg *et al.*). This involved measuring awareness of brands through multiple measures including recognition and recall, and then drawing comparisons between the level of market awareness and the performance, as measured by unit sales, achieved.

2.1.2.2. Brand Image

Brand image represents a set of brand associations (Lassar *et al.*, 1995) which are formally defined as “consumer perceptions of and preferences for a brand, as reflected by the various types of brand associations held in consumers’ memories” (Keller, 2009, p.143). This measure emphasises the importance of image commercially, arguing that stakeholders react to what they perceive as being reality (Godin, 2005), rather than actual reality (Kapferer, 2008). Associations include brand beliefs, brand performance, brand meaning and brand personality.

“Associations as brand beliefs” are views that stakeholders have formed regarding product or service qualities associated with a brand. Beliefs are usually measured through qualitative research asking consumers about their opinions of brands.

“Associations as brand performance” are defined by Keller (2008, p.64) as “the way in which the product or service attempts to meet customers more functional needs”. This is further expanded upon through five attribute types which include:

- **Supplementary features.** For instance, consumers may have beliefs regarding the operating level of a product or even design features which may be unique to it.
- **Reliability, durability and serviceability.** This includes factors such as the consistency of actual performance with expectations over the lifetime of the product, and also includes the service provided, such as the speed and quality of service upon delivery.
- **Service quality** emphasises the effectiveness of service provided to the customer, which includes satisfaction, efficiency and the speed, quality and responsiveness with which the service is delivered.

- **Style and design** includes those consumer associations which are non-functional, including aesthetic considerations such as size, shape, material, colour and even smell.
- **Price structure.** Price creates an impression of quality in the minds of stakeholders, related to the price tier within a specific brand category. Higher prices are typically linked with higher levels of perceived quality.

“Associations as brand through meaning” encompass the extrinsic properties of a product, endeavouring to meet the stakeholder’s psychological as well as psychosocial needs. This goes beyond simple functional benefits, for instance:

- **User profiles** characterise the stereotype of a person intended to use the brand, and usually appeal to the consumer’s aspirations. For example, Power and Hauge (2008, p.20) highlight an unintentional consequence of user profiles which “emerged when a subculture became devoted followers of the famous Burberry pattern. Burberry check, in particular checked baseball caps, became a symbol of so called chavs, a derogatory term for uneducated, uncultured British working class youths associated with antisocial behaviour”.
- **Purchase and usage situations** are associations of typical situations in which the brand should be purchased or used, such as being purchased in a specific type of outlet, or the ease with which the product or service can be purchased. Associations can also be linked to specific instances in which the brand should be used, for example a particular time of the day or week, the location of intended use, or the type of activity it is used for. In a recent marketing exercise “Coco Pops” attempted to increase their associated usage situations to post-school as well as pre-school meals (Sims, 2010).
- **Heritage and experience** associations allow the brand to associate with historical events and episodic knowledge (Chamorro-Koc *et al.*, 2009) relating to a personal or emotional experience involving the user, friends or family. For example, the brand may be associated with a song which has emotional associations for the consumer.

“Associations as brand experiences” defined as “encompassing the feelings, sensations, behavioural response and cognitions which are induced by stimuli related to the brand” (Brakus *et al.*, 2009) represent combinations of multiple brand communications including the environment, surroundings and packaging which create an experience and perception. These

experiences can increasingly be through technology as brands attempt to become integral to consumer daily experience, for instance ‘on the go’ applications for mobile phones, website social applications and widgets used on computers to increase brand interactivity (Broady *et al.*, 2007) and attachment. Specifically brand attachment scales have been developed to measure the power of connection between consumer and brand (Whan Park *et al.*, 2010), also the level of brand (inter)activity as the degree to which stakeholders would buy, utilise, correspond about, seek out information, and attend brand events.

Finally, “associations as brand personality” represent the character of the brand as if it were a person. For example, research can highlight that McDonald's is seen as being more competent and exciting than Burger King (Keller and Lehmann, 2004). Studies in this area commonly ask respondents to rate brands on Aaker's (1997) framework of 42 traits, which are discussed in more detail in Section 2.1.3.4.

2.1.3. Brand Personality

The phenomena of a “brand personality” has traditionally been of “intuitive appeal”, especially in terms of the synergy created between a brand and its customers (Plummer, 1984).

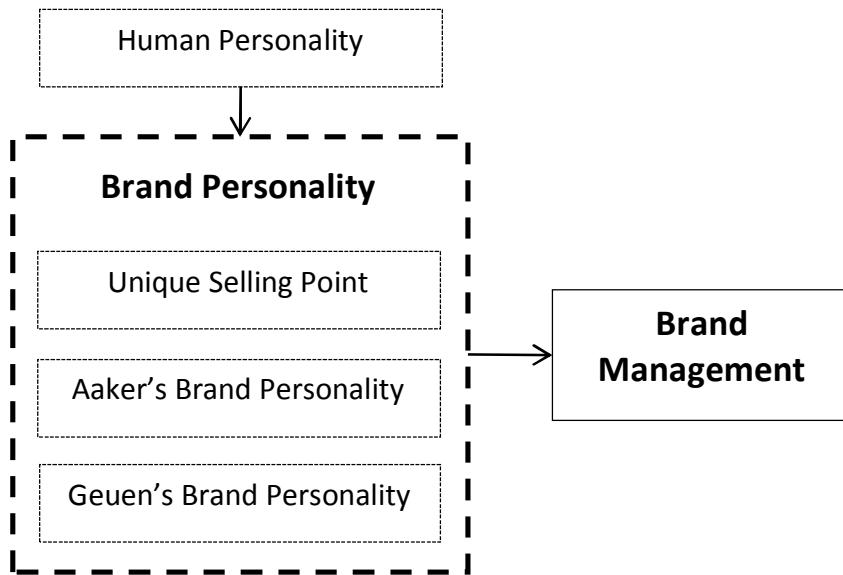


Figure 5 Diagram of Brand Personality Subsection

As with any concept, brand personality has evolved over a period of time (Hampf and Lindberg-Repo, 2011). This has taken the form of multiple constructs and measurement scales being developed, and these have often been adapted from human personality studies. Today,

brand personality represents a hybrid of human personality scales and anthropomorphisation, with the dominant measurement scale within the literature being provided by Aaker (1997).

This section is broken into the following subsections, which can be summarised as:

1. **Evolution of Personality Scales.** Originally stemming from individualism (Funder, 1997), the evolution of personality scales provides a key understanding of how brands develop personalities today, with the most prominent brand personality construct being comprised from early work on human personality.
2. **Evolution of Brand Personality.** Researchers on brand theory have accepted the anthropomorphised aspect of a brand and its personality (Berry, 1988; Durgee, 1988; Levy, 1985) for decades. However, the term “Brand Personality” was coined before it became studied and widely accepted in academic literature.
3. **Measuring Brand Personality.** The development of measurement scales is of key importance (Malär *et al.*, 2011) within academic literature (Grohmann, 2009; Wentzel, 2009) and practice (Aufreiter *et al.*, 2003; Ambler, 2003).
4. **Aaker’s Brand Personality Construct** is examined in terms of how it was constructed, the limitations it accepts, and those that have been suggested in relation to it by others.

2.1.3.1. Evolution of Personality Scales

The concept of personality developed its roots around the philosophical-political climate of western civilisation and individualism (the belief that individuals are important and unique), which grew rapidly during and after the Renaissance (Allport, 1962). In the Middle Ages, people were largely conscious only of themselves as a member of a certain group (race, family, corporation etc.), in an approach known as collectivism (Triandis, 2001).

Sigmund Freud was the first psychologist to theorise a concept of personality (Freud, 1920), defining three distinct constructs; the id, ego and super-ego. He stated that these constructs were part of the psychic apparatus of the personality. Although today these constructs have been largely discredited due to lack of evidence, at the time Freud used them to describe the overall personality as something dynamic, cumulative and durable over time (consistent). His

ideas were developed further by later theorists, and eventually provided a foundation for modern trait theories.

Gordon Allport was one of the earliest adopters of trait theory, and defined a trait as “a generalised and focalised neuropsychic system (peculiar to the individual), with the capacity to render many stimuli functionally equivalent, and to initiate and guide consistent (equivalent) forms of adaptive and expressive behaviour.” (Goffman, 1959) . However, other theorists (Goffman, 1959) argued that human interaction is, at its simplest, a drama production in which humans “role play”, a form of impression management in reaction to environmental conditions. Hence there is no reason for believing that an individual needs to be measured in order to understand what he or she will do and think. This, however, remains a minority view.

During the 1980s, researchers expanded upon the work of Leary (1957) which focused upon interpersonal diagnostics of personality. Many longitudinal studies (Eysenck and Wilson, 1973) showed consistency in the amount of “individual difference variables”, which today we could refer to as traits. These results renewed interest in the formulation of a single systematic taxonomy of personality traits (Gray, 1987; Wiggins and Broughton, 1985).

Loehlin (1992) was the first theorist to propose a more mathematical measurement system of traits by creating a list of adjectives. These were presented to subjects, and the outcome and factor analysed to conclude which carried the most weight. A framework was then constructed involving extraversion-introversion, neuroticism and psychoticism.

Today, personality research suggests five core dimensions of personality, and support for this number has been steadily increasing over the last fifty years. However, whilst the number has a large foundation of support, the exact title of each dimension has varied. There remains a lack of agreement upon a final five (Maltby *et al.*, 2007).

Currently the most influential taxonomy is the “Big Five” model of personality (Goldberg, 1990; Goldberg, 1993), shown in Figure 6. The big five posits five key facets of personality, which represent an individual’s recurrent and stable traits. No reference is made to temporary states, as they do not accurately describe the individual’s personality (Goldberg, 1990).

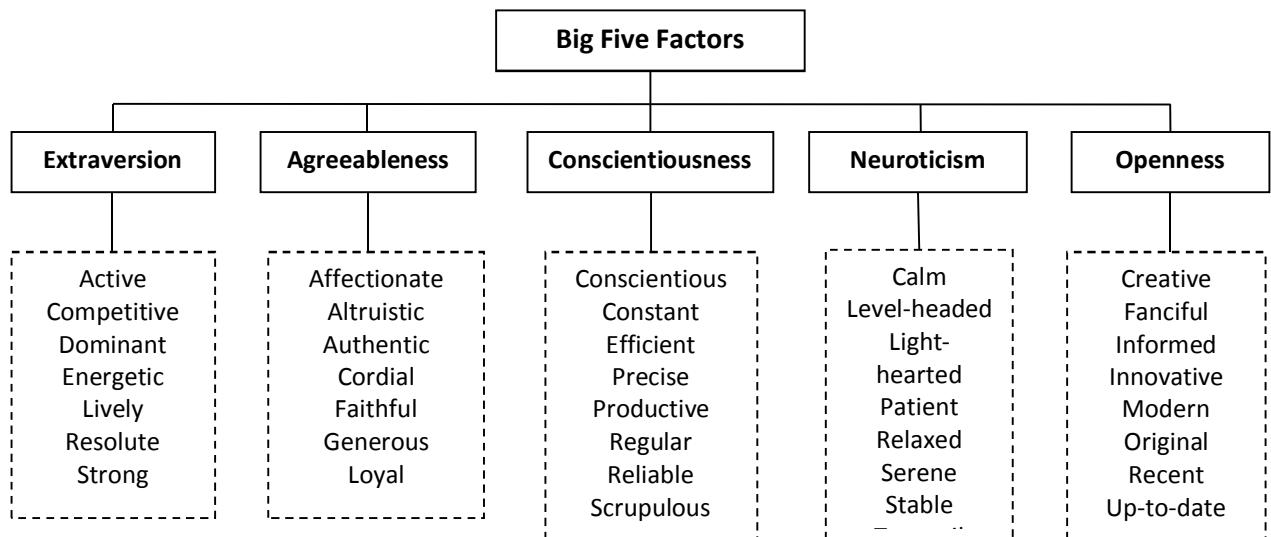


Figure 6 Goldberg's model of Human Personality (Goldberg, 1990)

Practitioners and academics have used this scale in a wide range of research. This ranges from work on the link between traits on job applications (Brusman, 2001) with performance (applicants exhibiting low neuroticism, high levels of openness, medium levels of conscientiousness and extraversion are more likely to be successful leaders within an organisation), to patriotism (Steel *et al.*, 2012) in terms of national innovation (more likely in open and conscientious individuals), to whether agreeable individuals (Judge *et al.*, 2012) earn less than their non-agreeable counterparts. Generally the scale is used by measuring the level of each trait, and in consumer research can take the form of questionnaires using Likert scales.

Goldberg's measure of human personality also provided the basis for Aaker's model of brand personality (Zhao and Jin, 2009), although, as can be seen below, brand personality was conceptualised by practitioners much earlier.

2.1.3.2. Evolution of Brand Personality

As early as 1958, academics began to reference those 'metaphysical' dimensions which can make a store special (Martineau, 1958). These include its disposition (Pierre, 1958), with King (1970, p.14) stating that "people choose their brands the same way they choose their friends. In addition to the skills and physical characteristics, they simply like them as people".

Marketing practitioners expressed dissatisfaction with limiting their brand definition simply to performance related features, and this led to phenomena such as the USP (Unique Selling Point) (Evans, 1988). In essence, the USP described the 'something extra' provided by a

product. However whilst the USP provided a competitive advantage, it failed to capture what the ‘something extra’ was. We now simply describe it as “the brand”.

It became increasingly apparent that more consumers were basing their purchasing decisions upon non-product based features of the brand (Azoulay and Kapferer, 2003). The design and identity of brands began to reflect this change in consumer marketing, striving to convey brand values along with immaterial differential product extensions (Olins, 1978).

As the concept evolved, marketing agencies began to reinforce the immaterial brand based features of products. This began in the 1970s, and involved creating copy strategies which began to describe a personality, whilst also stating the brand promise. Further academic research began to define the brand personality construct and Plummer (1984, p.79) stated that “the goal of the brand personality profiles is to describe perceptual reality from the consumer perception. That is, they should reflect the way consumers actually feel about the brand rather than simply being an expression of the way we would *like* consumers to feel about the brand”.

As brand personality has evolved today, it represents the character of the brand as if it were a person. This is otherwise known as anthropomorphisation (Patterson, 2013). It involves attributing human characteristics to the brand, and is a way to create uniqueness by reinforcing those human psychological values to which consumers relate, beyond mere performance and functionality.

Therefore, brand personality is the requirement for a relationship between consumers and brands. When brands are anthropomorphised, consumers will not only perceive them, but also have a relationship with them. A dominant model of this phenomenon exists today, which was originally produced by Jennifer Aaker (1997) and has been adopted by a significant number of studies.

2.1.3.3. Measuring Brand Personality

This section identifies and reviews how brand personality can be measured, and discusses the most prominent frameworks within the literature. Brand personality measurements originate from both academic researchers and brand practitioners, the difference usually being that practitioner methodologies are secretive and that the intellectual rights to them belong to a company. Today, many advertising campaigns reflect the managerial emphasis on brand personality, both in terms of traits and how best to personify brands.

As with many constructs, measurement of brand personality has evolved within academia for the last 40 years. Originally, studies were more focused upon product personality and the level of congruence between consumer identity and the product (Birdwell, 1968; Dolich, 1969). Malhotra (1981) built upon these early theoretical concepts, advocating brand personality scales and the need to ensure validity. He further outlined a procedure of scale development for self-perspective, person and product concepts, which have been used within subsequent studies (Aaker, 1997).

Subsequent studies have taken the form of multiple brand personality scales (George, 2011), all of which have been devised using different approaches. Aaker (1997) developed the first valid and robust framework, whilst Ambroise *et al.* (2005) developed a scale based around French product categories. Sweeney and Brandon (2006) attempted to develop a framework based on the interpersonal circumflex model, and Bosnjak *et al.* (2007) tailored a scale to German product categories. In response, Geuens *et al.* (2009) proposed to develop a framework which overcame limitations of previous research, Kuenzel (2009) attempted to measure German car manufacturer brands, Heine (2009) developed a scale to measure the luxury goods category, Lee *et al.* (2010) measured destination personality, and Heere (2010) focused upon sports brands.

Many of the brand personality frameworks were developed for specific contexts and product categories. Work has been done on the French (Ambroise *et al.*, 2005) and German (Bosnjak *et al.*, 2007; Kuenzel, 2009) cultural contexts, as well as on specific product categories (Heine, 2009; Lee *et al.*, 2010; Heere, 2010). Because of these specific foci, however, such models are not always suitable for other contexts.

Valetta-Florence (2012) suggests that as academic interest in brand personality has developed, there have been two main themes of research. These are the development and validity of frameworks, respectively. The most notable brand personality framework used today is that developed by Aaker (1997) and subsequently refined by Geuens *et al.* (2009), who attempted to address Aaker's validity issues and shortcomings:

- **Aaker's (1997)** framework of brand personality was constructed based upon the “Big Five” human dimensions of personality, adapted for use in the context of brands through filtration and use of other marketing scales. Aaker's scale is designed specifically within the context of Western brands, and is the most widely adopted

within the literature. It has been rigorously tested and validated, resulting in known limitations (Azoulay and Kapferer, 2003) which are discussed in section 2.1.3.4.1. It has also been directly adapted for use in many other cultural contexts (Aaker *et al.*, 2001; Bosnjak *et al.*, 2007; Smit *et al.*, 2002).

- **Geuens' (2009)** framework of brand personality is a five-factor, twelve-item measure of brand personality, and was designed to include personality items only. This shows a higher affinity to the “Big Five” personality model (Geuens *et al.*, 2009). The study consisted of 12,789 respondents from Belgium and included 193 brands, with respondents being asked to rate twelve items within five factors. These were Activity, Aggressiveness, Emotionality, Responsibility and Simplicity. Its main strength is that it has been shown to be cross culturally valid, without any need for scale adaption.

Whilst the brand personality framework of Geuens *et al.* attempted to address the validity and limitations of Aaker's framework, only a small number of studies have adopted the scale. It has, therefore, yet to be thoroughly validated and tested. In contrast, Aaker's model of brand personality was the first robust, reliable and valid framework developed to measure brand personality, and it has served as a foundation for the majority of further studies (Clemenz *et al.*, 2012). It was also based upon a strong theoretical background of human personality and marketing scales. Whilst the scale has recognised limitations and has been critiqued, this is as a result of well documented and rigorous testing, conducted within the body of a significant amount of research (Freling *et al.*, 2011). Although Geuens et al.'s framework sought to improve the methodology through the use of multiple scales and to address specific limitations of Aaker's model, it has not been rigorously tested, validated and adopted. As Aaker's model has been evaluated and its limitations discussed, researchers fully understand the generalisability of their study, as opposed to Geuens *et al.*.

2.1.3.4. Aaker's Brand Personality Construct

This section reviews Aaker's model of brand personality, assessing how it has been defined and developed from multiple trait sources drawn from both human and marketing scales, all of which were robustly filtered and refined.

Aaker's (1997) brand personality framework enables academics to describe and measure five dimensions of the personality aspect of a brand and is defined formally as “the set of human characteristics associated with a brand”. These association may form through direct and

indirect brand routes, as Aaker (2000) clarifies with a very basic example of the Virgin personality which “flaunts the rules, has a sense of humour (maybe even outrageous), is the underdog (willing to attack the establishment) and is competent (always doing a good job with high standards)”.

Many brands can be typified by dimensions of brand personality, shown in Figure 7 below.

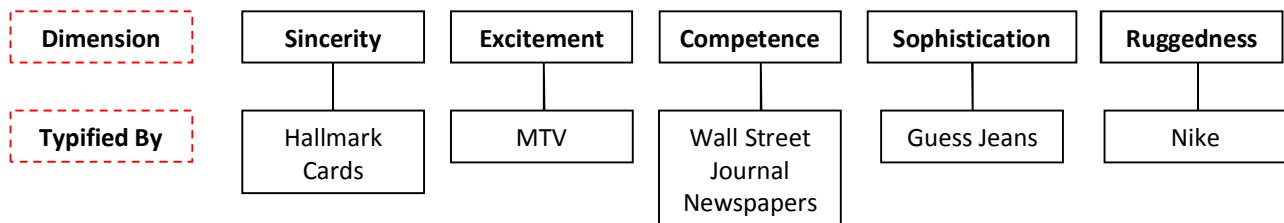


Figure 7 Dimensions typified by brands (Aaker, 1997, p.351)

As is the case with many brand personality constructs, traits were utilised from other personality scales. This included both psychological personality scales (204 traits) and personality scales used by marketers (113 traits from both academics and practitioners), whilst also including a dimension of original qualitative research (295), resulting in 309 non-redundant personality traits.

These traits were reduced to 114, through a process of the subjects rating how descriptive a trait of a brand was, with anything below “very descriptive” being disregarded. In order to further test the final 114 traits, a sample of 37 brands which provided a range of symbolic functions, utilitarian functions and both symbolic and utilitarian functions were randomly selected. These were into 4 brand groups in order to ensure heterogeneity and to avoid subject fatigue resulting in bias. A generalisable sample of 1200 subjects was selected and sent a questionnaire, of which 631 were completed and returned. The subjects were asked to rate each of the 114 traits for each of the 9 brands on a 5-point Likert scale, whilst considering the brand in terms of its human characteristics.

The results were then correlation analysed (a technique used to measure the association between two variables) and the scores were averaged across each subject. The 114×144 trait matrix was principal component analysed, a scientific calculation designed to transform possibly correlated variables into a smaller set of non-correlated variables (Jolliffe, 2002) and

varimax rotation was performed, which maximised the variance (Comrey and Lee, 1992). This provided a clear 5 factor model which displayed high levels of variance.

Each of the five factors was then factor analysed again using a varimax rotation and an unrestricted number of facets were identified. These were Sincerity (4 facets), Excitement (4), Competence (3), Sophistication (2), and Ruggedness (2). This made up 15 facets in total, as shown in Figure 8. Next, the uppermost “item to total correlation” from each was calculated which provided 45 traits (3 traits for each of the 15 facets).

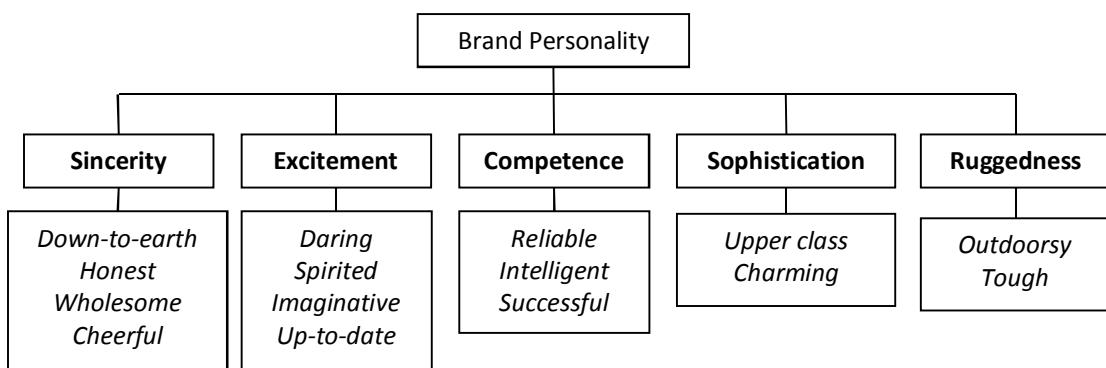


Figure 8 Aaker's Model of Brand Personality (Aaker, 1997, p.352)

In order to confirm the reliability of the scale, a random subset of 200 subjects (50 from each brand group) were posted questionnaires with 114 traits, and 81 were completed and returned. The number of traits remained the same as previously, so as to avoid the effect of brand personality change over time. The returned questionnaire results highlighted 3 traits with test-retest correlations below .60, which were subsequently removed.

In order to solidify the findings and final model, a confirmatory study was conducted. This was designed to establish the level at which the findings were dependent on the selected brand stimuli, as well as the subjects previously used. In simple terms, the study sought to investigate whether the measurement scale would still be applicable if the brands and the subjects used to test the brands were changed. The confirmatory study consisted of a sample of 250 questionnaires being dispatched via post, with 118 being completed and returned. The questionnaire consisted of the 42 traits (as opposed to the original 114), and the organisation selection included 2 groups of randomly selected independent brands (not chosen based on their perceived personality) to ensure a stringent test of the five factor model.

Confirmatory factor analysis, a method for approximating the unidentified parameters in a regression model (Kariya and Kurata, 2004), estimated a five factor model for the 42 traits which when allowed to correlate provided a good fit. This suggested a good model, as shown in Figure 9.

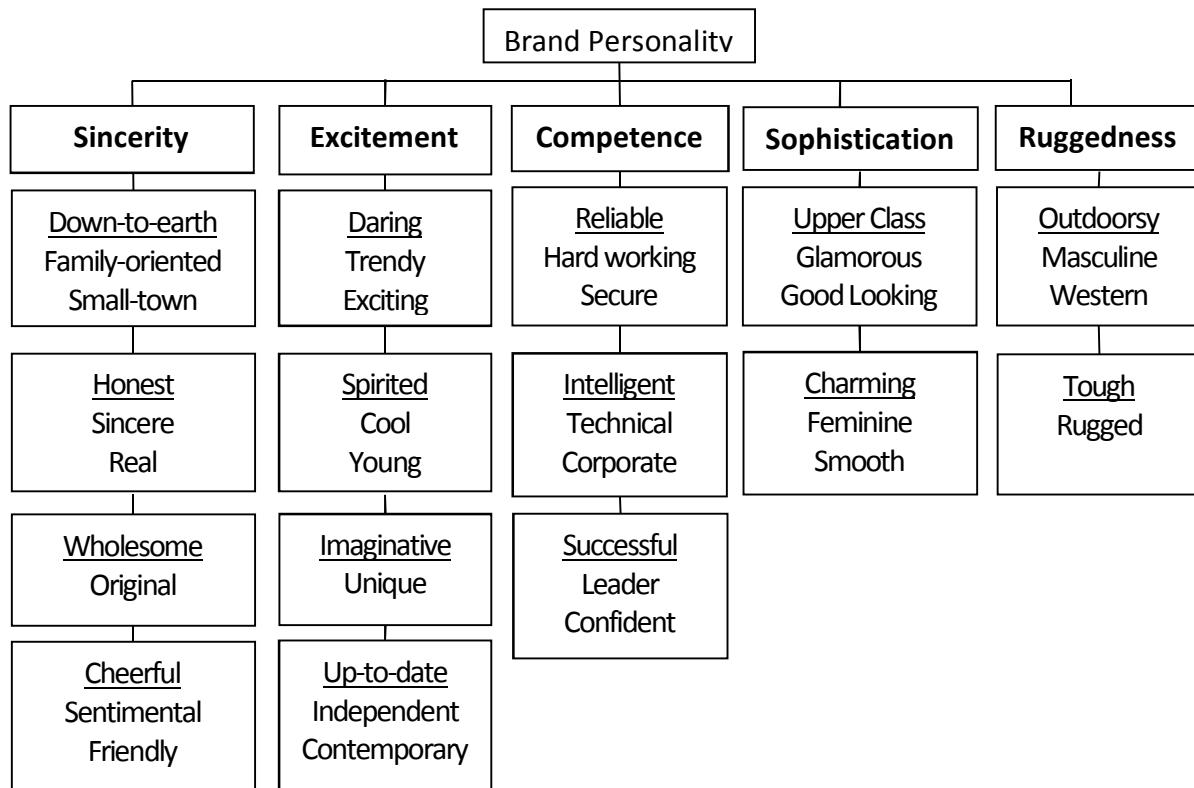


Figure 9 Aaker's Model of Brand Personality showing 45 traits (Aaker, 1997, p.352)

Whilst it can be argued that three of the dimensions are very similar to the original Big Five model of sincerity (agreeableness), excitement (extroversion) and competence (conscientiousness), the other two dimensions of sophistication and ruggedness are very different. This indicated that whilst consumers view brands similarly to humans in some ways, brands do in fact influence consumers in a somewhat different fashion (Cappara *et al.*, 2001). This means that the Big Five model does indeed require tailoring to the context of brands.

Most research which has adopted Aaker's framework was used within the context of consumers being asked to rate brands, usually upon a 7-point Likert scale (Jamal and Goode, 2001; Sirgy *et al.*, 1997; Sirgy and Su, 2000).

Of course, as with any piece of research there are criticisms and limitations of Aaker's framework, which impact the generalisability of research outcomes. These are discussed within the next section.

2.1.3.4.1. Criticisms and Limitations

There have been several criticisms made of Aaker's (1997) model of brand personality (Azoulay and Kapferer, 2003).

A common criticism is that the model can be difficult to replicate when considering cross-cultural studies. For this reason, there have been several further studies which modify the framework for different cultures (Aaker *et al.*, 2001; Bosnjak *et al.*, 2007; Smit *et al.*, 2002), including Japanese, Spanish, German and Dutch adaptations. The problem is compounded (Abdul *et al.*, 2009) when the model is introduced to non-Western cultures, including Asian countries where the concept of brand personality is less meaningful and less relevant due to comparatively limited concepts of identity and personality (de Mooij, 2009). Historically, American individualism, an antecedent of personality, has deep roots (Sung and Tinkham, 2005) within the UK. Factors such as influence, affluence, open frontiers and social/geographic mobility may have been responsible for its adoption originally (Triandis, 2001).

The model itself is also questioned due to the exact definition of Aaker's (1997) brand personality, which incorporates other characteristics (such as age and gender) as well as personality itself. This has led researchers to question what exactly it is they are measuring (Azoulay and Kapferer, 2003). Potentially, the measurement could be engaging either with the perceived user characteristics (brand as a character), or with the perceived brand personality. Psychologists argue that age and gender do in fact influence human personality, invariably conforming to social normalisation (Feingold, 1994; Ryan, 2009), and for these reasons it is crucially important to define exactly what will be measured to ensure that the study is robust.

The model has also been criticised for its non-generalisability (Austin *et al.*, 2003), due to its methodology. Factor analysis data is used and then totalled across all consumer participants, which removes all within-brand variance. This results in data which is completely based around between-brand variance (Geuens *et al.*, 2009). In other words, this model does not take into account the fact that different consumers may perceive the same brand in a different way, which would lead to variance in a single brand. As a result, it is not truly generalisable at the

brand level, specifically in circumstances in which stakeholders are a component of difference. This is a serious limitation when conducting research which measures data based around aggregated consumer perceptions.

2.1.4. Online Branding

This section addresses branding within the online context, which is a relatively new field. Firstly, it identifies the ways in which brands are adapting to the online context, and the benefits of doing so. It goes on to discuss the manner in which brands are communicating online, including the online brand elements and the methods by which online brand equity can be measured. Online brands are challenging conventional branding methods and creating problems for brand practitioners. Although frameworks which adapt more traditional brand metaphors to the online context are beginning to be constructed, there are no consistent frameworks currently in existence.

In 2010, online marketing spend within the UK surpassed that spent on television advertising (Heinze and Fletcher, 2011). However, critics of online branding argue that due to the nature of the online environment and the quantity of information available through it, as well as the increasing use of sophisticated search engines, consumers will be able to locate information, products and services which they require without relying on the traditional shorthand provided by a brand. Through utilisation of information consumers can make informed product choices, regardless of the brand (Rowley, 2004a). Counter arguments claim that in the digital age, online branding is extremely important. Empirical studies have found that while using the internet for purchasing decisions, consumers with low proficiency became overloaded with information causing them to revert back to the brands they know (Ward and Lee, 2000). While social media can facilitate consumer knowledge, falsified endorsements, for instance reviews posted by a hotel about themselves or competitors, contribute to consumer confusion and overload.

Research by Marshak (2000) has shown that through an effective online presence, organisations can cut contact service costs by up to 70%. According to the same research, 86% of all consumer enquiries can be answered online. Meekings *et al.* (2003) explain how organisations can capture the economic benefits of their online presence, with key findings including the fact that 28% of consumers wishing to buy online are prevented from doing so. By improving user experience, an average retailer could potentially increase sales by between

33% - 54%, and 44% of UK consumers said that negative online experiences would likely deter future purchases by them from the high street store associated with the brand.

Increasingly, more sophisticated online shoppers will insist upon doing business solely with online brands which they trust (Ha, 2004). Ha (2004) researched the effect of consumer trust based on multiple dimensions: financial safety, confidentiality, brand name, word-of-mouth, good experience and value of information. The conclusion was that constructing an online brand is ambiguous, and that there is no consistent model of best fit to aid in the transference from offline to online branding. Ha (2004) also suggests that by investigating the aforementioned variables, marketers may be able to increase brand loyalty (Shankar *et al.*, 2003) and gain a formidable competitive edge.

To efficiently nurture relationships with consumers, brand managers must understand how best to communicate their brand online. However, research shows that organisations are often making fundamental mistakes with their online branding. One example was the launch of the new B&Q e-commerce website. A new brand was used for the domain name (www.diy.co.uk), and this new brand image for website visitors was not consistent with their prior brand image, creating initial confusion for consumers (Muller, 2008). This is reflected through research which suggests that online brands complement offline branding (Sääksjärvi and Samiee, 2011) also by Young (1999), in which an overwhelming majority of participants (82%) specified that an organisation's offline brand is important in their choice to buy online.

Evidence suggests that many organisations, and specifically their web developers, become preoccupied with the functionality a website offers. This results in little thought being given to the brand or corporate identity. Studies conducted using samples of library websites concluded that a high majority focused on the features and services of the website, instead of communicating images of the library service itself (Rowley, 2003).

Research has shown that simply replicating an organisation's offline brand strategy through an online presence provides low performance and is inadequate (Meyers and Gerstman, 2001). This highlights the importance of research into effective transference of brands from one medium to another. However, most research in the area of online brands is orientated around assessing and measuring the performance of online brands, rather than upon examining how the transference process occurs.

As usage of the internet increases, brands are becoming highly important online differentiators, even more so than in other channels or environments (Bergstrom, 2000).

Research has also highlighted that transferring an existing brand to the internet can be problematic (Rangaswamy and Van Bruggen, 2005), and that the behaviour of consumers differs when online.

Offline brands are discovering that constant improvements are required when transferring to an online presence, and that different design considerations must be explored in comparison to their previous offline strategies (de Chernatony and Christodoulides, 2004). Chernatony and Christodoulides (2004, p.238) argue that “a brand is a brand regardless of its environment; what is different is the way the brand’s promise is executed”. In simple terms, the basic principles of branding still remain. They are, however, evolving. In the online environment, they are required to become increasingly customer centric, particularly through the provision of tailored information. For instance, an organisation’s online presence might initially include information which communicates the brand detail, treating the user as a passive recipient. Having taken on board the unique requirements of online branding, the website becomes a dynamic ‘experience’, in which consumers can tailor it to fit their own requirements. This can be seen through examples such as the online banking service provided by major banking organisations. The online brand is a system of functional and emotional values, matching an anticipated brand promise through experience.

Figure 10 demonstrates how the website brand elements are the basis for rational and emotional values which, when executed correctly, can realise the promised brand experience.

The online brand experience differs notably from the offline experience. For instance, within a retail store, the environment (smells, location, etc.) and staff have a notable impact upon consumer perception of the organisation as a brand (Baker *et al.*, 1992). This is simply not possible within the online context, although multiple influences remain which affect consumer experience. These are shown in Figure 10. Particular interest should be paid to site appearance, which encompasses “tone of voice” and “consistency”.

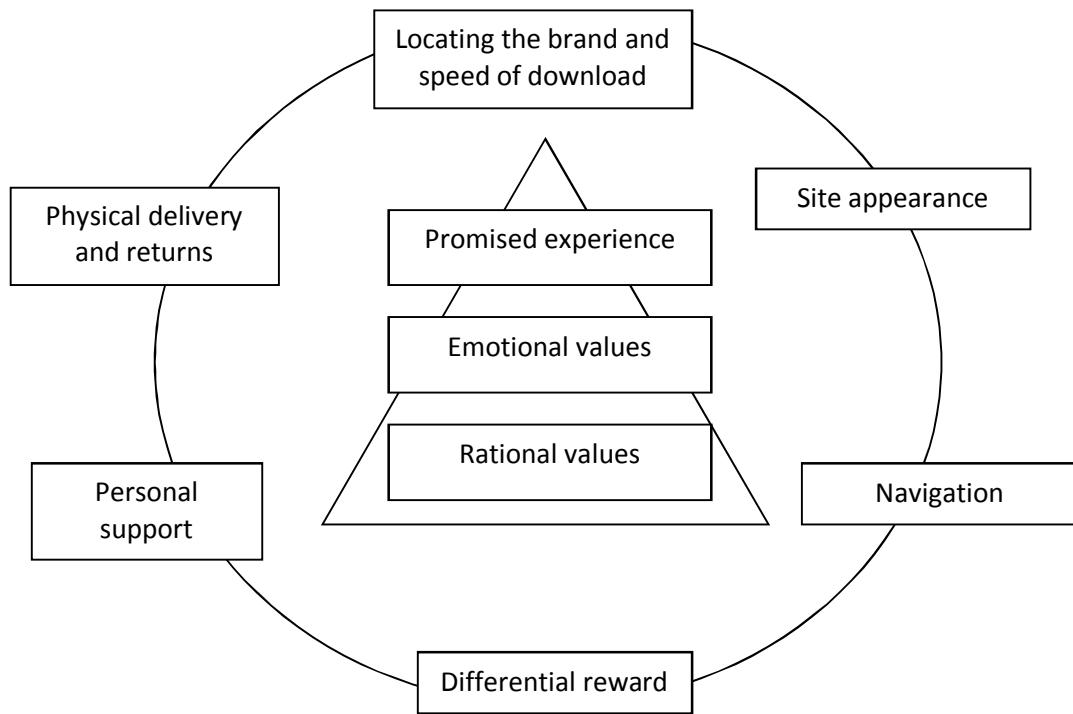


Figure 10 The online brand elements and enactment pyramid elements (de Chernatony and Christodoulides, 2004, p.242)

The online brand has been broken down into the individual elements (de Chernatony and Christodoulides, 2004) which execute the online brand promise, shown in Figure 10. These include “locating the brand and the speed of download, site appearance, navigation, differential reward, personal support, physical delivery and returns”. For further information, please see appendix 1.

Whilst ‘locating the brand’ is concerned with how well the online presence has been marketed (for example, through paid search listings or organic search engine optimisation), it is also primarily related to how well other organisations have optimised their branded website for search engines. This will change on a day to day basis, and is reliant upon on-going optimisation and search engine algorithm changes. For these reasons, it is difficult to isolate representative ‘snapshot in time’ data. It is also important to note the distinction between online brand awareness and online brand recognition (Van Gelder, 2003). Brand awareness is a system of communication only, whereas brand recognition is the outcome of both awareness and differentiation in regards to other brands.

Website appearance is a good measure of how consistently the organisation has transferred its brand. It provides representative data concerning the communication of the online brand, which builds the basis of brand recognition through consumer perception.

In general, research attempting to measure the online aspect of a brand includes measuring the quality, response, equity and enjoyment of online brands:

- **Quality** of the online brand, as explained by Barnes and Vidgen (2002), uses an “integrative approach to the assessment of website quality”, relating to measurement of the more technical issues of the development process. It uses the WebQual approach, which comprises of an online questionnaire targeted at real consumers of websites, producing quantitative results. Scales seeking to measure other dimensions of note include usability (Yoo and Donthu, 2001), service quality (Santos, 2003) and transaction quality (Bauer *et al.*, 2006).
- **Response** to the online brand has been examined by Goldsmith and Lafferty (2002), who discussed the consumer response to websites and the influence of this upon their effectiveness. The survey which was used asked 329 students to recall brand names which they had previously seen online, and to then describe the pros and cons of internet advertisements. They were also asked to recall advertisements which they had seen through offline media, and whether these were favoured or not. The research suggests that consumers’ views of brands improve when internet advertisements have been viewed and that aided recall increases.
- **Equity** of online brands is a concept which recognises that consumers do not just consume content; rather they are its co-creators. Research by Christodoulides *et al.* (2006) attempted to measure these unique characteristics of online brands. This resulted in the exploration of various dimensions which were then correlated, including emotional, experience, responsiveness, trust and fulfilment.
- **Enjoyment**, and particularly the extent to which online brands provide differing levels of enjoyment, were examined by Lin *et al.* (2008). An instrument of measurement was consequently produced, allowing a psychometric test to predict consumer attitudes, experiences and behaviours when interacting with online brands.

The bulk of online brand measurement research is centred on the effect of the online brand upon stakeholders (as a result of perception) with only a limited emphasis on measuring precisely what is being communicated by the brand (what the brand is saying about itself).

Previous research has been primarily concerned with using questionnaires to gauge quality or response to the interaction with the brand, particularly in terms of how enjoyable it is and whether it builds brand equity. In order to understand how the communication aspect of an online brand is measured, it is first necessary to understand the relationship between online systems and those that consume them.

The body of research which has examined online interaction and communication originates from within Information Systems (IS) literature (Short, 1976) and is known as “social presence theory”. Communication is classified along a scale of “social presence”, which represents the sense of presence obtained by individuals within interaction (Sallnäs *et al.*, 2000; Nass and Moon, 2002). Whilst developed prior to computer usage, marketing research suggests that individuals consider electronic systems (such as websites) to be social actors (Reeves and Nass, 1996; Nass *et al.*, 1994), ascribing human traits to them (Nass, 1993) even while knowing that they are inanimate (Wang *et al.*, 2007). Some research has taken this concept further, assessing whether this sense of presence can lead to the manifestation of a perceived personality (Lee *et al.*, 2006).

The relationship between online systems and stakeholders prompted Chen and Rodgers (2006) to develop a website personality scale (WPS), specifically designed for information technology application. The WPS evolved from store personality scales (Poddar *et al.*, 2009), as it was thought that the interactive (Fortin and Dholakia, 2005) and perceptive nature of a store interaction was similar to an online interaction. WPS can be described as “the set of traits encompassing human characteristics and information technology features associated with a website” (Chen and Rodgers, 2006, p.35). It encompasses factors such as the “perceived ease of use, usefulness” (Cyr *et al.*, 2007) and user acceptance of the website (Davis, 1989). The research recognises the importance of the “human like characteristic” of an online brand, although it concentrated mainly on the outcome of the interaction in terms of its ease and usefulness.

In order to measure what an online brand was communicating in terms of pseudo-human characteristics, the methodology traditionally used to measure the human aspects of offline

brands has been adapted. Aaker's measure of brand personality was utilised and applied within the online context (Opoku, 2006), with the original dimensions of brand personality being taken and expanded upon in order to classify brands in terms of the types of words they use to talk about themselves. The method is purely concerned with what a brand is communicating about itself in terms of anthropomorphisation, and due to its grounding within offline branding literature, it can be used to measure brand personality communication independently of whether the marketing media is online or offline.

Although offline and online branding techniques were originally considered to be very different, a number of constructs from other disciplines have been adopted within the online context. As already mentioned above, information systems models have been adapted for use online, as well as psychological scales such as human personality (website personality) and more traditional models such as brand personality. Brand literature places an emphasis upon the humanistic aspect of brands, and this also seems highly relevant to the online brand literature. This is particularly the case when considering the importance of human aspects between brands and consumers in the online world.

2.1.5. Brand Consistency

This section reviews the literature surrounding the consistency of brands between marketing channels and over time. It aims to identify what a consistent brand is, whether brands should be consistent, and the benefits brought by consistency, along with its relationship to organisational performance.

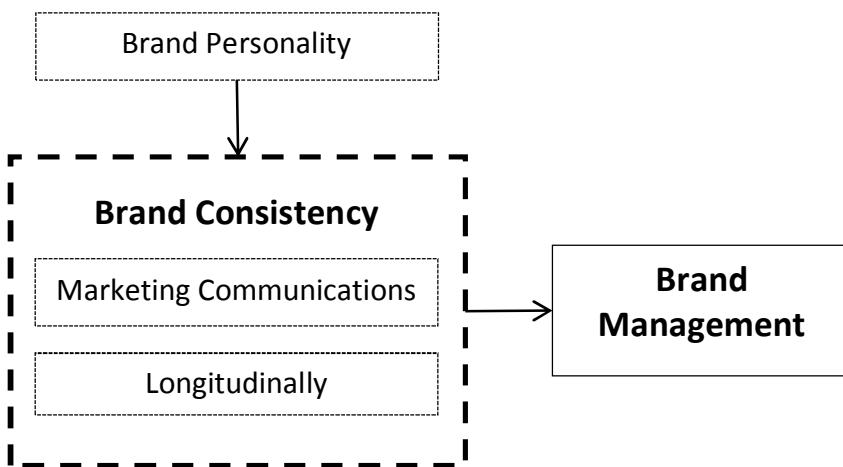


Figure 11 Diagram of Brand Consistency Subsection

Brand consistency can refer to the consistency of communication from the level of marketing, research or product development, which organisations deploy over time in order to keep their brand innovative and at the forefront of technology. At the most fundamental level, brands must be clear and consistent. Whilst this may be simple to achieve visually, it becomes more difficult for organisations when ensuring that the content of what is communicated about the brand is consistent (Barrow and Mosley, 2005).

Aaker (1996a, p.218) argues that making changes to the brand should not be inevitable, and that the benefits of a consistent brand mean that consistency should be a strategic goal (Kapferer, 2004, p.82; Glynn and Woodside, 2009, p.201).

The literature, and particularly the work done by Aaker (1996a, p.218-224), summarises three benefits to having a consistent brand. These are ownership of position, identity and cost efficiency:

1. **Ownership of Position** can be achieved when the brand's execution is consistent in terms of its metaphor and execution of strategy, especially in those brands which possess first to market advantage. Competition are likely to be forced to pick another brand route, such as brand identity. This is often less effective, as if the brand identity is copied then consumers can mistake the copied brand for the original brand, and the competition risk inadvertently promoting the original product. Conversely, brand repositioning can result in loss of ownership (Illia and van Rekom, 2012).
2. **Ownership of Identity** can be a by-product of ownership of position, and is defined as the situation in which a brand owns an effective symbol which represents their brand identity. This includes imagery, slogans, jingles and metaphors or spokespersons (including those representing brand personalities). Aaker notes that some identities are owned so effectively that simply displaying a landscape image or a colour can be enough to trigger the association. For instance, the colour purple is often enough to make consumers think of Silk Cut (Anderson *et al.*, 2002), and the colour red triggers associations with Ferrari (Grant-Braham and Britton, 2011). Ownership also reduces the likelihood of consumer boredom, as opposed to new brands which must be entertaining in order to receive attention.
3. **Cost Efficiency** comes about via consistency. As consistent brands provide powerful communications to stakeholders, they can also be deemed more efficient. This means

that brands are required to spend less on their branding activities, achieving better results than their less consistent counterparts.

Strong brands result from consistent brand management over a long period of time, and research also provides evidence that stronger brands are able to communicate both quality and their uniqueness more effectively (Keller, 1993). This comes about as a result of consistency (patterns of associations communicated) and brand congruence (the level of agreement and synergy within the communication), which are recognised as important (de Chernatony and Segal-Horn, 2003) to improve organisational performance (Moser, 2003, p.2).

As well as strong brands performing better than weaker brands, and consistent brands performing better than inconsistent brands, the literature recognises brand personality as one of the most effective brand metaphors. Unsurprisingly, strong and consistent brand personality has also been recognised as important to organisational performance (Meyers and Gerstman, 2001), however this is usually anecdotal and consistency in brand personality is something that is currently loosely defined.

Even less research is forthcoming when examining consistency of brand personality in a cross-media context, which can be partially attributed to early research measuring brand and brand value within more traditional organisations, prior to many developing an internet presence or related marketing channels. Since then, the interest in online brands has increased. There are now two key streams of brand personality research. The first looks at overall brand personality, whilst the other looks at online brand personality and website delivery.

At a strategic level, brand consistency has been identified as critical to success. Despite this, however, brands still often fail to be consistent. Aaker (1996a, p.218-224) attributes this to three main failings, attributable to managers, misconceptions and panicking:

1. **Managers** are in charge of the brand (ranging from assistant brand managers to chief executives), and undertake the process of analysing and responding to the market and market share. These responses can often take the form of changes to brand equity drivers, although knee jerk reactions to the market will most likely damage the brand, resulting in further reduction of share. This can be compounded by the ego-driven actions of new managers, who often seek to impress by making dramatic changes to the brand, seemingly being more professional and exciting (Medina and Duffy, 1998) than

continuation of old/previous work. New managers are also less likely to value consistency due to a lack of investment in the original brand personality.

2. **Misconceptions** can occur both in terms of the success of the current brand and the possibilities for improving it. The best brand managers can find it hard to judge the level of achievement of even a highly successful brand, and opinions regarding success can vary significantly (de Chematony *et al.*, 1998; Aaker *et al.*, 2004; Chapleo, 2010). It can be tempting for new market trends, once identified, to create new brand strategies to fill gaps. New trends, however, can be either permanent (for example, the transition from Walkman to MP3) or 'faddish' (Walkman to Minidisc), creating a risk to brand equity (Uggla and Verick, 2008; Baum *et al.*, 2012). Lastly, managers often decide when evaluating their brand that a superior identity can be achieved due to the current identity being imperfect. Unfortunately, it is often the case that a "superior" identity will also experience problems, as imperfection is inevitable within any business model.
3. **Panic** reactions can occur, particularly on the part of managers, when change seems to be necessary. Remaining focused, analytical and objective can be hardest (Shaw, 2010, p.79) in situations involving market demands and slipping sales figures (Marconi and Association, 2000, p.84).

In summary, the literature recognises consistency as being important. It can result in ownership of positions, identities and cost efficiencies, which in turn lead to increased organisational performance. Making changes to a brand is not inevitable, although there seems to be confusion in practice as to when and when not to make changes at a strategic level, largely driven by behavioural aspects of management, misconceptions and panic.

While the most prominent brand image metaphor recognised within the literature is brand personality, and brand personality consistency is recognised as important to performance, little if any research has defined what is meant by consistent brand personality. Similarly, there is little research on whether brand personality is consistent between multiple marketing media communications, and the effect of brand personality consistency upon organisational performance.

Therefore in order to expand on anecdotal evidence, the next section identifies how human personality endures over its lifetime, and contrasts this with consistency of brand personality.

2.1.5.1. Brand Personality Consistency

This section discusses to what degree a personality is consistent, from both human and brand perspectives. It then discusses the degree of similarity between human personality and brand personality in terms of behaviour and interaction within the environment, in order to ascertain what is meant by brand personality consistency.

As discussed in section 2.1.3.3, brand personality shares an affinity with human personality, and as such the relationship between human personality and consistency provides insight into brand personality consistency. Human personality in general is considered to evolve over time which is caused by environmental interactions (similar to brands), however it is also considered stable and consistent to some extent (Phares, 1988; Hampson, 1988, p.320; Plotnik and Kouyoumdjian, 2010, p.465; Erford, 2012, p.217).

Pervin (2003) argued that human personality endures over time, although it becomes more stable and consistent once a person progresses beyond the age of thirty. This can be attributed to the fact that humans have most likely undergone radical life changes by the age of thirty, such as being married, divorced, having children, buying a house and so forth. Hampson (1988) argues that personality can also undergo changes, in terms of steady growth over a life span and also in terms of short term fluctuations during day-to-day existence. Pervin (2003) also notes that even before the age of thirty, the majority of human personalities do not change dramatically within the dimensions of the Big Five. Once a human is perceived in a certain way, they often conform to the characteristics expected of them.

Whilst human personality is perceived by others through behaviour, brands “behave” analogously through their marketing and branding activities. Olson and Allen (1995) suggest that as brands behave, consumers will ascribe brand personalities to them. This occurs mainly through their advertising campaigns. Fournier (1998) goes further, suggesting that all marketing activities convey personality, not just advertisements.

This was also discussed in Aaker’s (1997) model of brand personality. Aaker suggests that a certain behaviour can result in a specific trait being communicated. For example, if a brand frequently changes its logo it could be seen as schizophrenic, as shown in Table 1.

Brand Behaviour	Personality Traits
Frequent changes in position, product forms, symbols and advertising.	Flighty, schizophrenic
Advertises extensively	Outgoing, popular
Frequent deals and coupons	Cheap, uncultured
Continuity of characters and packaging	Familiar, comfortable

Table 1 Brand behaviour and resultant trait adapted from Aaker (1997)

Brands can be perceived through behaviour, as like humans they also interact with their environment. Failure to act upon change in that environment can be catastrophic, as can be seen in the failure to adopt new technologies (Baum *et al.*, 2012; Uggla and Verick, 2008), which can even result in complete disappearance from relevant markets (Aaker, 1996a; Aaker, 1991).

This creates the need for evolution over a period of time, which can include changes to brand elements (for example, when companies merge, separate or seek new markets). When British Petroleum merged with Amoco and then ARCO, it rebranded itself as BP (Argenti and Druckenmiller, 2003) which was said to mean “Beyond Petroleum”. This emphasised its technological advances into other areas of energy, whilst also being consistent with its original name, continuing its strong brand. Another example can be seen in the behaviour of the US brand Betty Crocker, which has experienced seven logo changes since its inception. Each change was designed to fall below “noticeable difference”, so as not to lose brand recognition (Zaichkowsky, 2006, p.59; Schiffman and Kanuk, 2000).

In summary, personality is something that is seen as enduring and consistent. Human personality is viewed through actions and behaviour, and in much the same way brand personality is viewed through its marketing activities. Whilst personality is not consistent all of the time, experiencing day-to-day changes, it can be said to be consistent over a period of time. Any changes made are often small and incremental. Once a human being is perceived in a certain way, he or she often conforms to expected characteristics, and this personality will

adapt incrementally over an extended period of time whilst its environment changes. The same can be said of brands.

2.1.6. Organisational Performance

This section reviews organisational performance as a result of branding activities, along with the aspects used to measure performance, all the way from market introduction of a brand, through growth and into maturity. Finally, the relationship between brands and performance generally is reviewed, with a specific focus on brand personality and brand personality consistency.

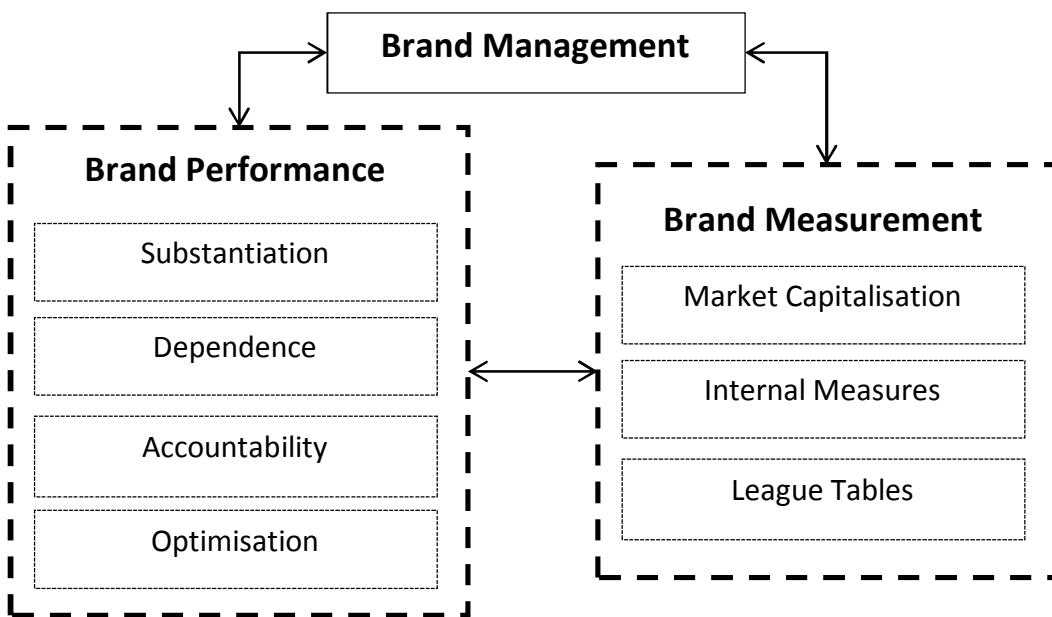


Figure 12 Diagram of Brand Performance Subsection

Some commentators have argued that measuring the performance of branding activities is unnecessary, as brand value alone is not enough to succeed in the market place (Ehrbar and Bergesen, 2002; Haigh and Knowles, 2004). However, Shultz (2005) disagrees, suggesting that greater emphasis is now being put upon what was once considered “unmeasurable”. In particular, he refers to increased or decreased financial performance as a direct consequence of branding activities. This is due in part to a range of contemporary issues (Salinas, 2011) including substantiation, dependence, accountability and optimisation:

- **Substantiation** of contribution is demonstrating through hard evidence that brand and marketing actives create value through contribution to an organisation's profits and margins (Duboff, 2007, p.67).

- **Dependence** of brand upon overall performance in terms of meeting its objectives, as a result of demonstrating the importance of brand performance upon organisational performance. Generally the role of strategic brand planning is accepted by practitioners.
- **Accountability** and investor pressure, as on average approximately twenty five per cent of a company's expenses are related to its marketing (Stewart, 2009). Hence the return on investment is of interest to Directors and Investors (Young *et al.*, 2006) and can result in the trade-off between short (incremental sales) and long term (brand equity) (Pringle and Field, 2009, p.225) strategies.
- **Optimisation** of branding strategies, especially within the context of the present cost reducing environment, places greater emphasis upon budget optimisation. Ensuring that all resources spent on marketing activities translate into the largest amount of increased performance possible (Ukiwe, 2010).

The literature suggests that there are two main perspectives (Kim *et al.*, 2003) to take into account when measuring performance; the consumer perspective (indirect) and the financial perspective (direct). One perspective is not considered to be inherently better than the other, and it is argued that taking a balanced view is the best approach when measuring performance. Consumer measures are concerned with measuring the status of brand in the minds of consumers, including factors such as brand loyalty, quality, awareness and image (discussed in section 2.1.2). The financial perspective is purely concerned with the financial implications that can be expected as a result of the brand, for better or worse.

The cost of introducing a brand to a new market can be up to one hundred million dollars, and still has a fifty per cent chance of failure (Crawford and Di Benedetto, 2007). This has led corporate strategists to purchase existing brands, so as to reduce the risk of introducing a new brand (Kim *et al.*, 2003) and to improve financial measurement criteria for existing brands.

Measurement of the financial aspect of brand performance can be broken up into three distinct areas (Salinas, 2011) which include market capitalisation (share price), annual brand league tables (Go and Govers, 2010, p.5) or internal performance measures:

- **Market Capitalisation** is a method of comparing brand performance, because brand transformation drives shareholder value (Kapferer, 2008, p.530). This method is

dependent upon the company being publicly quoted (Bowie and Buttle, 2012, p.448). Unsurprisingly, a rising share price is preferential over a falling one.

- **Internal Performance Measures** allow organisations to define their own internal measures of performance. Usually this will take the form of working out the cost of execution (setup, hours) the brand and sales attributed (net and gross), the marketing budget of supporting the brand (annual marketing budget), and sales attributed. The expected cash flow of the brand in contrast to unbranded competition is also taken into account.
- **Brand League Tables** provide a way for brands to compare themselves to their competition. They usually take the form of a clear ranked order, utilising information such as brand ranking, brand value, brand rating and market share (and the differences in each, year on year). Prominent league tables include BrandFinance, Interbrand and Fortune (Kapferer, 2008, p.530; Haigh, 2008; Van Tulder, 2006, p.205).

Whilst working out market capitalisation in terms of the share price is relatively straightforward, internal performance measures can take many forms, and brand league tables use a range of performance indicators in their methodologies.

Internal performance measures are usually broken up into three stages of evolution (Lamb *et al.*, 2008, p.708; Boone and Kurtz, 2012, p.363) from brand introduction to the market, to subsequent growth and finally to maturity:

- **Introduction** of a new brand to the market presents specific measurement challenges. Usually the resources required for the task in terms of consultancy, marketing, advertising and staff will cost a considerable amount. This can range from between £500 (brand as a logo) to in excess of £50,000,000 dependent upon the strategy and branding agency chosen (Tauber, 2011, p.180). For this reason, the initial outlay against the number of sales in terms of value and units is used as the standard measure of performance.
- **Growth** from brand introduction typically takes the form of a sharp rise in sales. During this period performance is tracked on the basis of advertising support costs to the brand, compared to continuing revenue and sales.

- **Maturity** of the brand occurs when it reaches its peak. At this point, profitability becomes the single most important internal measure of the brand's performance. The future worth of the brand is viewed in terms of the expected cash flow that the brand will attain (based on internal strategy), minus the expected cash flow that an unbranded product would achieve (Hampf and Lindberg-Repo, 2011; Shocker and Weitz, 1988)

In order to turn these calculations into an amount to be included within the balance sheet, mathematical methods have been developed to calculate the difference (Simon and Sullivan, 1993) between expected cash flow and the expected sales of unbranded counterparts. Tobin's q (Tobin, 1969) can be further used to distinguish between the brand value and other assets of the brand, represented as the ratio between replacement value of an identical physical asset and its value within the market, turning brand value into a quantifiable addition to corporate balance sheets.

As well as rigorous internal calculations conducted by the brand themselves and within the context of their brand strategy (Kapferer, 2012, p.465), performance can also be measured using league tables. Brand league tables use a variety of sources (usually publicly available) to judge brands and rank them amongst their peers. Different league tables use their own proprietary methodology.

BrandFinance uses variables such as time in market, distribution, market share, position, growth rate, price premium, elasticity, marketing spend, advertising and brand awareness. All of these comprise its so-called 'BrandBeta' value (Davis, 2010, p.44). Interbrand measures brands through surveys in much the same way as BrandFinance, although they also apply an earning multiplier (similar to assessing a company's risk profile) in order to assess the brands return in terms of risk.

This can result in discrepancies between league tables which profess to be measuring the same things, as can be seen in Table 2 and Table 3

Rank	Name	Brand Value (\$000,000)	Brand Rating
1	Google	44,294	AAA+
2	Microsoft	42,805	AAA+
3	Walmart	36,220	AA
4	IBM	36,157	AA+
5	Vodafone	30,674	AAA+

Table 2 Top500 Brands BrandFinance (2011)

Rank	Name	Brand Value (\$000,000)	Change in Value
1	CocaCola	71,861	2%
2	IBM	69,905	8%
3	Microsoft	59,087	-3%
4	Google	55,317	27%
5	GE	42,808	0%

Table 3 Best 100 Brands Interbrand (2011)

Although three of the brands are in the top 5 of both tables (Google, IBM and Microsoft), their valuations differ by 10s of billions in some cases. The remaining brands in each table are not contained within the other, as can be seen with Coca-Cola topping the Interbrand table and not appearing at all within Brand Finance's top 5. However, in general it can be seen that particular league table agencies are consistent within their own terms of reference. Once the methodology has been adopted, brands usually remain in similar places within the tables each year, with movement reflected by discernable brand activities. Even given the differences between the relevant agencies, Aaker applauded the use of league tables, although she has stated that they should be used with caution, with different methodologies accounting for

intangible assets in dissimilar ways. It is clear, however, that brand value contributes significantly to overall value.

Branding activities also influence performance. Simply put, a known brand is more likely to be bought within a purchase situation in which competitor brands are unknown (Hoyer and Brown, 1990). Therefore, a connection clearly exists between brand awareness and performance (Baldauf *et al.*, 2003). Strong brands result in strong financial performance (Hoeffler and Keller, 2003), and if a brand is strong it can command a price premium over its competitors (Zeithaml *et al.*, 2005). In the case of service brands, brand strength reduces the likelihood of a consumer brand switch. Once a strong relationship has been established (Tideswell and Fredline, 2004), consumers will also increasingly refer the brand. Bendixen (2004) goes further, and redefines brand equity solely for the purpose of competitive advantage. He states that brand equity allows brands to charge a higher price whilst increasing demand, in turn yielding higher financial margins.

While not all facets of brands are linked to increased financial performance (Ukiwe, 2010), a measure which often has been linked in this way is brand personality. Empirical evidence shows that there is a correlation between brand equity and organisational performance. Kim (2003) studied the relationship between brand personality (a dimension of brand image) and financial performance within a luxury market. The study showed that brand image had the most significant impact upon financial performance, and that strong brand image causes a significant increase in financial performance. Contrastingly, a lack of brand image can damage potential cash flows.

The literature shows that brands are recognised to influence organisational performance, particularly in terms of financial impact. An increased amount of emphasis is being placed upon measuring gains due to substantiation, dependence, and accountability, with optimisation of strategy increasingly occurring. Research shows, however, that specific areas of marketing do not result in increased performance, which creates a greater need for empirical evidence relating to brand activities and performance. An area of research that is currently lacking relates to the relationship between brand personality and performance, followed by brand personality consistency. Literature remains anecdotal, and whilst it is widely recognised as impacting positively upon performance, there is no research to substantiate these claims.

2.1.7. Brand Management Summary

Brands have existed for as long as civilisation, and continue to represent an important asset to organisations. Such an asset needs to be defined, managed and nurtured. The literature contains many definitions of brands, from which brand managers can tailor their strategies to mix and match elements, ranging from the colour of the brand logo to how their brand is anthropomorphised.

Once an identity has been chosen, brands need to be continually managed and measured. The literature provides multiple studies on the predominant measures of brand awareness and brand image, encompassing such constructs as brand personality. Brand personality has received additional attention in recognition of the humanistic aspects which exist between the relationships of consumers and their brands. For this reason it has been widely adopted within the literature and by marketing practitioners.

Within brand management, consistency plays a vital role in terms of both short and long term performance. The literature recognises that brands should be continually (over time) consistent (across marketing communication), which brings a multiple of benefits to brand execution, and is linked to organisational performance. The emphasis of organisations on measurement of performance in the current economic climate is significant. Brand managers need to measure how effectively they are creating brand equity from the investments which are being made, in order to provide substantiation of contribution, to be accountable to investors and in order to optimise their strategies. This helps to ensure that the brand is strong and communicating consistently.

In contrast to this need, current research suggests that certain branding activities do not result in better performance. Specifically, despite being an area of practitioner interest and also the most widely used brand metaphor, brand personality suffers from a dearth of research. In the case of brand personality consistency and performance, the problem is compounded as previous research has concentrated on traditional brands which did not have online presences, and therefore multiple channels were not examined.

2.2. Brand Communication

This section explores how brands are communicated through multiple channels and media. It defines the individual brand elements of media and discusses how they can be measured, both generally and also more specifically, in terms of cross media consistency.

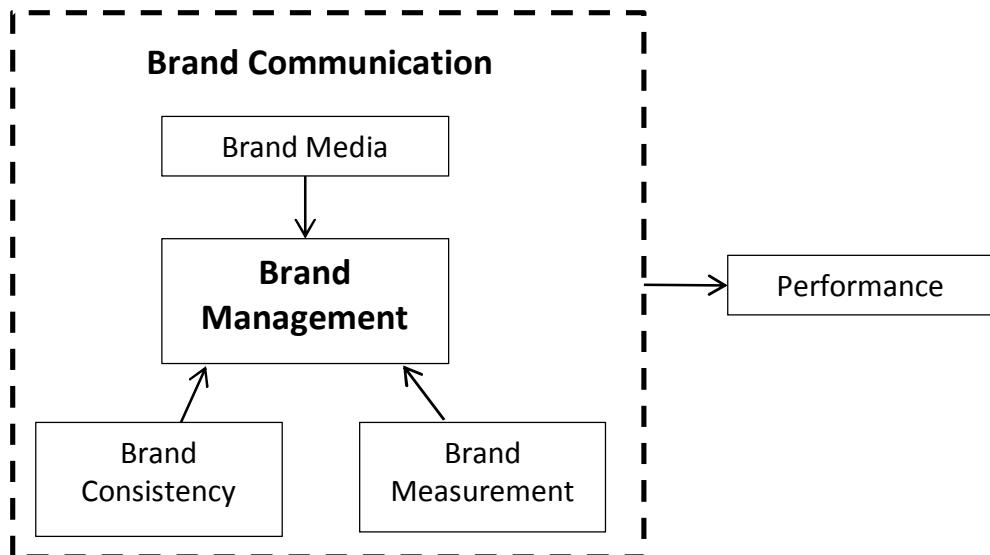


Figure 13 Diagram of Brand Communication Subsection

This section is broken into several subsections, summarised as:

1. **Brand Communication Media** is used to transmit brand information to consumers, creating perceptions about the brand. These communication media range from offline physical documents such as organisational magazines, to digital forms of social media and to relationships with brand communication through brand personality.
 2. **Brand Communication Consistency** and communication consistency between branded media are identified within the literature as important to performance. This means that brands must be strategically managed, so that communication consistency is sustained. The literature advocates planning approaches such as the “brand communication wheel”, so called because all media pivots around a central “content” communication metaphor.
 3. **Measuring Brand Communication** through the message and image that is communicated has been identified as important. Brand personality is identified as a key brand communication metaphor and metric, as consumers of content anthropomorphise what they read. Aaker’s measure of brand personality (identified as the most prominent in section 2.1.3.3) enables a method of measuring brand personality communication through textual content.

Mass communications media involves communication with the intent of reaching a large audience. Breakthroughs in communication media took place thousands of years ago in the

form of hieroglyphics, evolving into the modern forms of written communication used today. Rather than months, global communication now takes nanoseconds, in the form of recorded sounds and images sent digitally. Throughout the evolution of mass communications, political leaders have always understood its power and influence. This includes not only the church, monarchy and presidents but also business, with advertisement and marketing campaigns remaining key to technological viability.

This section starts by examining brand communication media and the predominant methods of offline and online brand communication, focusing particularly on both traditional and more contemporary media channels. It then focuses on the most important elements of brand communication media, examining the literature which surrounds how these elements communicate brand image to consumers. Brand communication consistency is also reviewed, in order to identify how brands ensure that their brand image is communicated consistently between marketing media. Finally, the most prominent methods of measuring brand image within communicated media are reviewed, and the most prevalent element in terms of creating brand image which can be objectively measured is identified as written content.

2.2.1. Brand Communication Media

Breakthroughs in human communication media took place over thousands of years, and evolution continues in this area today. In the present, recorded communications take the form of written, oral and visual recordings, and can be disseminated in nanoseconds rather than months. Throughout the evolution of communication media, marketing and advertisements have been prominent enablers of technology in order to fund publications and broadcasts. Communication media continues to have significant power and influence in society. The fear of this power which has been exhibited by political leaders through centuries further demonstrates the influence of these media. This has led to extensive research into marketing, which has examined the effects of communications, the content of what is communicated, and how.

This section identifies how the literature describes brand communication, and the importance of communication across multiple marketing channels. A shift in communication is examined, which suggests that the way in which brands communicate with consumers is becoming more interactive (usually known as ‘new media’). This has led to two distinct streams of research, into offline communication and online communication respectively.

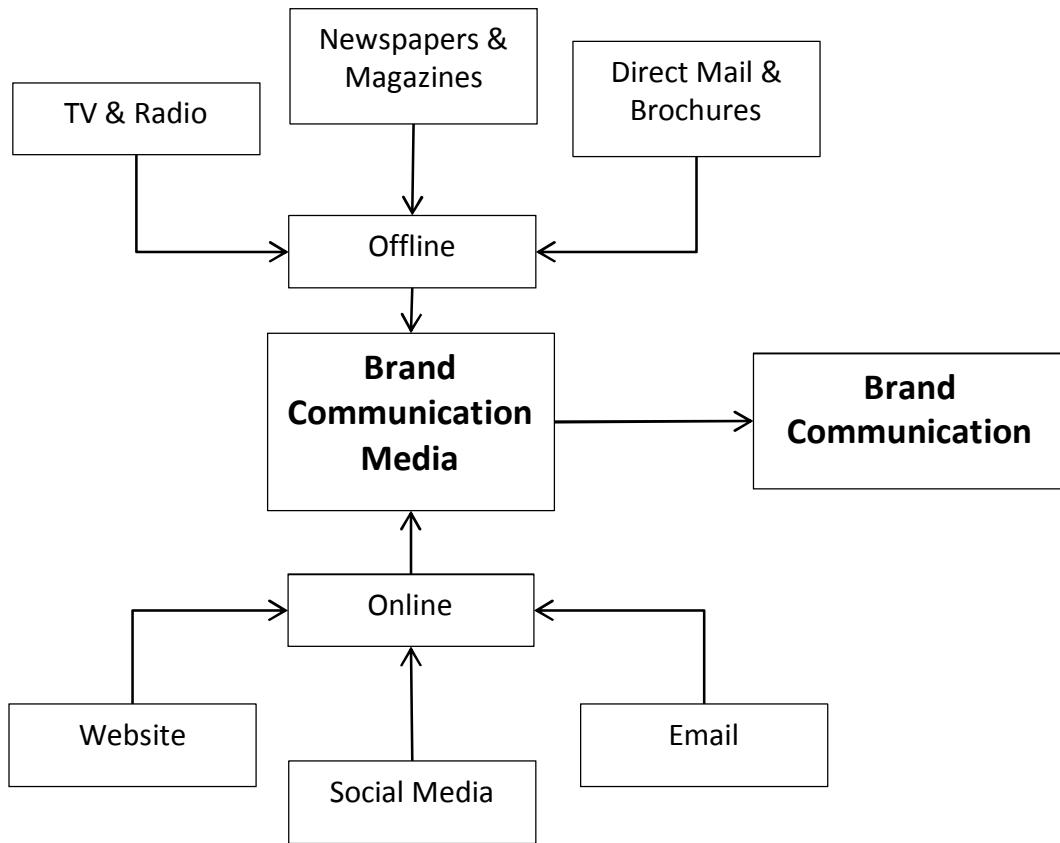


Figure 14 Diagram of Brand Communication Media Subsection

Brand communication has been described by practitioners as “getting your face out there”, referring to the personality of the brand (Hopper, 2012). The literature suggests that a brand is communicated in order to connect an organisation to a target consumer, and in order to create “harmonious” perceptions and sensory experiences (Brakus *et al.*, 2011). This, in turn, influences thoughts and actions, by connecting the two and forming a strong and prosperous relationship. Research suggests that controlled communications are pivotal in establishing consumer expectations, as well as influencing satisfaction and attitude (Grace and O'Cass, 2005).

Schmitt and Simonson (1997) describe brand communication as “aesthetics”, the brand is “perceptive” referring to the philosophical objective of creating “sensuous knowledge” in distinction to logic. In order for this to be achieved communication should be based around a “central message” which represents the persuasive aspect of beginning and continuing a relationship. Keller (2001b) suggests that the role of marketing communication is to allow the brand a voice, aiding dialogue between organisations and consumers. This can take the form of being told how and why a product or service can be used, as well as where, when and the type

of consumer using a product. Incentives and information on technical aspects of the product can also be provided. In order to ensure that marketing strategies are consistent, clear and concise, academics and practitioners have employed integrated marketing communication strategies (Schultz, 1992). These vary within the literature, although a common theme is that multiple types of communication are employed, and that communication of marketing materials should remain consistent by reflecting existing communications.

Multiple marketing media used by brands, often takes the form of multiple mass marketing channels intended to transmit a brands message to consumers. There are several types of media available to enable the consistent communication of brands to consumers, and Keller (2001b) identifies the main communication channels as typical media (which can take the form of TV, radio, newspapers and magazines), as well as direct response and interactive media. Interactive media, as the name suggests, involves communication by interactivity, referring to the extent to which communication reflects back upon itself, responding to the past (Newhagen and Rafaeli, 1996). Direct response and interactive media can take the form of traditional printed media and mail, but also often manifests within newer technologies such as computer-related media, including the internet, websites and social media.

In the 1970s the average consumer living within a city was exposed to between 500 and 2,000 brand communications per day. In 2006 the same measurement was estimated to be between 3,000 and 5,000. On the “dedicated” music station MTV, viewers were exposed to 21% more brand communication in 2005 than 2004 (Petrecca, 2006). Whilst the amount of brand communication is increasing, the literature suggests a shift in emphasis as communications evolve to catch up with technology. Keller (2009) notes that marketing and brand communication strategies are being fundamentally altered, due to advances in technology and the predominance of the internet; even practices which were common place thirty years ago are becoming obsolete. The shift in emphasis from traditional media marketing (television, radio etc.) to more interactive communication forms such as social media, has led to two distinct streams of research. These are usually described as research into traditional offline marketing communications, and the increasingly prioritised field of online marketing communication (Aaker and Joachimsthaler, 2000; Kapferer, 2008). Therefore this section is broken into two subsections, offline and online communication, summarised as:

1. **Offline Communication** is identified as television, radio, newspapers, printed documents, letters, and telephone calls. These are characterised as typical, direct

response and interactive media. The section reviews how methods of communicating brands offline are typically measured.

2. **Online Communication** is identified as that taking place over mobile telephony, websites, email, social media and advertising campaigns such as search engine optimisation. Research surrounding the measurement of online brands has explored methods which could be used for marketing media channel comparison.

The literature emphasises a shift from traditional to new media technologies. Today's consumers have become increasingly empowered through different methods of interacting with the brand, and therefore direct and interactive forms of brand communication have become of increased importance.

2.2.1.1. Offline Brand Communication

This section identifies how brands are communicated offline, and the changes that are occurring due to shifts from typical media to new media. These arise largely from consumer demand for direct response and interactive media, even within offline channels. The most used communication medium is still print, despite its relative antiquity.

Ultimately, the personal element of a brand is communicated by what employees do and say on the sales floor, over the telephone, through emails and textual content written on the website, and more recently through social media. Employees control brand communication through all forms of media, and brands require employees to represent the brand values and traits of the organisation. This helps to ensure that consumers receive consistently reinforced brand communication over long periods of time.

The most prominent forms of offline brand communication include typical media, direct response and interactive media (Keller, 2001b). These include TV & radio, newspaper & magazine, direct mail & brochures, briefly summarised as:

- **TV & Radio** advertising enables brands to present themselves both visually and audibly through the medium of television broadcasts, ranging from terrestrial channels to satellite channels. Obviously, brand communications via radio are solely audible. Both forms typically present advertisements in between programme broadcasts, whilst also associating themselves with specific programmes through sponsorship. Both

commercial radio and television stations typically make most of their revenue from selling “airtime” (Shimp, 2008, p.372) in the form of marketing communications.

- **Newspaper & Magazine** advertising is possibly the oldest form of typical media and extremely influential. Both forms of media allow advertisers to provide a high level of detail in terms of product and brand description, and in the case of certain newspapers have a very large readership. Newspapers are typically funded mainly through advertisements (charging a small fee) and magazines are usually partially funded in such a manner (charging a larger fee).
- **Direct Mail & Brochures** provide a direct form of mass communication between brands and consumers, classified as direct response and interactive (Keller, 2001b). There is a fine line, however, between unethical “junk” mail and legitimate mail. Brochures, one of the oldest forms of marketing, are often sent with direct mail and provide a targeted selection of consumers with further product and brand information. This can take a variety of forms, from small leaflets to larger catalogues and prospectuses. Whilst these printed forms of brand media represent possibly the least glamorous form of mass media communication, they are in fact the most widely used by marketers to communicate their brands (Joachimsthaler and Aaker, 1997).

Whilst television and radio represent extremely powerful mediums of brand communication with consumers (Brooks, 2011), they are typically the most costly. Production of advertisements involves the creation of scripts, the sourcing of sound and voiceovers for audio communication, as well as video production for the visual aspects of television (MacKay, 2004, p.141). Whilst it can have a significant impact as a form of communication, the costs associated with this medium mean that it is typically unobtainable for the majority of brands, and that even multinational brands cannot advertise via television on a regular basis (Kirk, 2003, p.97). This results in the majority of brands resorting to more cost effective means of communication, such as print and online media.

Whilst newspaper and magazine advertisements have grown in popularity, today their prominence may be working against them. The sheer number of adverts has become so great that it has been noted that readers have begun to ignore them, in so-called ‘brand fatigue’. This has led to greater creativity being needed in order to capture the reader’s attention (Beasley and Danesi, 2002, p.7). This can include the use of humour, strategic repetition of text,

patterns of text, contrasting fonts and colours, illustration and slogans. Compounding the effects of brand fatigue is the widely recognised phenomenon of the readership of newspapers steadily declining (Calvert, 2009).

Whilst newspapers and magazines represent forms of printed media, the brand does not fully control what is communicated. Brand print media also includes brochures, leaflets, packaging slips and any other brand marketing literature. It has been widely recognised that print media has been superseded in favour of digital brochures; however brands often provide physical brochures of their digital copy. Printed media's relative value, when compared to TV and radio, is the ability to provide potential and existing consumers with controlled information about the brand. Print media also allows a form of interactivity in terms of the customisation of literature specific to groups of consumers. Within the offline environment, this provides a similar experience to the feedback loop of online interactivity, in which consumers request brand information and then receive it.

The use of print media by brands (in particular brochures) has been identified as growing (Kipphan, 2001, p.41), which can be contrasted with the shrinking utilisation of television, radio and newspaper (Calvert, 2009) marketing. Great brochures are able to deliver compelling communications in just the right order, in a similar fashion to an engrossing novel (Taute, 2008). Whilst not every consumer will read print media (Geller, 2002, p.91), the consumers that do have a choice as to when to do so, with the specific advantage of being able to sit and browse at their own convenience.

Whilst offline brand communication occurs through multiple media, including the more glamorous formats of TV and radio, these actually represent a minority choice for brands. The most prominent offline method is print media which utilises multiple mass media technologies. These include written communication, photographic technologies and the mass production capabilities of large scale printing. Print media provides an offline form of interactivity to consumers, in contrast to brand communications being forced at them. Consumers can request and consume at their leisure, representing a similar feedback loop to that of online interactive consumption. In particular, brochures have been recognised as the most increasingly utilised form of print media, as they are able to communicate brand and product information directly to consumers, both efficiently and cost effectively.

2.2.1.1.1. Brochure Print Media

This section examines print media, specifically brochures, in terms of what they communicate to consumers. It goes on to discuss how this is achieved, and the types of measurements which enable academics and practitioners to research print media brand communications.

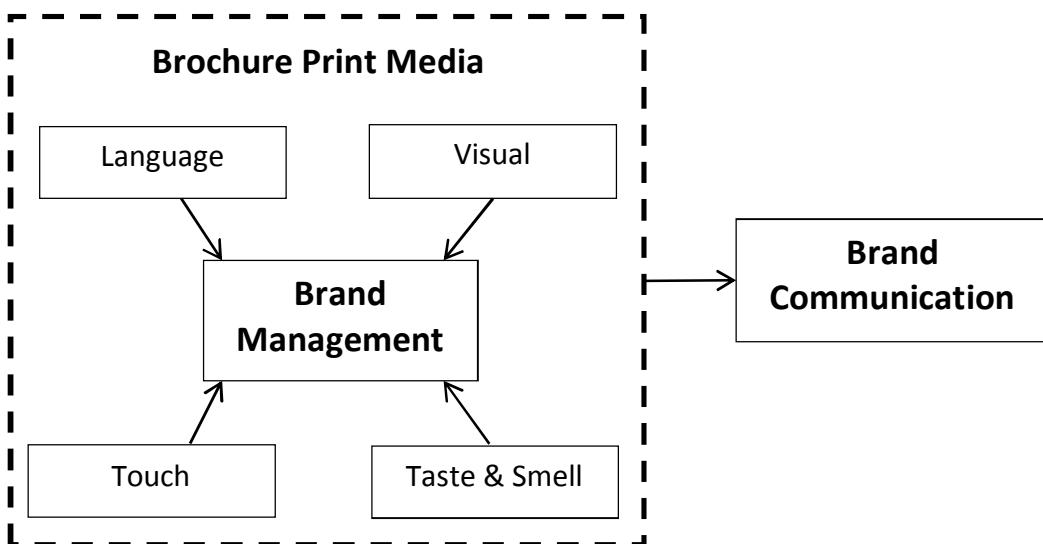


Figure 15 Diagram of Brand Management Subsection

Printed media documents provide communications to consumers which may be received before, during or after consumption. This allows the brand to tailor communications to the requirements of the reader, and represents the traditional form of interactive direct communication. Print media, when used efficiently, can be extremely effective at influencing consumer's thoughts, words, and actions. In general, this will take the form of brand and product information through both text and image.

For example, the Body Shop provided leaflets to consumers which were printed on recycled paper, in order to strengthen the association that already existed of their being a sustainable and ethical brand (Joachimsthaler and Aaker, 1997). At the same time, these leaflets also provided other brand, general and technical information. Such techniques can be put to creative use, as can be seen in the example of a Caterpillar brochure which displayed photos of the damage that non-genuine Caterpillar parts would cause to machinery. Caterpillar delivered these brochures to customers who had purchased their machines and used slogans such as “Don’t risk it” and “Don’t gamble”, which both reinforced the quality aspect of the brand and encouraged consumers not to buy fake parts (de Chernatony, 2012a, p.187).

In order to aid analysis of print media, prior research has examined and broken down multiple elements of communication. The brand elements of print media include the four dimensions of language, visual, touch, taste and smell (Franzen and Moriarty, 2008, p.120) which are summarised as:

1. **Language** includes choice of words, syntax, argumentation, taglines and the logo. No language is neutral (Brand, 1990, p.22) and the words, ideas and linking concepts which are communicated affect the perception of brand metaphors, including image and personality (Kapferer, 2008, p.211). Fanzen (2008, p.121) explains that language expressed in words creates a tone of voice which effects the consumer's mind to such a degree that it is comparable to a recorded voice.
2. **Visual** includes elements such as colour, form, font, typography, photography, the layout and the logo. These are powerful brand elements, which can evoke strong perceptions within consumers. For instance, the colour red communicates excitement, whilst the colour blue communicates a more relaxed image (Bottomley and Doyle, 2006). See Table 4 for a full description of each element within websites.
3. **Touch** describes the texture achieved as a result of the material used. For example, high quality paper is often associated with luxury brands (Lindström, 2005, p.103). Commentators argue that in an ever crowded market place, extra sensory experience is a key differentiating factor.
4. **Taste and Smell** can be added to printed media through technology. The olfactory sense can recall more than 10,000 scents (Axel, 1995), including such generic concepts as the smell of newly printed paper. Advances in technology also permit print media to include samples such as the scent of aftershave, and products which can be tasted. Some commentators have argued that extra sensory marketing has been widely ignored, thus far (Hultén *et al.*, 2009, p.1).

The objective of any controlled communication is to influence consumers thoughts, words and actions (Grace and O'Cass, 2005). Whilst all aspects of print media communication affect the consumer, research has typically concentrated upon language and the visual aspects of documents.

This research can be classified by examining three dimensions; direct, outcome (Schultz and Barends, 1999) and mediated, summarised as:

- **Direct** is typically measured using objective analysis, which seeks to break down the media into variables such as boolean or frequencies. This may be done by examining whether the logo is present on each piece of media, whether the same colour is used or by measuring the frequency of certain brand phrases being used within the text. Some research has sought to extend this analysis, in terms of brand image metaphors.
- **Outcome** refers to how the brand is being perceived, and typically uses consumers to describe their feelings towards specific communications. For example, a copy of a prototype brochure may be provided to a consumer, with limited time allowed for reading. The consumer will then be asked about what they can recall from the brochure. This method allows strategists to make incremental alterations, thus ensuring that the central brand message is as strong as possible (de Chernatony, 2012a). Alternatively, this type of analysis can involve using a large variety of consumers to rate brands in terms of what they perceive has been communicated. This can be done, for example, by displaying copies of brochures designed by the brand in question and by a competitor, and then asking consumers to rate both upon a scale of brand personality.
- **Mediation** can include monitoring participants in terms of which documents they spend more time examining. This can even include monitoring eye movements, so that the exact position the eye is drawn to can be measured (Wedel and Pieters, 2008; Pieters and Warlop, 1999). Whilst mediated measures of consumer print media allow marketers to ensure that the eye is drawn to appropriate brand elements, it is not concerned with the brand per se.

Research has traditionally been focused on areas of outcome as perceived by consumers. A variety of attempts to measure how the brand is perceived after contact with branded material have been made. An area of research which is currently underdeveloped within the literature is direct measurement of print media in terms of brand element communication. The importance of language within print media has been emphasised, and research which measures direct language has been attempted, although within a different context. This indicates that it could be applied to print media. For instance, research by Danescu-Niculescu-Mizil *et al.* (2012) has

sought to measure the memorability of language, purely in terms of the language that is used within a quote. Opoku (2006) also measures brand image through the language used on websites.

Print media can be distributed physically and digitally, meaning that in some cases it may fall within both offline and online media. In these cases it is usually made available in both formats, to create a high level of accessibility. Typically print media is distributed directly (via post or person), within other media (such as magazines and newspapers), or physically at a location (Cummings and LeMaire, 2008, p.26-31) This can aide direct response and interactivity, with printed media being selected according to an individual's requirements.

In summary, offline brand communication through the medium of print remains prominent within brand strategies, despite other traditional forms of media being in decline. The literature highlights two distinct methods by which print media is typically measured, both in terms of communication and interpretation. While print media encompasses multiple forms of communication, including colours, shapes, layouts, font and even the type of paper used, an overriding feature of print media is the textual content, which offers product and brand information to consumers.

2.2.1.2. Online Marketing Communication

This section examines new media, which can also be seen as the digital form of traditional print media. Firstly it identifies the four stages of online brand communication, discusses the types of communications brands can control, and examines why online brand communications have failed historically. Online marketing media empowers consumers by enabling them to co-create and produce more customisable information, quicker, and with greater interaction.

Online brand communication, in a similar way to offline brand communication, can be broken down into direct and indirect forms. Some transmissions come from the brand directly, whilst other brand communications take place between consumers through digital 'word of mouth'. These communications are often mediated by platforms outside the direct control of the brand, including search engines and social media platforms.

This section therefore defines the four sequential segments of digital brand communication as initial brand contact, brand communication media, online brand elements, and website brand elements. These are shown below in Figure 16, including a breakdown and flow of consumer interaction, from initial contact to individual brand communication elements.

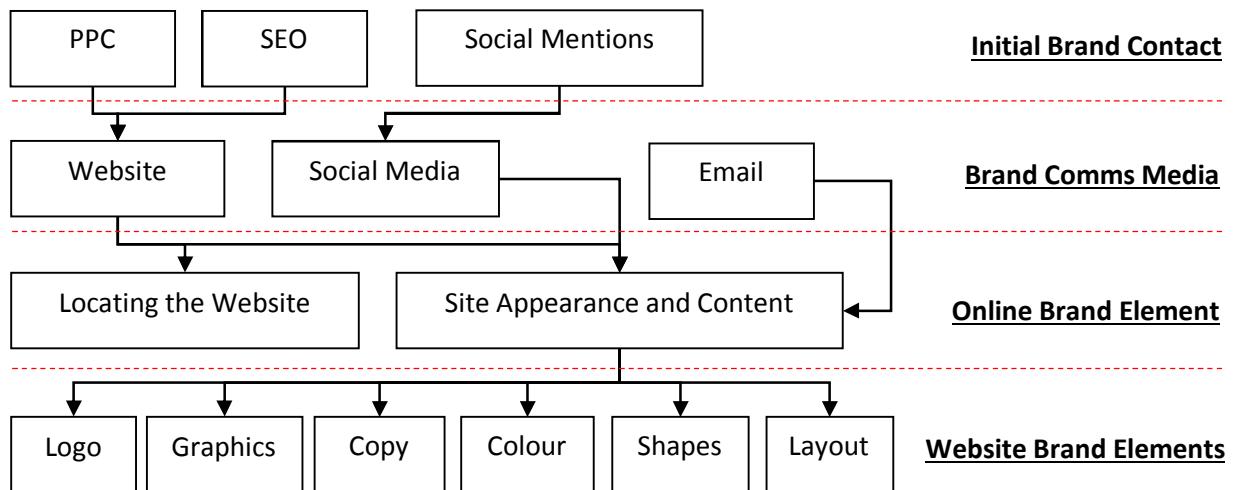


Figure 16 Flow of digital brand communication adapted from Chernatony and Rowley

An organisation's brand contact can be broken down into its individual components, which are used to communicate the brand online. The initial brand contact can be broken down into three distinct channels:

- **Search Engine Optimisation (SEO)** is communicated through an intermediary source
 - in this case, search engines (Chen *et al.*, 2011). It is based upon the content of the website (Visser and Weideman, 2011), with specific pages being targeted to appear in top search engines (Frydenberg and Miko, 2011; Agarwal *et al.*, 2011). SEO communicates the brand by representing brand performance in terms of the search engine ranking position (SERP), and as part of the speed of location (de Chernatony and Christodoulides, 2004, p.242).
- **Pay Per Click (PPC)** is again communicated through intermediaries such as search engines, which once more facilitate the speed of brand location (Watson, 2011). The brand can also be found on other websites and blogs, usually through brands (Huang *et al.*, 2012) paying for presence on websites which are likely to capture their target audience, or with which they wish to be closely associated (Garcia, 2011; Stauffer, 2012). Usually this will take the form of an image and text, or either separately, which links to pages on their brand website itself (Wang *et al.*, 2011).
- **Social Mentions** are equivalent to digital 'word of mouth' (Davis and Khazanchi, 2008), and allow consumers with a current relationship (Baer and Naslund, 2011, p.168) to the brand to add this association to their social feed. This provides exposure to more potential consumers (Bughin, 2011). Social mentions can be purchased, which

often causes controversy. A recent example can be seen by referring to the investigation into a tweet by prominent footballer Rio Ferdinand advocating a Snickers bar (Barnett, 2012b). This was, however, later deemed acceptable by an independent UK advertising watchdog (Barnett, 2012a).

Once initial brand contact has been established, consumers can then decide whether to progress and take the relationship further, in terms of accessing further brand communication media. The brand communication media which provides further brand and product information within the online channel can take the form of websites and social media, summarised as:

- **Websites** offers a large amount of communicated branded materials to consumers, through individual website brand elements (such as colours, layout, shapes, etc.) with significant emphasis being put on the graphical and textual content on each page (Rowley, 2004b). Consumers are able to browse websites, seeking out the information they require to satisfy their interests.
- **Social Media** is provided by an intermediary (for instance Twitter or Facebook) and allows brands to communicate their own identity (Kaplan and Haenlein, 2010, p.60), to interact and receive messages from consumers (2008). Brands are able to utilise basic customisation within platforms, such as adding their brand logo to the page and adjusting colour schemes. The majority of interaction takes place via textual and photographic brand communication.

Brands communicate online in a multitude of ways, from SEO, to PPC, social mentions, and their own website. Whilst all communication media are important to a brand's strategy, research attempting to measure online brand communication has concentrated on websites and social media. This is largely in recognition of the importance of these areas to consumer influence, and of their importance as part of a well-managed multi-channel brand strategy.

Research by (Chernatony and Christodoulides, 2003) has explained the six influences on enacting the brand promise online, as well as the technical issues involved within that, all of which is shown in Table 2. The technical issues involved have been well researched over a long period of time, and can include issues such as no call to action, no phone number, information under load, mixed messages, search engine failures, inconsistent look and feel, links that mean lost business and too many ads (Marshak, 2000). In fact, websites are relatively limited in terms of providing the information needed in order to communicate an

organisation's brand. This can be largely attributed to the screen size of the typical computer, with another limitation being the different technologies that are employed in each user's computer, including internet connection speed, web browser type and version, and differing software (for example, Flash and Javascript).

In summary, brands communicate themselves online through a variety of stages, ranging from the initial brand contact linked to speed and location of the brand via search engines, as well as social mentions within external social media platforms. Previous research which has attempted to measure online brand communication has concentrated on brand image and other metaphors, such as brand personality. The most prominent online brand communication media takes the form of a brand's own website and social media account, over which it has direct control, enabling it to promulgate its online brand communication elements. Whilst this is simple enough within the context of their own website, certain social media platforms restrict the level of modification available. For example, within the platform of Twitter, the layout and shapes cannot be altered. Within a brand's own website this is, of course, not a problem.

2.2.1.2.1. Website

Brand communication via a website is identified as a crucial part of a brand's strategic management, as it provides a point of modern contact which can transmit what the brand stands for. This section examines the manner in which brands are creating their website strategy, the elements used to communicate their branding efforts, how they are measured and finally discusses the importance of consistency and the links between website brand communication and performance.

Websites provide an important form of marketing communication for brands, both in terms of encouraging growth and in terms of providing opportunities for increased customer loyalty (Flores and Chandon, 2008). The literature suggests that brands develop their websites in phases, usually starting with a preliminary website which simply "secures" their brand. At this point, a larger development scale begins in order to interact with consumers through a more meaningful online relationship. Keller and Lewi (2008) put emphasis on this initial stage, as consistency between the domain name chosen and the brand name results in increased likelihood that the brand can be located quickly (Hanson, 2000; Winer and Ilfeld, 2002).

Due to the underdeveloped nature of online branding, case study approaches have been adapted to provide fresh perspectives. Along these lines a study was conducted upon the

McDonalds' online brand (Rowley, 2004b), in order to dissect the brand elements and identify how they communicated the brand values of McDonalds. See Table 4 below for an overview of website brand elements, adapted from Rowley (2004b). These include logo, graphics, copy and typography, colour, shapes, layout and combination of images.

Logo	<p>Exactly the same as offline brands. In the online brand context the logo is extremely important for brand recognition and identification of the website by the user.</p> <p>It is important that it is displayed on each page and should also be prominent on the homepage.</p>
Graphics	<p>Serve as a visual aid to organisational brand values whilst also being a key indicator of the content and function of the page. The graphics encompass logos, pictures and any images used.</p> <p>Images are an indispensable form of marketing communication, and can convey a complex story using images in a fraction of the time it would take to explain in words. To use the traditional phrase, “a picture is worth a thousand words” (Burke and Dollinger, 2005, p.28).</p>
Copy and Typography	<p>The content of the copy should be relevant to the information provided, and to the audience. This ensures effective engagement and perceived value. The text content itself positions the brand's personality, and requires the correct tone of voice and consistency with other brand encounters.</p> <p>The typography and specifically the typeface are a set of fonts (sizes, designs and styles) which can also be used to position personality and adjust the feeling of the page (Kipphan, 2001, p.15). The typography can also project a certain image (smart or casual) and may be utilised to increase the power of a perceived message (Willen and Strals, 2009).</p>

Colour	<p>Colour is a vital component of brand identity, as it can evoke inferential associations and help to form an initial opinion on the part of a visitor. It is used to attract attention, and therefore potentially increases participation. It also serves as a part of the recognition process and can increase awareness of the brand.</p> <p>Colours can stimulate inferential processing, which can benefit brand claim substantiation (Meyers-Levy and Peracchio, 1995). For example, a brand advertised with a red background was perceived as being more sophisticated and more exciting than a brand advertised with a blue background (Gonzalez, 2005).</p> <p>However, specificity is also important. Even shades of equivalent colours, for instance light orange, fruit orange and dark orange, may communicate diverse and varying messages.</p> <p>Further studies show that higher levels of chroma (less white dilution) elicit greater feelings of excitement and have been shown to increase likeability (Bellizzi and Hite, 1992; Gorn <i>et al.</i>, 1997).</p>
Shapes	<p>Within art, a shape is a flat and usually enclosed area of artwork created through lines, colour, and textures. In some cases, however, it may be the inverse, and can be represented by an area enclosed by other shapes (Stewart, 2006).</p> <p>Shapes are presented and used in many ways within websites, including shapes of images, buttons, and menus, to list only a few. The use of shapes may also include the rounded edges of text boxes, which can communicate a different styling of the brand. Synergy between other elements is crucial here, with the font used in the text or logos needing to ensure unity of communication. This has been dubbed the “all or none” character (Veryzer and Hutchinson, 1998).</p>
Layout and	The layout of a website can be used to communicate

combination of images	<p>metaphorically. For example, the McDonalds website uses the metaphor of a game, with knobs and controls for the user to “play” with (Rowley, 2004b), whilst the CNN website is arranged in a column to communicate the feeling of a newspaper.</p> <p>It is important to note, however, that metaphors are subjective and simply a point-of-view (Leary and Hayward, 1990).</p> <p>Common problems involving layout include the use of too many banner advertisements, which may look disorganised and lead to many non-related marketing messages. Ambiguity in layout can also cause non-intuitive navigation of the website.</p>
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Table 4 An overview of website brand elements, adapted from Rowley (2004b)

In order to measure website brand communications, individual or multiple elements can be selected (Rowley, 2004b). The use of these elements within online communications research has led to a divide in approaches, with some research measuring consumer perception, and others measuring the brand communication element itself.

Research by Ozok (2000) has measured the consistency between the homepage and other webpages, finding that multiple measures of consistency such as communication, physical and conceptual measures all correlate. The conclusion was that the more consistent a brand website is in one area, the more likely a webpage is to be in another. This led to other research which only examined the homepage, as homepage consistency is a good measure of overall website consistency. Research by Alwi (2007) sought to ascertain whether differences existed between the brand image of a retailer selling solely online and one operating offline, through consumer perceptions of communication. Alwi identified that online brand communications were more informal, while those offline were more formal.

Multiple studies have attempted to measure website brand communication through the metaphor of brand personality, specifically by examining the language used while communicating the brand. Douglas (2006) used content analysis to measure the words used when talking about travelling to certain countries, in order to ascertain consumer perception of brand image using Aaker’s model of brand personality. Okazi (2006) clearly agreed that the brand personality metaphor was an important model, attempting to conceptualise and measure

online communications in terms of their excitement and sophistication as perceived by consumers.

Following a similar theme, other research has examined what online brands are directly communicating in terms of their pseudo-human characteristics. Aaker's measure of brand personality was utilised and applied within the online context by Opoku (2006). The original dimensions of brand personality were taken and expanded upon, in order to classify brands through the types of words which they use to talk about themselves. The method was purely concerned with what a brand is communicating about itself in terms of anthropomorphisation, and is unique in that (due to its groundings within the offline branding literature) it can be used to measure brand personality communication independently of whether the marketing media is online or offline.

Brand consistency between the website and the overall brand is considered just as important within the online context as offline. Firstly, it is vital to ensure that the domain name is consistent with the brand name (Huang *et al.*, 2004). Secondly it is important that the content of the website is consistent, as empirical research suggests that consistency moderates the relationship between the website and brand attitude as perceived by consumers (Muller, 2008). It is a key driver in global recognition of brands (Hemsley-Brown and Goonawardana, 2007). Research by Delgado-Ballester (2012) has analysed communications taking place via brand websites, examining both familiar and unfamiliar brands. It was found that unfamiliar brands perform better when they are highly consistent, while familiar brands perform best at a moderate level of consistency.

As a measure of website performance, analytics can include time on site, number of visitors (new and unique), number of pages visited and bounce rate. However, research by Flores (2008) has concluded that, for brands, these are not relevant. Brand communications through the website need to be synonyms with the overall brand, which is recognised as vital to performance (Ha and Perks, 2005). Website communications act as a mediator of brand experience (Brakus *et al.*, 2011) and familiarity, ultimately leading to loyalty. Consistent brand communications, create strong brands and website brand communications can be controlled by brand strategists (Gommans *et al.*, 2001), to create strong and loyal customer bases. Brands which achieve high levels of loyalty are able to charge more, ultimately leading to better performance. Online transactions are replacing traditional business, and websites pose great opportunities to increase overall performance. However, the current literature generally takes

the form of suggestions regarding improvement to website brand communications (Smith, 2000; Reichheld and Schefter, 2000; Schultz and Bailey, 2000), rather than empirical support linking effective website brand communication and performance.

In summary, brands recognise the importance of their websites' communication strategy. The initial phase of any such strategy is domain name registration, which should use a brand name. The literature has further broken down website brand communication into individual website brand elements, and studies have attempted to measure website brand communication. Emphasis has been placed upon the textual content of websites, with studies attempting to measure brand metaphors such as brand personality within the text. These studies have often extended offline measurement scales into the online context. The literature also notes that consistency within website communications is crucial to brand recognition, and it is especially important to unfamiliar brands. Website brand communication and performance are anecdotally linked, particularly in the case of electronic commerce branded websites, however the majority of literature suggests improvements rather than providing empirical evidence in support.

2.2.1.2.2. Social Media

This section begins by examining how social media developed into its current form. A broad multitude of social media are identified, and the most prominent forms and platforms are examined in more detail in terms of the brand.

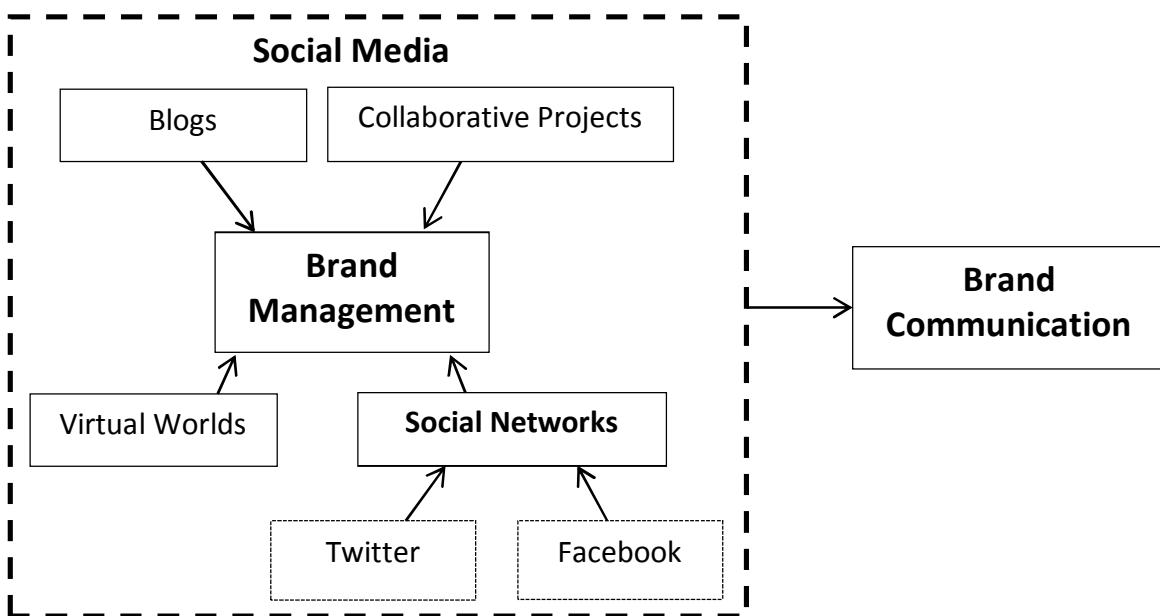


Figure 17 Diagram of Social Media Subsection

Social media is designed to be consumed via interactions of a social nature, and is intended to be widely available and scalable through the use of technology (Kaplan and Haenlein, 2010, p.60). Social media, particularly through platforms such as Facebook and Twitter, now represent an important part of a brand's online communication strategy (Owyang *et al.*, 2009, p.3). Brands are using social media to cut the cost of their overall marketing budget, increase return on investment and ultimately increase their profit margins. Social media essentially provides the offline experience of social interaction, but is conducted online. With the popularity of social platforms such as Facebook and Twitter increasing, studies have shown that in 2009 the time spent on social media platforms exceeded the time spent using email (Cross, 2011).

Whilst social media may seem a relatively new phenomenon, it has its origins in the original conception of the internet. In 1971, the first email was sent (Lambert and Poole, 2005, p.206) between two computers side by side. This prototype effort was soon scaled over huge distances, and it was not long before in 1978, BBS (bulletin board systems) were developed (Ruben, 1985, p.204) . In 1994, the first social website platform was introduced, known as geocities (Tokar, 2009, p.50), and the term "social media" was developed through the use of online diaries. These were also known as a "web log", a term which further developed when a user jokingly stated "we blog" (Sauers, 2006, p.1). In 1997, instant messaging began (James, 2010, p.270), allowing users to have instantaneous online conversations with other users, privately or publicly. The next significant development came in 2003 with the advent of MySpace, LinkedIn, and Netlog (Pride and Ferrell, 2012, p.242), with Facebook following in 2004. Facebook was originally launched as a way of connecting Harvard University students (Lusted, 2011, p.31), although it soon expanded rapidly, and in 2006 Twitter was launched. It also experienced a quick uptake by both celebrities and brands (Weinberg, 2009, p.125-26).

There are several forms of social media identified within the literature (Kaplan and Haenlein, 2010), including blogs, collaboration projects, virtual worlds and social networking sites:

- **Blogs** allow users to publish their thoughts, concepts and articles to billions of other users worldwide, who are able to comment on and link to these articles. Blogs are seen by users as a credible alternative to corporate controlled media (Johnson and Kaye, 2004; Johnson and Kaye, 2006; Johnson and Kaye, 2009; Reynolds, 2004). Twitter is often classified as social micro-blogging. However, due to the unique nature of its social networking style, it will be addressed below (Kwak *et al.*, 2010).

- **Collaborative Projects** include wikis, of which the most famous example is Wikipedia. These allow multiple and sometimes anonymous users to come together in order to collaborate on articles. Wikipedia is a top ten visited website by households (Kittur *et al.*, 2008), and has been noted as one of the most popular referencing sources (Shen *et al.*, 2012), although questions have been raised about the validity and bias (Greenstein and Zhu, 2012) of articles.
- **Virtual Worlds** often include both a social and gaming element, and are increasingly being adopted by brands for social mentions within environments. Product placement of brands such as Coke, Apple and BMW are becoming increasingly common (Barnes and Mattsson, 2008).
- **Social Network Sites** include organisations such as MySpace, LinkedIn, Twitter and Facebook (Quelch and Jocz, 2009, p.7). As of February 2011, Facebook was reported to have reached over 500 million “active users” (Katzir *et al.*, 2011, p.1).

Facebook and Twitter represent the two most popular (Hird, 2010) and distinct (Tagtmeier, 2010) forms of social media. Facebook was historically conceived within Harvard University, and grew through expansion to other universities across America and the world (Boyd and Ellison, 2008, p.7). The largest demographic of Facebook users is of University undergraduate age, whilst Twitter also boasts a significant amount of 18-24 year old users (Hird, 2010).

Take-up of social media within non-western continents is also rising steadily, the total number of users for both as of February 2011 being 147 (Asia), 25 (Africa) and 65 (South America) million (Smid, 2011). Facebook provides an interactive experience between organisations and individuals, with multiple features such as instant chat, networks, groups, like pages, news feeds, pokes, status updates, an inbox and a wall. Twitter provides a more simplistic micro blogging service which functions as a form of digital “word of mouth” (Davis and Khazanchi, 2008), and allows fast communications by users.

Social media represents an important part of a brand’s online communication strategy, and is becoming increasingly important with each passing year (Owyang *et al.*, 2009, p.3). As brands look to cut the cost of their overall marketing budget, increase return on investment and ultimately increase their bottom line, the use of social media can only grow. Online advertising is relatively inexpensive (Cox, 2010, p.20), and within ecommerce type organisations it provides simplistic measures of consumer traffic and performance measurement, particularly

through tools such as Google analytics and other goal conversion measurement applications. The literature suggests that where social media was once an afterthought to brands (Eyrich *et al.*, 2008), taking the form of wikis, blogs, social and other content sharing, it now represents a phenomenon which can drastically impact a brands' reputation, sales and in some cases survival (Kietzmann *et al.*, 2011). Indeed, the success of some social media organisations and brands can be described as inextricably linked, with the success of Twitter often being attributed to the high level of uptake from brands originally. This shift in emphasis can lead to positive outcomes for the brand, particularly in the case of co-creation of content between consumers and brands, which can enable brands to reach new consumers. Whilst the performance benefits of adoption and integration have been widely accepted within the literature, research suggests that brands are unsure of how to manage their social media strategy in order to achieve positive outcomes (Hanna *et al.*, 2011).

Social media needs to be an integral part of the brand communication strategy, in the same way that all communications should be (Kaplan and Haenlein, 2010). Whilst managers may see it as being somehow different, social media is an image which is transmitted to consumers as a brand communication. Social media represents new challenges to brand management, and as well as being proactive, brands must also be reactive. Mangold (2009) describes social media as a new hybrid within the marketing mix, and points out that the textual content, times and number of interactions between consumers and the brand remain within the control of brand managers. However, it is true that communication which occurs between consumers is outside of a brand's direct control. This indicates that some management activities can be proactive in the form of managed communications, while others may need to be reactive, responding to issues in real time as they arise.

In summary, social media is recognised as an important part of a brands' strategy, with certain social media platforms being utilised more than others. Twitter's micro blogging service is especially important to branding efforts and represents the digitisation of one of the oldest methods of brand communication, word of mouth. Its success has been fuelled by rapid adoption of Twitter by brands, and it now allows brand mentions, opinions and questions to spread virally across millions of users within seconds, leading to proactive and reactive brand management.

2.2.1.2.3. Twitter

This section examines how Twitter serves to communicate brands as a digital form of ‘word of mouth’, providing consumer feedback to brands and transmitting brand communications to consumers. It then reviews consistency over Twitter, and how these communications can be measured. This includes a review of previous studies which have attempted to do so.

Twitter represents a digital form of WOM (Word of Mouth) (Davis and Khazanchi, 2008), which can be engaging and highly influential, but can also represent a form of marketing which is hard to influence (Dellarocas, 2003; Ha, 2002; Phelps *et al.*, 2004). Positive use of WOM has always been very powerful, and studies suggest that digital WOM (DWOM) is also highly effective (Jansen *et al.*, 2009), although it can also have a negative impact (Bambauer-Sachse and Mangold, 2011) upon brands.

Twitter provides real-time feedback by customers to the brand, particularly regarding their experiences, thoughts and questions. LeFever (2008) uses the analogy of Twitter being equivalent to a white board outside of a shop; each customer can give their opinion on what the shop is about, rate it and provide a comment. This process enables shops to make improvements based on direct customer comments, to get free effective marketing from positive reviews, and lastly to find out exactly what consumers want. Shao *et al.* (2012, p.89) explicated this further, stating that social media provides information which is important to relationship management, product development, promotion, pricing, distribution, and market research, as well as performance indications.

Research has measured Twitter in multiple ways, ranging from the frequency of a user’s tweets to content analysis of tweets that are trending, whilst other research has combined such measures. Nicholls (2012) examined the Twitter posts of alcoholic brands using thematic classifications in which a number of themes are identified that adequately reflect the textual data. In particular, the research highlighted consistency, particularly communications regarding the time at which consumers should perform an action (drink their alcoholic brand), in an attempt to influence behaviour. Other research has attempted to make predictions regarding Twitter behaviour. For example, Jansen *et al.* (2009) examined timings, frequency, author and tweet text to establish trending phrases as a prediction of future outcomes. Jansen used content analysis to classify tweets into distinct categories, concluding that Twitter is readily used to communicate brands. The research found that 19% of micro blogs contain brand mentions, and in these cases 20% contained sentiments relating to brands. From these

posts, 50% were positive and 33% were critical of the brand. The research concluded that DWOM was an important aspect of brand satisfaction, and can influence brand metaphors such as image and awareness.

Huberman (2010) concluded that Twitter can indeed be used to predict future performance outcomes, through the construction of a model which predicts box-office revenues of films before their release date. It did this by measuring the rate of so-called “social media buzz”. These results were shown to be more accurate than the Hollywood Stock Exchange. Tumasjan (2010) went further, arguing that Twitter can predict the outcome of presidential elections. Research has also attempted to identify links between social media and performance. For instance, Gruhl *et al.* (2005) demonstrated that a sudden increase in mentions of a “specific book” is a potential predictor of a spike in sales through online book retailers such as Amazon. Asur and Davis (2008) also attempted to confirm a link between DWOM and performance, examining the effect of DWOM on product sales. They concluded that a positive, statistically significant relationship existed. In contrast to this, Cheung *et al.* (2010) see the literature as being fragmented and inconclusive, suggesting that further empirical research is required. This is particularly necessary due to increased emphasis on proof of return on investment (Weinberg and Pehlivan, 2011).

Social media consistency is of critical importance (Peck, 2011). Its biggest advantage is through brand consistency and increased brand recognition, which results in familiarity. This, in turn, results in trust and confidence residing in the brand. Kaplan (2010) advocates activity alignment between social media channels, concentrating upon fewer forms of social media with more activity and consistency/alignment. It is argued that if consumers are receiving different messages from the same brand, this is likely to result in brand confusion.

In summary, the success of Twitter has been inextricably linked with brands. This has been a consequence of strong early adoption by celebrities and brands, making Twitter the most relevant social platform for brand communication measurement. Twitter represents an honest and brutal feedback system. Offline word of mouth becomes online ‘word of mouse’, with brands being able to engage with consumers, who in turn can actively question, challenge and promote their views. Research attempting to measure brands has generally utilised content analysis of brand communications as represented by tweet text, although while the literature recognises communication consistency as important, little research has attempted to measure brand communication consistency between Twitter and other marketing channels.

2.2.2. Brand Communication Consistency

This section discusses the literature which assesses whether organisations should be consistent when communicating their brand, including when communicating the brand over multiple marketing media. Secondly, it examines how brands are communicated consistently to their stakeholders and lastly, conducts an analysis of the ways in which previous literature has measured brand consistency.

Brand consistency is one of the three basic rules that every global brand adheres to when communicating brand qualities, the others being clarity and constancy (Arruda, 2009). The literature broadly agrees that consistent brand image leads consumers to understand what the brand stands for and better predict its behaviour (Erdem and Swait, 1998; Keller, 1999; Lange and Dahlén, 2003). Navarro-Bailon (2011) concluded that strategic brand consistency campaigns are more effective than their non-consistent counterparts. Arruda (2009) states that brand communications should be consistent regardless of the form of media chosen, and that this consistency provides higher levels of consumer-based brand equity (Pike, 2010, p.13) over time as part of the long-term strategy (Matthiesen and Phau, 2005; de Chernatony and McDonald, 2003; Argenti and Druckenmiller, 2004; Knox and Bickerton, 2003). Kapferer (2008, p.43) extends this, arguing that brands can only develop through “consistently being consistent” over a period of time, whilst Aaker (1996a) extends this argument still further, defining consistency over time in terms of identity and position, including symbols, imagery and metaphors such as brand personality.

In order for the brand to be communicated consistently, the branding strategy also requires a consistent level of support over time, known as brand strategy consistency (Berthon *et al.*, 2008, p.14). The initial brand strategy relies upon understanding the needs and perceptions of customers, and is required in order to create relevant brands which satisfy consumer needs. Once these have been identified, and in order to build strong brands, the associations communicated should also be consistent over a period of time (Thorson and Moore, 1996, p.128).

The literature and research suggests that consistent brands are stronger, and also suggests that stronger brands are more likely to be communicated consistently. They also provide benefits such as increased consumer attention (Freling and Forbes, 2005, p.406) towards the brand, creating stronger and more favourable brand associations. Regardless of which comes first, strong brand management requires a long term perspective of branding activities, with brand

equity being enforced by marketing activities which communicate consistent brand meaning to consumers (Keller, 2008).

Arruda (2009) explained that in order for a brand to be communicated consistently, planning and management are of paramount importance. In order to aid this planning process, the “Brand Communication Wheel” has been devised. The wheel encompasses all possible medium of communication through which the brand will communicate, and posits that each marketing channel (the transmission lines of the brand) should pivot centrally around a core which represents the content theme (brand) which is to be communicated. Each segment of the wheel is required to be consistent, clear and constant when communicating the core brand content. This doesn’t mean that communications should be repeated in an artificial manner, simply that they should be consistent in their overall meaning (Kapferer, 2008, p.211). Consistent styles of verbal expressions can exert influence upon how brand identity is processed into brand image (Franzen and Moriarty, 2008, p.120) by stakeholders. See Figure 18 for an example of Arruda’s (2009) brand communication wheel, encompassing multiple brand communication channels.

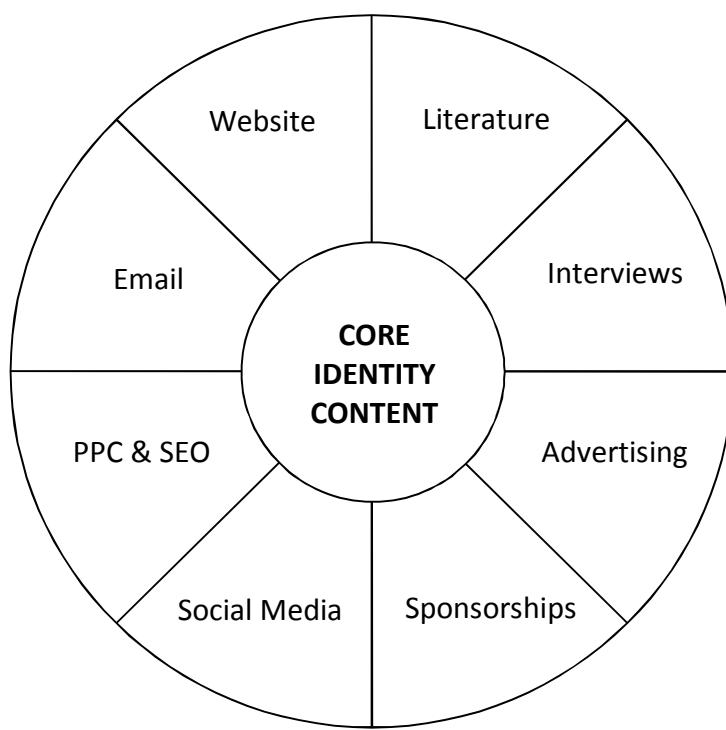


Figure 18 Example of a Brand Communication Wheel adapted from (Arruda, 2009).

Once the brand communication strategy has been devised, the process of communicating the brand begins with internal (employee) brand management (de Chernatony, 2002). Well

executed internal brand management leads to external (consumer) brand satisfaction and vice versa. The strong links between internal brand messages and consumer experience has been noted by scholars (Finney, 2008) as well as practitioners (Jones, 2001), and is receiving increased attention. It is recognised by many brands that employee alignment of behaviour with the brand plays a crucial role in building success (Vallaster and de Chernatony, 2006), especially within the context of service brands, which are often employee facing (Brodie *et al.*, 2009).

Ambler (2003, p.177) went so far to say that “a firm’s customers are its own employees”. He submits that there is a strong link between employee and customer satisfaction (Schneider *et al.*, 1998; Heskett *et al.*, 1997), and indicates that if an organisation’s main priority are its employees, external customers will be taken care of as a result (Farrell and Oczkowski, 2012; Salamon and Robinson, 2008; Harter *et al.*, 2002).

Brand consistency applies to multiple facets of the brand, both in terms of definition and the media over which it is communicated. Previous studies which have sought to measure multiple channel brand communication consistency have been sparse. Research by Graham (2012) examined the communication of visual images, tone and language as achieved on the websites and prospectuses of HEIs, as well as factors such as levels of tuition fees, in order to measure consistency of brand positioning. Research by Okazaki (2006) attempted to measure a brand’s online personality across multi-national companies, in order to ascertain whether these brands were communicating consistency across global markets. However, this study mainly sought to examine inconsistencies in terms of cultural online brand personality differences, indicating that whilst consistencies between cultures may differ, consistency within cultures is important.

In summary, brand identity and position should be continually (over time) consistent. Whilst this is widely accepted within the literature, there seems to be confusion as to how brands should be managed in order to achieve this consistency in communication. Key literature suggests that being continually consistent should be part of the initial planning of communication management, with consistent execution of the management plan and employee buy-in both being vital to ensure that all transmissions are communicated consistently. Previous studies that have measured consistency over multiple marketing channels are sparse. The small number which have been attempted predominantly focus on the message which is transmitted in the form of words, in order to measure brand image and brand personality.

Empirical research, given the plethora of anecdotal evidence advocating consistency and pointing towards its links to performance, is certainly needed.

2.2.3. Measuring Brand Communication

Previous sections have identified that the content of communication, particularly the language used, is crucial to the communication of brand image as well as consistency over multiple marketing channels. Brand communication is paramount to forming brand equity with consumers, and this is particularly the case for textual content communication in terms of brand image. This section identifies a brand personality scale as a predominant metaphor of brand image, which is used to measure brands through content communication.

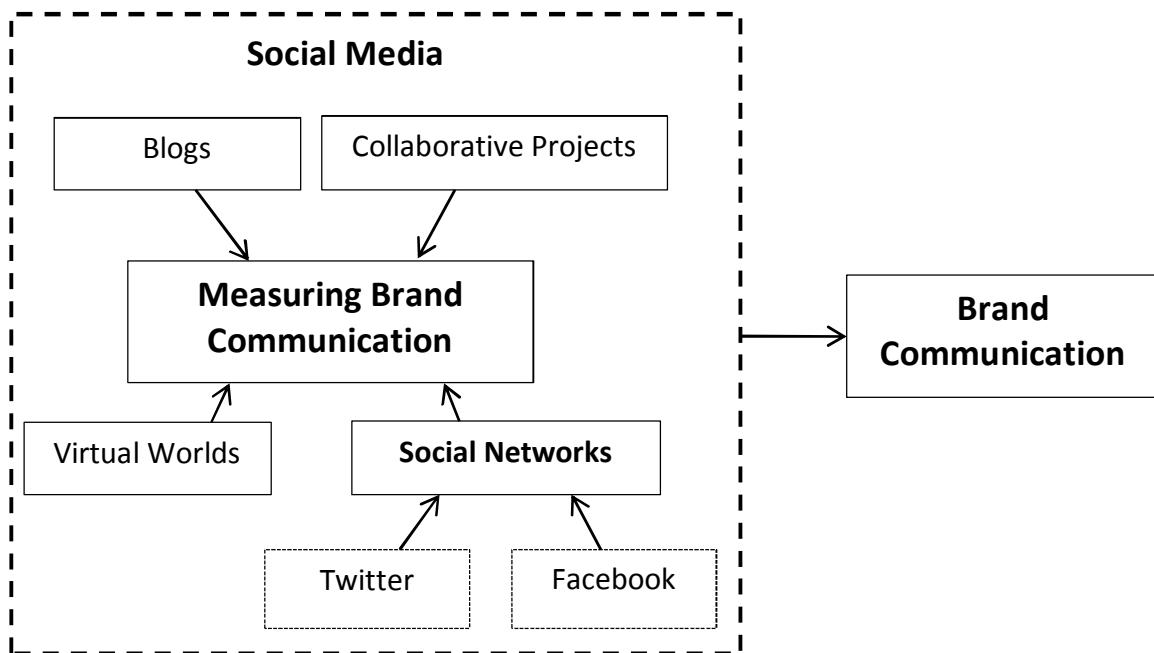


Figure 19 Diagram of Social Media Subsection

Brand image is an important metaphor of brand communication (Thakor, 1996), and can be viewed in terms of its benefits, attributes or personality. The emotional relationship between brands and consumers has been identified as important in section 2.1.3, and Brodie (2009) has found that communication is key to influencing (Batra *et al.*, 1993) brand image. He has further concluded that brand personality is formed by external brand communications.

Brand communication falls within the marketing mix strategy, which is usually overseen by strategic brand managers (Ivens and Valta, 2011). Such communications play a vital role in the process of information transmission (Ang and Lim, 2006; Batra *et al.*, 1993) between the

brand and consumers. Recent research indicates that a brand's media strategy communicates a brand personality (Valette-Florence and De Barnier, 2012; Valette-Florence and de Barnier, 2009) to readers. Specifically, the research shows that consumers of media anthropomorphise what they read in order to allocate a personality to it. Ivens (2011) states that the challenge in any brand communication strategy is to communicate the brand personality in such a way that it is perceived correctly. This ensures consistency between multiple communications of the defined brand personality which is intended to be received by consumers.

In order to measure external brand communication, previous research has expanded upon Aaker's (1997) model. The most prominent measure of brand personality as expressed through textual content is the brand personality dictionary of synonyms (Opoku, 2006). Opoku's (2006) research builds upon the model of brand personality (Aaker, 1997), attempting to extend the framework to textual content, as is required to measure web page content.

The subsequent section will explain Opoku's (2006) lexical method of brand personality measurement, including how it was developed, how it has been used, and its limitations.

2.2.3.1. Brand Personality Communication

This section first examines Opoku's (2006) method of lexical brand personality measurement, defines it, discusses how the method was developed and finally explores its limitations as a measure of positioning textual content upon Aaker's (1997) five dimensions of brand personality.

Opoku (2006, p.3) adopts the definition of online brand personality as "the set of human characteristics associated with a particular entity and how these are communicated through its entire website in order to aid the organisation position itself distinctly among its competitors." In contrast to much of the existing work on brand personality, this does not address the individual opinions of a brand in consumers' minds, but rather what brand personality these organisations intend to communicate.

A dictionary of synonyms was compiled from Aaker's (1997) original 42 brand personality traits, using the thesaurus feature within the Britannica online dictionary resource. The compilation of synonyms was also 'human filtered' to ensure that the dimensions and traits were accurately represented. It was deemed for instance that synonyms such as "hairy" and "rude" for the dimension of "rugged" were not to be used, as they may distort results. As an attempt to further enhance the study, a "dictionary builder" within the content analysis

software was employed to suggest related words besides those which the thesaurus had already suggested.

To ensure the dictionary was as comprehensive as possible, two further dictionaries were compiled by a research assistant who spoke both English and Swedish and an MBA student who spoke English, Swedish and French (as appropriate for the international context of the study). In order to avoid bias, neither were told the research question. The individuals then merged their dictionaries, and both agreed upon final individual words. This was an attempt to account for different interpretations of words by consumers of different linguistic backgrounds. Finally, to support the dictionary still further, the English Department of Language and Culture from a European University was asked to review the preliminary dictionary and deliver additional suggestions, which were then integrated. This provided a final dictionary of 1625 words with each of the five dimensions having a similar proportion of synonyms. More specifically; Sincerity made up 21% of all words listed; Excitement 17%; Competence 20%; Sophistication 21%; and Ruggedness 21%. The software package “word stat” was employed to content analyse the text, and was also programmed to ignore pronouns and conjunctions. Its stemming function was used to reduce word forms down to word roots, for instance removing “ed”, “ing”, “ly” and including plural forms.

To ensure the validity of the dictionary and the method, two pilot studies were conducted. Firstly the websites of “Mercedes Benz, Volvo, VW and Ford” were analysed. The diverse metaphors of these brands were expected to produce varied outputs, resulting in different brands expressing significantly differing brand personalities. From this study, words which were used too frequently on all websites were removed from the dictionary. A similar pilot study was performed upon African tourism websites (Opoku *et al.*, 2007b; Opoku and Hinson, 2006).

MBA programmes within the United States were decided upon as the sample for the main study, due both to the informational nature of their websites and the importance of the MBA qualification as the ‘stamp of approval’ in their field. MBA courses are very expensive, but their cost is not just associated with instruction. The credibility gained through the qualification is often seen as equally important to the knowledge acquired by students. The research sample was drawn from the “Financial Times Top 100 full-time global MBA programmes” in 2005, and the top 30 programmes were divided into 3 clusters of 1-10, 11-20, and 21-30. In summary, Opoku (2006) found that some organisations are more proficient at

communicating a clear and strong brand personality position within the online context. Conversely, others seem to communicate no personality whatsoever (see appendix 2 for further information). This confirms research which has shown that distinct and strong personalities do not occur randomly, but are in fact the result of the careful planning and execution of effective communication strategies (Kim *et al.*, 2001).

Opoku's (2006) research contains several limitations. Firstly, no comparison is drawn against other communications to the consumer, such as through the logos, layouts, graphics, colours and other website elements. Secondly, there has been no confirmatory study with other stakeholders, in order to compare perceptions for accuracy of the method itself. Thirdly, deductions drawn from the correspondence analysis of the data and distances between row and column positions cannot be precisely interpreted, as they are scaled independently. As a result, an MBA website positioned close to a certain brand personality dimension may be incorrectly assumed to be closely related.

In summary, Opoku's method of content analysing the textual content of websites represents a powerful measure of categorisation of brand communications upon Aaker's dimensions of brand personality. It is currently the only available method capable of analysing the textual content of marketing media in order to assess a brand's personality strength. Given the advantages of its objective and quantifiable analysis approach, it offers a powerful method to analyse other online marketing channels, as well as text based offline marketing channels. It also serves effectively to measure cross channel brand personality communication consistency.

2.2.4. Brand Communication Summary

Communication technologies have been established for thousands of years, ranging from early hieroglyphics to modern written language. Such technologies can take the form of printed communication, telephony, radio, television, newspapers, and more recently online content. Control by political leaders has been predominant throughout the evolution of mass communication, in recognition of the level of influence that these technologies can exert. Typically, political leaders control licensing, whilst the funding of technologies has been attributed to private individuals and organisations. In the case of radio, television and newspapers, the sale of advertisements in the form of marketing communications represents the largest proportion of income.

Brand communication is the transmission of brand information, and in order to ensure that marketing strategies are consistent, clear and concise, integrated marketing communication strategies are utilised. Technological developments have led to two distinct forms of media communication. The first is offline (typical media), such as print media, radio, and television. The second is online (new media), such as websites, blogs and social media platforms. The shift to new media by consumers has increased demands for direct response and interactive media. Instead of being force-fed information, consumers increasingly request interactive communication with the brand. The increased costs associated with some forms of typical media have led brands to communicate increasingly through print media such as brochure based literature. This can be sent directly to consumers, and possesses some of the advantages of digital forms of communication, such as transmission via websites and social media. Research attempting to measure brand communication has dichotomised media into individual brand elements and, using these, researchers have measured perceptions of communication. Growing amounts of research are attempting to measure communication directly.

Brand consistency has been identified as a common theme within the literature. It is clear that brands which are communicated consistently are more likely to be strong. In order to ensure that brand communications are consistent, constructs have been developed to ensure that brand messages are communicated consistently, independently of the media chosen. These communications pivot upon a central brand theme, intended to be communicated in each media transmission. However, the literature notes that being consistent does not mean repeating the same message, but rather the same meaning. This can be achieved, for instance, through consistent styles of verbal expressions.

As the most widely used brand metaphor, brand personality plays a vital role in communicating the brand's image. Therefore, the most suitable measure of consistency is a measure of brand personality. Aaker's model of brand personality has been identified as the most robust and valid, due to its adoption through multiple studies, and the way in which it has been adapted for use with brand content communication, as a measure of the words used within brand material. Utilising Aaker's model of brand personality position, Opkou has developed a method of content analysing the textual content of websites, which represents a powerful measure of categorisation of brand communications. Due to the textual nature of this measurement system, it can also be transferred to other online marketing channels such as social media, as well as offline channels such as printed brand communication literature.

2.3. Summary of Literature Review

This chapter has reviewed brands, brand management and brand communication. The review of the literature has clarified this thesis both by examining key conceptual terms and by providing a theoretical foundation for subsequent chapters.

Brands have existed for as long as civilisation, and today organisations must actively manage their brand to ensure that it is communicated efficiently and consistently. There are multiple definitions of a brand within the literature, and various ways of measuring brands in terms of brand awareness and brand image. Brand image, and in particular brand personality, are dominant within the literature, due to a recognition of the importance of humanistic aspects of brands. Multiple methods of quantifying brand personality exist (1997; Bosnjak *et al.*, 2007; Ambroise *et al.*, 2005; Kuenzel, 2009; Geuens *et al.*, 2009; Sweeney and Brandon, 2006; George, 2011; Heine, 2009; Lee *et al.*, 2010; Heere, 2010), with the most dominant model having been produced by Aaker (1997). Whilst the preceding section has highlighted the fact that Aaker's model is not without limitations, it has nonetheless been validated and refined in a variety of contexts and currently stands as the most dominant scale (Azoulay and Kapferer, 2003) and most widely adopted definition (Clemenz *et al.*, 2012) within brand personality research and wider marketing literature (Freling *et al.*, 2011). Although newer models are being developed (e.g. Geuens *et al.* (2009)) these have not yet been fully validated across sectors and cultural contexts. Aaker's model has, and its limitations have been clearly identified and understood.

Brand management requires effective communication and consistency, which plays a vital role both over time and between marketing communications (Arruda, 2009). As part of brand management, organisations need to measure their performance in order to substantiate branding expense with financial metrics and to optimise their branding strategies. In contrast to these needs of substantiation, confusion exists within the literature as to whether specific branding activities lead to better financial performance. This is particularly the case in relation to brand personality, communication consistency and performance, with previous research having concentrated on traditional brands, which did not have online presences. For this reason, multiple channels were not examined in such research.

The evolution of the literature around mass communication and brand communication was then considered. Brand communication was defined as the transmission of brand information through marketing channels. This process has evolved from hieroglyphics, to written language,

mass printing and subsequently to newspapers, radio and television. These developments have led to the online technologies of the present. In recognition of the level of influence which mass communication media can exert, historically they have been controlled by political leaders through licensing. Within brand communication literature, two distinct categories have emerged; offline (traditional) and online (new) media. New media incorporates marketing channels such as the website and social media, through which consumers request and receive information. This operates in contrast to other transmissions, which simply force brands upon consumers. Organisational cost cutting measures, coming about largely as a result of the declining economic climate, have led brands to reduce expensive forms of communication and to switch to cheaper printed media and forms of new media.

In recognition of the role that brands play in new online contexts, existing research has dichotomised online brand elements (de Chernatony and Christodoulides, 2004), highlighting the importance of a brand's website within the overall brand management strategy. In a similar approach, Rowley (2004b) has analysed branded websites and dichotomised the individual website brand elements, highlighting the importance of textual content communicated via a brand's website. Whilst it seems that the literature cannot overemphasise the importance of textual communication through both offline and online marketing channels, no study currently exists which quantifiably and objectively compares brand personality consistency between offline and online marketing media. More research is required empirically to verify previous qualitative or single case based research.

Brand consistency, which has been identified as crucial to brand communication, creates a strong brand which leads to better performance (de Chernatony and Segal-Horn, 2003; M'zungu *et al.*, 2010; Arruda, 2009; Interbrand, 2012). In order for brands to achieve consistency, each communication channel must incorporate the core brand message. Consistency does not mean simply repeating the same message, but rather the same meaning, and the most widely used brand metaphor is brand personality. In order to measure branded communication, methodologies capable of objectively quantifying brand communications have been developed. To be able to understand the communication of textual content, in particular within the context of brand personality, a sophisticated method of content analysis and brand personality categorisation has been developed (Opoku, 2005). Opoku's (2005) categorisation dictionary is currently the only method available to assess brand personality communication, objectively and quantifiably, and it is based on Aaker's (1997) brand personality scale. While it can be seen from this review that brand personality consistency between marketing channels

has been identified as crucial to brand performance, little empirical research has been performed to ascertain the relationship between brand personality consistency, marketing channels and performance.

The literature review demonstrates that there is a need for more empirical research into how brands communicate across traditional and new media and whether this is consistent. There is also a need for more research to assess whether improved brand communication and personality are linked to better organisational performance.

3. The Higher Education Sector

This section firstly examines Higher Education (HE) in the UK, as well as internationalisation within the context of a UK Higher Education Shakeup. Next, the discussion focuses upon Higher Education brands and branding. Therefore this section is broken into two subsections:

1. **Higher Education Sector** and the role of modern Higher Education. The UK context of HEIs is reviewed with an emphasis on the shift to internationalisation and how HEI performance is assessed and measured. Further, the UK HE shake-up is discussed and its implications for funding (or lack of) and (over) recruitment.
2. **Brands in Higher Education.** This section reviews what is meant by a Higher Education (HE) brand and whether or not HEIs should have brands. Secondly a review of the nature of the relationship between HEI brands and performance is presented concluding whether or not HEIs are branding themselves efficiently.

The section begins broadly by examining the HE sector in general and the increasingly competitive environment in which they are operating. It then focuses specifically upon how these institutions are marketing themselves in the form of brand communication, brand metaphors, brand consistency and overall links to performance.

3.1. Higher Education Sector

This section firstly identifies the role of modern Higher Education Institutions (HEIs), placing them in contrast to historical elitist institutions. The context of HEIs within the UK is reviewed, with an emphasis on the shift to internationalisation, and then the relationship between key performance indicators (KPIs) and HEIs is examined.

Historically, universities were reserved for the social elite and operated in isolation from the rest of society. Research was based largely upon the interests and ideas that the professors happened to hold (Feingold, 2006, p.228). This process has now changed, largely due to societal change, which has included governmental targets and performance goals. The emphasis is now on universities being open to the many, rather than the few. As a result, universities have needed to take on additional roles (Altbach, 2011), often with the same or fewer resources. Today, the international role of higher education institutions (HEI) is typically teaching and research, focusing on activities such as professional training for high-level jobs.

In the subsequent sections the UK HE sector is examined via the following categories, which can be summarised briefly as:

1. **The UK HE Sector** is comprised of a number of HEIs, which are identified as undertaking teaching and research activities in different proportions. The UK promulgates a significant amount of research internationally, and different groupings of universities are identified. Some are more research focused, whilst others predominantly focus on teaching.
2. **Internationalisation** of HE has occurred due to a number of influences. It is politically backed by UK ministers, and provides a large financial income. It has been encouraged by neoliberalism, and is regarded as one of the UK's most successful exports.
3. **UK HEIs and League Table Performance** have become critical drivers of decisions made by HEI stakeholders, and thus they are examined through an analysis of the most prominent league tables. The relationship between such league tables and key performance indicators is also discussed.
4. **The Higher Education Shake Up** refers to the reorganisation of HE due to the changing economic climate. Significant factors include decreased funding, increased tuition fees and rising competition.

This section begins by examining the UK HE sector in general, then focuses upon the context of internationalisation and what this means for institutions in the form of league tables. Next, an analysis of how these tables are formulated is undertaken, specifically relating to those measurements which are most trusted, finally discussing the higher education shake up and its implications.

3.1.1. The UK Higher Education Sector

There are total of 115 universities and 165 Higher Education Institutions (UniversitiesUK, 2011) within the UK, and there are more higher education colleges which are able to award higher education qualifications through licensing agreements with higher education institutions. In order for an institution to be awarded the title of "university", it must meet a set of quality criteria assessed by the Quality Assurance Agency. Within the UK higher education sector, both teaching and research are carried out, although the proportion of these two activities varies between each institution. Some organisations are seen as 'teaching centric'

institutions, whilst others are ‘research intensive’ institutions, with an increasing trend emerging around knowledge transfer to and from the business sector. The UK has maintained strong research performance, with research output second only to the US. The UK contributes 9% of worldwide research, and accounts for 10% of citations (UniversitiesUK, 2011).

Universities can be grouped into three categories: the post 1992 group, the 1994 group and the Russell Group of universities. Every university is not created equal, with older institutions typically being more research intensive, and newer universities more teaching centric (Boehm and Lees-Spalding, 2006). See Table 5 for an overview of the groups.

Category	Generalised Category Description
Post 1992	<p>Also known as “new universities”, these are former polytechnics, central institutions or colleges which were given higher education status by the Conservatives in 1992 (via the Further and Higher Education Act in 1992). This category also includes institutions which have been given university status since 1992.</p> <p>These universities typically concentrate on teaching and knowledge transfer, with less emphasis on research. They tend to secure the lowest amount of research grant funding. They are positioned lower on average within the RAE and other performance league tables, which include a variety of performance indicators (Drennan and Beck, 2001).</p>
1994 Group	<p>Formerly comprised of 15 (Grove, 2012b) “smaller research-intensive universities”, but now reduced to 12, the 1994 Group was established to defend its interests in response to the Russell Group being created (Molesworth <i>et al.</i>, 2011). The 1994 Group institutions have typically been research intensive as well as concentrating on teaching standards, scoring consistently high within the national student survey (Great Britain. Parliament. House of Commons and Skills, 2007, p.268).</p>
Russell Group	<p>The Russell Group is made up of 20 institutions, comprised from the more traditional Universities (Oxford, Cambridge, Glasgow and Edinburgh) and Pre-1945 Universities (Established in the early nineteenth century).</p> <p>The Russell group of universities offers” teaching and learning which are undertaken within a culture of excellence” (Van Vught, 2009, p.33). It is consistently the most research intensive of the three groups, securing up to two thirds of all research grants and funding. Recent funding cuts to research have hit Russell Group universities disproportionately (Great Britain. Parliament. House of Commons <i>et al.</i>, 2010, p.34).</p>

Table 5 Descriptions of the three main categories of university groupings

Research by Drennan and Beck (2001) has analysed the three groups in terms of average TQA scores, RAE scores, student entry standards and student/staff ratios. The Russell Group emerged with the highest score on all but student to staff ratio, with the 1994 group coming second on all, and the post 1992 group being lowest on all but student to staff ratio.

The structure of universities can be seen to have both similarities and differences in relation to private sector companies. The Vice Chancellor is broadly equivalent to the chief executive of a company, providing management and leadership from the top of a hierarchical structure. However, those performing managerial roles within universities often resist being called managers. The Vice Chancellor of University of Glamorgan has stated that he “stumbled unintentionally into senior management” as opposed to being born, nurtured or trained in the role (Allen and Layer, 1995, p.20). The chancellor is a non-executive head of the organisation, whose role can vary from a figurehead to contributing to macro policy, whilst the university council and its board are responsible for policy, management and development.

In summary there are a total of 165 HEI's in the UK, all of which carry out teaching and some research. The research output of the UK contributes 9% of total worldwide output, with older institutions being more active in research and newer institutions being more focused on teaching. Overall, performance varies, but can be broadly assessed as being better in all dimensions within the Russell Group. The 1994 group is generally viewed as trailing behind the Russell Group but is, in turn, superior to the post-1992 group when judged by most performance indicators.

3.1.2. Internationalisation

This section identifies the context in which internationalisation of HE has occurred. It has been politically backed by UK ministers, and has provided significant financial income both from fees and non-tuition fee expenses. It can be seen as both encouraging neoliberalism and having encouraged it, with education being regarded as one of the UK's most successful exports.

Multiple definitions of internationalisation are provided in the literature, with a typical offering being “the functioning of universities within the contemporary global context” (Bolsmann and Miller, 2008, p.77) . However, some scholars argue this is an oversimplification. It is submitted that there in fact two rationales which can be adopted: “political and economic responses” along with “educational and cultural” (Knight and De Wit, 1995). In the early 1990s, an emphasis was placed upon offering courses in other countries, in an attempt to

export education as a tradable commodity. This was intended to provide additional income to UK institutions (Elliott, 1997). Today whilst each higher education institution has its own internal policies, internationalisation is considered a national policy (Bowl, 2011; Elliott, 1997; BritishCouncil, 2006), backed by ministerial speeches (Howie, 2005), and placing the UK higher education sector centrally within a globalised economy (BBC, 2000). This has created an increased emphasis upon education as an export, and has generated debate around the conversion of education from “process” to “product”.

Whether the objectives of internationalisation and globalisation have been achieved continues to be debated, with some observers suggesting that a simple influx of international students via “student mobility” is not proof of globalisation (Gibbons, 1998), and that neoliberalism (free trade and open markets) is potentially a greater outcome of the shift (Slaughter and Rhoades, 2009). Studies estimating the value of international higher education students to the UK economy have calculated that in 2007/08 and in 2008/09 tuition fee income was £134,900,000 and £138,600,000, whilst non-tuition fee expenditure such as living expenses and leisure were £838,100,000 and £867,600,000 respectively (Conlon *et al.*, 2011). Today, the export of UK education within the international context is deemed more important than ever (John, 2011), with its total value estimated at £3.6 billion (Walker *et al.*, 2010).

In summary, the HE sector is of crucial importance politically, economically, educationally and culturally. Due to this, measurement mechanisms have been instigated to maintain control over the quality and standards of HE in the UK, as well as to increase competition between HEIs. These measurements tools have increasingly converged, and now take the form of controversial league tables.

3.1.3. UK University League Tables

This section firstly identifies the context in which performance measures became prominent, and then focuses on those public league tables which are used by stakeholders to differentiate institutions. The league tables are then analysed, in order to examine the individual elements which affect league table rankings, and the most prominent of these are identified.

League tables are defined as performance indicators which are comprised of multiple weighted areas of performance in relation to other similarly measured entities (Morrison *et al.*, 1995) and within the HE sector many such league tables have been devised. In the early 1990s, UK education courses were offered in other countries, which led to the Higher Education Quality

Council becoming concerned that the UK higher education brand was being damaged by negative publicity overseas. Low quality franchisee courses were affecting unofficial league tables, and overseas stakeholders were taking notice (Elliott, 1997). This led to stricter regulation of the quality of courses within the international context, highlighting the influence that league tables have upon student choice.

The huge growth in courses for overseas students has led to concerns over management, financing and overall quality within the HE sector, which have been raised publicly and politically (Tight, 2000). Due to increasing competition between academic institutions, countries and governments have adopted strategies of information collation which have converged into an efficient method of summarising performance data for students, universities and policymakers (Dill and Soo, 2005). These can be used to draw comparisons between different institutions, and to assess “value for money”.

Within the higher education context, league tables often meet with contempt, and some critics of university league tables argue that the inputs and outputs of differing universities are treated as the same, with no consideration being given to how an institution is run. This can lead to inappropriate comparisons between widely differing organisations (Turner, 2005). This inevitably leads to universities moderating their behaviour in order to achieve higher league table rankings, which is not always beneficial to all stakeholders (Levitt and Dubner, 2006). Many university league tables exist, and they have taken their current form for around 20 years (Jobbins *et al.*, 2008), providing overall performance information to a variety of stakeholders. Such stakeholders include potential, current and past students, their parents, and staff, and are usually composed from a variety of sources. See Table 6 below for a breakdown of University league tables within the UK.

Title	Overview	Sources
The Guardian	<p>The Guardian's university league table provides a spread of data for academic institutions in England, Scotland, Wales and Northern Ireland. Several indicators of performance are incorporated into the methodology including (Guardian, 2009): teaching performance (NSS), assessment and feedback (NSS), value-added scores (the level at which low entry academic individuals are converted into high level degrees), student-staff ratios, expenditure per student, entry scores (UCAS) and career prospects (HESA).</p>	HESA, NSS, UCAS
The Sunday Times	<p>The Sunday Times' league table is considered to be a more comprehensive ranking, utilising a large number of sources and weightings for each. These include Student satisfaction (NSS), Teaching excellence (QAA, SHEFC, HEFCW, HESA), Heads'/peer assessments (The Sunday Times heads' survey and peer assessment), Research quality (RAE, HEFCE), A-level/Higher (HESA, UCAS), Unemployment (HESA), Firsts/2:1s (HESA), Student/staff ratio (HESA) and the dropout rate (HEFCE).</p>	NSS, QAA, RAE, HESA, SHEFC, HEFCW, HEFCE, UCAS
The Independent	<p>The Independent's league table is compiled from 9 individual scores. Research (RAE) and Student Satisfaction (NSS) are weighted at 1.5x, Student Quality (UCAS), Student to Staff Ratio (HESA), Expenditure on Academic Services, Facilities Expenditure, Percentage of First Degrees and Upper Second Class, Graduate Employment and Completion Rate are weighted normally (Independent, 2008).</p>	HESA, UCAS, NSS, RAE
The Times	<p>The Times' league table considers eight criteria (Times, 2006). Again, the Student Satisfaction (NSS) and Research (RAE) are weighted at 1.5x, whilst Degree Completion, Student Quality (HESA), Spend on Facilities, Percentage of First Degrees and Upper Second Class, Graduate Prospects (HESA), Expenditure on Academic Services, Student to Staff Ratio are weighted normally (HESA).</p>	NSS, RAE, UCAS, HESA

Table 6 Showing UK University overall performance league tables, descriptions, sources and conclusions in relation to the overall research aims.

All publicised league tables use a mixture of sources to provide their final ranking result, with some adding more emphasis to certain areas. Areas of particular focus include graduate employment rates, the academic quality of the university's intake, student experience, teaching quality, overall research quality and in some cases even the dropout rates of students.

Whilst the league tables in Table 6 provide an overall snapshot of performance, there is in some cases a strong discrepancy between the positions attributed to some institutions in differing league tables. The Guardian, Sunday Times and Independent were compared across rankings with little difference resulting at the 'top end' (Oxford, Cambridge etc.), and not much difference at the 'bottom end' (Bedfordshire etc.). There were, however, noticeable discrepancies within the middle of the tables. For a concise overview, please see Table 7 and for a full overview, please see appendix 3.

University Ranks (2011)	Guardian	Sunday Times	Independent	Times
University of Oxford	1	1	2	1
University of Cambridge	2	2	1	2
Swansea University	93	52	<u>60</u>	<u>49</u>
University of Chichester	42	<u>83</u>	<u>53</u>	<u>53</u>
University of Hertfordshire	60	71	<u>41</u>	<u>74</u>
University of Portsmouth	85	<u>60</u>	<u>89</u>	74
University of Wales Trinity Saint David	79	<u>76</u>	<u>105</u>	90
University of Bedfordshire	103	102	101	101

Table 7 The rankings of universities with the lowest and highest cross ranking discrepancies.

Sources: The Guardian, the Sunday Times, the Independent and the Times. *Please note.* The Guardian's league table has been included although it is not directly comparable, as it does not

include research output within its methodology. The majority of league tables which measure UK university performance use a combination of measures. These include research quality, teaching quality and quality of students.

These formative measures are drawn from a variety of sources, which include the ARWU (Annual Ranking of World Universities) and the RAE (Research Assessment Exercise) as a measure of research quality, as shown in Table 8.

Title	Description	Advantages	Disadvantages
ARWU 2011 (Annual Ranking of World Universities)	ARWU 2011 provides a comparative performance measure, which ranks universities by their academic and research performance against other international universities from both employee and customer sources. Performance data is taken from four areas. These are the quality of schooling (number of alumni awarded Nobel prizes and research awards), quality of staff (staff awarded Nobel prizes and research awards along with the number of highly cited researchers in 21 subject classifications), scientific productivity (papers printed in nature and science) and the size of organisation (academic performance in terms of size).	The ARWU is the most widely used (Economist, 2005) and influential (Marginson, 2007) international university ranking system .	Its global nature leads to a relatively small sample size for a UK-focused study (top 38 institutions). Methodological issues and multiples of bias are a concern (Ioannidis <i>et al.</i> , 2007).
RAE 2008	The RAE 2008 league table is	UK based study	The current league table

(Research Assessment Exercise)	<p>comprised of the leading research universities within the UK, and ranks each one according to their research output and performance. The league table is compiled jointly between HEFCE, SFC, HEFCW and DEL.</p> <p>Performance is measured in terms of the quality of publications in academic journals and conference proceedings, as well as the overall research environment and indicators of esteem received. These can be awards, fellowships, prizes, or honours which demonstrate respect from the research community.</p> <p>Each institution submits four research outputs for each selected member of full time staff. Some part time and lower level staff are also included, at the discretion of the University and provided that they have been part of the university payroll from the beginning of January 2001.</p>	<p>supported by the UK government.</p> <p>A relatively large sample size which consists of a good spread of performance.</p> <p>Although there is no institution that has come top on every measure, an overall performance indicator provides a clear ranked order.</p>	<p>was compiled in 2008.</p> <p>Critics argue that it ignores the publications of full-time researchers: “Research assistants are not eligible to be listed as research active staff”. However, for this study, institutional comparison is the main concern (RAE, 2005, p.24).</p> <p>The strong emphasis on peer reviewed work produces results of varying reliability (Langfeldt, 2001; Langfeldt, 2006; Langfeldt <i>et al.</i>, 2010).</p> <p>The quantitative output (a single number per subject) is questionable, although the study itself is based upon a largely qualitative and possibly subjective measurement (Tight, 2000, p.24).</p>
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Table 8 Table showing the university research ranking league tables, descriptions, advantages and disadvantages related to the research aims.

The RAE study provides a comprehensive measure of research performance. The main disadvantage with the data set is that it was last compiled in 2008. However, reports suggest that there has been no substantial change to the overall research landscape in previous years (Times, 2008), with the largest research-intensive universities still being clustered at the top of the table.

Teaching quality and assessment of the quality of the student body are generally measured through the NSS (National Student Survey), UCAS (Universities & Colleges Admissions Service), HESA (Higher Education Statistics Agency) and the QAA (Quality Assurance Agency), as discussed in Table 9.

Title	Description
(NSS) National Student Survey	<p>The NSS provides comparable student feedback data within multiple dimensions of overall experience, collected from students who have completed their undergraduate programmes within the UK (Richardson <i>et al.</i>, 2007). The data collected specifically relates to the teaching quality of the course, an overall assessment of the course, knowledge and skills learnt, the organisation and management of the course, overall support and advice, available learning resources, and the overall quality of the experience. The performance data presented within the NSS provides a rich level of detail, which can be used as a resource for research into the overall student experience (Surridge, 2009, p.8).</p> <p>The National Union of Students (NUS) argue that due to implementation of the NSS, HEIs are directing resources in order to improve the weighted areas of the survey. This is only supported by the NUS if it leads to improvement in student experience (NUS, 2010). Some academics within institutions have reportedly advised students to inflate their assessment of their courses, as lower scores will result in lower league table positions, and hence worse job prospects (Coughlan, 2008).</p>
UCAS (Universities & Colleges Admissions	UCAS is the central processing organisation for applications to a significant majority of full-time undergraduate degree programmes within the UK. The sophisticated handling process developed by UCAS and its analysis once processed is made publicly available, and provides a wide-ranging data set. It

Service)	also contains information on key variables (such as social class, age, and gender), and also allows institutional characteristics to be linked to applications and acceptances (Osborne, 1999).
HESA (Higher Education Statistics Agency)	<p>HESA is the official centralised provider of publicly available analysis and statistics regarding HEIs within the UK. The agency was founded by multiple government departments, councils and universities in 1993, in response to calls for more detailed HE statistics and the provisions of the 1992 Higher and Further Education Acts (HESA, 2010).</p> <p>Whilst this source is UK based and supported by the government, research shows that the methods of analysis used and the performance indicators examined can create significant differences when compared to an examination of the institutions in isolation (Johnes and Taylor, 1990).</p>
QAA (Quality Assurance Agency)	<p>The QAA for Higher Education states that its aim is to “safeguard standards and improve the quality of UK higher education” (QAA, 2011). Essentially, its role is to ensure that degrees awarded within the UK are of a good standard. Originally set up through the transfer of degree quality departments from HEFCE (Higher Education Funding Council for England) and HEFCW (Higher Education Funding Council for Wales), it is now an independent charity funded through university subscriptions and government grant.</p> <p>In essence, the QAA reports on HEI systems and resources. It also analyses the information provided by institutions as to how standards and quality are to be maintained and improved. This includes elements of teaching, student learning, scholarships and research. However, it is important to distinguish between universities measuring themselves internally, and the external measures which the QAA imposes to test the reliability of such internal processes (QAA, 2012).</p>

Table 9 Table showing the main sources used in university research ranking league tables.

Each source represents an organisation's attempt to measure quality standards. Whilst Table 9 covers all of the main sources within UK league tables, within HEI literature and research itself the NSS (Locke, 2011) and UCAS (Harrison, 2011; Palfreyman, 2011; Sue, 2010; Huisman, 2010, p.209) measures have been adopted most prominently.

The NSS ratings have gained the reputation of being highly reliable, whilst also remaining stable over time. This is due to the large number of student participants each year (Cheng and Marsh, 2010). Asthana (2007) argues that the NSS is especially important in terms of students selecting their HEI, whilst Douglas (2008) argues that league table positions impact strongly upon a HEI's brand image, which is used by students within their decision making process (James *et al.*, 1999; Palacio *et al.*, 2002). Research also suggests that student word of mouth can be a significant factor within student recruitment (Petruzzellis and Romanazzi, 2010; Douglas *et al.*, 2006). As a result, HEIs place additional emphasis on ensuring that students are satisfied with their experience (Douglas *et al.*, 2008; Hemsley-Brown and Oplatka, 2010).

UCAS has also been noted as a particularly rich data set, as it includes information on applicants, applications and entrants to undergraduate degree programmes. It has been described as representing a “remarkably” complete set of data (Holmström, 2011). Research can further utilise these multiple performance measures, by examining how an institution’s reputation is based upon how selective it can be in terms of student recruitment. This can be reflected by UCAS values such as amount of applications per place available (Locke, 2011), or in the average amount of UCAS Points attained by each student.

The utilisation of NSS and UCAS within the existing literature contrasts starkly to the limited use of HESA and QAA measures. This can predominantly be attributed to the variety of accusations levelled against these organisations. For example, in 2008 it was alleged that they were responsible for the decline of standards in the UK higher education system (Alderman, 2008). Ironically, this is exactly the opposite result to that intended by the founders of both organisations.

In summary, there are multiple university league tables which have been constructed from a variety of public, private and proprietary sources. Within these league tables there seem to be little discrepancies between institutions at the top and the bottom, but those ‘middling’ institutions vary more widely between different ranking methodologies.

The RAE is identified as the most robust measure of research performance despite being solely a UK based measure. The NSS and UCAS data and tables are recognised as being useful sources, due to the importance of the student experience and the brand image associated with this.

3.1.4. Higher Education Shake-Up

The HE sector within the UK has enjoyed a decade of sustained investment and increased funding (Piatt, 2010). However, this research has been set within the midst of a shake-up to the Higher Education sector.

In 2007, the financial crisis began in the United States with subprime mortgage lender bankruptcies. As a result, global financial systems suddenly began to collapse in value in 2008. The knock on effect of huge bailouts and economic slowdown caused a recession in non-financial sectors of the global economy (Kotz, 2009), including within the United Kingdom. Consequently limits on national debt, set under the European Union to be no more than 3% of GDP, were greatly exceeded (Douglass, 2010). The economic crisis subsequently sparked large scale spending cuts, which are aimed at halving national debt by 2015.

Some political organisations consider HE and its overall contribution to society to be an important part of encouraging a recovery from recession. Other commentators argue that its narrow scope, which can be critiqued as pigeon-holing individuals into a one dimensional set path, is not best in the long run. Advanced scientific and technical skills are not enough in themselves, it is argued, to build sustainable prosperity (French, 2010).

George Osborne originally praised Higher Education Institutions within the UK as "jewels in our economic crown" (Osborne, 2010). However, he subsequently went on to outline spending cuts of 40% to higher education teaching budgets (Vasagar, 2010). Subsequently, teaching intensive institutions have been hardest hit, and cuts within the sector have been disproportionate. Certain areas were ring fenced, such as the total budget for Science, Technology, Engineering and Mathematics (STEM) research. Despite this, even STEM funding would be frozen in cash terms at £4.6 billion a year until 2015 (Evans, 2010a).

Lack of funding has caused certain institutional departments to be more likely to close than others, with humanities subjects such as music (BBC, 2011) and philosophy (Wolff, 2010) being most vulnerable. Some commentators argue this is disproportionate, and that newer universities are more likely to cut humanities subjects, creating a further divide between post 1992 institutions and others. For example, the University of Oxford are highly unlikely to abandon philosophy (Evans, 2010b) as a subject. If this process continues, it seems certain that the trend of the last decade, which has been to erode specialisation between institutions, will be reversed. This will encourage the use of branding to differentiate different HEIs.

In 2010, a report published by HEFC (2010, p.5) acknowledged that “Universities in the UK are already being seriously affected by the short-term impact of both economic recession and the crisis in public finances. Hit early and hard by cuts, more so than many other major recipients of public funding. The more substantial reductions in expenditure now awaited are likely to increase those existing planned cuts to create major challenges to which the sector must respond”. A subsequent publication by the Higher Education Funding Council suggested that institutions needed to respond to the financial changes by taking action, rather than being overwhelmed by them. Consequently, HEIs have been adopting managerialist principles (Trowler, 2010), in order to attract larger research grants and better quality student intakes. As the sector is further squeezed in terms of resources, funding and support, institutions will be increasingly reliant upon student recruitment and tuition fees (Wood, 2009).

As a result of the Brown (2010) review and the acquiescence of Parliament, the fees cap has been increased from £3,290 to £9,000 per year. This is part of an attempt to compensate for funding cuts, and in 2011 a White Paper outlined the shift of government funding away from teaching. This would now be routed through the student loan system, rather than through HEFCE (BIS, 2011). This affects HE recruitment in two ways. Firstly, marketing budgets will undoubtedly decrease, and secondly students will be more selective in their choice of HEI. The current economic climate could make students more likely to attend university (with less jobs, education can seem like a good idea) or less likely (the cost of going will not pay for itself).

Typically, recessions affect marketing budgets as organisations seek to reduce costs and conserve capital (Kotler and Caslione, 2009). If there are deemed to be excess resources in areas such as marketing, funds will be transferred to core budgets. However, enrolments to HEIs tend to surge during recessions (Wetstein *et al.*, 2011), as there are less jobs available and higher competition for each available vacancy. The proposed increase in fees created a further surge in demand for HE places during 2011 (the last year of qualification for the lower rate of fees). Students decided to go straight to university after school, rather than taking a gap year, and this meant that many more students started in 2011 (Clark, 2010), with as much as a 10% increase in attendance. The precise increase in numbers varied from institution to institution, however, as universities set individual rules to discourage gap years (Paton, 2010).

During recession, consumers are increasingly cautious in their purchasing decisions (Quelch and Jocz, 2009), often changing their behaviour and what they deem to be valuable (Kotler and Caslione, 2009). Higher education degrees represent substantial investment, from which a ROI

is expected (Knapp and Siegel, 2009, p.112). The cost is often viewed as something which will be returned in the long-term, a phenomenon which is often referred to as the “graduate premium” (Evans, 2010b, p.618).

In order to prevent over-recruitment and protect standards, government policies have been set in order to ensure quality. Institutions breaking these rules by over recruiting low calibre students will face heavy fines. Over recruitment was assessed at 5,750 places in 2001, resulting in a £21 million fine being issued (Morgan, 2012). This has resulted in organisations walking a tightrope between high quality and over recruitment. Dr Piatt, Director General of The Russell Group UK commented that “if universities couldn't recruit enough high-calibre students, they risked losing funding, recruit too many students (with grades ABB or below), they risk substantial fines.” (BBC, 2012b). Student quality has always been a significant priority for HEIs due to the importance of ensuring academic excellence, and has often resulted in institutional infighting over the highest quality students. Securing the best applicants is vital, in order to maintain high levels of income and prevent fines, both to ultimately protect profitability and viability.

More recently, stringent controls over international (specifically non-European) students and the loss of institutional licenses for over recruitment of unsuitably qualified students (Grove, 2012a), has sent a wave of fear through other universities. Incidents such as the recent revocation of immigration permissions at London Metropolitan University can potentially damage the UK higher education "brand" abroad (Meikle, 2012), and as a result, the future of the UK higher education seems increasingly turbulent.

A shortfall of students has been experienced by many HEIs in 2012, resulting from the shakeup in higher education, increased advocacy of new public management and managerialism by government and policy makers, increased tuition fee costs, increased competition from both national and international students, and the global recession. The environment in which this research was conducted increases the value of its findings, both by adding to the existing literature and also by providing practical guidance for both policy makers and HEI “managers” and administrators. This research provides a particularly interesting insight into whether ideas outlined within the current literature apply within an environment of large scale change such as that experienced by the HE sector currently.

3.1.5. UK Higher Education Sector Summary

While universities were historically reserved for the social elite, today the role of higher education has been changed. Universities are now intended to be open to the many, rather than the few. This has led to universities being given more roles within society, often with fewer resources and more stringent targets.

Within the UK's Higher Education Sector, there are a total of 115 universities which have been broken up into post 1992, 1994 and the Russell Group. Typically, older universities tend to be more research intensive. The Russell Group consists of the elite universities, which are typically involved in more research and secure one third of all research grants. Today, the structure of UK universities is similar in many ways to that of private sector companies, with institutions being encouraged to adopt new public management and managerialism approaches, in order to compete in the light of recent government funding cuts.

In the context of UK Higher Education, internationalisation has been embraced for political, economic, educational and cultural reasons. It has been backed by the UK government, and provides a significant financial income to universities and the economy. Increasingly sophisticated measurement methodologies have been implemented in order to oversee standards and quality.

Measurement mechanisms have taken the form of league tables, which provide performance indicators for multiple weighted areas. Whilst these league tables are often met both with contempt and moderation of behaviour specifically to improve rankings, they have been widely adopted, and multiple league tables exist today. The majority of public league tables are constructed by UK newspapers, but the primary sources used mainly originate from government backed sources. These include multiple weighted areas such as research quality, teaching quality, student quality and demand. This data is provided by a multitude of organisations, with the most prominent and utilised within current literature being RAE, NSS and UCAS.

Due to the on-going economic crisis, this research is set within the context of a higher education shakeup. Originally, government noted the importance of the higher education sector, but this was followed by spending cuts of 40%, along with increased student tuition fees. This has increased institutional competition for both funding and students. Subsequently,

HEIs have placed an increased emphasis upon marketing and brand management, in order to ensure that they attract adequate funding and best quality students.

3.2. Brands in Higher Education

This section firstly examines what a Higher Education (HE) brand is, whether Higher Education Institutions (HEIs) should be branding themselves, and why they choose to do so. Secondly, the nature of the relationship between HEI brands and performance is discussed, along with the existing research surrounding effective branding by HEIs.

This section is broken into subsections on HE Brands, HEI Brand Communication and HEI Brand Performance. These can be briefly summarised as:

- **HE Brands** are defined at their simplest as the “commodification” of HEI qualities, particularly through differentiation as unique selling points (Molesworth *et al.*, 2011, p.80). There is debate as to whether HEIs should brand themselves. However, in practice HEIs are branding themselves because traditional academic freedom is inextricably linked to success within the market. HEIs within the UK are seen as no different from their internationally branded rivals, with some evidence suggesting that the concept of a “British Education” compounds the importance of brands both in terms of the UK HE sector and UK HEIs.
- **HEI Brand Communication** represents a multifaceted process, involving a multitude of communication channels. HEI communication follows a similar path to that described in the brand communication literature, moving from traditional media such as the prospectus to new marketing communication channels including the website, as well as even newer technologies such as social media platforms.
- **HEI Brands and Performance.** Discussion of this topic within the literature is somewhat underdeveloped, and whilst HEI branding has been recognised as highly differential, evidence suggests that university brands in particular are not managed efficiently. Anecdotally, strong and consistent HE brands result in better performance. There is, however, a lack of evidence for this assertion.

This section begins by broadly examining the literature surrounding brands, placing it within an historical and ethical context to ascertain which HEIs can and should embrace branding methods. Subsequently, HEI brand communications are narrowed down to three key marketing

channels, in order to ascertain how HEIs utilise these communication media. Finally, the relationship between HEI brands and performance is examined.

3.2.1. HEI Brands

This section examines the discussions surrounding whether or not HE “should” be branded, a topic on which both academic and practical opinion is divided (Naude and Ivy, 1999).

The proposition that HEIs must market themselves in order to survive has been accepted by management and administration alike (Cook and Zallocco, 1983). The UK government launched a global branding campaign in 2000, aimed to reinforce the concept of a “British Education”. Higher education branding and marketing are considered one of the most important factors of success (Almadhoun *et al.*, 2011). The distinction between marketing and branding is often conflated due to strategic integration, however, simply put, marketing is what an organisation does, and branding is what it is. This distinction has been adopted by HEI branding literature (Jantsch and Michael Gerber, 2011). HEI brands at their simplest are the “commodification” of qualities as differentiators, known as a unique selling point (Molesworth *et al.*, 2011, p.80; Iqbal *et al.*, 2012).

In 2004, HE marketing was recognised as underdeveloped (Hankinson, 2004). Today, however, more advanced branding concepts are being explored (Ali-Choudhury *et al.*, 2009), such as brand as a logo (Alessandri *et al.*, 2006), an image (Chapleo, 2007), brand awareness, brand identity (Lynch, 2006), brand meaning (Teh and Salleh, 2011), brand associations, brand personality (Opoku, 2005) and brand consistency (Alessandri *et al.*, 2006). This indicates that HE brands are being researched in a similar manner to their private sector counterparts. HEIs receive a large amount of proposals from branding consultants (Frank, 2000), and are committing substantial financial resources to branding activities (Chapleo, 2010). For example, in the USA universities are advertising during peak/prime time American football games (Tobolowsky and Lowery, 2006). In general, practitioners advocate brand management to effectively manage stakeholder perspectives, whilst academics stick more rigidly to the traditional values of universities.

Previous studies suggest that stakeholders who experience one or more brand message (Lynch, 2006) form images of that HEI, regardless of whether this process is managed. Twitchell (2004) argues that universities should be managing these brands, and that HEIs have multiple groups of customers. The brand plays a vital role in influencing thoughts, words and actions,

including those of prospective and current students who will be paying for education. Increasingly, this is viewed as a commercial transaction with a financial return expected in the future (Palfreyman, 2012). Stakeholders also include employed staff who provide an academic service in terms of teaching, research and publishing, alumni who may donate money in the future based on their affiliations with the HEI and the general public.

Research suggests that the branding of HEIs can promote brand identity in terms of brand awareness (Toma and Cross, 1998), brand quality (Brewer and Susan, 2002) and creating brand differentials (Toma, 2003) between HEIs which may otherwise be indistinguishable to the public (Harris, 2009). Some academics forcefully oppose the perspective of ‘student as a customer’, arguing that universities are institutions of education, in which communities of scholars are devoted to the attainment of knowledge for knowledge’s sake (Newman, 1999). This view defines the HE sector as neither capitalist nor consumerist, and critiques HE branding as consisting of “smoke and mirrors”. It views branding as unsuitable in the context of a true quest for knowledge, arguing that capitalist (profit-seeking) behaviours within HE reduce the quality of education and research (Lieven and Martin, 2006; Schapper and Mayson, 2004). Research also suggests that branding in the context of “not for profit” organisations can create a spirit of harmful rivalry, provoking other institutions to increase marketing spending in response, yielding only questionable benefits (Sargeant, 2009).

The push towards branded HE has been likened to private sector branded products (Hayes and Wynyard, 2006), with comparisons having been drawn between higher education and McDonalds, in which education has become like fast food. In other words, its quality is reduced in the quest for it to be consumed quickly. The “opposition to branding” position is further reinforced by the fact that research also suggests that the rankings of top universities do not change significantly (Bunzel, 2007) from year to year. This differs from the position in a capitalist marketplace, and may suggest that traditional brand management methods are not suitable to be used within the HE context (Jevons, 2006; Ramachandran, 2010).

Other commentators, such as Palfreyman (2012), suggest that in fact universities should be regarded as new kinds of brands. The success of university brands are in fact dictated by their position in research publication league tables. Other, more important undergraduate factors, such as smaller classes, more faculty and more face to face time with academics are increasingly overlooked, despite providing the true “value” for money to stakeholders. This makes it extremely difficult for high quality and inexpensive teaching-only universities to

increase their brand equity, with little incentive for top brands to provide competitive undergraduate education.

Ultimately, however, the debate over whether HE should be branded has become somewhat irrelevant. The literature shows that HE is being branded, whether rightly or wrongly, through the use of traditional practitioner methods (Chapleo, 2007). The literature notes that whilst the UK HE sector has benefited from a doubling of funding since 1997 (Ambitions, 2009, p.56), current austerity measures will make the UK one of the most expensive education systems in the world (Heinze and Fletcher, 2011, p.4). This will compound the likelihood that future students will weigh up the benefits of institutions in terms of brand and future job prospects.

Research has shown that this increased pressure on Higher Education Institutions (HEIs) is causing increased national and international competition (Veloutsou *et al.*, 2004; Mourad, 2010), both for students (Binsardi and Ekwulugo, 2003) and research funding (Hemsley-Brown and Goonawardana, 2007; Harris, 2009). This has been caused by an increase in tuition fees, emphasis on competitive differentiation, and the increased usage of league tables (Chapleo, 2007). In turn, this is leading to an increase in managerialism and new public management within the sector (Brown, 2011). As a result, tools and practices traditionally used within the corporate sector are being increasingly employed (Saliterer and Rondo-Brovetto, 2011) as a method to more aggressively retain market share and quality of student intake (Melewar and Akel, 2005). Indeed, institutions are often copying each other's strategies (Brandt *et al.*, 2009). An area specifically being focused on is marketing and brand management (Chapleo *et al.*, 2011b). The Guardian newspaper (Neumark, 2012) summarised the current state of affairs as revealing that "*Universities need to market themselves as never before. As fees rise sharply and business-friendly courses boom, students and their families are researching [perceived] value for money. And with more than 300 UK institutions competing for half a million students, the stakes are high. Academics don't like to think of students as customers. Academic freedom, however, often relates to success in the marketplace*"

In summary, whilst practitioners and policy makers advocate HE branding activities and academics advocate traditional educational concepts, it seems that both are inextricably linked. Both play a vital role in the success of HEIs. Branding activities can fuel general consensus, research grants and an increase in student quality to name but a few, with traditional academic freedom dependent upon success within the marketplace.

3.2.2. HE Brand Communication

This section defines what HEI brand communication is, and explores how HEIs communicate through marketing media. The section then examines brand communication consistency within the HE context, analyses previous research which has attempted to measure communication, and examines the most prominent HE marketing channels.

HEI brand communication literature centres on how the brand markets itself through communications both internally and externally (Chapleo, 2008). Some research suggests that HEI brand communications take the form of “relationship marketing”, and that institutions are not marketing their products, but rather the brand associations that will be made (Shaw *et al.*, 2007). The brand promise, as communicated through its marketing media, must be delivered to stakeholders in terms of values which they recognise in order for the brand to be successful. Historically, HEIs have communicated their brand through a multitude of marketing channels such as open days, face to face communication (Ivy, 2008), the perception of their league table positions (Hazelkorn, 2008) and their prospectus. Today, HEIs are able to utilise more channels than ever before, which can take the form of both old and new media (Zailskaitė-Jakste and Kuvykaite, 2012) such as the internet, their website and social media.

Pre-computer, the prospectus represented the first port of call for prospective students and stakeholders. However, as technology has developed, universities have adapted and begun to utilise new communications media. This takes the form of physical brand communications such as the prospectus, website, name signage and other associated components (Akotia, 2010).

Research has indicated that whilst prospective students can be influenced by brand communications, ultimately students can be lost if communications are disseminated in a manner which is contradictory or unreliable. Velouts *et al.* (2005) therefore advocates marketing consistency, controlled by a brand communication strategy. Research which attempts to measure consistency between communications most often examines communication via the HEI’s mission statement (Molesworth *et al.*, 2011, p.80), which is otherwise known as its slogan in traditional brand management. Molesworth (2011, p.80) summarised HE brand consistency as the effort to maintain consistency of imagery and message through the brand, in order to communicate to people what the institution stands for. It is of ever increasing importance today that HEI stakeholders do the same.

Research has examined media independently, but very little research has analysed how HEIs are communicating their brands, particularly through platforms such as social media. Higher education brands must ensure that their prospective students receive brand communications which are harmonious with the overall brand. HEIs communicate this through their prospectus (usually posted upon request), their website, which prospective students can view, and also social media. Universities can interact through the latter medium, as well as receiving social validation, through digital ‘word of mouth’.

In order to measure how HEIs are communicating themselves, brand identity measures can be used to assess positioning. It has been suggested that the single most important marketing communication channel is now the internet (High-Tech, 2002), which encompasses both the website and social media (Lynch, 2006). This viewpoint contrasts with that of Johnson (2001), who describes traditional print media in the form of the prospectus as being the most important medium of communication by HEIs. Therefore this section is broken into the following subsections, explained briefly as:

- **HEI Prospectus.** Defined by Johnson (2001) as the most influential promotion offered by the HE sector, and accepted as a function of strategic marketing. Studies measuring prospectus communications are sparse, and the research that does exist utilises very small and non generalisable samples.
- **HEI Website.** Also defined by other researchers as the most influential (High-Tech, 2002) method of brand communication used by HEIs (Lynch, 2006). Whilst HEI branding has been recognised as highly differential, evidence suggests that universities' brands in particular are not managed efficiently. Little research has examined HEI website communication specifically, particularly as it relates to the use of multiple channels.
- **HEI Social Media** represents a challenge to HEI brand communication structures, effectively forcing changes upon strategies in order effectively to engage with stakeholders. Sporadic, small sample studies have attempted to measure communication via social media within the context of HE, reflecting somewhat slow but increased uptake.

3.2.2.1. HEIs Prospectus

This section identifies what the HEI prospectus is, how HEIs are communicating their brand through the prospectus, and examines previous studies which have attempted to measure the impact of the prospectus.

The HEI prospectus has been described as the most influential promotion offered by the HE sector (Johnson, 2001), along with modern forms of communication. Research by Roberts and Higgins (1992) concluded that prospective students rated the prospectus as the single most important information source used when comparing institutions, while research into the utilisation of information sources also ranked the prospectus as the most important. However, it was noted that a mixture of sources are generally used (Veloutsou *et al.*, 2005). These findings were backed up by Reary, David and Ball (2005, p.140-143), who found that in some cases the prospectus was the only source of information used to draw comparisons, and was particularly important to European students (Atfield and Purcell, 2009). HEIs promote themselves as part of their marketing function, and this promotion takes the form of communicating the merits of its service. HEIs transmit brand content in the form of welcome text, course content, location information, requirements, facilities, social and accommodation facilities (Whitby, 1992). The prospectus represents a risk reducer, and the text and vocabulary used reinforces culture and brand meaning (Johnson, 2001).

Previous studies, such as that conducted by Read (2003), examined the sense of belonging students felt after they had read the prospectuses. This was based upon looking at imagery and textual information, with the results concluding that young middle class white males are the most represented within an institutional prospectus. International and mature students tended to feel that their needs were less provided for. Research by Graham (2012) attempted to measure disparity over time between the prospectus and website communication, concentrating on language used and tone communicated (Fairclough, 1993). It was concluded that post and pre 1992 universities communicated either a theme of “elitist and quality” or a theme of being “accessible” brands. It was further argued that a shift in emphasis took place between 2007 and 2011, with institutions shifting to an emphasis on “quality” over “accessibility”.

In summary, whilst previous research into brand communication through the prospectus is sparse, research by Graham (2012) provides a strong argument for lexical analysis in order to

measure the tone and image of brand communications. Previous research has not addressed consistency across channels, but has assessed the tone independently of each channel.

3.2.2.2. HEIs Website

This section examines HEI websites, and discusses how websites communicate HEI brands, as well as whether they are being communicated efficiently. It also briefly examines previous studies conducted within the context of higher education.

HEI websites provide an array of services to stakeholders, and are not designed purely for a single purpose as with a HEI prospectus. These services can include virtual notice boards, class-related topics, student and staff records, exam results, administrative tasks, course information, webmail, library services and general HEI information (Bernier *et al.*, 2002). HEI websites provide a particularly powerful medium, with the prospect of reaching out to many students whilst maintaining cost efficiency. This allows institutions which communicate online to compete with institutions with much larger budgets in other marketing areas (Pegoraro, 2007).

However, research suggests that many university websites may be communicating their brand poorly, particularly to potential students. Gordon (2009) attempted to measure HEI website communication based upon the four principles of dialogic communication (in other words, the theory that influence occurs at even the level of the individual words used). Utilising content analysis, the study found that HEIs scored highest on usefulness of information and ease of website navigation. However, HEI websites generally performed worse in terms of promoting interaction between students and encouraging return visits through updated content.

Research which has measured HEI websites has predominantly been focused on the design elements of websites, such as the interface and features (Callahan, 2007; Yoo *et al.*, 2004), and has involved comparisons between institutions both nationally and internationally. Opoku (2005) adopted a textual content measurement system, positioning MBA programmes in relation to each other upon Aaker's 5 dimensions of brand personality.

In summary, previous research in the area has mainly focused on the visual and navigational aspects of a website, including basic brand elements. To a lesser extent, research has also focused upon dialogic communication as a consequence of certain features of a website being present. A common theme across the research has been content analysis of the website. The importance of language has been recognised, but within HEIs websites have received limited

attention, especially within the context of multiple marketing channels and consistent communication between channels.

3.2.2.3. HEIs Social Media

This section evaluates the literature surrounding social media usage by HE brands. Firstly, it discusses what social media represents to HE brands, and then goes on to examine ways in which HEIs are using social media effectively. Finally, a brief discussion is conducted on previous research which has attempted to measure HE brands across social media.

Social media has changed the form of HEI admissions processes, as the majority of prospective undergraduates now use these technologies (Barnes and Mattson, 2009b). In particular, many students are members of Facebook, one of the largest social networking sites. Indeed, it was conceived for Harvard University, in order to replicate the social experience of being at university in digital form (Awl, 2009, p.4). Volatile market conditions have led HEIs to look for innovative methods of promotion (Zailskaitė-Jakšte and Kuvykaite, 2012), and with research showing that 80% of the undergraduate demographic browse the internet looking for potential courses, social media provides a fast way of exponentially spreading course information. It also provides a valuable opportunity for direct communication. Universities are beginning to embrace the power of social media and the implications of it as part of their marketing mix strategy (Reuben, 2008). Social media is of particular interest to HEIs in terms of exploring new learning techniques which will better engage students (Heinze, 2011), with Twitter being of particular interest to many HEIs (Linville *et al.*, 2012).

Initially, the use of social media within HEIs was met with a degree of scepticism. However, in a recent study by Barnes (2011), 100% of the chosen sample used social media of some form in their communication strategy. These forms included teaching and learning, internal and marketing communications:

- **Teaching and Learning Communication** has been enhanced for some academics through the use of new technologies (Nachmias, 2002) such as social media within the classroom (Fuller, 2011; Hemmi *et al.*, 2009). Others use multiple platforms by linking them together to create a personal academic brand (Gruzd, 2011). Research by Minocha (2009) suggests that struggling students can be identified through the use of social media, who can therefore be offered a support mechanism at an early stage. This leads to increased student performance and retention rates. However, Gruzd (2011)

argues that concerns still exist around the use of social media, including issues such as staff and student privacy (Read and Young, 2006), preservation of student content, and modification of content by users other than students.

- **Staff and Student Communication** is defined by Lavrusik (2009) as the gathering and sharing of information, showcasing student and faculty work, broadcasting events, emergency notifications (health alerts etc.), connecting students and faculty to one another (Minocha, 2009), supplementing press releases, creating dialogue, and communication of office hours. He also highlights the use of wireless communication through the use of social ‘apps’ to connect students via their wireless devices. This can be useful in a range of situations, including uses such as instantly showing new students where they are on campus, and how to get to their next class.
- **Marketing Communication** has increased significantly on the part of HEIs. Research suggests that 17% of HEIs are using social media to recruit students within the US, and while this number remained the same in 2007-08, search engine usage dropped from 23% in 2008 to 16% in 2009 (Barnes and Mattson, 2009a). Kazeroony (2013) suggests that social interactions between current and prospective students is the most effective method of capturing interest, and that social media can be a key medium in these communications. Kazeroony also advises that if HEIs are not prepared to engage in conversations they should stay away all together. Minocha (2009) even suggests that adopting social media usage within course content builds the brand image of the course as being ‘forward thinking’. This can attract both students and funding from external bodies.

Research by Linvill (2012) attempted to content analyse the tweets of 60 HEIs using dialogic public relations theory. The study was concerned with the relational aspect that dialogue attempted to create, for instance in the classification of useful information, along with the generation and conservation of visitors. It also attempted to classify the target audience of each tweet into categories such as general, prospective students, students and faculty, alumni and parents. The research showed two main categories of tweets; useful information (83.5%) and generation of visitors (55.7%). It also showed that tweets targeted mainly general (90%) and prospective students (5%).

Research suggests that while the adoption of social media within HEIs was originally a “typical” case study of slow, new technology adoption (Barnes and Mattson, 2009b), significant improvements have been made in terms of effectiveness, succinctness and long term planning.

In summary, social media has been heavily adopted within HE. Whilst initially slow uptake was noted, improved usage seems to be a theme within the literature, especially within the context of funding cuts and the incorporation of social media into marketing mix and communication strategies. This includes the use of social media within teaching and learning, staff and student, and marketing communication. Indeed, some observers suggest that simply adopting any form of social media can build brand image. Whilst a theme of content analysis of social media platforms has emerged within the literature, brand communication consistency is lacking, especially between multiple marketing channels.

3.2.3. HEI Brands and Performance

This section discusses the literature surrounding HEI brands and performance. Initially it examines how well HEIs are branding themselves, and then draws links between HEI brands and increased performance.

HEI brands have been recognised as being highly differentiating factors (Qian, 2009) in terms of recruitment and retention of the best staff members and students (Florea, 2011). Success in this area can lead to increased research, teaching quality and recruitment performance.

However, the majority of universities, while spending a large amount on branding, do not correctly implement the principles of brand management. Expenditure is often managed inefficiently (Jevons, 2006). Chapelo (2007) argues that the HE sector is very similar to social enterprise brands within not for profit sectors, for which the literature strongly suggests that branding (Clifton and Simmons, 2004, p.236) is strongly linked with performance (Girod, 2005; Hankinson, 2000). Subsequent research has been in agreement, noting that HEI brands represent the most complex services consumers will ever purchase (Teh and Salleh, 2011). The crucial choice made by consumers is influenced by the perception of specific institutions, and therefore strong brands are positively linked to performance (Salleh, 2009, p.141-159).

Douglas (2008) concludes that HEI management of brand communications is of importance to experience, a key performance metric. This can take the form of the NSS, for instance (Hemsley-Brown and Oplatka, 2010), signifying a level of fulfilment of brand promise.

Teh (2011) examined the relationship between brand meaning and brand equity, finding that stronger brands are associated with higher brand equity, and also concluding that uniqueness of a brand can be a strong predictor of performance. Other studies, such as that by Ivy (2008), have been conducted on the relationship between performance metrics and the way in which a distinct brand image is communicated. It was found that a strong brand image is of significant importance to measures of student recruitment.

In summary, HEI branding efforts are often criticised. Such criticism usually takes the form of accusations of wasted resources, particularly if branding exercises have not resulted in coherent messages. HEIs have also been compared to service based social enterprise brands, however, in which brand management is of notable importance. Some authors go further, stating that a degree is the most complicated service a consumer will ever purchase. Whilst direct research within the HE context is lacking, multiple authors strongly accept that strong HEI brands are of critical importance to performance. This is particularly the case in terms of brand communication consistency between multiple marketing transmissions.

3.2.4. Brands in Higher Education Summary

In summary, whilst practitioners and policy makers advocate HE branding activities and academics advocate traditional educational concepts, it seems both are inextricably linked. It cannot be denied that both play a vital role in the success of HEIs. Branding activities fuel general consensus, research grants and student quality, with traditional academic freedom dependent upon success within the marketplace. A growing amount of literature and research has emerged which examines marketing channels in terms of the brand message communicated to stakeholders. Whilst many channels exist, three have emerged as most prominent, with commentators continuing to debate which is the most important. The channels are the prospectus, the website, and social media. Whilst students will not necessarily examine every potential communication medium, it is highly likely that potential students will access a combination of them. Whilst HEIs recognise the importance of brand consistency, however, there is a distinct lack of research which addresses brand consistency of communication between the most prominent marketing media.

Research suggests that brands may be communicating themselves poorly to potential students. The HEI prospectus is identified as a key brand communication channel, and in some cases is the only source of information used to compare institutions by consumers. However, previous research is sparse, usually having adopted an approach of analysis of imagery and textual

content. No research has addressed brand communication consistency between multiple marketing channels utilising the prospectus, website & social media within the HE context.

Websites communicate large amounts of information to stakeholders. However, the majority of research has concentrated upon the visual and navigational aspects of websites. This has led researchers to branch off into content analysis methods in order to analyse factors such as the dialogue, tone of voice and brand personality being communicated. Social media also represents an integral aspect of an HEI marketing communication strategy. Essentially, word of mouth, the most trusted and influential form of communication, has moved to the digital context. Opinions can be spread across millions of online users in mere seconds and minutes, and the demographics of the average undergraduate degree student matches that of the average social media user. However, whilst research has begun to analyse these digital forms of communication, little if any research has measured consistency between the social media and other HEI marketing channels.

HEI brands are powerful differentiating factors in the decision making process of stakeholders, and due to their unique non-market led philosophy, have been linked to non-profit organisations. As has been seen, the literature widely accepts brands as being of crucial importance to such organisations. While strategic brand management has been linked to HEI performance, inefficient utilisation of resources has been an issue, as well as a lack of empirical and strategic research in the area.

3.3. Summary of Higher Education Sector

This chapter has reviewed the UK's higher education sector and, in particular, has examined higher education branding, communication and performance. This section has clarified key conceptual terms used within the thesis, has contextualised higher education, and has provided further grounding in theory for subsequent chapters.

The existing literature as it relates to Higher Education was considered in context, with an outline provided of the transition of Universities from elitist institutions towards a societal norm of further education. Whilst students used to ask whether they would be accepted to university, they are now asking which university they should attend. Within the UK's HE sector there are 165 institutions of which 115 are universities, broken up into older (research intensive) and newer (teaching) institutions. The former have been impacted disproportionately by recent government funding cuts to research.

The political and economic agenda of internationalisation has provided a large percentage of financial income to universities and to the economy as a whole. An increased number of students, all with increased choice, has led to a variety of league tables being constructed in order to ensure quality and transparency within the HE sector. The major public league tables use a variety of performance measurements, which are provided by a multitude of external organisations. The most prominent and trusted of these are RAE, NSS and UCAS. Increased levels of competition for funding and students have encouraged institutions to adopt managerialism and new public management approaches (Brandt *et al.*, 2009). Such techniques are often borrowed from the private sector, and include concepts such as branding and marketing. Debate exists as to whether the concept of branding transfers directly to the higher education sector (Hemsley-Brown and Oplatka, 2006), with some arguing that HEIs are more complex than commercial entities, and that this renders conventional brand management irrelevant. Such authors contend that more specialist approaches are needed (Jevons, 2006). More research is needed to better understand whether such brand management techniques are applicable in the HE context.

The “brands in higher education” section paid particular attention to brand communication within the context of HE, and its links to performance. The literature has recognised brands as important differential factors within stakeholder decision making, and as being key to performance. Whilst academics tend to shun the university as a business concept, market success is inextricably linked with traditional academic freedom. This has led to practices commonly used within the private sector being transferred to HEIs, including branding. HEIs communicate their brand across many channels, with the literature identifying three distinct marketing channels which are crucial to brand communications today; namely the prospectus, the website, and social media. However, whilst it is clear that the brand should be strong and that each channel should be communicating the brand consistently, empirical evidence linking this to performance is currently lacking (Brandt *et al.*, 2009).

As UK HEIs embrace brand management techniques, there is a distinct lack of empirical evidence to inform the debate as to whether or not brand management techniques and metaphors support performance or are applicable within the HE context. Whilst brand personality and consistency are key streams of research within corporate brand management literature, few studies have attempted to measure the consistency of HEI brands (Chapleo *et al.*, 2011a), and no studies have actively examined the impact of brand personality and consistency between marketing channels over a large sample of HEIs. In the contention of the

author, this is clearly in contrast to recommendations made by the UK government that HEIs should take “action” (Crossick, 2010) to recruit students and attract research funding. Given this background, and the importance of the HE sector within the UK economy as a whole, a study which empirically challenges multiple streams of anecdotal literature and policy maker debate based on such research is urgently required.

In conclusion, the literature reviews in Chapter 2 & 3 have shown that although there is increasing research interest in branding within the HE context, many existing studies have been small scale and qualitative. Although brand research has been extensive in the private sector, it is not clear how their findings may or may not be applicable in the HE context. In addition, the level of consistency between traditional and new media warrants further attention.

This research will therefore study the gap detailed in the HE literature, and will provide a large scale, empirical and quantitative study of the effect of brand personality and consistency between marketing channels on performance.

The next chapter will show how this research aim was operationalised into research hypotheses, which were designed to test the relationship between brand personality consistency and performance.

4. Research Hypotheses

Based on the gaps already identified within the existing literature, this research aims to establish empirically whether there is a relationship between brand personality strength and consistency across multiple marketing channels, and HEI performance. The research will be conducted in the UK HEI sector. Therefore, this research was designed to answer the following research questions:

1. Is the HEIs' brand personality consistent between online channels (website and social media) and the offline communication channel (traditional paper based marketing media) across Aaker's model of brand personality?
2. Is brand personality consistency and strength positively related to UK university performance?
3. Is the impact of Social Media significant between brand personality strength, consistency and performance?

Answering these questions will involve taking these higher level research questions and formulating more detailed hypotheses.

Major public league tables which are publicised use a variety of performance measurements which are provided by external organisations, the most prominent and trusted being Research Assessment Exercise (RAE), National Student Survey (NSS) and the University & College Admissions Service (UCAS). Therefore multiple definitions of performance will be tested, including research quality (RAE), teaching quality (NSS), student quality (UCAS) and demand per place (UCAS).

HE branding literature acknowledges that an organisation's position in a league table communicates brand performance. However, the role of branding takes place over and above league table positions (Chapleo, 2011). The Higher Education Funding Council for England (HEFCE) themselves acknowledge that prominent league tables generally confirm institutional brand reputation (Locke *et al.*, 2008, p.53), and it has been postulated that league tables in the UK "avoid disrupting the dominant expectations too much for fear of not being perceived as credible". Reliability and consistency of performance build a reputation. Typically, the phrases brand and reputation are used interchangeably by HE managers (Chapleo, 2004), which represents a mistaken understanding of the terminology. Ettenson (2008) argues that

reputation within a sector constitutes the willingness to interact with an organisation on dimensions of integrity, reliability, accountability, responsibility and quality conscientiousness. Any deficiencies within these areas should raise alarms bells. Within sectors, all organisations attempt to shape positive reputation. However, this reputation in no way shapes the unique characteristics for which a brand can become known. In other words, whilst consumers are willing to buy coffee from their local coffee shop, there is only one Starbucks.

Chapelo (2011) explains that a strong brand communicates far more than a narrow league table position can. This includes its strengths and USP (unique selling point), and brand metaphors such as USP (unique selling personality) (Kapferer, 2008, p.184). In other words, whilst league table position is not dichotomous from brand perception, its role is narrow in comparison to the substantial role of brand metaphors as an influence on performance. In the case of recruitment, league table position is predominantly used to “confirm a decision already made” to attend an institution (Locke *et al.*, 2008, p.54). Brunzel (2007) argues that strong brands are able to recruit higher quality students and raise academic standing, positively influencing league table ranking positions. However, he also acknowledges a lack of empirical evidence to support this.

In order to provide depth and further insight into the relationship between brand consistency and performance, further relevant variables will be used within the model to test the mediation and moderation effects.

Brand consistency is a fundamental rule to which every global brand adheres when communicating brand qualities (Arruda, 2009; Interbrand, 2012). This leads to consumer understanding of what the brand stands for, along with an ability to predict its future behaviour (Erdem and Swait, 1998; Keller, 1999; Lange and Dahlén, 2003). Navarro-Bailon (2011) argues that brand consistency is integral to brand campaigns, and Arruda (2009) states that brand communications should be consistent regardless of the media chosen, resulting in higher levels of performance such as consumer-based brand equity (Pike, 2010, p.13) over time and as part of the long-term strategy (Matthiesen and Phau, 2005; de Chernatony and McDonald, 2003; Argenti and Druckenmiller, 2004; Knox and Bickerton, 2003). Kapferer (2008, p.43) and Aaker (1996a) argue that brands can only develop through “consistently being consistent” over a period of time, defining consistency of identity and position as being most important. Hankinson (2001) argues that consistency is essential to successful brands, but also points out

that organisational complexity, and (within HEIs) lack of departmental commercial focus (Brookes, 2003, p.140), impacts upon the level to which brands are able to communicate consistently (Chapleo, 2007). This renders the HE context of particular interest when examining the relationship between brand consistency and performance.

The following hypotheses summarise how brand performance may relate to several key online and offline variables.

H1: Brand Personality Strength Consistency between the “Prospectus and Website” will be positively and significantly related to H1(a) RAE H1(b) NSS H1(c) UCAS Points H1(d) UCAS Demand performance.

The terms “moderators” and “mediators” have been used within the discipline of social science for at least the last half century, and have typically been used idiosyncratically (Kraemer and Gibbons, 2009, p.6). Moderation occurs when the relationship between two variables depends on a third variable (Cohen, 2003, p.269), suggesting under what conditions a treatment produces its effect (for instance, interaction over social media will strengthen the link between brand consistency via the prospectus or website, and performance). In contrast, mediation attempts to explain and identify the reason for the relationship between the dependent and independent variables being effected through the introduction of a third variable, known as a mediator variable (Baron and Kenny, 1986). In other words, a moderator is a variable which *influences the strength* of a relationship between an independent and dependent variable, whilst a mediator *explains the relationship* (e.g. X is hypothesized to exert indirect effects on Y through M). There are a number of methods available to test moderation and mediation relations (MacKinnon *et al.*, 2002), which will be discussed in Chapter 5.

Social media is intended to be consumed through interactions of a social nature, and is also designed to be widely available and scalable through the use of technology (Kaplan and Haenlein, 2010, p.60). Notable social media phenomena are driving consumer take up and growth such as MySpace, LinkedIn, Twitter and Facebook (Quelch and Jocz, 2009, p.7). The latter, as of February 2011, was reported to have reached over 500 million active users (Katzir *et al.*, 2011, p.1). Social media represents an important part of a brand’s online communication strategy, and is becoming increasingly significant (Owyang *et al.*, 2009, p.3) as brands look to cut the cost of their overall marketing budget, increase return on investment and ultimately improve their bottom line. Online advertising is relatively inexpensive (Cox, 2010, p.20), and

provides simplistic measures of consumer traffic and performance through tools such as Google analytics and other goal conversion measurement applications.

Previous research has identified the ways in which brands aid the choices of prospective students, particularly when the choice is between multiple institutions with similar reputations. Therefore, peer review and interaction over platforms such as social media (Zailskaite-Jakste and Kuvykaite, 2012; Barnes and Mattson, 2010) are crucial to HEI recruitment strategies (Reuben, 2008). This applies specifically to HEI interaction (Linvill *et al.*, 2012) and validation (Kazeroony, 2013) of brand claims from institutions by current students (Petruzzellis and Romanazzi, 2010; Douglas *et al.*, 2006). The following hypotheses summarise how brand consistency and recruitment performance may be related to the brand's use of social media:

H2: The level of Social Media H2(a) participation on “Twitter” H2(b) validation on “Facebook” will significantly moderate the relationship between “Prospectus and Website” Brand Personality Strength Consistency and (a) UCAS Demand (b) UCAS Points performance.

Clauser (2001) argues that traditional offline brand ‘rules’ transfer to new online communication tools, including brand consistency (de Chernatony and Christodoulides, 2004). Therefore, consistent communication of brand metaphors applies to online brand consistency (Arruda, 2009; Interbrand, 2012) and impacts upon research, teaching and recruitment performance. The following hypothesis summarises how online brand consistency between the website and Twitter may be related to performance.

H3: Brand Personality Strength Consistency between “Website and Twitter” will be positively and significantly related to H3(a) RAE H3(b) NSS H3(c) UCAS Points H3(d) UCAS Demand performance.

Empirical evidence suggests that stronger brands are able to communicate quality and uniqueness more effectively, which results in consistency (patterns of associations communicated) and also brand congruence (the level of agreement and synergy within the communication) (Aaker and Biel, 1993; Keller, 1993). Within the context of HE, previous studies have operationalised recruitment performance success as demand per place (Locke, 2011).

Therefore the following hypothesis summarises how brand personality strength may be related to the strength of brand personality consistency and performance:

H4: Brand Personality Strength Consistency between the “Website and Twitter” will significantly mediate the relationship between Brand Personality Strength of H4(a) Competence H4(b) Excitement H4(c) Ruggedness H4(d) Sincerity H4(e) Sophistication within the “Prospectus” and UCAS Demand performance.

Social validation influences brand consistency between offline and online channels, and as brands and consumers of media move to completely online means of communication, social validation is expected to play an increasingly prominent role in validation within online brand communications. The following hypothesis summarises how brand consistency within online media and performance may be related to the validation it receives through social media:

H5: The level of Social Media validation on “Facebook” will significantly moderate the relationship between “Website and Twitter” brand personality strength consistency and H5(a) UCAS Demand and H5(b) UCAS Points performance.

Previous research has identified a link between social media metrics and performance. Social media is both the consequence of retrospective consumer evaluations (LeFever, 2008), which are typically difficult to influence (Dellarocas, 2003; Phelps *et al.*, 2004), and the foresight used to predict future trends (Jansen *et al.*, 2009). Gruhl *et al.* (2005) has shown that a sudden increase in mentions of a specific book can serve as a potential predictor of a spike in sales through online book retailers such as Amazon. Asur and Huberman (2010) even concluded that social media can be used to predict future performance outcomes through the construction of a model which predicted box-office revenues of films before their release date, by measuring the rate of “social media buzz”. These results were shown to be more accurate than the Hollywood Stock Exchange. Within the HE context, institutions which produce consistent high quality research will be positively reviewed socially. Similarly, HEIs which satisfy their current students and stakeholders will be highly validated socially, leading to higher quality student recruitment. This can create a synergistic relationship between the quality of recruited individuals and future research quality (de Chernatony, 2012b). The following hypothesis summarises how the interaction and validation of social media may be related to research quality and student quality recruitment performance:

H6: The level of Social Media H6(a) participation on “Twitter” H6(b) validation on “Facebook” will be positively and significantly related to (a) RAE (b) UCAS Points performance.

Strong and distinctive brand communication may increase the level of consumer attention paid towards the brand, which in turn creates strong and more favourable brand associations (Freling and Forbes, 2005, p.406). Previous studies within the HE sector have identified that brands communicate certain dimensions more strongly than others (Opoku *et al.*, 2007b), and that brand strength is a key driver of recruitment performance (Doyle, 2012). At a time when increased pressure and competition exert pressure on HEIs to recruit the most talented students, perceptions of HEIs are driving perceived value for money of undergraduate courses (Neumark, 2012). HEIs which attract a large quantity of prospective students are able to select the most talented (Melewar and Akel, 2005), whereas underperforming universities are typically forced to accept lower achieving students. The following hypothesis summarises how brand personality strength may be related to performance:

H7: The level of Prospectus Brand Personality Strength of H7(a) Competence H7(b) Excitement H7(c) Ruggedness H7(d) Sincerity H7(e) Sophistication will be positively and significantly related to UCAS Points performance.

The research hypotheses will be tested in this study. The research hypotheses were developed through examination of gaps which have been identified within prior brand management and higher education sector literature. As a result, seven hypotheses were developed which can be empirically tested.

In relation to the overall research questions, Hypotheses 1 and 3 are related to question 1, Hypotheses 4 and 7 relate to question 2 and Hypotheses 2, 5 and 6 relate to question 3.

The next chapter describes the research methodology, as well as the data collection and analysis methods used to test the research hypotheses.

5. Research Methodology

This chapter demonstrates knowledge of the philosophies, procedures, methods and techniques that could have been utilised, and explains and justifies the path taken to collect and analyse the research data (Clough and Nutbrown, 2007).

To complete the research it was necessary to (1) determine the philosophy underpinning this research, (2) decode the research purpose, and (3) decide the research approach. These must link to the overall research objectives. Following these three stages, the next steps were to (4) select the type of data to be collected, (5) select the source for the data, (6) choose the elements of the brand to analyse and (7) analyse all of the data collected to answer the research questions. This process is summarised in Figure 20, and described in detail in the next sections of this chapter.

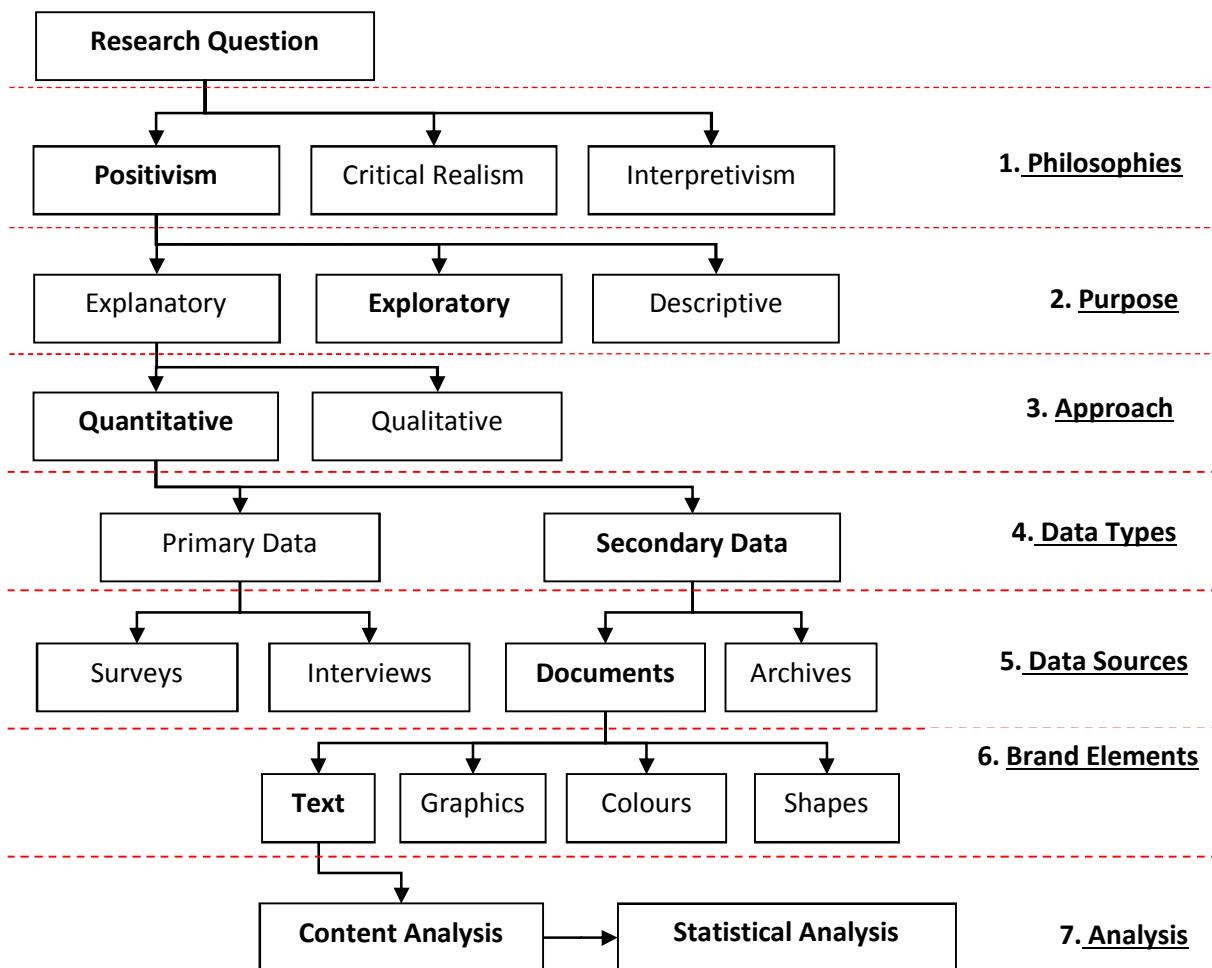


Figure 20 Flow of the methodology chapter

5.1. Research Philosophy

The epistemologies (what is known to be true) and ontology (view of reality) chosen to underpin this thesis have been critically assessed within this research methodology (Gill and Johnson, 2002). For hundreds of years, philosophers have discussed the nature of the relationship between data and theory. It is suggested that lack of thought in regard to philosophical issues can detrimentally impact the quality of research output (Easterby-Smith *et al.*, 2002).

Therefore, an understanding of relevant philosophical concerns will aid clarification of study design, not only in terms of understanding the type of evidence necessary, but also in understanding how this will deliver suitable answers to the research questions posed. Through knowledge of philosophy, the researcher will be better equipped to recognise which research designs will work, and to enable the identification and avoidance of limitations within particular approaches. Finally, such knowledge may enable the researcher to identify or create designs which may be outside of their immediate experience (Saunders *et al.*, 2009).

The two most predominant philosophies in this area are positivism and interpretivism (Rubin and Babbie, 2009). Hirschheim (1985) suggests that these date back to ancient Greece, with Plato and Aristotle being identified as positivists, and the Sophists as anti-positivists. Between the two lie philosophies which utilise portions of each school of thought, such as realism (Saunders *et al.*, 2009).

Any decision on which approach to use is influenced by three main considerations (Bryman, 2010):

1. **Relationship between Theory and Research** – will the theory guide or become an outcome of the research?
2. **Epistemological Orientation** – what should be regarded as appropriate knowledge in a discipline?
3. **Ontological Considerations** – is the social world regarded as something external or inseparable to its social actors?

See Table 10 below for a high level overview of the two main meta-theoretical assumptions, along with realism, which falls between the two assumptions. The table explains the

epistemological and ontological aspects of these assumptions. The table also summarises the research objectives, the key methods used, and the validity and reliability issues which have been identified and addressed.

	Metatheoretical Assumptions		
	Positivism	Realism (post-positivism)	Interpretivism
Ontology (the researcher's view of the nature of reality)	Person (researcher) and reality are separate.	Is objective. Exists independently of human thought and knowledge of reality, inferred through social conditioning.	Person (researcher) and reality are inseparable (life-world).
Epistemology (the researcher's view regarding what constitutes acceptable knowledge)	Objective reality exists beyond the human mind.	Observable phenomena provide credible data and facts. Insufficient data means inaccuracies in sensations.	Knowledge of the world is intentionally constituted through a person's lived experience.
Research Object	Research object has inherent qualities that exist independently of the researcher.	Critical realists state that the social researcher can never fully gain a totally accurate and objective picture of the social world.	Research object is interpreted in light of the meaning structure of a person's lived experience.
Method	Highly structured, large samples, measurements. For instance mathematical analysis of data and textual content, etc.	Based upon the requirement of closeness of fit to reality of subject. A choice between either quantitative or qualitative.	In depth investigations using a small sample, qualitative. For instance interpretation of written texts and subjective experience.
Theory of Truth	Correspondence between theory and truth. Like-for-like plotting between research hypotheses and reality.	Researchers have their own subjective motives and values, some of which are unconscious, which make a totally objective view of reality unattainable.	Interpretations of research object match lived experience of object.
Validity	Certainty: data truly measures reality.	Possible worlds are as real as the actual world.	Defensible knowledge claims.
Reliability	Replicability: research results can be reproduced.	One can make claims about unobservables, as they have same ontological status as observables.	Interpretive awareness: researchers recognise and address implications of their subjectivity.

Table 10 Contrasting Positivism with Interpretivism (Weber, 2004)

Positivist researchers trust observable phenomena, and consider that an observable social reality can produce credible data and create “law-like generalisations”. These are comparable to those created by chemistry and physics (Saunders *et al.*, 2009). As summarised in Table 10, the researcher is seen as existing independently to what is being researched, and will not impact upon the topic being investigated or modify reality. The researcher should maintain a very structured approach within the method and methodology, in order to facilitate replication and critical evaluation. A positivist view of science is seen as a way to identify truths, and if these truths can be understood we may predict outcomes. Ultimately, in some cases, that outcome may then be controlled.

One of the first scholars to conceptualise post-positivism, Carl Popper, stated that falsification was demonstrating that it is impossible to verify that a belief is true, but it is possible to reject a false belief (Popper, 1963). In other words he did not reject empiricism, but said that he was not comfortable with the idea of verification. This led to the conceptualisation of post-positivist philosophies such as critical realism.

Interpretivist researchers have argued that positivism cannot in fact explain reality in its totality. For instance, early research into psychology suggested that it was only necessary to concentrate on the causes of an action and its consequences in order to predict how individuals would behave (operant conditioning), whilst almost all in between (such as what the individual is thinking) was in fact irrelevant. It was considered to be such because it could not be scientifically measured (Skinner, 1938). This lent itself to the concept that researchers should investigate circumstances in order to understand the reality behind the inputs and outputs, and to understand the subjective reality of the subjects which they study. This is seen as necessary in order to make sense of motives, actions and intentions in a meaningful way (Mölder, 2010). Essentially, interpretivists believe that research cannot be reduced purely to maths and numbers. For example, while research which attempts to describe childhood memories could measure the number of disciplining incidents, it would be of significantly more benefit to identify and explore specific stories drawn from memory.

When considering a research methodology it has been recognised that no single methodology is intrinsically better than another (Benbasat *et al.*, 1987). Based on a thorough review of the literature, the research questions have been identified as:

1. Is the HEIs' brand personality consistent between online channels (website and social media) and the offline communication channel (traditional paper based marketing media) across Aaker's model of brand personality?
2. Is brand personality consistency and strength positively related to UK university performance?
3. Is the impact of Social Media significant between brand personality strength consistency and performance?

Because this research focuses on assessing an organisation's brand personality as communicated through its marketing channels, which is viewed as external to the researcher, it lends itself to more positivist assumptions. It was decided that a positivist philosophy would be used to achieve the research objectives.

5.1.1. Research Classifications

This section explores research classifications relevant to the topics under consideration, and describes the path chosen for this research.

The three main classifications of research are exploratory, descriptive and explanatory (Robson, 2002; Dawson, 2002; Kothari, 2008):

1. **Exploratory** research seeks to find out what is happening in situations which are not well understood. It does this by asking questions and seeking new insight into phenomena, which can then be used to generate concepts and hypotheses for further research.
2. **Descriptive** research is concerned mainly with accurately defining actors, events or social situations (Saunders *et al.*, 2009).
3. **Explanatory** research seeks to explain an issue or situation, which can include explanation of patterns relating to phenomena through identification of relationships between phenomena, usually in terms of a causal relationship.

This research will be predominantly exploratory in nature, going beyond simple descriptions of phenomena in order to identify actual relationships and the causal reasons they are

occurring. This approach will be based on the research objective of exploring the relationship between marketing media consistency and performance.

When establishing research hypotheses there are two methods of logic which can be used so as to arrive at a conclusion. These are inductivism and deductivism (Saunders *et al.*, 2009; Easterby-Smith *et al.*, 2002):

- **Inductive** approaches are used when it is necessary to develop a theory resultant from observations within empirical data.
- **Deductive** approaches involve testing theoretical propositions through the use of a specific strategy which is designed for this purpose.

This research will be deductive in nature, providing evidence to either support or reject explanations in order to reach a conclusion relating to the research objective (of the effect of consistency upon performance). The best explanation from multiple possibilities based on the literature will be selected.

Based on the research classification and philosophical underpinning of epistemological and ontological assumptions, research can also be described in terms of it being Quantitative or Qualitative:

- **Quantitative** research is based on examination and analysis of data in terms of quantities. For example, such research could examine the number of objects or properties with an emphasis on measurements which connect empirical observation with mathematical expressions of relationships. Associated closely with positivist research, it will typically involve high level, large sample sizes, used in order to draw generalisations, creating a law-like rule which can be used to predict outcomes. Advocates of quantitative research argue that due to mathematical and statistical analysis methods, large sample sizes can be used easily. However, large samples are required which can jeopardise the feasibility of a study due to difficulties in collecting the data. Opponents argue that it can be difficult adequately to understand complex natural interactions.
- **Qualitative** research is associated with interpretive, naturalistic approaches, and involves studying phenomena in the context of meaning attributed by people (Neergaard and Ulhøi, 2007). Researchers are more interested in the “why” of a

situation, with an emphasis on local context instead of law-like generalisations (Grady, 1998). Advocates of qualitative methods argue that the depth and richness of data collected by qualitative methods makes it ideal for exploring new areas of research and for examining complex questions which can be used to build new theories. Opponents argue that complex underlying structures and interactions are not examined.

Fred Kerlinger, a quantitative scholar said “there’s no such thing as qualitative data, everything is either 1 or 0”. In response to this another scientist, Donald Campbell, stated “all research ultimately has a qualitative grounding” (Miles and Huberman, 1994, p.40). Ultimately, however, this ‘toing and froing’ is at best unproductive. Many academics debate the advantages and limitations of quantitative and qualitative research, including those purists who see the two as dichotomous, those that prefer one or the other, and those that use portions of each symbiotically. As the research objective is to ascertain the relationship between consistency and performance through a positivist philosophy, and since it is explanatory in nature and uses a deductive approach, a quantitative study was deemed the most appropriate approach. Using a large, highly structured sample will both aid replicability and render the research outcomes more robust.

5.1.2. Data Types and Sources

When research is undertaken, the data utilised can include facts, opinions and statistics, all of which are collated and used for further analysis. This section explains the various sources of data, and identifies those which are most suitable to meet the specific research objectives.

The sources of data used in research are generally split into primary and secondary types, with neither being inherently better than the other (Saunders *et al.*, 2009).

Primary data is usually gathered for a specific study. Primary data sources include:

- **Observations** – This involves taking sets of notes about the environment, in order to provide specific insight into people’s behaviour.
- **Interviews** – This can include one to one or small group question and answer sessions.
- **Questionnaire** – Contains specific questions (usually arranged in a pre-determined order) and defined response parameters (Collins, 2010). Questionnaires are usually

performed with larger numbers of participants, and are considered more “rigid” than interviewing.

Secondary data is information used in research which may originally have been compiled for another purpose. Multiple source secondary data involves combining two or more secondary data sources, which can be based on documentary and survey data or a combination of the two. Secondary data sources include:

- **Documents** – Written materials which can provide valuable current and historical information. Sources include notices, correspondence, meeting minutes, reports, diaries, transcripts, administrative, public records, websites pages, social media and league tables (Saunders *et al.*, 2009). Documents represent an important source of research data in terms of depth, breadth and feasibility (Yin, 2003).
- **Non-Written Communication** – Voice/video recordings, pictures and drawings, films, television and computerised databases.
- **Survey Based** – This involves the analysis of existing observations, interviews, questionnaires and censuses. The data is either available for further analysis (research extension) or an entirely new piece of research (and analysis).

Table 11 provides an overview of the advantages and disadvantages of both primary and secondary sources of data. In summary, primary data is collected for a specific purpose and can be less feasible. Secondary data has been previously collected and can be more feasible, but it could have been originally collected for a different purpose.

	Primary Source	Secondary Source
Advantages	Raw Data – the data is at its most recent, with a high level of control being possible over what is asked and collected. Unbiased Information – not biased by any mediating sources. Original and Direct Data – the data	Fewer Resource Requirements - time and financial savings allow analysis of large data sets. Longitudinal Studies – as resource savings increase, comparisons are of increased feasibility. Comparative and Contextual Data –

	<p>is collected straight from the source, and is highly relevant to the research in question.</p> <p>Sample Control – the data comes from the chosen market/population sample.</p>	<p>used to compliment primary data, as in triangulation.</p> <p>Unforeseen Discoveries – reanalysis within a different context can lead to new discoveries.</p> <p>Permanence of Data – data is usually permanent, so it may be checked with relative ease.</p>
Disadvantages	<p>Feasibility – usually time consuming and potentially costly, which results in smaller samples being feasible.</p> <p>Access Issues – it can be difficult to find organisations and individuals who are willing to participate. This problem is compounded in the case of sensitive issues.</p> <p>Research Bias – scope for researcher bias influencing data, including misunderstanding of a respondent. The source is often heavily reliant upon the researcher's proficiency and skill.</p> <p>Replicability – replicating the study and its results is more difficult than with secondary data sources.</p>	<p>Specificity and Presentation of Data – secondary data may have been collected and presented for a specific purpose, which does not reflect the purpose of a new piece of research.</p> <p>Cost of Access – it is possible that access to secondary data could come at a cost or be difficult to accomplish.</p> <p>Aggregations and Definitions – secondary data may have been aggregated in some way, which may result in a lack of detail.</p> <p>Data Quality – the secondary source is reliant on the coherence and integrity of the original data collection and analysis process.</p>

Table 11 Contrasting Primary and Secondary Sources (adapted from Saunders (2009) and Pervez (2005)).

The primary research objective is to analyse an organisation's marketing media (to ascertain brand personality consistency), which requires a rich and large data set. The philosophical assumptions used were positivist and quantitative, which also requires a large sample, in order to guarantee a high level of replicability and feasibility. The source most likely to yield permanent, rich, massive and feasible information was secondary data.

Based on the research objectives a rich data set, feasible large amounts of data and a high level of replicability were required from multiple marketing media. The most appropriate secondary data source to meet the objectives of this research was identified as documentary evidence, which provided rich data, a feasible data collection process, large amounts of textual information and, due to their permanence, a high level of replicability. Textual content was collected from different marketing media channels including the website, printed media and social media of the organisations being researched.

Rowley (2004a) shows that documents can be broken down into individual brand elements (as discussed in the literature review), which include the logo, graphics, copy (textual information), typography, colour, shapes and layout.

Due to the quantitative nature of the study the logo, graphics, typography, colours, shapes and layout (which would offer a rich data source for interpretive qualitative analysis) were not analysed. Thus based on the objectives, assumptions and nature of the study, examination of textual content from different marketing media was highly suitable for brand personality analysis.

The study will utilise published league table data as a measure of performance, combining it with documents from secondary data sources so as to measure brand consistency.

5.1.3. Content Analysis

In this section, the content analysis method and dictionary to assess brand personality will be discussed. Content analysis is a procedure which assesses the content of communication.

Krippendorff (2004) believes that it is potentially one of the best research methods available, but also one of the most under-utilised. Content analysts view data as a representation of texts, images and expressions designed to be viewed, read, interpreted and acted on for their interpretations.

Due to the large amounts of data involved, a software programme designed to aid quantitative data analysis will be employed (Wordstat). Computer-aided content analysis and statistical tools can be used to present and analyse the data, providing powerful ways to analyse content communication (Krippendorff, 2004). An overview of the content analysis process is shown in Figure 21 below.

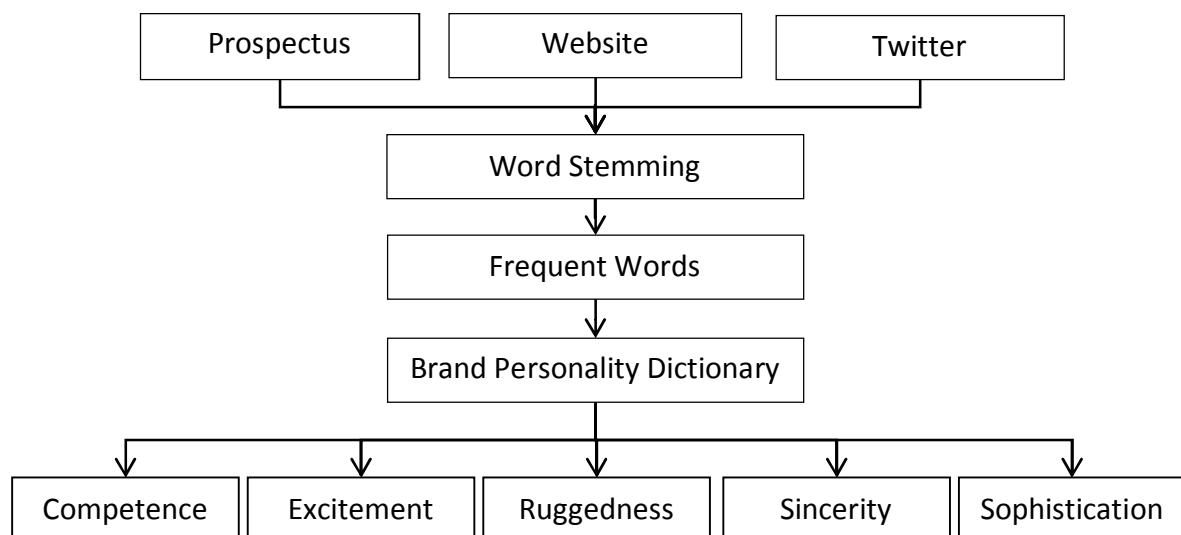


Figure 21 Content Analysis Process

To measure brand personality, Aaker's (1997) brand personality dimensions will be employed (as described in the literature review). Aaker's (1997) method is often used in consumer survey research in the form of questionnaires. Opoku (2006) has developed the method further by building a full dictionary of synonyms for each brand personality dimension and using this to assess online brand personality. Each personality dimension is associated with a list of related synonyms, which are then accessed via the textual content communicated within marketing media. This shifts the focus from how the consumers perceive brand personality, to what the organisations as brands are saying about themselves, and how this is communicated.

To categorise websites or documents into a brand personality dimension percentage, a frequency count of dimension synonyms is arrived at using the brand personality dictionary. In total, the dictionary includes 1625 words. Each of the five dimensions has a similar proportion of synonyms, with "Sincerity [making up] 21% of all words listed; Excitement 17%; Competence 20%; Sophistication 21%; and Ruggedness 21%" (Opoku, 2006). Please see appendix 4 for a full overview of the words involved.

In order to categorise each document into brand personality dimensions, preliminary tasks must be undertaken to clean the data. These include word stemming and the removal of frequent and ambiguous words.

The first phase of the content analysis software involved word stemming (otherwise known as suffix stripping), which removes derivative and declined word suffixes and reduces the word down to its root stem. For instance “competency”, “competently”, and “competence” would be reduced down to their root form of “competent”. This ensures that words are compared on the level of concepts, as opposed to an exact character level (Chaudhuri, 2007). The second step involves excluding certain words, as per Opoku’s original study. This process is shown in Table 12 below. This is because they were stop words, were deemed to be too ambiguous, or were too frequent.

Type	Word
Stop Words	A, about, all ,almost, also, always, an, any, are, as, at, be, because, been, being, both, but, by, can, could, do, every, feel, for, get, gets, got, has, he, her, him, his, how, if ,in, into, is, it, kind, like, lot, made, makes, me, more, most, much, my, myself, of, on, one, or, other, our, really, she, so than, that, the, there, these, they, this, to, too, type, us, very, was, were, what, when, where, which, who, will ,with, within, you.
Ambiguous and Found Often	Just, open, nice, usual, very, well.

Table 12 Showing excluded words adapted from Opoku’s (2006) original study

The final step taken, once each marketing media channel has been located, was to calculate a percentage for each of the 5 channels. This is the total number of words which communicate brand personality for each dimension, divided by the total amount of words in the document.

As a result, the unit of analysis from the content analysis will be the absolute percentage of the dimension present, related to the number of words in the page. Table 13 shows the type of output that each marketing media document examined by the content analysis would provide.

	Competence	Excitement	Ruggedness	Sincerity	Sophistication
Page 1	4.00%	3.00%	5.00%	0.00%	5.00%
Page 2	2.00%	4.00%	2.00%	6.00%	4.00%
Page 3	0.00%	0.00%	3.00%	5.00%	1.00%
Page 4	1.00%	3.00%	4.00%	5.00%	0.00%

Table 13 Example of output from content analysis of marketing media

5.2. Collecting and Analysing the Data

As there was no existing research on brand consistency between different marketing media, the research was designed so as to launch two pilot studies before finalisation of the main study's design. The first pilot study was designed to assess whether suitable data could be collected from an organisation, and to test whether the content analysis, dictionary and statistical analysis methods could work in practice. As well as demonstrating the feasibility of the proposed data collection and analysis methods, this first pilot revealed which types of brands could more easily be assessed. This assisted with the selection of the types of brands to be included in the main study. Following this, a second, more focused pilot study was conducted. This examined two organisations within the target sector (HEIs), to ensure that the relevant data could be collected from within these organisations, and to further refine the statistical analysis methods.

5.2.1. Pilot Study One

The purpose of the pilot study was to test whether the proposed methodology could successfully be used to measure consistency between the online and offline channels for one sample organisation. It demonstrated the importance of picking an organisational sector in which content about the products and organisation was sufficiently detailed, and in which the organisation is information centric. In other words, the organisation must provide textual information which the customer will consume prior to, during, or after their interaction with the brand.

The top thirty most valuable UK brands (BrandFinance, 2010) were examined, based on the criteria (Zhao and Jin, 2009) of being information centric (the organisation's brand must provide textual information that the customer will consume prior to, during or after their interaction with the brand), a market leader (in order to decrease the risk of no consistency between channels based upon a poor marketing strategy) and UK based (the organisation's head office must reside in the UK with greater proportion of their business being conducted in the UK). Of these, the Virgin brand was selected due to its strong personality (de Chernatony, 1999). Virgin conducts its business across multiple sectors, and of its many subsidiaries, the Virgin Money brand was selected as most closely relating to the selection criteria.

The pilot study enabled testing of the OCR (Optical Character Recognition) method. In order to digitise the documents for the content analysis software, an OCR scanner was employed. This was able to convert 50-60% of the documents into a digital format. Each page of each document was then compared to the original text and the remaining 40% of data was entered manually. It was shown that a sufficient number of words could be collected from each source (web 28, 099 and brochure 21,201). It was also shown that differences in personality between the two marketing media existed, and that statistical analysis could be used to analyse the brand strength and consistency. This pilot resulted in a detailed examination of various organisational sectors in order to identify a suitable sector upon which to focus during the main study. This led to a second pilot study within the higher education sector.

The first pilot study demonstrated that it is indeed possible to access the required data for analysis. It also greatly helped the author refine his understanding of appropriate statistical analysis methods. The pilot study took one week to complete, which indicated that it would be feasible to analyse between 30 and 40 organisations in the main study.

5.2.2. Pilot Study Two

The second pilot study was designed to test whether Higher Education Institutions (HEIs) would produce enough material and performance data to be effectively analysed.

HEIs were selected based on the finding from pilot study one which related to the importance of identifying information centric websites. The public availability of adequate performance data at the organisational level was also a significant factor in selection. The Annual Ranking of World Universities (ARWU) 2010 was used as the measure of performance, due to the large spread of data related to HEIs available. The ARWU compiles data on the 400 best

universities in the world. The study also had practical implications due to the current changes within the Higher Education sector, and the resulting increase in competition for recruiting students.

Marketing media of HEIs falling within the ARWU was examined, in order to ascertain suitability of marketing media data. The website, prospectus and Twitter media channels were identified as appropriate. During the initial examination of marketing media, it was realised that the study should focus on western countries. This was the case both because of the cultural context of the brand personality dictionary, and because of language issues including poor use of the English language. In some cases, no English translation was available at all.

As a result, pilot study two focused on a single western country (the United Kingdom), thus ensuring that cultural and language issues were minimised. The researcher approached two universities, Oxford and Surrey. Oxford was top of the ARWU 2010 within the UK, whilst Surrey had the lowest rating.

In total, 8 documents were received from Oxford University, and 5 documents were received from Surrey University. 184,425 words were collected from the sample, with 39,721 (17,241 from Surrey and 22,480 from Oxford) from websites and 144,704 (23,304 from Surrey and 121,400 from Oxford) from prospectuses. This demonstrated that universities provided a more than adequate amount of textual information for analysis.

Pilot study two showed that HEIs provide sufficient information in order to analyse any differences between performance and brand personality. The brand personality dictionary was used successfully to analyse the media, and statistical analysis techniques were used to ascertain the differences between the two universities.

The second pilot study took one week to complete, as the researcher became more proficient with the software. This indicated that up to 60 HEIs could be analysed within the time period available for the main study. The ARWU league table only contained 40 UK universities, and so a more UK centric league table would need to be identified for the main study, with all UK universities represented.

In conclusion, the second pilot study gave the researcher confidence in the analysis used, and led to the detailed design of the main study within the HE sector.

5.3. Main Study

The main study commenced as the pilot studies had provided both insight and confidence that the method could be used successfully upon a larger sample.

This section explains the sample selection criteria, which were based on the research objectives and learning from the pilot studies. It then explains how the data have been analysed.

5.3.1. Sample Selection and Data Collection

Research data are selected, collected, stored, and prepared, and can then be used to analyse and interpret a research topic (Saunders *et al.*, 2009). This section explains the process of selecting a suitable sample, collecting the data, and then preparing it for further analysis, so as to meet the objectives of the research.

The process is outlined in a number of steps (see also Figure 22):

1. **Sample Selection** - The organisations (HEIs) were selected based on the research objectives and the pilot studies. These HEIs are information centric, and publish a significant amount of textual information on their websites. There is also a considerable amount of performance data publicly available for HEIs.
2. **Data Sources** – To obtain the raw data, requests were made for the marketing documents to be sent to the researcher, and the website/social media accounts were located.
3. **Data Collection** – Upon receipt of marketing documents, each page of the printed literature was scanned using OCR software. At the same time, each webpage of the website was downloaded, along with each Tweet. At the same time, social interactions on both Twitter and Facebook were downloaded.
4. **Unit of Observation** – Textual content was extracted from all documents and statistics based on the social interactions.
5. **Content Analysis** - The textual information was prepared for the content analysis software (as discussed in section 5.1.3) to ascertain the brand personality strength for each of the five dimensions.

Following the data collection and preparation, further analysis was performed upon the data. This is described in detail in Section 5.3.2. Each of these five steps is now described in more detail.

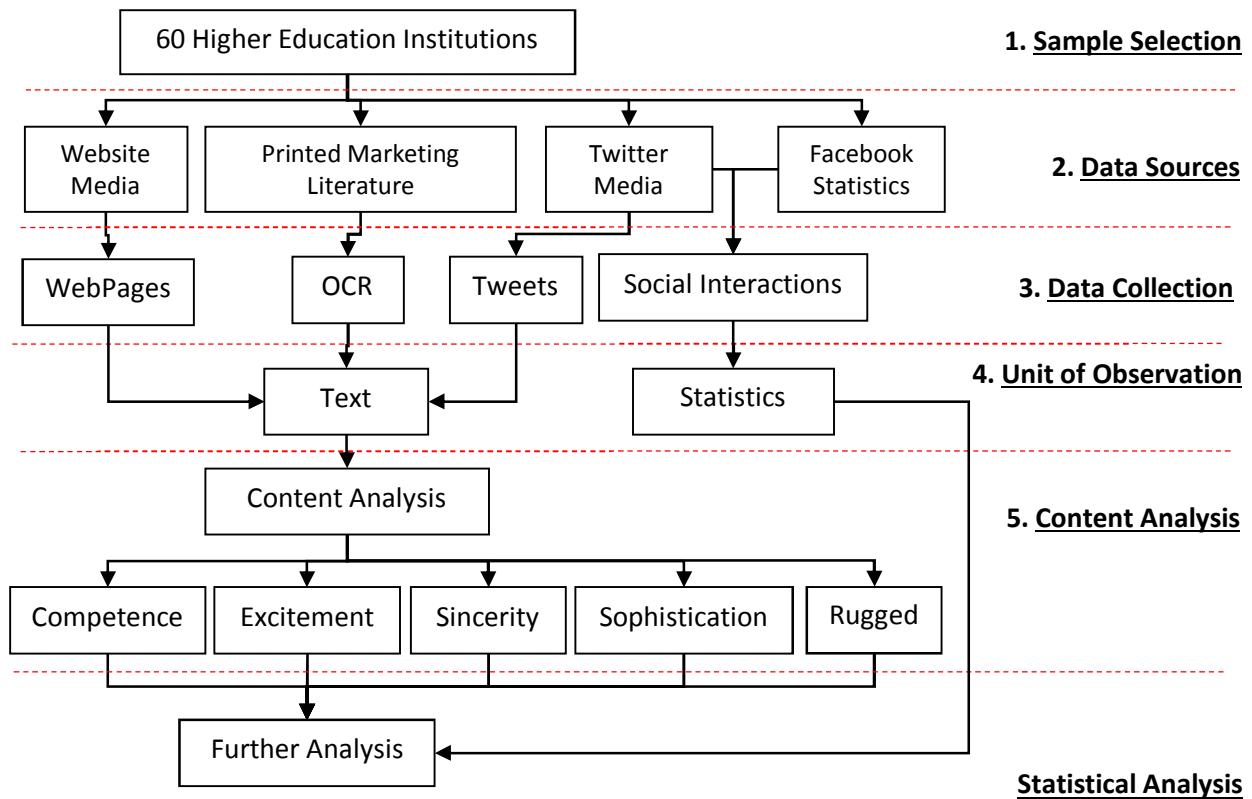


Figure 22 Flow of Sample Selection and Data Collection

5.3.1.1. Selecting the Organisations

This section examines the process of selecting the sample population, the sample size and sampling methodology. The literature suggests that bigger sample sizes are better. In some scenarios, it is possible to collect data from the entire population (Saunders *et al.*, 2009). If this is not feasible, then a sample must be selected from the population, with a minimum of 30 organisations required to perform meaningful statistical analysis (Saunders *et al.*, 2003, p.155).

The pilot studies highlighted the necessity of choosing information centric organisations, as large quantities of textual data were required in order for content analysis to be effective. This included the requirement of adequate availability of performance data.

The second pilot study targeted a population (HEIs) that were both information centric and provided a rich source of performance data. It was therefore decided that the organisations in

the main study would be HEIs, which represented a manageable and replicable data sample across all organisations. The study indicated that it takes approximately one week to complete the methodology for two HEIs, and therefore the sample of this research project is 60 UK HEIs. This allowed data to be successfully collected and analysed within the timescale of a PhD.

These HEIs were selected from the Research Assessment Exercise 2008, as it is a study supported by the UK government and consists of a large sample size, with a good spread of performance. Although no institution is ranked first on every measure, the overall performance indicator provided a clearly ranked order, which was used to create clusters of performance for the purpose of this research.

In order to provide generalisable results, the sample took six clusters of ten universities. These included the top ten, the bottom ten and four groups of ten which were equally spaced in between. Table 14 shows the universities selected for inclusion in the study.

No	Cluster	RAE 2008	Higher Education Institution
1	1	2	University of Cambridge
2	1	=4	LSE
3	1	=4	University of Oxford
4	1	6	Imperial College London
5	1	7	University College London
6	1	8	University of Manchester
7	1	9	University of Warwick
8	1	10	University of York
9	1	11	University of Essex
10	1	12	University of Edinburgh
11	2	27	University of Newcastle upon Tyne
12	2	=28	Loughborough University
13	2	=28	University of Exeter
14	2	30	University of Sussex
15	2	=31	University of Kent
16	2	=31	School of Oriental and African Studies
17	2	=33	University of Glasgow
18	2	=35	Goldsmiths College, University of London
19	2	=35	University of East Anglia
20	2	=35	University of Surrey
21	3	51	University of Leicester
22	3	=52	Swansea University
23	3	=52	Bangor University
24	3	=52	Aston University
25	3	55	University of Wales, Newport

26	3	=56	Keele University
27	3	=56	University of Stirling
28	3	=59	University of Brighton
29	3	=59	University of Hull
30	3	62	University of Bradford
31	4	=75	Middlesex University
32	4	=75	University of Plymouth
33	4	=78	University of Winchester
34	4	=78	Nottingham Trent University
35	4	=78	Manchester Metropolitan University
36	4	=81	University of Northumbria at Newcastle
37	4	=81	Liverpool John Moores University
38	4	83	University of Wales, Lampeter
39	4	84	University of Huddersfield
40	4	85	University of Bedfordshire
41	5	=96	University of Chichester
42	5	=96	University of Central Lancashire
43	5	=100	University of Lincoln
44	5	=100	University of Greenwich
45	5	102	Bath Spa University
46	5	103	University of Wales Institute, Cardiff
47	5	=104	Leeds Trinity & All Saints
48	5	=104	University of Sunderland
49	5	106	Coventry University
50	5	=107	London Metropolitan University
51	6	122	University of Worcester
52	6	123	Newman University College
53	6	=124	Heythrop College
54	6	=124	Edge Hill University
55	6	126	Southampton Solent University
56	6	127	Liverpool Hope University
57	6	129	Queen Margaret University Edinburgh
58	6	130	University of Cumbria
59	6	131	Bishop Grosseteste University College, Lincoln
60	6	132	University College Plymouth St Mark & St John

Table 14 Six clusters of HEIs picked from the RAE 2008

5.3.1.2. Collecting the Data

This section explains the methods used to collect and prepare the data. As the source, type and sample had been selected and were based on the research objectives, it was decided to collect undergraduate prospectuses (at the university level). They provided adequate textual content to analyse, and could be compared directly to the closely corresponding textual content of web pages and social media.

The data collection and preparation process took place over 7 months, and included 60 HEIs. Data collection began on 12th May 2011 and ended on 18th December 2011. The process was efficient and yielded a very high quantity of data.

The social media statistics were gathered on 12th May 2011. The majority of prospectuses arrived within 10 days (for 2012 entry), and the final prospectus arrived on the 21st June 2011. The social media textual content was saved and completed on the 25th August 2011. Finally, the website text download was completed on 18th December 2011.

In the following sections, the method of data collection from the three marketing media channels will be explained.

5.3.1.2.1. Undergraduate Prospectus Document Data Collection

As undergraduate prospectus documents provided an adequate amount of comparable data, on the 12th May 2011 each university within the study was approached for their prospectus/documentation.

The universities were each contacted and asked for their prospectus via telephone, with a request for the prospectus to be sent to the researcher by post. At the same time, an email was sent outlining the research and the reasons for which the prospectus was required. This made it clear that the data was to be aggregated, and that specific institutions would not be named. If the prospectus had not arrived by 23nd May 2011, a repeat call was made to ensure that all material had been sent out. All prospectuses had been received by the 21st June 2011.

The researcher received 74 documents from the sample of 60 universities. In one case, the same prospectus was sent twice, and in the other cases extra information was sent with the undergraduate prospectus such as the postgraduate prospectus. In each case only the undergraduate prospectus was used.

In order to digitise these documents for the content analysis software, an OCR (Optical Character Recognition) scanner was employed by the researcher, which was able to convert 60-70% of the documents into a digital format. Each page of each document was then compared to the original text, and the remaining 30-40% of data was entered manually. This process was carried out by the researcher between June and December 2011. In order to maintain consistency, areas of the prospectus which did not communicate brand personality were excluded, such as the contents and index page(s), as well as terms and conditions.

5.3.1.2.2. Website Media Data Collection

On the 12th May 2011, the researcher began downloading and saving the content of each website. This coincided with the initial request for undergraduate prospectus documentation. This was to ensure that the same period of time was used to sample the different marketing media.

The university website was located through Google searching for “[UNIVERSITY NAME]” and the relevant “.ac.uk” top-level domain was selected.

The reliability of content analysis as a methodology is concerned with how the data is collected (Cohen *et al.*, 2007). For this reason, a high level of organisation and structure is necessary in order to protect reliability. Furthermore, to ensure the appropriate textual content was being compared (as each website used a different layout, both programmatically and visually), each page was checked manually and the textual content saved. To ensure consistency between HEIs, checks were carried out to confirm that the website pages corresponded to a set of criteria generated by the supervisory team, based on the undergraduate prospectus documents, as the majority of prospectus documents included and excluded the same information. To aid reliability and comparability, information on the website which was not related to undergraduate students was not collected, as the textual information included within the prospectus was at the undergraduate level. The sections of the website which were saved (if available) and those which were excluded are shown in Table 15.

Sections to be saved	Sections not to be saved
<p>Homepage</p> <p>Undergraduate Information and General Information</p> <p>All undergraduate course information (Computer Science Degree, Business Management Degree etc)</p> <p>About the University (Campus Information, Mission, University History, Local City, Area and Nightlife)</p> <p>Accommodation (Undergraduate, Halls, Car Parking)</p> <p>Student Funding (Scholarships, Bursaries, Tuition Fees)</p> <p>Research Information</p> <p>News and Events</p>	<p>Any link that goes away from the main URL</p> <p>Postgraduate Student Information</p> <p>International Student Information</p> <p>Specific faculty and department school information (EG computer science department etc)</p>

Table 15 Sections of the website to be saved and not saved

Each page was examined to see if it met the criteria in Table 15. Where appropriate, the textual content was copied and saved into the content analysis package. All website downloads were completed by December 2011.

5.3.1.2.3. Social Media Data Collection

On the 12th May 2011, each university's Twitter page was located by the researcher. In order to protect reliability and consistency, only Tweets made by the University were collected. This was done by accessing the university's website and clicking on the Twitter logo, if it was integrated into the homepage. Where no direct link existed, a search within Google for “[UNIVERSITY NAME] Twitter” was made, and the official Twitter account for the overall university was accessed.

In order to extract text from the Twitter pages, a tool called Xpather (Spencer, 2008) was utilised. As each Twitter page's xHTML was the same, it was possible to create code which directly extracted the tweets. Xpather is capable of analysing web documents using the Document Object Model (DOM), which as a multiple-platform and programmatically

independent convention is able to interact with objects in XML documents (in this case, webpages).

Two distinct types of tweets were identified within the source code, those with text linking to another website, and those containing only text. Therefore, two codes were generated to extract both types, as shown in Table 16.

	Code
Type 1	//div[@class='tweet-text pretty-link']
Type 2	//div[@class='tweet-text js-tweet-text']

Table 16 Coding used in XPaths to extract Twitter tweets

Once entered, the code was executed, and it provided the text of each Tweet in the column format of “Number | Text”. In the case that a URL was within the text for URL tweets it was removed, as Twitter automatically uses a URL shortening tool called Tiny URL. Tiny URL converts a URL such as “www.theexcitingblog.co.uk” to a format such as [“www.tunyurl.com/tr344”](http://www.tunyurl.com/tr344). This ensured that the URL contained no brand personality words which related to the potential content of the site.

All research previously conducted in this area has measured significantly fewer tweets within the context of HE. For example, 10 tweets (Linville *et al.*, 2012) have been taken to represent a typical week. Such a low sample size, however, yields a small amount of words, which is in itself limiting. Therefore, social media tweets were collected in their entirety. It is recognised that this meant that if institutions had changed their brand personality at some point in the past, there may have been inconsistencies between tweets. In some cases, the collected tweets spanned multiple years. This meant that, by necessity, longitudinal consistency was indirectly assessed.

5.3.1.3. Social Media Statistics

On the 12th May 2011, the social media statistics for each university were collected by the researcher to demonstrate the level of participation in terms of consumers, as well as the institution’s “popularity”. This included the number of tweets, the number of users “followed” by the university on Twitter, and the number of “followers” of the university on Twitter. The

Facebook page for each university was also located, and the number of “likes”, “talking about” and “were here” statistics were saved. It was imperative that this was performed within one day, as the numbers within each measure can change dramatically on a daily basis, reflecting the fluid and fast-moving nature of social media.

Table 17 shows sample screenshots, which were extracted from social media pages for each university.

Social Media	Social Media Statistics Example	Variables
Twitter.com	<p>3,603 TWEETS</p> <hr/> <p>430 FOLLOWING</p> <hr/> <p>10,327 FOLLOWERS</p>	Tweets on Twitter Following on Twitter Followers on Twitter
Facebook.com	<p>16,482 likes • 637 talking about this • 27,838 were here</p>	Likes on Facebook Talking About on Facebook Were Here on Facebook

Table 17 Examples of the social media statistics displayed

5.3.1.4. Data Collection Summary

Once the data collection was completed, the word count for each of these marketing channels was calculated for each HEI.

The total number of words collected was 18,956,366. This represented 13,979,282 from websites, 4,172,788 from prospectuses, and 804,296 from Twitter. The total number of words collected per institution varied, as some websites and brochures were of different sizes.

Table 18 gives a full breakdown of the number of words collected by media type for each HEI.

	Total Word Count	13,979,282	4,172,788	804,296
	Name	Website Words	Prospectus Words	Twitter Words
1	University of Cambridge	96,815	98,596	23,414
1	LSE	114,950	52,817	2,166
1	University of Oxford	131,377	114,738	9,549
1	Imperial College London	113,197	29,935	21,302
1	University College London	321,159	66,217	21,241
1	University of Manchester	955,527	80,522	2,238
1	University of Warwick	158,812	59,799	26,910
1	University of York	135,667	95,245	9,557
1	University of Essex	646,900	111,070	21,496
1	University of Edinburgh	75,521	79,444	13,687
2	University of Birmingham	595,204	57,524	23,826
2	Loughborough University	123,321	76,194	4,465
2	University of Exeter	241,872	84,312	27,326
2	University of Sussex	154,601	103,428	57,245
2	University of Kent	101,352	119,929	8,509
2	School of Oriental and African Studies	67,976	39,371	14,821
2	University of Glasgow	195,735	106,324	17,129
2	Goldsmiths College, University of London	46,326	41,383	9,505
2	University of East Anglia	524,279	98,249	6,449
2	University of Surrey	155,866	61,182	16,597
3	University of Leicester	144,343	90,812	2,726
3	Swansea University	305,794	74,352	8,692
3	Bangor University	158,008	22,252	8,767
3	Aston University	254,057	57,950	14,377
3	University of Wales, Newport	141,475	56,692	8,595
3	Keele University	129,496	120,701	39,988
3	University of Stirling	87,038	68,318	731
3	De Montfort University	174,593	111,435	2,574
3	University of Brighton	358,102	115,888	7,758
3	University of Hull	133,897	82,037	11,448
4	Middlesex University	528,902	44,571	6,993
4	University of Plymouth	447,750	83,345	25,768
4	University of Winchester	100,871	47,746	20,196
4	Nottingham Trent University	304,115	88,434	12,007
4	Manchester Metropolitan University	349,018	131,146	11,680
4	University of Northumbria at Newcastle	182,551	52,061	19,183
4	Liverpool John Moores University	448,463	6,842	4,278
4	University of Wales, Trinity St David	131,136	36,594	8,313
4	University of Huddersfield	214,633	33,890	20,979
4	University of Bedfordshire	668,714	91,721	5,448
5	University of Chichester	96,775	55,261	4,896
5	University of Central Lancashire	523,624	55,704	26,220
5	University of Lincoln	642,828	42,079	11,379

5	University of Greenwich	151,136	87,912	31,505
5	Bath Spa University	70,676	51,887	3,999
5	University of Wales Institute, Cardiff	117,180	29,064	7,861
5	Leeds Trinity	77,037	39,163	10,309
5	University of Sunderland	278,006	98,285	4,151
5	Coventry University	215,473	160,624	13,748
5	London Metropolitan University	124,629	9,763	23,063
6	University of Gloucestershire	127,597	45,759	15,215
6	University of Worcester	111,549	77,403	2,939
6	Newman University College	108,180	49,821	3,351
6	Edge Hill University	395,973	101,588	20,474
6	Southampton Solent University	137,331	86,487	25,003
6	Liverpool Hope University	109,825	45,878	9,493
6	Queen Margaret University Edinburgh	104,097	53,975	5,174
6	University of Cumbria	145,519	19,940	4,379
6	Bishop Grosseteste University College, Lincoln	152,942	34,114	2,604
6	University College Plymouth Marjon	69,492	35,015	600
Average		232,988	69,546	13,405
Standard Deviation		190,110	32,626	10,577

Table 18 Breakdown of word counts for each institution's marketing media

5.3.2. Statistical Analysis

In order to extrapolate meaningful information from the data collected, it must be carefully analysed and interpreted. Data analysis is the breaking down of information in order to make its components clear, including the relationships between those components (Saunders *et al.*, 2009). The challenge of quantitative research lies in organising and analysing the large amounts of data generated. A high level of organisation and structure is necessary in order to ensure reliability and replicability.

Textual data was copied into the content analysis package, which provides dimensional frequencies for each channel. The data was then tested using the Kolmogorov-Smirnov test, the Student t-Test and Mann-Whitney u test. A Spearman's correlation analysis was computed on ranked dependent variables, and simple and multiple regression analysis was computed on the remainder so as to ascertain the relationship between consistency and performance. Modgraph and simple slopes analysis were used to interpret significant interaction effects. The flow chart in Figure 23 shows which statistical analysis techniques were used in each stage of research.

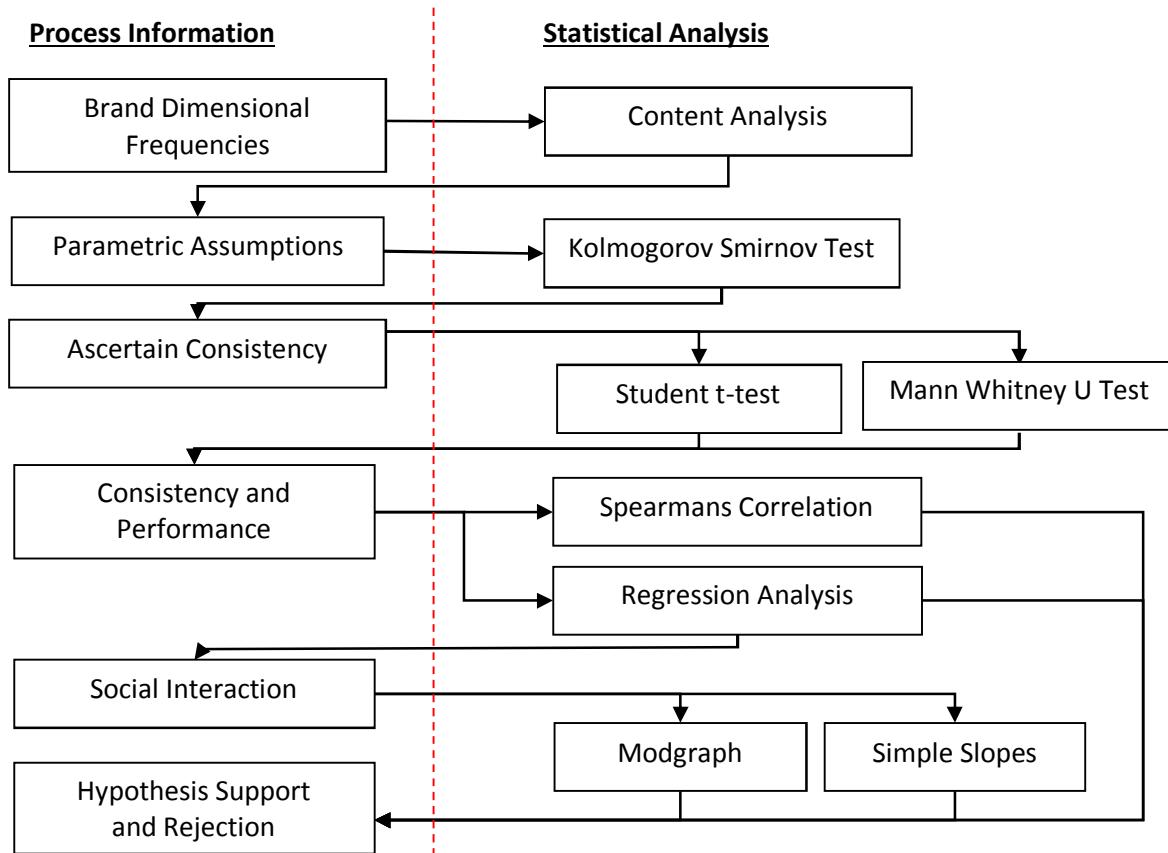


Figure 23 Flow chart showing high level method of the data analysis

5.3.2.1. Variable Operationalisation

In order to measure variables accurately, it is vital to ensure that all of the terms are clearly defined (Weathington *et al.*, 2010). Key concepts have therefore been theoretically defined and described in Table 19.

Concept	Theoretical Definition	Description
Brand Personality	“The set of human characteristics associated with a brand.” (Aaker, 1997, p.347)	The set of human characteristics associated with the brand, as communicated via HEI marketing media.
Brand Personality Consistency	Consistency - Acting or done in the same way (Oxford English Dictionary)	Level of consistency between HEI communications which “attempt to inform, persuade, incite and remind their consumers directly or indirectly about their brand personalities” (Opoku, 2005, p.42) over each dimension (competence, excitement, sincerity, sophistication, ruggedness) of Aaker’s (1997) model of brand personality, through marketing media
HEI Performance	“A range of statistical indicators intended to offer an objective measure of how a higher education institution (HEI) is performing” (HESA, 2013)	The level to which a HEI performs upon metrics of (a) research (as measured by RAE), (b) teaching (as measured by NSS), and (c) recruitment (as measured by UCAS demand and average points) performance.

Table 19 Showing the operationalisation of key concepts

A description of the variables is provided in Table 20, which are based upon the research objectives and will guide the various statistical tests aiding reliability and validity. Three sources were selected to represent the most important aspects of performance, including research (RAE), teaching (NSS) and recruitment performance (UCAS). This choice was based on the literature review in section 3.1.3, in which the most prominent league tables were broken down into their component sources.

No	Type	Name	Description
1	Dependent	<i>RAE 2008</i>	The Research Assessment Exercise 2008 ranks each university within the UK Higher Education System in order of research performance, and will be used to assess research performance.
2	Dependent	<i>NSS Satisfaction</i>	The national student survey represents the opinion of students at a particular university. It will be used to assess teaching performance.
3	Dependent	<i>UCAS Points</i>	The Universities and Colleges Admissions Service provides information on the average amount of points achieved by an institution's entrants. It will be used to measure the quality of students, and to assess recruitment performance.
4	Dependent	<i>UCAS Demand</i>	UCAS provides data on the amount of applicants to a university, and the number of accepted places. This reveals demand per each place accepted, and will be used to assess recruitment performance.
5	Independent	<i>Website and Prospectus Brand Personality Strength Consistency</i>	Consistency between the website and prospectus is measured through an assessment of whether the 5 dimensions of brand personality strength are significantly different between media.
6	Independent	<i>Website and Twitter Brand Personality Strength Consistency</i>	Consistency between the website and Twitter is measured through an assessment of whether the 5 dimensions of brand personality strength are significantly different between media.
7	Independent	<i>Twitter and Prospectus Brand Personality Strength Consistency</i>	Consistency between the Twitter and the prospectus is measured through an assessment of whether the 5 dimensions of brand personality strength are significantly different between media.
8	Independent	<i>Tweets on Twitter</i>	The number of tweets that the university Twitter account has produced.
	Independent	<i>Following on Twitter</i>	The number of users that the university is following on Twitter.
	Independent	<i>Followers on Twitter</i>	The number of users that are following the university's Twitter account (with the university tweets shown in the user's feed).
9	Independent	<i>Likes on Facebook</i>	The number of users who "liked" the university's Facebook page.
10	Independent	<i>Talking About on Facebook</i>	The "talking about on Facebook" number is compiled from a variety of Facebook social interactions which have taken place over the past seven days. These include: Liking a University, Posting to a University Page, Liking, Commenting on or Sharing a University post, Answering a Question posted, RSVPing to an event, mentioning a University Page in a post and Photo tagging a University's Page.
11	Independent	<i>Were Here on Facebook</i>	This measure includes Facebook location shares, and also utilises a relatively new Facebook feature which allows organisations to provide a "check in" facility for its users. When users are in close geographic

			proximity to a University or an Event (for instance an undergraduate open day), they will be able to “Check In” on their mobile Facebook application. This, in turn, publishes a story on their Facebook page”[Name] is at [Event].”
12	Independent	<i>Prospectus Competence Brand Personality Strength</i>	The mean amount of competence communicated through the prospectus.
13	Independent	<i>Prospectus Excitement Brand Personality Strength</i>	The mean amount of excitement communicated through the prospectus.
14	Independent	<i>Prospectus Ruggedness Brand Personality Strength</i>	The mean amount of ruggedness communicated through the prospectus.
15	Independent	<i>Prospectus Sincerity Brand Personality Strength</i>	The mean amount of sincerity communicated through the prospectus.
16	Independent	<i>Prospectus Sophistication Brand Personality Strength</i>	The mean amount of sophistication communicated through the prospectus.

Table 20 Variables used within the study

5.3.3. Kolmogorov-Smirnov Test

The Kolmogorov-Smirnov test is a non-parametric test which is used to check whether a continuous probability distribution as a whole deviates from a comparable normal distribution (Field, 2009). Specifically it quantifies the distance between the two samples by calculating a *D* statistic, which is then used to work out the probability in terms of the likelihood of the deviation from the normal distribution by chance alone (Saunders *et al.*, 2009). The data collected can be analysed by the Kolmogorov–Smirnov test in order to test parametric assumptions of the sample. This allows subsequent use of the Student’s t-test or the Mann–Whitney U test. Sample sizes above 30 are not required to be normally distributed, and were not computed within the study (Weinberg and Abramowitz, 2008, p.668; Tufféry, 2011).

For the majority of cases in this research the sample size was $n > 30$, hence normality checking was not required. However, in some cases within the Twitter marketing media the sample size was $n = < 30$, which required normality to be checked.

5.3.4. Student t-test and Mann Whitney U Test

The Student’s t-test is used to ascertain whether brand personality dimensions across channels are significantly different, in which case they would be classed as inconsistent. The Mann–Whitney U test deals with any distribution problems, and does not rely on the numerical

measurements being perfect indices. It is therefore suitable to use within this study upon non-normally distributed data.

For the purposes of this research, not being significantly different is considered to demonstrate consistency (as opposed to numerical equality as constancy). Thus inconsistency will be rejected at the 95% or higher level ($p>0.05$).

5.3.4.1. Brand Personality Strength Sampling

Unsurprisingly, overall consistency was lower over a higher number of words. It was less likely that a brand would remain consistent over a larger amount of words *ceteris paribus* (all else being equal). For example, if a study were to ask a participant to write 100 words about their day, it would be more consistent than if they were asked to write 100,000 words about their life because of a higher level of variability. This means that the more words an organisation produced, the lower their consistency. This effectively penalises HEIs which provide more text to their reader.

In order to limit the likelihood of word count and sample size affecting each channel within each HEI, random sampling was selected as the most appropriate method to use. This is because of the statistical implications of having sample sizes that varied greatly. Thus a random sample equal to the number of pages produced by the institution with the lowest number of pages (50 pages) was randomly calculated, in order to compare the means within both website and prospectus channels.

5.3.5. Spearman's Rho Bivariate Correlation Analysis

The two types of correlation analysis are bivariate and partial.

Bivariate correlation takes place between two variables, whereas partial correlation can take place between two whilst controlling for other variables (Field, 2009). Spearman's rank correlation coefficient can be used on ranked order variables, and is a test which assesses strength and direction of relationships between two variables (Saunders *et al.*, 2009).

Spearman's Rho is a form of bivariate correlation analysis, which calculates an X value (the strength of the relationship) as well as a P value, in order to ascertain the likelihood that the extent of the correlation occurred by chance alone. The test can be calculated in both the one and two tailed forms, depending on whether the relationship would be expected (one-tailed test) or not expected (two-tailed test).

For the purpose of this study, the Spearman's Rho Bivariate one-tailed correlation analysis test was used on the depended variable "RAE" and independent variables. Spearman's Rho ranks variables from the smallest to the largest values, and was regarded as more appropriate than Pearson correlation analysis. This is because it deals with variables which do not have equal intervals more accurately (Howitt and Cramer, 2008, p.79). Both simple and multiple linear regressions were not suitable, as they would classify the RAE as an absolute measure (rather than as a ranking). This would mean that these regressions would assume that brand number one is sixty times better than brand number sixty, which is not the case.

5.3.6. Regression Analysis

Regression analysis is a tool which can be used to measure relationships between variables in order to determine the strength of the relationship, the extent to which one variable can predict another, and the likelihood that the result was pure chance (Saunders *et al.*, 2009). Typically, it will use a dependent variable as the outcome and an independent as the predictor variable, the dependent variable being dependent upon the independent variable, and in some cases will include multiple independent variables.

The sample size required for regression analysis is dependent upon the data that is to be analysed, the number of independent variables within the model, and the conclusions that are to be drawn from the model if it is robust. It is suggested that approximately 30 is a common sample size, with the minimum sample size suggested to be 20, with at least 5 observations for every 1 independent variable (Hair *et al.*, 1998).

The two types of regressions used within this study were simple linear and multiple linear regressions. Both types of regressions carry their own generalisability assumptions, which are explained in the sections below.

5.3.6.1. Simple Linear Regression Analysis

Making use of a single independent variable (explanatory) and a single dependent variable (outcome), the analysis involves calculating a regressive coefficient of determination (also known as R^2) which is a number between "0" and "1". The lowest "0" suggests that none of the variation is explained, and the highest "1" suggests that all of the variation is explained. This then allows the strength of the relationship to be measured between the independent and the dependent variable (Saunders *et al.*, 2009). It signifies the proportion of outcome variation explained by the independent variable.

For this research, simple linear regression was used between the three remaining key dependent variables of “NSS Satisfaction”, “UCAS Points”, “UCAS Demand”, as well as single independent variables, so as to ascertain whether or not relationship brand personality consistency and performance was statistically significant.

5.3.6.1.1. Generalisability

Generalisability is the degree to which research results are valid to a wider population (Saunders *et al.*, 2009).

In order for the results of the regression to be deemed to be generalisable, there are certain methodological assumptions which must be met (Field, 2009). If the assumptions are met it does not mean that the results represent the entire population, although the likelihood of this being true increase.

The assumptions which must be met for simple regression are shown in Table 21 below.

Assumption	Description
Linearity	Linearity is described as the degree of variation in a dependent variable as linked to variation in one or more independent variables (Saunders <i>et al.</i> , 2009). In other words it is assumed that the relationship being modelled is linear (Field, 2009).
Independent Errors (Durbin-Watson Statistic)	Independent errors (residuals) are defined as the extent to which, for any two observations, the residual terms should be independent (uncorrelated), known as autocorrelation (Field, 2009). The Durbin-Watson statistic test can measure at each point the extent to which a value of the dependent variable is related to the value of its previous time period (Saunders <i>et al.</i> , 2009). The resultant value is between 0 and 4, with the ideal result being 2. A value of less than 2 suggests a positive autocorrelation, whilst a value larger than 2 suggests a negative.
Normality of	It is also recommended to check whether the errors are normally distributed (a common misinterpretation is to check the normal

Results	distribution of the results), which can be examined using Q-Q plots. If the errors are not normally distributed, then the variables may need to be transformed to meet generalisability assumptions (Larson-Hall, 2009).
Outliers	<p>In simple terms an outlier within the data is a variable which lies on the outskirts of the results, and is numerically distant from other values within the dataset (Barnett, 1994). Outliers can distort and dramatically alter regression results, meaning that it is crucial to identify unexplained outliers within the data.</p> <p>Once an outlier has been detected it can be removed or corrected if it represent erroneous data, transformed (in order to bring them closer to the edge of the data) or left unchanged. The latter option is chosen if the outliers are unusual but valid members of the population (Coakes and Steed, 1997; Anderson <i>et al.</i>, 2008).</p> <p>For the purposes of this research, all outliers were left unchanged unless a specific reason was identified, to which reference will be made within the analysis results.</p>

Table 21 Assumptions to be met for simple regression

5.3.6.2. Multiple Linear Regression Analysis

Multiple regression is a method of analysis similar to simple regression. However, it is more complex both mathematically and in its concept, as each independent variable's predictive power is evaluated and compared in terms of that offered by all the other independent variables (Pallant, 2007).

The three main types of multiple regression include standard (forced entry), sequential (hierarchical) and stepwise regression (Field, 2009). Standard regression includes all variables in one instance. With hierarchical regression, the independent variables are added into the model at different stages, which are decided upon by the researcher. Generally, known variables are added first in order of their importance. Stepwise regression statistically calculates the order of adding independent variables to the model, in order of the highest simple correlation with the dependent variable. Critics of stepwise regression argue that by relying upon mathematical criteria of selection, methodological decisions are taken away from

the researcher, and that the models derived are affected more by random variation (Norman and Streiner, 2003). In each instance, the variables are added using forced entry to limit model random variation, and to maintain control over model construction. The variables are also added using hierarchical regression when assessing interaction effects.

In order to evaluate the fit of the model and the correlation between the dependent variable and the independent variables, the R-square is used which approximates the variance in the criterion variable (variable being predicted). A larger R-square value indicates that more of the variance of the dependent variable is correlated with the independent variable. However, although the R-square shows the level of explanatory power, this does not mean that the value is significant. The F-value shows the significance of the R square, with a large value having a larger significance. The P-value is calculated in order to recognise the likelihood that the regression coefficient has occurred by chance alone (Saunders *et al.*, 2009).

To compare the explanatory power of independent variables directly, the beta value is used, which calculates the strength of influence upon the dependent variable. In order to check whether the beta value is significant, the p value is used again.

For this study multiple linear regression was used to ascertain whether overall brand personality strength consistency was significant, and in testing moderating relationships, which are explained in the subsequent sections.

5.3.6.3. Generalisability

In order for the findings to be generalised beyond the study, certain assumptions must be met. As well as the generalisability assumptions within simple regression, the extra assumptions shown in Table 22 must be met.

Assumption	Description
Multicollinearity	Multicollinearity is defined as the presence of correlation between two or more independent variables (Saunders <i>et al.</i> , 2009). If a highly correlated independent variable exists in a model with another independent variable, it needs to be removed from the regression model (Larson-Hall, 2009).
Homoscedasticity	Homoscedasticity is derived from the Greek words homo (same) and skedannynai (to scatter), and is also known as homogeneity of variance, constant variance and uniformity of variance. These are defined as the extent to which data variables have unequal variances for both the independent and dependent variable (Saunders <i>et al.</i> , 2009). The best method in order to examine this is to use Levene's test (Tufféry, 2011). If the data does not meet the assumption, it is necessary to transform to an equal spread (Larson-Hall, 2009).

Table 22 Extra assumptions which must be met (on top of simple regression assumptions) in order to infer generalisability

5.3.6.4. Interaction Terms

Interaction terms and their effects are the combined effect of multiple variables on a dependent variable. When an interaction variable creates significant new variance between an independent and dependent variable, the independent variable's impact upon the dependent variable depends upon the interaction term. Moderators and mediators are a type of interaction effect (Baron and Kenny, 1986).

5.3.6.4.1. Moderating Relationship

Hierarchical multiple regression analysis is used to assess whether a moderating variable is creating an interaction effect. It does this firstly by regressing the dependent variable (Y) on the independent variable (X) and moderating variable (M), and secondly by adding the interaction variable multiplied by the moderating variable (XM) into the second regression (Dawson and Richter, 2006). See Figure 24 for an overview of the moderation relationship between the independent and dependent variable.

Evidence of a moderating relationship exists if the R^2 of the second regression is significantly higher than the first regression, and if the coefficient for the interaction is significant. In order to aid interpretability and reduce the risk of multicollinearity, it is important to centre the independent variables (the process of removing the mean from each variable) before the regression analysis (Aiken *et al.*, 1991).

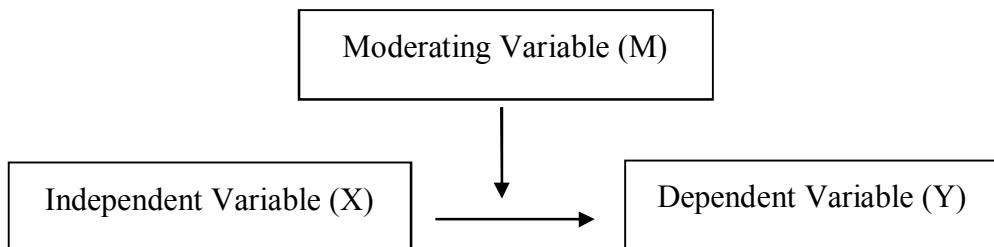


Figure 24 Moderation diagram showing the 3 variables and their relationship

Modgraph will be used to examine and interpret the interaction effect of the moderator (Jose, 2008). Modgraph is a software package used in order to create a visualisation from multiple regression outputs, by calculating the cell means needed in order to display the information graphically. It produces a 2-dimensional graph with 3 lines to represent low, medium, and high moderation. The three levels of low, medium, and high (for both the continuous main effect and the continuous moderating variable) are calculated from the mean as the medium value, taking one standard deviation above and below the mean as representing high and low respectively (Aiken *et al.*, 1991). The process enables visual interpretation of the strength of the relationship between a dependent variable and independent variable when the presence of the moderator is at different levels.

5.3.6.4.2. Mediating Relationship

Mediation models attempt to explain the mechanism by way of a causal relationship in which an independent variable exerts its effect on a dependent variable. Whereas moderation identifies interaction, mediation tests causal chains to provide an explanation (MacKinnon and MacKinnon, 2008; Cohen and West, 2003), as shown in Figure 25.

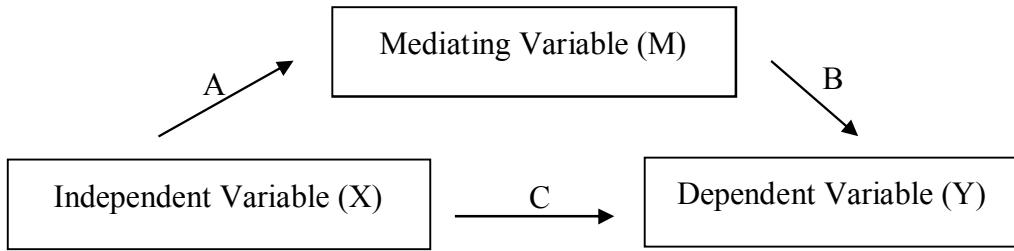


Figure 25 Mediation diagram showing the 3 variables and their relationship

There are several methods of statistically testing mediators including the Baron & Kenny (1986; 1998), Collins *et al.* (1998), and Kraemer *et al.* (2008) approaches. However the Collins and Kraemer approaches concentrate on the effect size, whereas Baron & Kenny focus upon null hypothesis significance testing (Grice, 2010). This represents the most widely used and standard mediation hypothesis testing method (Zhao *et al.*, 2010).

The process of testing a mediation model is broken down into four stages:

1. The regression of Independent Variable (X) upon the Dependent Variable (Y) is significant (path C).
2. The regression of the Mediator upon the Dependent Variable (Y) is significant (path A).
3. The regression of the Independent Variable (Y) upon the Mediator Variable (M) is significant (path B).
4. The regression of the Moderator (M) and Independent Variable (X) upon the Dependent Variable (Y), is significant upon the Mediator but not the Independent Variable (path C).

The first type of mediation which can occur is full mediation (maximum), which occurs if the inclusion of the mediation variable between the independent and dependent variable drops to zero (step 4). However, this is very rare, and most often the inclusion of the mediation lowers explanatory power and is still significant. If full mediation is not supported, then the effects of partial mediation can be tested.

Partial mediation means that the mediating variable accounts for some of the variance, but not all, and implies a significant relationship between the independent/mediating variable and

dependent variable (Robins and Greenland, 1992; Pearl, 2001). Partial mediation will be tested using the SOBEL test, which is effectively a Student's t-test which provides a method of identifying whether the reduction in the effect of the independent variable (with inclusion of the mediator) is a significant reduction, and whether its effect is statistically significant (Sobel, 1982).

In this study, moderating and mediating relationships were tested between three key dependent variables. These were "NSS Satisfaction", "UCAS Points", "UCAS Demand", interaction terms and independent variables.

5.4. Summary of Methodology

The methodology and methods for data collection and analysis used within the research have been discussed, and their merits and flaws have been assessed as they relate to the research question, before being further expanded into an actionable plan.

After a thorough exploration of the seven stages as shown in Figure 20, the underpinning research philosophy was identified as positivism, and the purpose of this research was defined as explanatory. A predominantly quantitative approach using large samples of data was selected so as to best answer the research questions about how brand personality consistency across multiple marketing media affects performance. The data sources selected were secondary, with website, prospectus and social media content accessed for each HEI, along with league table performance data which is available in the public domain. This meant that analyses of textual information needed to be undertaken for each of the marketing media, in order to assess the content of brand personality and statistically to analyse the data to test the research hypotheses.

The detailed development of the philosophical assumptions, research classification, data collection, content analysis and statistical analysis process have been specifically designed to ascertain the degree of brand personality strength consistency between marketing channels and whether its relationship with performance is of statistical significance.

The next chapter presents the results of the data analysis.

6. Statistical Analysis and Findings

Upon completion of the data collection and content analysis, statistical analysis was carried out in order to ascertain whether statistically significant relationships existed.

The research objectives were to find out whether the institutions brand personality was consistent across the five dimensions, secondly to find out whether the overall brand personality was consistent and whether this was positively related to performance and finally to find out whether the impact of social media upon performance and consistency was significant. Multiple indicators of performance were used to represent different aspects, based upon the literature review.

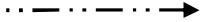
Therefore this section presents the results grouped into three key areas:

1. **Brand Personality Strength Consistency** examines the relationship between brand personality strength consistency and multiple definitions of Higher Education performance. These measures are the research quality (RAE), teaching quality (NSS), student quality (UCAS Points) and the recruitment performance (UCAS Demand). Further interaction relationships are tested, including social media moderation and brand strength mediation within other channels.
2. **Social Media Participation** concentrates on the teaching aspect of performance examining the relationship between the NSS teaching performance score with brand personality strength, consistency and social media participation.
3. **Brand Personality Strength** is the third perspective and examines the relationship between average student UCAS Points, brand personality strength, consistency, social media participation and their interactions.

Within each perspective and in order to establish the nature of the relationships a mixture of correlation analysis, simple linear regressions and multiple linear regressions were calculated.

In the next section, each hypothesis has been broken down into component statistical tests. Each subsection begins with the hypothesis, followed by the high level findings reported in the text and displayed visually. In this display, solid lines represent support, dashed lines represent non-support, and semi-dashed lines represent partial support. As shown below:

1. Hypotheses which are supported (shown with a solid line) —————→

2. Hypotheses which are not supported (dotted line) 
3. Hypotheses which are partially supported (dashed and dotted line) 

6.1. Brand Personality Consistency

This set of hypotheses tested the premise that consistent HEI brands perform better than less consistent HEIs brands. Previous research suggests that brands which are consistent across marketing channels will achieve higher levels of performance.

6.1.1. Prospectus and Website

In this study the brand personality strength consistency between marketing channels was analysed and regressed against multiple measures of HE performance.

H1: Brand Personality Strength Consistency between the “Prospectus and Website” is positively significantly correlated to (a) RAE (b) NSS (c) UCAS Points (d) UCAS Demand performance.

Spearman’s correlation analysis was used to analyse the relationship between RAE (ranked order) and “Prospectus and Website” brand personality strength consistency, of which a significant positive relationship existed. Simple regression analysis was used upon consistency and average UCAS Points explaining a low level of variance and UCAS Demand explaining a higher level of variance, both being positively and significantly correlated to brand personality strength consistency.

Finally simple regression analysis tested the relationship between consistency and NSS teaching performance of which no significant relationship existed.

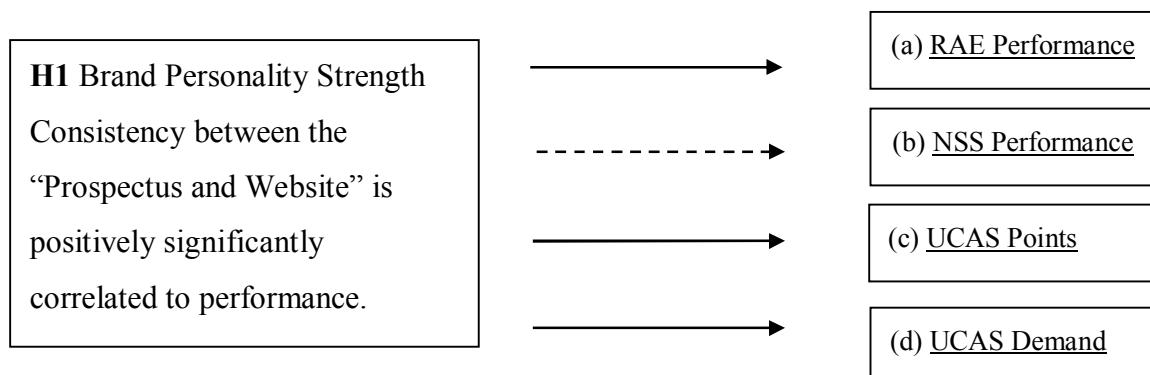


Figure 26 Diagram showing visual representation of Hypothesis One

Therefore, results show that brand personality consistency between the prospectus and website and research, student quality and student demand are significantly positively related to performance, while no significant relationship exists between consistency and teaching quality performance. As a result, research Hypothesis 1 that brand personality strength consistency between the prospectus and the website is positively related to performance was partially supported.

Spearman's correlation coefficient is a non-parametric statistic and so can be used with an ordinal dependent variable. RAE is a ranked order system as opposed to an absolute measure.

A Spearman's correlation coefficient was computed to assess the relationship between RAE performance and *Website and Prospectus Brand Personality Strength Consistency*, Hypothesis H1(a) was **supported**. There was a positive correlation between *Website and Prospectus Brand Personality Strength Consistency* and RAE performance ($r = .214$, $n = 60$, $p < .05$). Increases in consistency were correlated with a better ranking in the RAE 2008. A scatter plot summarises the results in Figure 27 .

Model 1 in Table 23 shows NSS performance against *Website and Prospectus Brand Personality Strength Consistency*, Hypothesis H1(b) was **not supported**. The consistency between the *Website and Prospectus* was not significant related to NSS performance. R for regression was not significantly different, $F(1,58) = .390$, $p = .535$, total $R^2 = .007$. *Website and Prospectus Brand Personality Strength Consistency* ($\beta = .082$, $p = .535$) did not contribute significantly. A scatter plot summarises the results in Figure 28.

Model 2 in Table 23 shows UCAS student performance against *Website and Prospectus Brand Personality Strength Consistency*, Hypothesis H1(c) was **supported**. The consistency between the *Website and Prospectus* was significantly related to UCAS student performance. R for regression was significantly different, $F(1,58) = 6.273$, $p < .05$, total $R^2 = .098$. *Website and Prospectus Brand Personality Strength Consistency* ($\beta = .312$, $p < .05$) did contribute significantly. There was a positive correlation between *Website and Prospectus Brand Personality Strength Consistency* and UCAS Points. Increases in consistency were correlated with a higher average UCAS Points. A scatter plot summarises the results in Figure 29.

Model 3 in Table 23 shows UCAS Demand performance against *Website and Prospectus Brand Personality Strength Consistency*, Hypothesis H1(d) was **supported**. The *Website and Prospectus Brand Personality Strength Consistency* was significant related to UCAS Demand

performance. R for regression was significantly different, $F(1,58) = 4.063$, $p < .05$, total $R^2 = .065$. *Website and Prospectus Brand Personality Strength Consistency* ($\beta = .256$, $p < .05$) did contribute significantly. Increases in consistency were correlated with a higher average UCAS Demand. A scatter plot summarises the results in Figure 30.

Indepen Variables	<u>NSS</u>			<u>UCAS Points</u>			<u>UCAS Demand</u>		
	Model 1			Model 2			Model 3		
	B	β	Sig.	B	β	Sig.	B	β	Sig.
Constant	.761		< .001	160.146		.009	311.719		.021
WebProsp	.062	.082	.535	177.202	.312	.015	314.144	.256	.048
R^2	.007			.098			.065		

Table 23 Regression Results of *Brand Personality Strength Consistency* and *Multiple Definitions* of Performance

**Relationship between Website vs. Prospectus Brand
Personality Strength Consistency and RAE 2008
Performance**

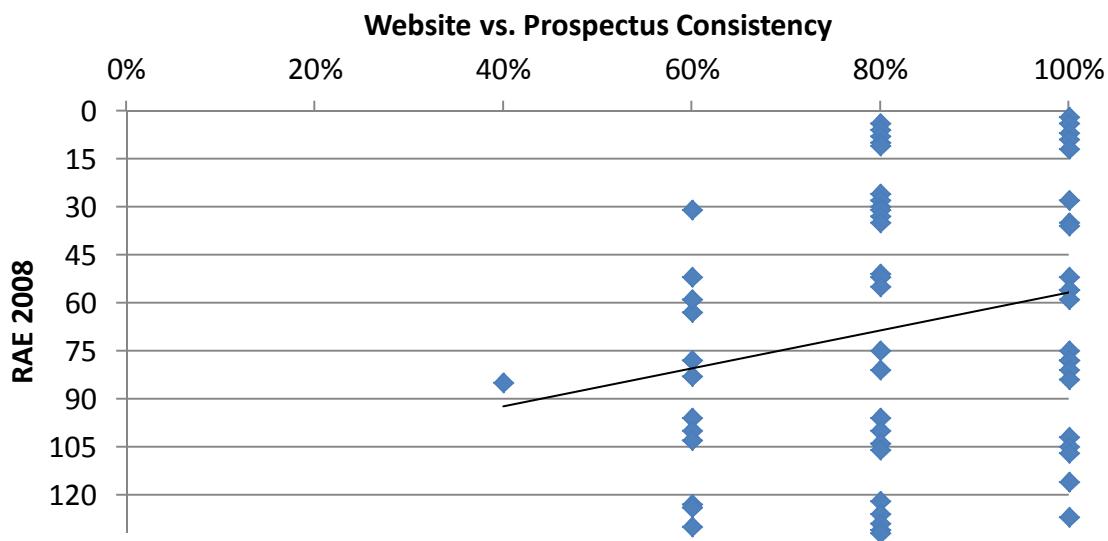


Figure 27 Scatter plot showing the relationship between *Website and Prospectus Brand Personality Strength Consistency* and *NSS satisfaction Performance*

**Relationship between Website vs. Prospectus Brand
Personality Strength Consistency and NSS Satisfaction
Performance**

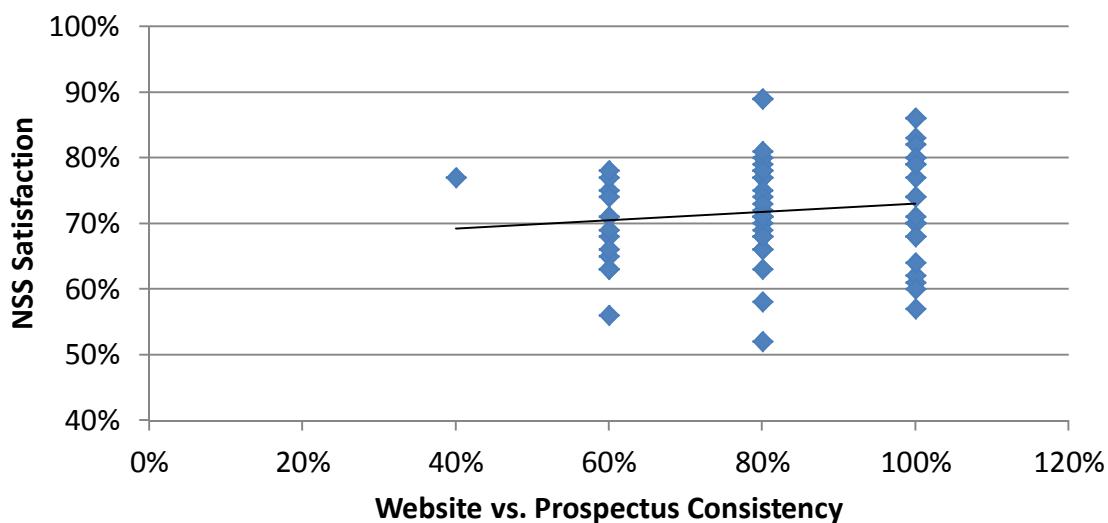


Figure 28 Scatter plot showing the relationship between *Website and Prospectus Brand Personality Strength Consistency* and *NSS Satisfaction Performance*

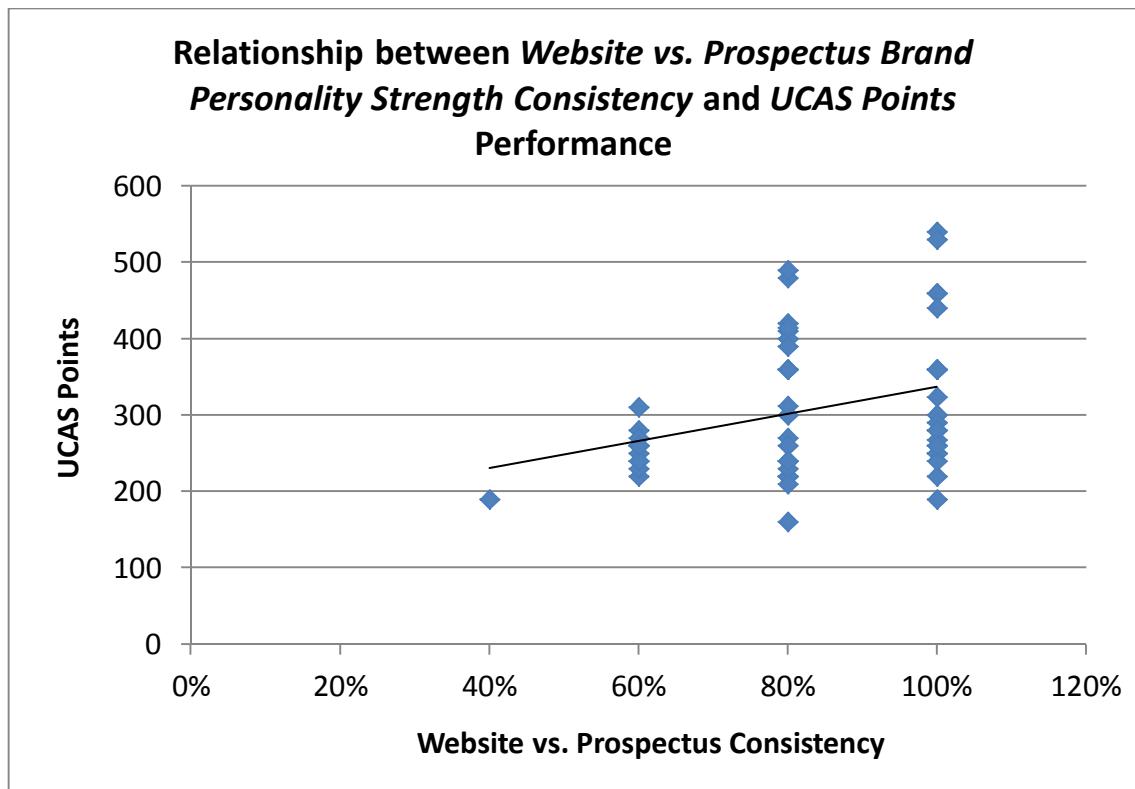


Figure 29 Scatter plot showing the relationship between *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Points Performance*

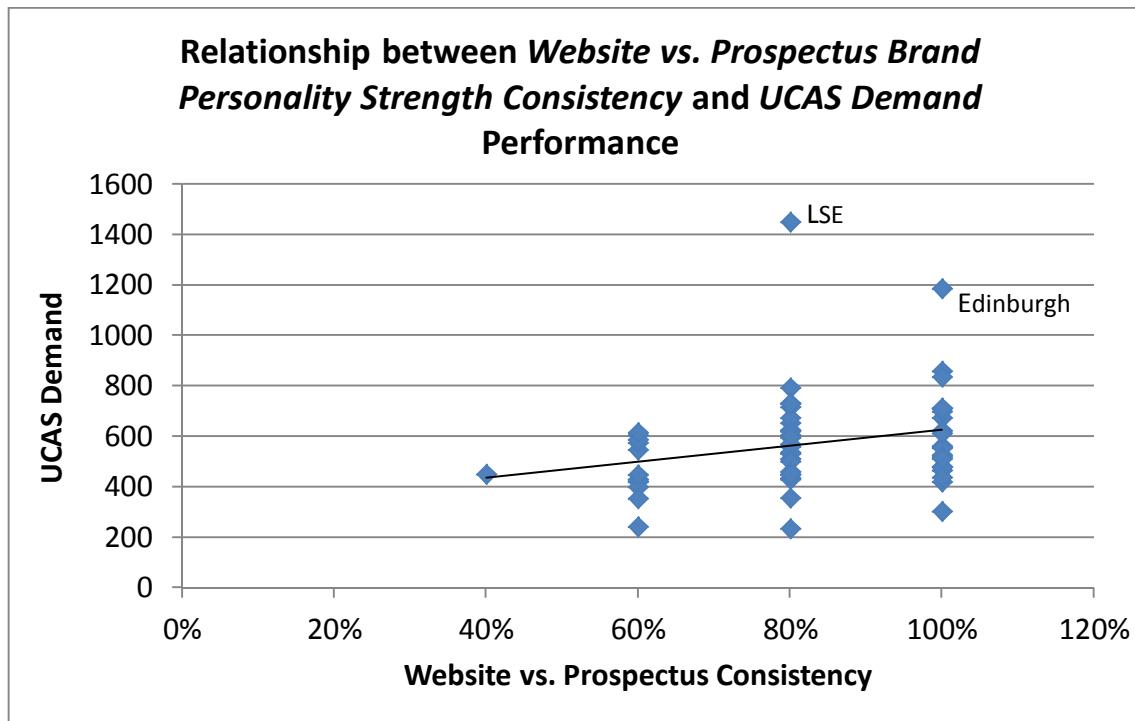


Figure 30 Scatter plot showing the relationship between *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Demand Performance*

6.1.2. Social Media Interaction

This hypothesis tested the moderated relationship between consistent HEI brands and performance, when accounting for the amount of HEI interaction and validation. Previous literature had indicated that cross-channel brand personality consistency impacts upon performance; also that social media interaction is crucial to HEI undergraduate recruitment campaigns, with Twitter and Facebook representing the most utilised and distinct forms of social media.

H2: The level of Social Media (a) participation on “Twitter” (b) validation on “Facebook” will significantly interact (moderate) the relationship between “Prospectus and Website” Brand Personality Strength Consistency and (a) UCAS Demand (b) UCAS Points performance.

Multiple regression analysis was calculated upon “Tweets”, “Followers” and “Following” upon the relationship between “Prospectus and Website” brand personality strength consistency and UCAS Demand. Only “Followers” added significantly new variance. Multiple regression analysis was calculated upon “Tweets”, “Followers” and “Following” upon the relationship between “Prospectus and Website” brand personality strength consistency and UCAS Demand performance. However “Tweets”, “Followers” and “Following” did not add significant new variance to the relationship of “Prospectus and Website” consistency and UCAS Points performance.

Multiple regression analysis was calculated upon the interaction effect of “Likes” and “Talking About” upon the relation between prospectus vs. website brand personality strength consistency and UCAS Demand. Both likes and talking about added significant new variance to the relationship of “Prospectus and Website” consistency and UCAS Demand. Multiple regression analysis was calculated upon the interaction effect of “Likes” and “Talking About” upon the relation between prospectus vs. website brand personality strength consistency and UCAS Points. “Likes”, nor “Talking About” added significant new variance to the relationship of “Prospectus and Website” consistency and UCAS Points.

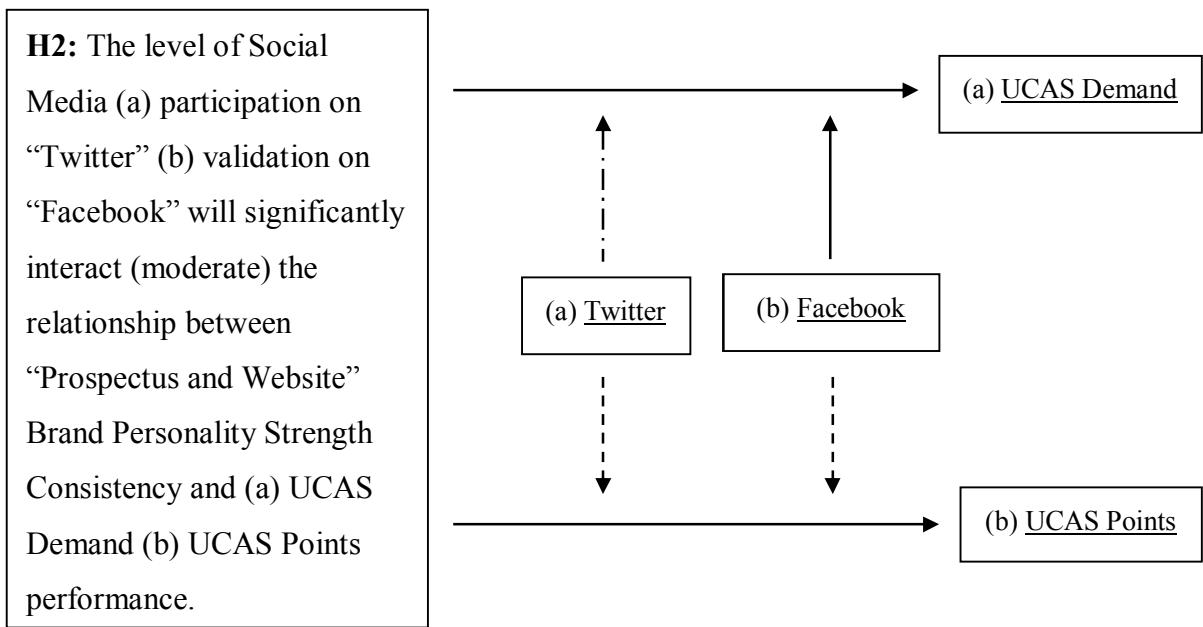


Figure 31 Diagram showing visual representation of Hypothesis Two

Firstly, results show that the level of social media participation on “Twitter” does in fact significantly interact upon the relationship between brand personality strength consistency between the “Prospectus and Website” and UCAS Demand performance. As a result, research Hypothesis 2(a)(a) was partially supported. Secondly, results showed that that the level of social media participation on “Twitter” did not significantly interact upon the relationship between brand personality strength consistency between the “Prospectus and Website” and UCAS Points performance. As a result, research Hypothesis 2(a)(b) was not supported.

Thirdly, results show that the level of social media validation on Facebook does in fact significantly interact upon the relationship between brand personality strength consistency between the “Prospectus and Website” and UCAS Demand performance. As a result, research Hypothesis 2(b)(a) was supported. Lastly, results show that the level of social media validation on Facebook does not significantly interact upon the relationship between brand personality strength consistency between the “Prospectus and Website” and UCAS Points performance. As a result, research Hypothesis 2(b)(b) was not supported.

Therefore as Twitter H2(a)(a) was partially supported and H2(a)(b) not supported, while on Facebook H2(b)(a) was supported and H2(b)(b) not supported. The overall Hypothesis of H2 was partially supported.

6.1.2.1. Twitter Moderation

Model 4 in Table 24 shows the moderation effect of *Tweets on Twitter* on the relationship between *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Points Performance*. Hypothesis H2(a)(a) was **not supported**. The number of *Tweets on Twitter* does not significantly create new variance (interacts) between the relationship of *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Points*. R for regression was significantly different from zero, $F(3,56) = 4.317$, $p < .05$, total $R^2 = .433$. *Website and Prospectus Brand Personality Strength Consistency* ($\beta = .346$, $p = .123$), *Tweets on Twitter* ($\beta = .649$, $p = .538$) and the interaction term ($\beta = -.363$, $p = .768$) did not contribute significantly towards the model.

Model 5 in Table 24 shows the moderation effect of *Followers on Twitter* on the relationship between *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Points Performance*. Hypothesis H2(a)(a) was **not supported**. The number of *Followers on Twitter* does not significantly create new variance (interacts) between the relationship of *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Points*. R for regression was significantly different from zero, $F(3,56) = 26.883$, $p < .001$, total $R^2 = .768$. *Website and Prospectus Brand Personality Strength Consistency* ($\beta = .237$, $p < .01$) and *Followers on Twitter* ($\beta = 1.708$, $p < .05$) contributed significantly towards the model, the interaction term ($\beta = -1.327$, $p = .190$) did not contribute significantly.

Model 6 in Table 24 shows the moderation effect of *Following on Twitter* on the relationship between *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Points Performance*. Hypothesis H2(a)(a) was **not supported**. The number of *Following on Twitter* does not significantly create new variance (interacts) between the relationship of *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Points*. R for regression was significantly different from zero, $F(3,56) = 3.793$, $p < .05$, total $R^2 = .411$. *Website and Prospectus Brand Personality Strength Consistency* ($\beta = .399$, $p < .05$) contributed significantly towards the model, *Following on Twitter* ($\beta = 1.160$, $p = .409$) and the interaction term ($\beta = -.913$, $p = .517$) did not contribute significantly.

Independent Variables	Student Quality (UCAS Points) Performance								
	Model 4			Model 5			Model 6		
	B	β	Sig.	B	β	Sig.	B	β	Sig.
Constant	116.188		.263	129.712		.039	107.772		.213
Website Prospectus	196.227	.346	.123	134.169	.237	.065	226.495	.399	.034
Tweets	.049	.649	.538						
Followers				.030	1.708	.027			
Following							.101	1.160	.409
Moderator	-.032	-.363	.768	-.019	-1.327	.190	-.097	-.913	.517
R^2	.433			.768			.411		

Table 24 Regression Results of *Brand Personality Strength Consistency* and *Multiple Definitions* of Performance

Model 7 in Table 25 shows the moderation effect of *Tweets on Twitter* on the relationship between *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Demand Performance*. Hypothesis H2(a)(b) was **not supported**. The number of *Tweets on Twitter* does not significantly create new variance (interacts) between the relationship of *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Demand*. R for regression was significantly different from zero, $F(3,56) = 7.008$, $p < .001$, total $R^2 = .273$. *Website and Prospectus Brand Personality Strength Consistency* ($\beta = .334$, $p = .115$), *Tweets on Twitter* ($\beta = 1.134$, $p = .257$) and the interaction term ($\beta = -.710$, $p = .491$) did not contribute significantly towards the model.

Model 8 in Table 25 shows the moderation effect of *Followers on Twitter* on the relationship between *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Demand Performance*. Hypothesis H2(a)(b) was **supported**. The number of *Followers on Twitter* does significantly create new variance (interacts) between the relationship of *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Demand*. R for regression was significantly different from zero, $F(3,56) = 9.390$, $p < .001$, total $R^2 = .335$. *Website and Prospectus Brand Personality Strength Consistency* ($\beta = .573$, $p = .001$) and *Followers on Twitter* ($\beta = 3.795$, $p < .001$), the interaction term ($\beta = -3.601$, $p = .001$) contributed significantly towards the model. Figure 32 below, shows the consistency to performance relationship is strongest in the case of a low number of *Followers on Twitter* and weaker in the case of a medium number. There is also a strong negative relationship between consistency and performance at the highest level of *Followers on Twitter*.

**Moderation Effect of *Followers on Twitter* on the relationship
between *Website vs. Prospectus Consistency* and *UCAS Demand* Performance**

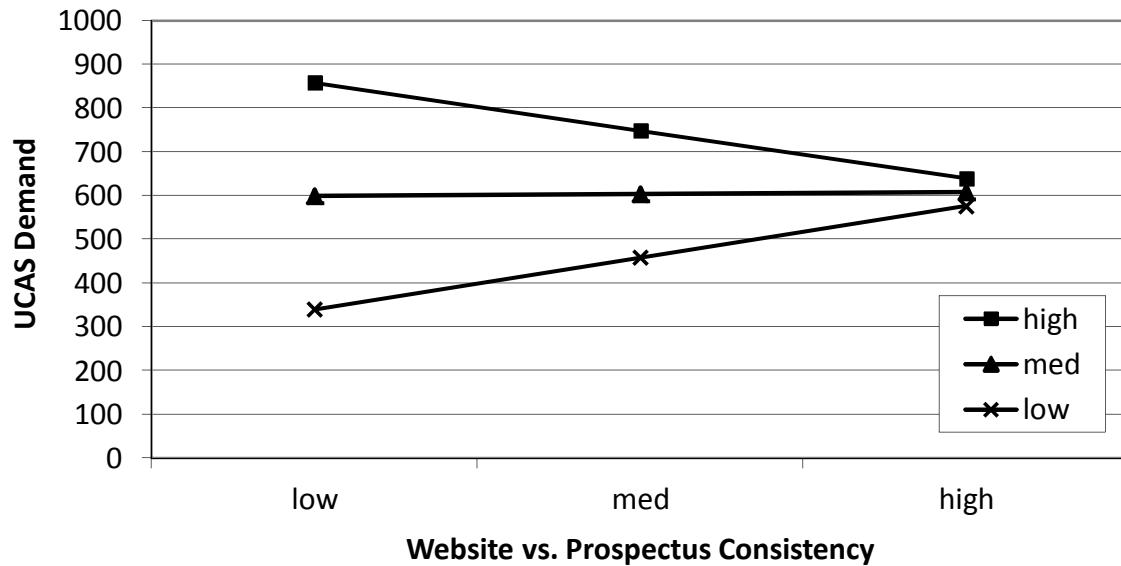


Figure 32 The moderation effect of *Followers on Twitter* on the relationship between *Website and Prospectus Consistency* and *UCAS Demand* performance at a low, medium and high frequency.

Model 9 in Table 25 shows the moderation effect of *Following on Twitter* on the relationship between *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Demand* Performance, Hypothesis H2(a)(b) was **not supported**. The number of *Following on Twitter* does not significantly create new variance (interacts) between the relationship of *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Demand*. R for regression was significantly different from zero, $F(3,56) = 3.212$, $p < .05$, total $R^2 = .147$. *Website and Prospectus Brand Personality Strength Consistency* ($\beta = .283$, $p = .133$), *Following on Twitter* ($\beta = .590$, $p = .677$) and the interaction term ($\beta = -.309$, $p = .828$) did not contribute significantly.

Indep Variables	Recruitment (UCAS Demand) Performance								
	Model 7			Model 8			Model 9		
	B	β	Sig.	B	β	Sig.	B	β	Sig.
Constant	140.636		.507	-114.413		.502	253.722		.181
WebProsp	410.302	.334	.115	703.496	.573	.001	347.963	.283	.133
Tweets	.185	1.134	.257						
Followers				.144	3.795	< .001			
Following							.111	.590	.677
Moderator	-.135	-.710	.491	-.140	-3.601	.001	-.071	-.309	.828
<i>R</i> ²	.273			.335			.147		

Table 25 Regression Results of *Brand Personality Strength Consistency* and *Multiple Definitions* of Performance

6.1.2.2. Facebook Moderation

Model 10 in Table 25 shows the moderation effect of *Talking About on Facebook* on the relationship between *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Points* Performance. Hypothesis H2(b)(a) was **not supported**. The number of people *Talking About on Facebook* does not significantly create new variance (interacts) between the relationship of *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Points*. R for regression was not significantly different from zero, $F(3,56) = 6.296$, $p < .001$, total $R^2 = .252$. *Website and Prospectus Brand Personality Strength Consistency* ($\beta = .228$, $p = .109$), *Talking About on Facebook* ($\beta = .116$, $p = .963$) and the interaction term ($\beta = .286$, $p = .910$) did not contribute significantly.

Model 11 in Table 25 shows the moderation effect of *Likes on Facebook* on the relationship between *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Points* Performance. Hypothesis H2(b)(a) was **not supported**. The number of *Likes on Facebook* does not significantly create new variance (interacts) between the relationship of *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Points*. R for regression was significantly different from zero, $F(3,56) = 7.440$, $p < .001$, total $R^2 = .285$. *Website and Prospectus Brand Personality Strength Consistency* ($\beta = .338$, $p < .05$) contributed significantly towards the model, *Likes on Facebook* ($\beta = 4.194$, $p = .240$) and the interaction term ($\beta = -3.793$, $p = .290$) did not contribute significantly.

Independent Variables	<u>Student Quality (UCAS Points) Performance</u>					
	Model 10			Model 11		
	B	β	Sig.	B	β	Sig.
Constant	187.203		.010	124.487		.116
WebProsp	129.215	.228	.109	191.837	.338	.030
Talking About	.028	.116	.963			
Likes				.008	4.194	.240
Moderator	.028	.286	.910	-.008	-3.793	.290
R^2	.252			.285		

Table 26 Regression Results of *Brand Personality Strength Consistency* and *UCAS Points Performance*

Model 12 in Table 27 shows the moderation effect of *Likes on Facebook* on the relationship between *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Demand Performance*. Hypothesis H2(b)(b) was **supported**. The number of *Likes on Facebook* does significantly create new variance (interacts) between the relationship of *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Demand*. R for regression was significantly different from zero, $F(3,56) = 5.061$, $p < .001$, total $R^2 = .213$. *Website and Prospectus Brand Personality Strength Consistency* ($\beta = .590$, $p < .001$), *Likes on Facebook* ($\beta = 12.019$, $p < .05$) and the interaction term ($\beta = -12.085$, $p < .01$) contributed significantly towards the model. Figure 33 below shows the consistency to performance relationship is strongest in the case of a low number of *Likes on Facebook* and weaker in the case of a medium number. There is also a strong negative relationship between consistency and performance at the highest level of *Likes on Facebook*.

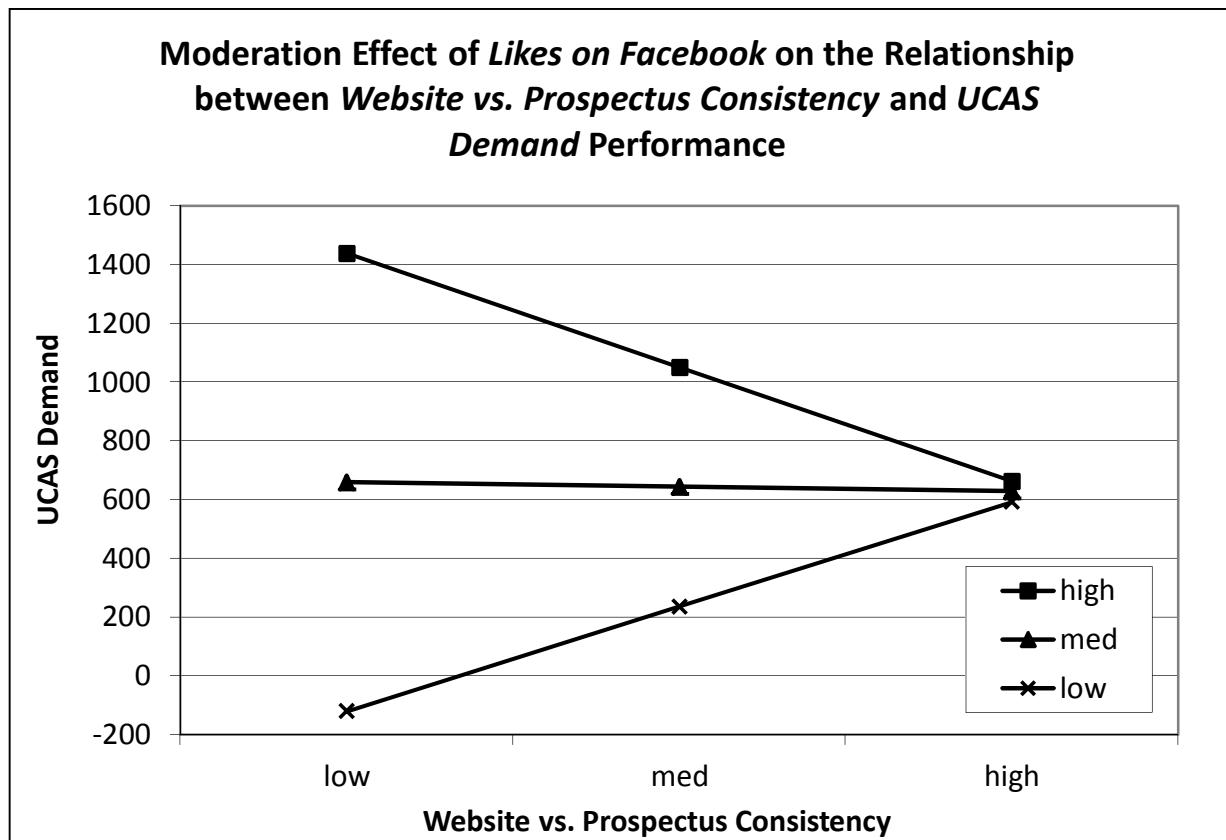


Figure 33 The moderation effect of *Likes on Facebook* on the Relationship between *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Points Performance*

Model 13 in Table 27 shows the moderation effect of *Talking About on Facebook* on the relationship between *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Demand* Performance. Hypothesis H2(b)(b) was **supported**. The number of people *Talking About on Facebook* does significantly create new variance (interacts) between the relationship of *Website and Prospectus Brand Personality Strength Consistency* and UCAS Demand. R for regression was significantly different from zero, $F(3,56) = 3.290$, $p < .05$, total $R^2 = .15$. *Website and Prospectus Brand Personality Strength Consistency* ($\beta = .441$, $p < .01$), *Facebook Talking About* ($\beta = 6.257$, $p < .05$) and the interaction term ($\beta = -6.278$, $p < .05$) contributed significantly towards the model. Figure 34 below, shows the consistency to performance relationship is strongest in the case of a low number of *Talking About on Facebook* and weaker in the case of a medium number. There is also a strong negative relationship between consistency and performance at the highest level of *Talking About on Facebook*.

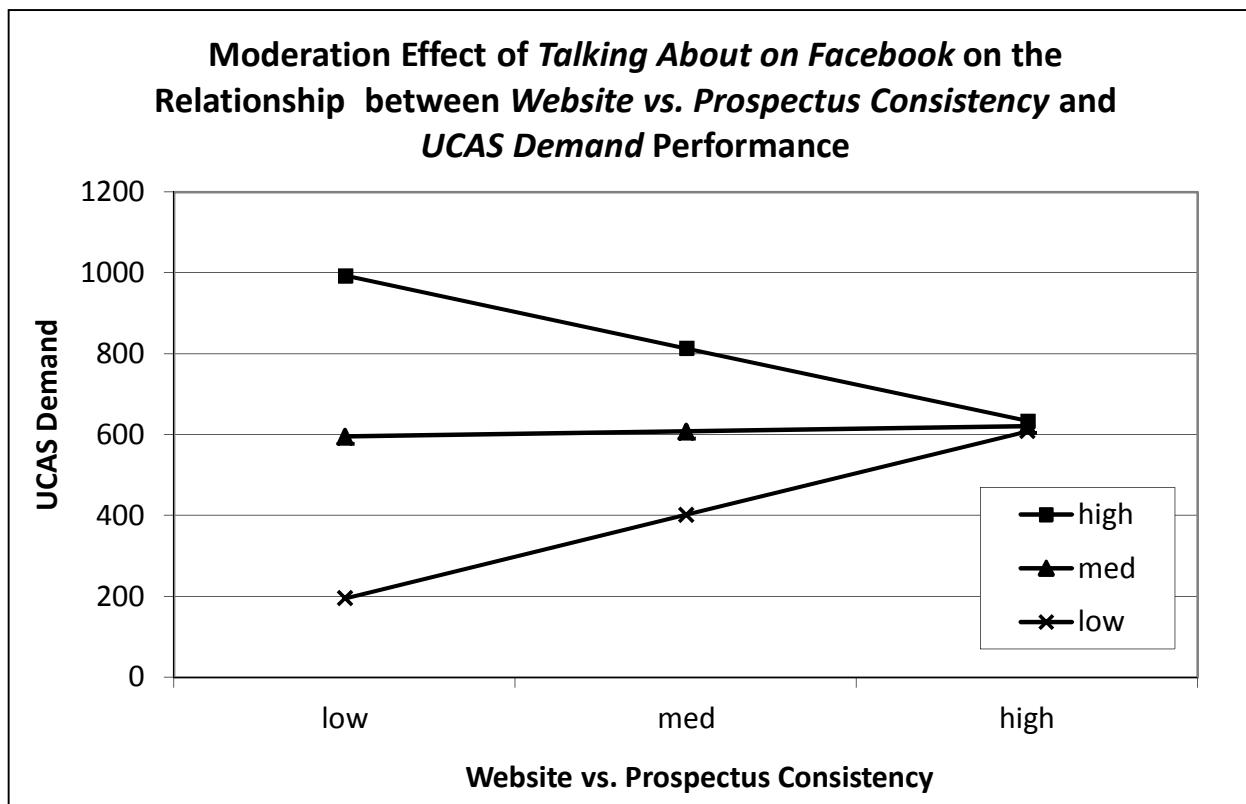


Figure 34 The moderation effect of *Talking About on Facebook* on the Relationship between *Website and Prospectus Brand Personality Strength Consistency* and *UCAS Points* Performance

Independent Variables	Student Quality (UCAS Demand) Performance					
	Model 12			Model 13		
	B	β	Sig.	B	β	Sig.
Constant	-98.358		.58	83.053		.61
Website Prospectus	724.003	.590	< .001	541.303	.441	.005
Likes	.053	12.019	.002			
Talking About				1.338	6.257	.022
Moderator	-.053	-12.085	.002	-1.344	-6.278	.022
R^2	.213			.15		

Table 27 Regression Results of *Brand Personality Strength Consistency* and *UCAS Demand* Performance

6.1.3. Website and Twitter Brand Personality Strength Consistency

This hypothesis tested within online brand personality strength consistency between the “Website and Twitter”. The literature suggests that as part of an integrated marketing campaign, consistency between multiple online channels is crucial, while social media interaction impacts upon performance. While it was recognise as crucial to HE marketing communications, social media often represented a non-strategic communication strategy with overall slow take up.

H3: Brand Personality Strength Consistency between “Website and Twitter” is significantly positively related to (a) RAE (b) NSS (c) UCAS Points (d) UCAS Demand performance.

Spearman’s correlation analysis was used to analyse the relationship between “Website vs. Twitter” brand personality and RAE performance. Regression analysis was used to analyse the nature of the relationship between consistency and NSS, UCAS Points and UCAS Demand performance, all of which resulted in no significant relationship existing.

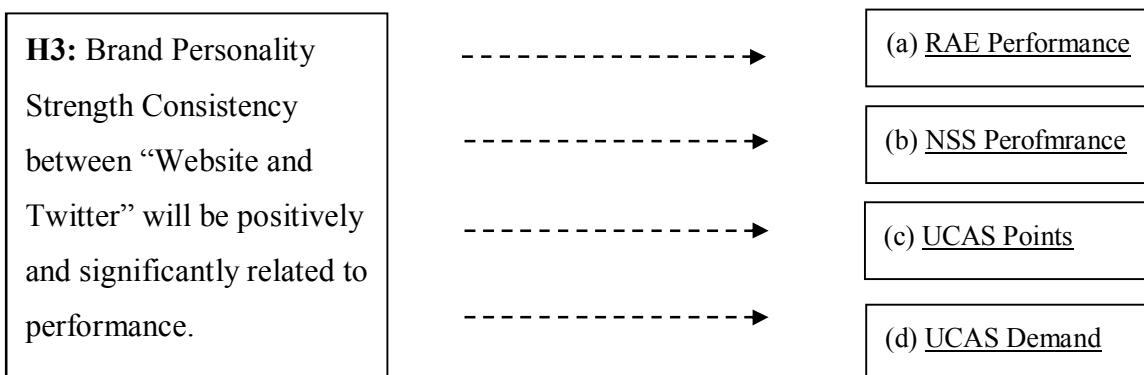


Figure 35 Diagram showing visual representation of Hypothesis Three

Therefore, results show that brand personality consistency within online (between website vs. Twitter) and RAE Research H3(a), NSS Teaching Quality H3(b), UCAS Points H3(c) and UCAS Demand H3(d) performance are not significantly positively related.

As a result, research Hypothesis 3 that brand personality strength consistency between the website vs. Twitter is positively related to performance was not supported.

A Spearman's correlation coefficient was computed to assess the relationship between RAE performance and *Website and Twitter Brand Personality Strength Consistency*. Hypothesis H3(a) was **not supported**. There was no correlation between the two variables ($r = .002$, $n = 60$, $p = .495$). A scatter plot summarises the results in Figure 36.

Model 14 in Table 28 shows *NSS Satisfaction* Performance against *Website and Twitter Brand Personality Strength Consistency*. Hypothesis H3(b) was **not supported**. The consistency between the *Website and Twitter Brand Personality Strength Consistency* was not significantly related to *NSS Satisfaction* Performance. R for regression was not significantly different from zero, $F(1,58) = 1.002$, $p = .321$, total $R^2 = .017$. *Website and Twitter Brand Personality Strength Consistency* ($\beta = -.074$, $p = .321$) did not contribute significantly. A scatter plot summarises the results in Figure 37.

Model 15 in Table 28 shows *UCAS Points* Performance against *Website and Twitter Brand Personality Strength Consistency*. Hypothesis H3(c) was **not supported**. The consistency between the *Website and Twitter* was not significantly related to *UCAS Points* Performance. R for regression was not significantly different from zero, $F(1,58) = .869$, $p = .355$, total $R^2 = .015$. *Website and Twitter Brand Personality Strength Consistency* ($\beta = .121$, $p = .355$) did not contribute significantly. There was no significant positive correlation between *Website and Twitter Brand Personality Strength Consistency* and *UCAS Points*. A scatter plot summarises the results in Figure 38.

Model 16 in Table 28 shows UCAS Demand performance against *Website and Twitter Brand Personality Strength Consistency*. Hypothesis H3(d) was **not supported**. The consistency between the *Website and Twitter* was not significantly related to *UCAS Demand* Performance. R for regression was not significantly different from zero, $F(1,58) = .067$, $p = .797$, total $R^2 = .001$. *Website and Twitter Brand Personality Strength Consistency* ($\beta = .034$, $p = .797$) did not contribute significantly. There was no significant positive correlation between *Website and Twitter Brand Personality Strength Consistency* and *UCAS Demand*. A scatter plot summarises the results in Figure 41.

Independent Variables	<u>NSS</u>			<u>UCAS Points</u>			<u>UCAS Demand</u>		
	Model 14			Model 15			Model 16		
	B	β	Sig.	B	β	Sig.	B	β	Sig.
Constant	.874		< .001	263.132		< .001	.545		< .001
Website Twitter	-.074	-.130	.321	52.202	.121	.355	31.531	.034	.797
R^2	.017			.015			.001		

Table 28 Regression Results of *Brand Personality Strength Consistency* and *Multiple Definitions* of Performance

**Relationship between Website vs. Twitter Brand Personality
Strength Consistency and RAE 2008 Performance**

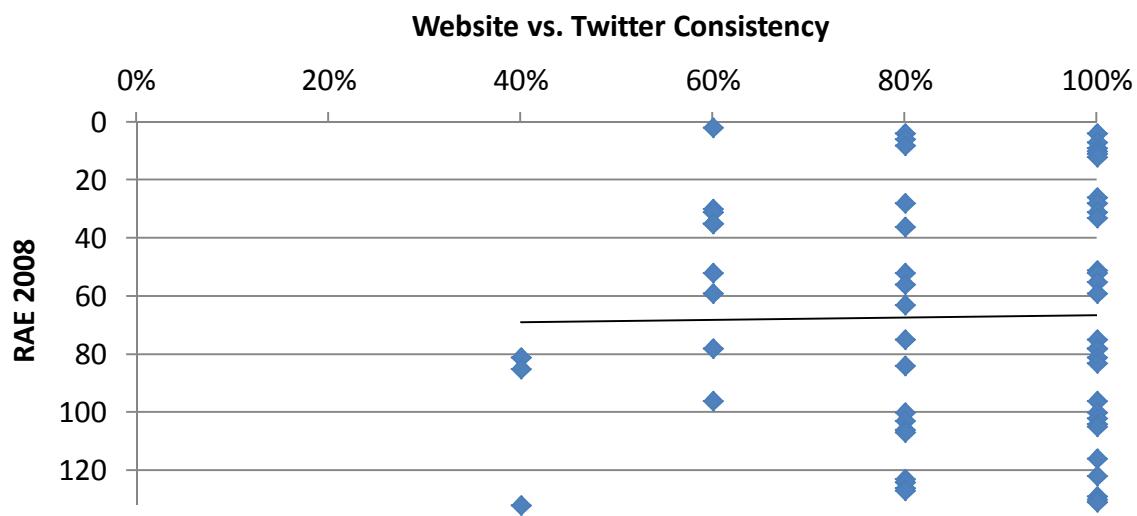


Figure 36 Scatter plot showing the relationship between *Website and Twitter Brand Personality Strength Consistency* and *RAE 2008 Performance*

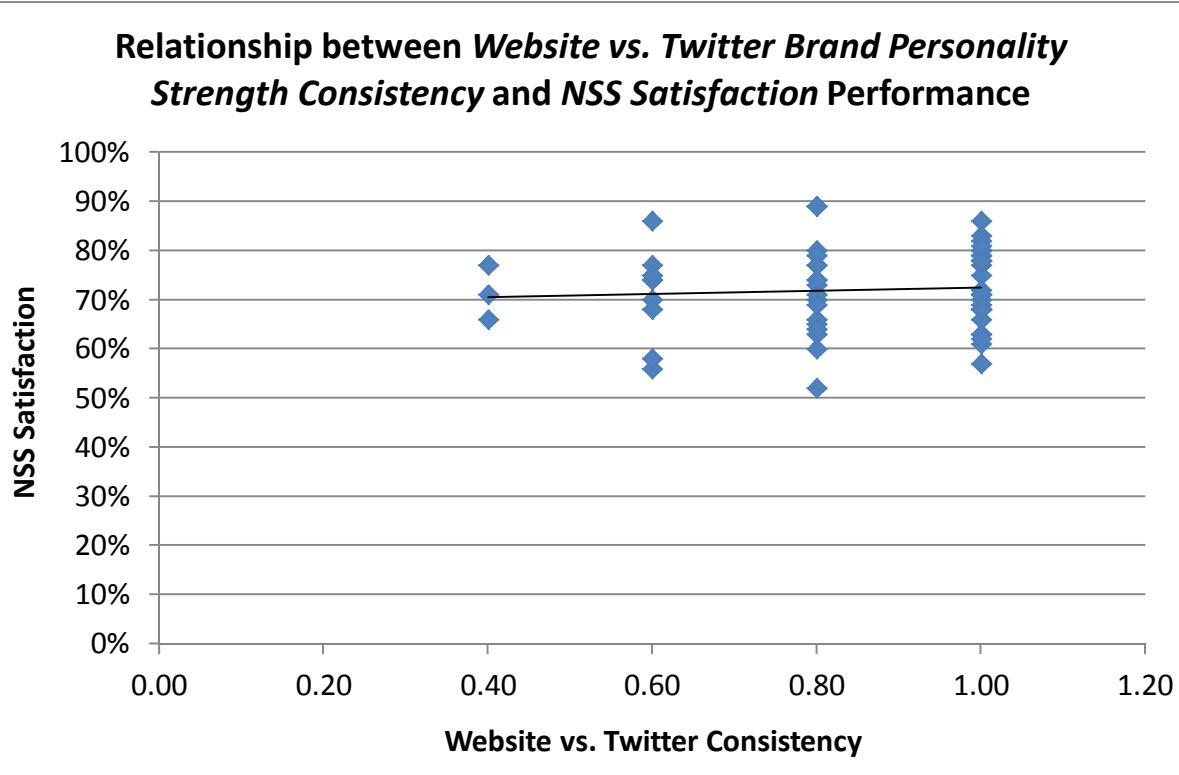


Figure 37 Scatter plot showing the relationship between *Website and Twitter Brand Personality Strength Consistency* and *NSS satisfaction Performance*

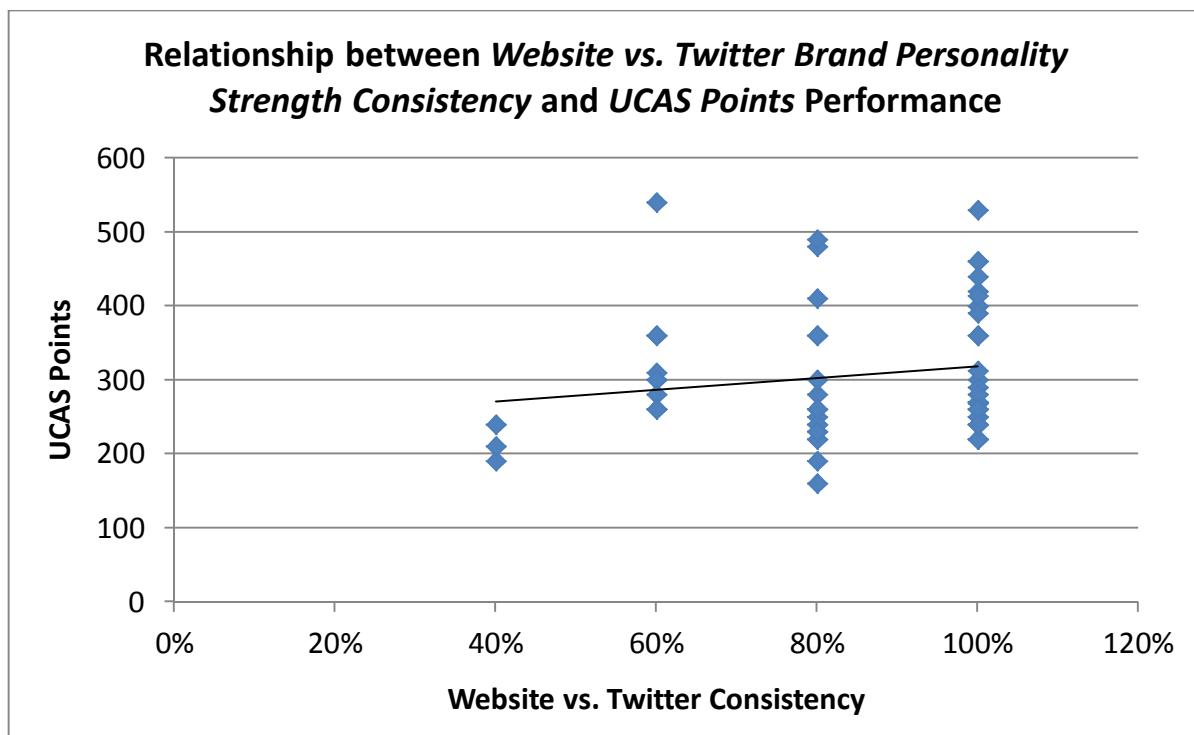


Figure 38 Scatter plot showing the relationship between *Website and Twitter Brand Personality Strength Consistency* and *UCAS Points Performance*

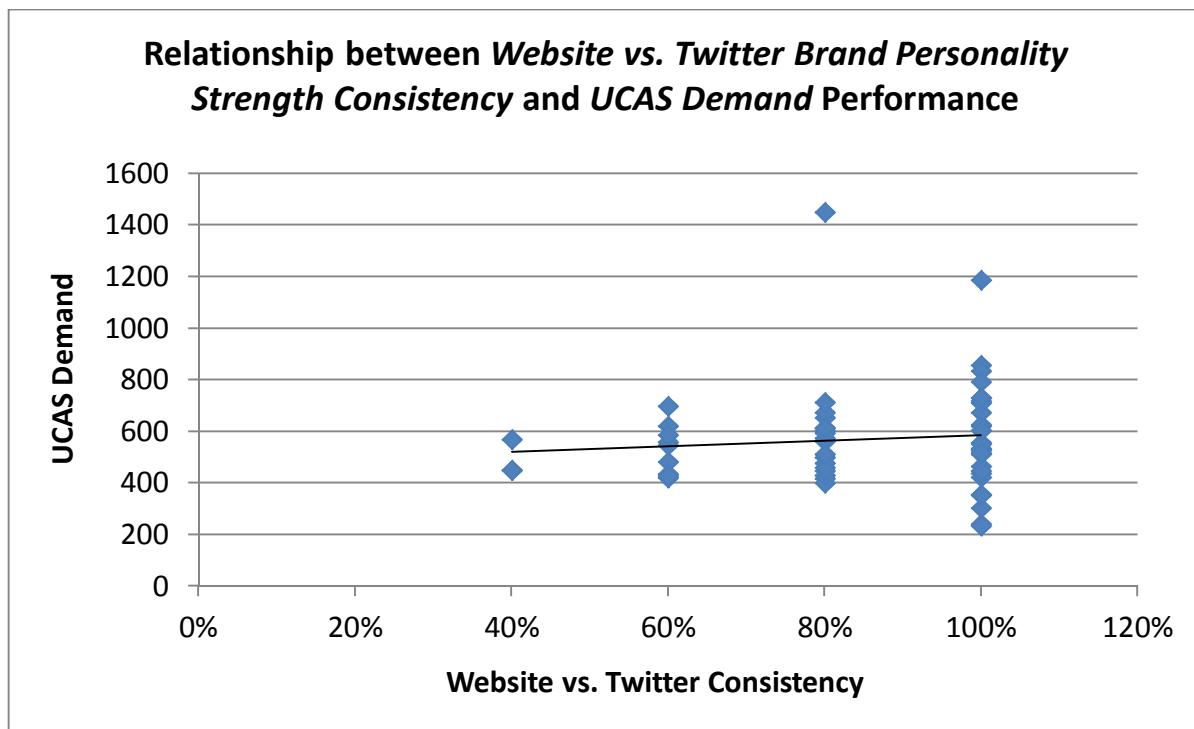


Figure 39 Scatter plot showing the relationship between *Website and Twitter Brand Personality Strength Consistency* and *UCAS Demand Performance*

6.1.3.1. Brand Personality Strength Mediation

This hypothesis tested the mediation effect of brand strength between consistency and performance. The literature concluded that HEI brands which are strong are able to communicate themselves consistently as stakeholders are more likely to understand the brand's values.

H4: Brand Personality Strength Consistency between the “Website and Twitter” will significantly interact (mediate) the relationship between Brand Personality Strength of (a) Competence (b) Excitement (c) Ruggedness (d) Sincerity (e) Sophistication within the “Prospectus” and UCAS Demand performance.

Multiple regression analysis was calculated upon the interaction effect of brand personality strength (“Competence”, “Excitement”, “Ruggedness”, “Sincerity” and “Sophistication”) upon the relation between prospectus vs. website brand personality strength consistency and UCAS Demand. The brand personality strength interaction effect was not significant for each dimension; no dimension added significantly new variance to the relationship between “Website and Twitter” brand personality consistency and UCAS Demand.

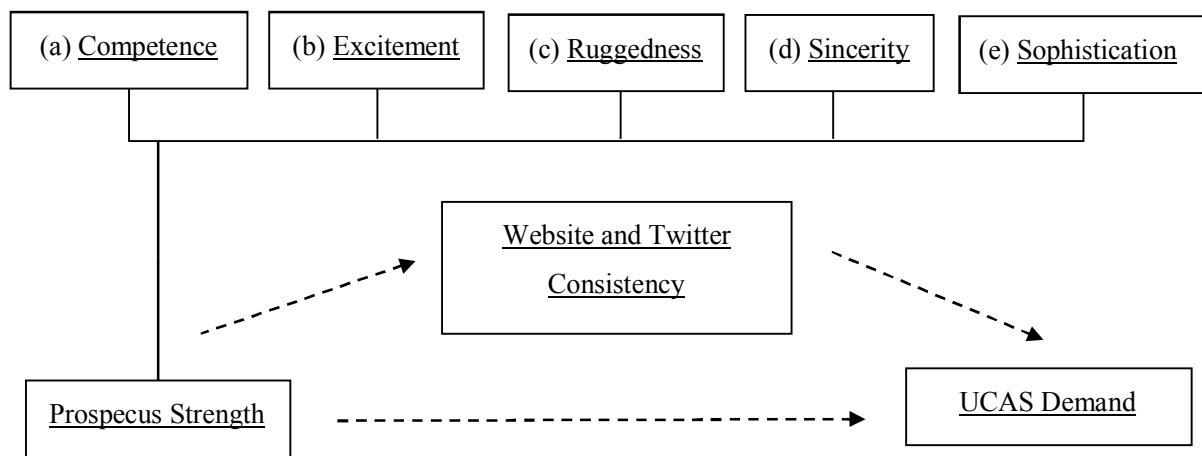


Figure 40 Diagram showing visual representation of Hypothesis Four

Therefore, results show that strength of prospectus brand personality of “Competence” H4(a), “Excitement” H4(b), “Ruggedness” H4(c), “Sincerity” H4(d) and “Sophistication” H4(e) does not interact upon the relationship between brand personality strength consistency between the website vs. Twitter and UCAS Demand performance. As a result, research Hypothesis 4 was not supported.

Table 29 shows Hypothesis H4(a) was **not supported**. *Website and Twitter Brand Personality Strength Consistency* did not mediate the relationship between *Prospectus Brand Personality Strength of Competence* and *UCAS Demand* performance.

In Step 1 of the mediation model, the regression of *UCAS Demand* on *Prospectus Brand Personality Strength of Competence*, ignoring the mediator, was not significant, $b = -120.954$, $t(60) = -1.318$, $p = .193$. Step 2 showed that the regression of the *UCAS Demand*, *Website and Twitter Brand Personality Strength Consistency*, was also not significant, $b = 31.531$, $t(59) = 0.258$, $p = .797$. Step 3 of the mediation process showed that the mediator (*Website and Twitter Brand Personality Strength Consistency*), controlling for the *Prospectus Brand Personality Strength of Competence*, was not significant, $b = -.083$, $t(59) = -.981$, $p = .331$. Step 4 of the analyses revealed that, controlling for the mediator (*Website and Twitter Brand Personality Strength Consistency*), *Prospectus Brand Personality Strength of Competence* was also not a significant predictor of *UCAS Demand*, $b = -133.919$, $t(59) = -1.224$, $p = .226$. A Sobel test was conducted and no partial mediation was found in the model ($z = -.379$, $p = .705$). A scatter plot summarises the relationship between *Competence* and *UCAS Demand* in Figure 42.

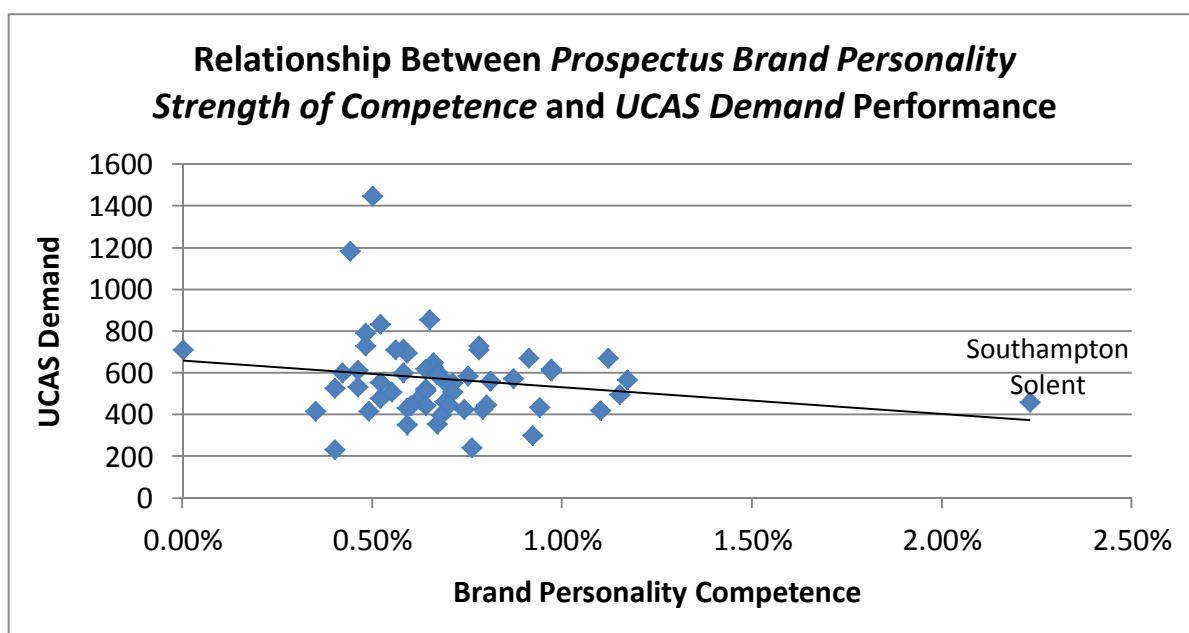


Figure 41 Scatter plot showing the relationship between *Prospectus Brand Personality Strength of Competence* and *UCAS Demand* Performance

Independent Variables	<u>Recruitment (UCAS Demand) Performance - Model 17</u>											
	Step 1			Step 2			Step 3 (Mediator)			Step 4		
	B	β	Sig.	B	β	Sig.	B	β	Sig.	B	β	Sig.
Constant	654.482		< .001	545.136		< .001	.906		< .001	578.00		< .001
Competence	-120.954	-.172	.193				-.083	-.129	.331	-133.919	-.162	.560
Mediator				31.531	-.172	.797				84.385	.078	.226
R^2	.030			.001			.017			.036		

Table 29 Regression of the *Website and Twitter Consistency* mediation of *Prospectus Brand Personality Strength of Competence and UCAS Demand Performance*

Table 30 shows Hypothesis H4(b) was **not supported**. *Website and Twitter Brand Personality Strength Consistency* did not mediate the relationship between *Prospectus Brand Personality Strength of Excitement* and *UCAS Demand* performance.

In Step 1 of the mediation model, the regression of *UCAS Demand* on *Prospectus Brand Personality Strength of Excitement*, ignoring the mediator, was significant, $b = -293.016$, $t(59) = -2.24$, $p < .05$. Step 2 showed that the regression of the *UCAS Demand*, *Website and Twitter Brand Personality Strength Consistency*, was not significant, $b = 31.531$, $t(59) = .258$, $p = .797$. Step 3 of the mediation process showed that the mediator (*Website and Twitter Brand Personality Strength Consistency*), controlling for the *Prospectus Brand Personality Strength of Excitement*, was not significant, $b = -.035$, $t(59) = .280$, $p = .780$. Step 4 of the analyses revealed that, controlling for the mediator (*Website and Twitter Brand Personality Strength Consistency*), *Prospectus Brand Personality Strength of Excitement* was a significant predictor of *UCAS Demand*, $b = -297.187$, $t(59) = -2.265$, $p < .05$. A Sobel test was conducted and no partial mediation was found in the model ($z = .178$, $p = .859$). A scatter plot summarises the relationship between *Excitement* and *UCAS Demand* in Figure 42.

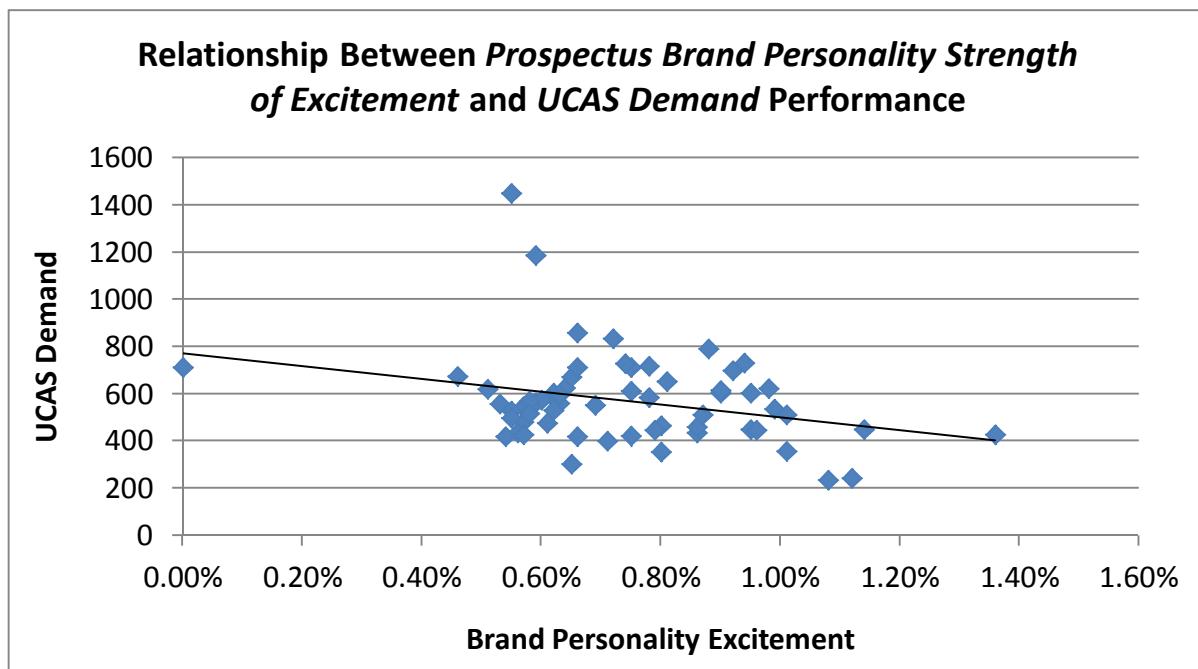


Figure 42 Scatter plot showing the relationship between *Prospectus Brand Personality Strength of Excitement* and *UCAS Demand* Performance

Independent Variables	<u>Recruitment (UCAS Demand) Performance - Model 18</u>											
	Step 1			Step 2			Step 3 (Mediator)			Step 4		
	B	β	Sig.	B	β	Sig.	B	β	Sig.	B	β	Sig.
Constant	789.939		< .001	545.136		< .001	.821		< .001	692.476		< .001
Excitement	-293.016	-.284	.029				.035	.037	.780	-297.187	-.289	.027
Mediator				31.531	-.172	.797				118.717	.109	.395
R^2	.081			.001			.001			.093		

Table 30 Regression of the *Website and Twitter Consistency* mediation of *Prospectus Brand Personality Strength of Excitement and UCAS Demand Performance*

Table 31 shows Hypothesis H4(c) was **not supported**. *Website and Twitter Brand Personality Strength Consistency* did not mediate the relationship between *Prospectus Brand Personality Strength of Ruggedness* and *UCAS Demand* performance.

In Step 1 of the mediation model, the regression of *UCAS Demand* on *Prospectus Brand Personality Strength of Ruggedness*, ignoring the mediator, was not significant, $b = -137.859$, $t(59) = -.603$, $p = .549$. Step 2 showed that the regression of the *UCAS Demand, Website and Twitter Brand Personality Strength Consistency*, was also not significant, $b = 31.531$, $t(59) = .258$, $p = .797$. Step 3 of the mediation process showed that the mediator (*Website and Twitter Brand Personality Strength Consistency*), controlling for the *Prospectus Brand Personality Strength of Ruggedness*, was significant, $b = -.455$, $t(59) = -.2.254$, $p < .05$. Step 4 of the analyses revealed that, controlling for the mediator (*Website and Twitter Brand Personality Strength Consistency*), *Prospectus Brand Personality Strength of Ruggedness* was not a significant predictor of *UCAS Demand*, $b = -97.028$, $t(59) = -.056$, $p = .687$. A Sobel test was conducted and no partial mediation was found in the model ($z = -.529$, $p = .597$). A scatter plot summarises the relationship between *Ruggedness* and *UCAS Demand* in Figure 43.

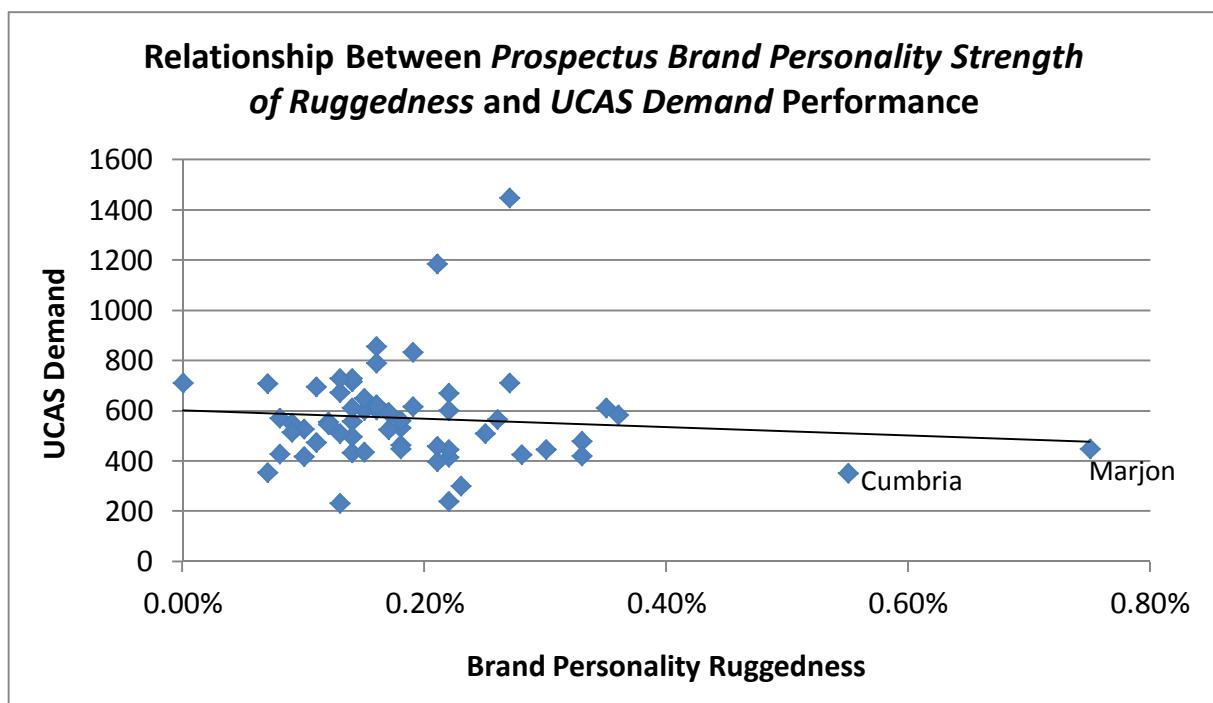


Figure 43 Scatter plot showing the relationship between *Prospectus Brand Personality Strength of Ruggedness* and *UCAS Demand* Performance

Independent Variables	<u>Recruitment (UCAS Demand) Performance - Model 19</u>											
	Step 1			Step 2			Step 3 (Mediator)			Step 4		
	B	β	Sig.	B	β	Sig.	B	β	Sig.	B	β	Sig.
Constant	595.789		< .001	545.136		< .001	.936		< .001	511.886		< .001
Ruggedness	-137.859	-.080	.549				-.455	-.286	.028	-97.028	-.056	.687
Mediator				31.531	-.172	.797				89.655	.082	.554
R^2	.006			.001			.082			.013		

Table 31 Regression Results of the *Website and Twitter Consistency* mediation of *Prospectus Brand Personality Strength of Ruggedness and UCAS Demand Performance*

Table 32 shows Hypothesis H4(d) was **not supported**. *Website and Twitter Brand Personality Strength Consistency* did not mediate the relationship between *Prospectus Brand Personality Strength of Sincerity* and *UCAS Demand* performance.

In Step 1 of the mediation model, the regression of *UCAS Demand* on *Prospectus Brand Personality Strength of Sincerity*, ignoring the mediator, was not significant, $b = -54.788$, $t(59) = -.085$, $p = .521$. Step 2 showed that the regression of the *UCAS Demand*, *Website and Twitter Brand Personality Strength Consistency*, was also not significant, $b = 31.531$, $t(59) = .258$, $p = .797$. Step 3 of the mediation process showed that the mediator (*Website and Twitter Brand Personality Strength Consistency*), controlling for the *Prospectus Brand Personality Strength of Sincerity*, was not significant, $b = -.059$, $t(59) = -.752$, $p = .455$. Step 4 of the analyses revealed that, controlling for the mediator (*Website and Twitter Brand Personality Strength Consistency*), *Prospectus Brand Personality Strength of Sincerity* was also not a significant predictor of *UCAS Demand*, $b = -48.99$, $t(59) = -.572$, $p = .570$. A Sobel test was conducted and no partial mediation was found in the model ($z = -.36$, $p = .719$). A scatter plot summarises the relationship between *Sincerity* and *UCAS Demand* in Figure 44.

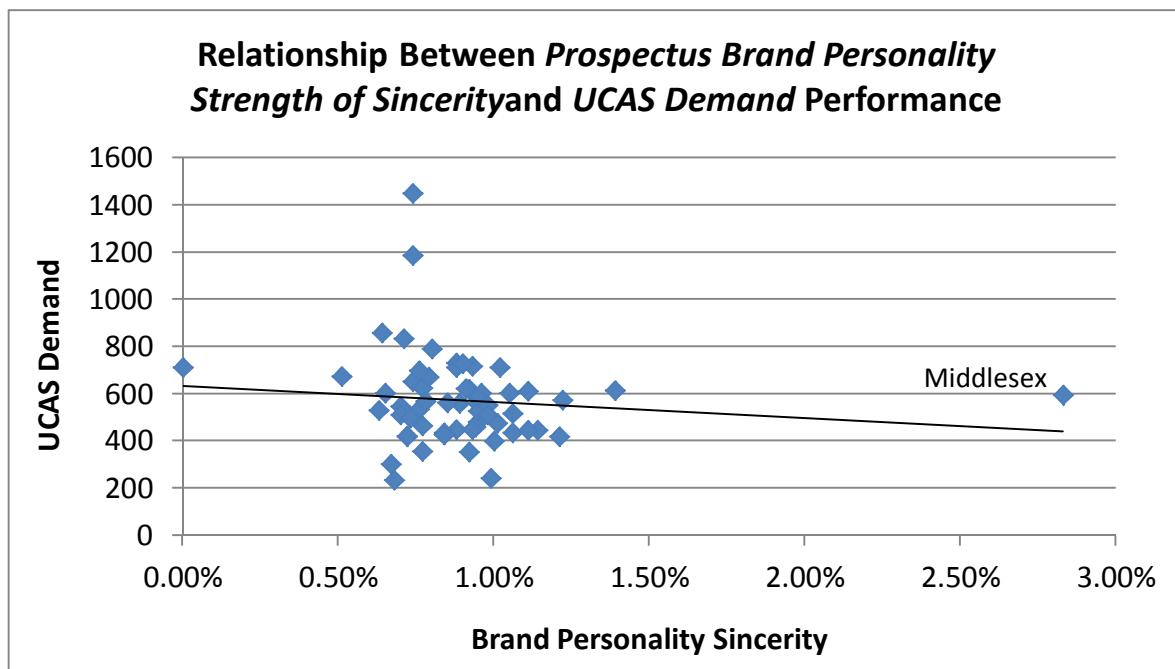


Figure 44 Scatter plot showing the relationship between *Prospectus Brand Personality Strength of Sincerity* and *UCAS Demand* Performance

Independent Variables	<u>Recruitment (UCAS Demand) Performance - Model 20</u>											
	Step 1			Step 2			Step 3 (Mediator)			Step 4		
	B	β	Sig.	B	β	Sig.	B	β	Sig.	B	β	Sig.
Constant	618.948		< .001	545.136		< .001	.901		< .001	529.873		.001
Sincerity	-54.788	-.085	.521				-.059	-.099	.455	-48.99	-.076	.570
Mediator				31.531	-.172	.797				98.875	.091	.498
R^2	.007			.001			.010			.015		

Table 32 Regression Results of the *Website and Twitter Consistency* mediation of *Prospectus Brand Personality Strength of Sincerity and UCAS Demand Performance*

Table 33 shows Hypothesis H4(e) was **not supported**. *Website and Twitter Brand Personality Strength Consistency* did not mediate the relationship between *Prospectus Brand Personality Strength of Sophistication* and *UCAS Demand* performance.

In Step 1 of the mediation model, the regression of *UCAS Demand* on *Prospectus Brand Personality Strength of Sophistication*, ignoring the mediator, was not significant, $b = -180.264$, $t(59) = .370$, $p = .712$. Step 2 showed that the regression of the *UCAS Demand*, *Website and Twitter Brand Personality Strength Consistency*, was also not significant, $b = 31.531$, $t(59) = .258$, $p = .797$. Step 3 of the mediation process showed that the mediator (*Website and Twitter Brand Personality Strength Consistency*), controlling for the *Prospectus Brand Personality Strength of Sophistication*, was not significant, $b = -.107$, $t(59) = -.239$, $p = .812$. Step 4 of the analyses revealed that, controlling for the mediator (*Website and Twitter Brand Personality Strength Consistency*), *Prospectus Brand Personality Strength of Sophistication* was also not a significant predictor of *UCAS Demand*, $b = 168.951$, $t(59) = -.346$, $p = .731$. A Sobel test was conducted and no partial mediation was found in the model ($z = .139$, $p = .89$). A scatter plot summarises the relationship between *Sophistication* and *UCAS Demand* in Figure 45.

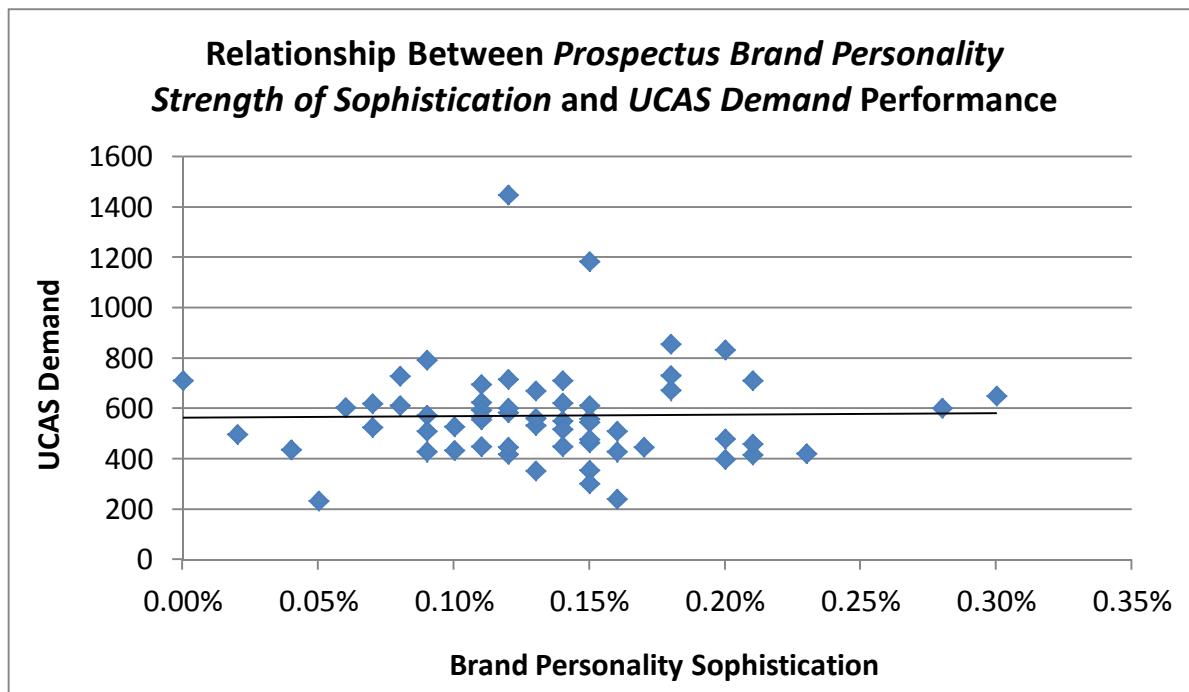


Figure 45 Scatter plot showing the relationship between *Prospectus Brand Personality Strength of Sophistication* and *UCAS Demand* Performance

Independent Variables	<u>Recruitment (UCAS Demand) Performance - Model 21</u>											
	Step 1			Step 2			Step 3 (Mediator)			Step 4		
	B	β	Sig.	B	β	Sig.	B	β	Sig.	B	β	Sig.
Constant	544.409		< .001	545.136		< .001	.833		< .001	456.547		.002
Sophistication	180.264	.049	.712				.107	.032	.812	168.951	.046	.731
Mediator				31.531	-.172	.797				105.501	.097	.468
R^2	.002			.001			.001			.012		

Table 33 Regression Results of the *Website and Twitter Consistency* mediation of *Prospectus Brand Personality Strength of Sophistication and UCAS Demand Performance*

6.1.4. Website vs. Twitter Consistency Social Media Moderation

This hypothesis analysed the interaction of Facebook validation upon the relationship between “Website and Twitter” and performance. The literature stated anecdotally that social media provided a key communication channel to stakeholders, ultimately responsible for internal, political and general consensus. It also provides social validation, of crucial importance to the HEI undergraduate recruitment process.

H5: The level of Social Media validation on “Facebook” will significantly interact (moderate) the relationship between “Website and Twitter” brand personality strength consistency and (a) UCAS Demand and (b) UCAS Points performance.

Multiple regression analysis was calculated upon the Facebook validation effect of “Likes” and “Talking About” upon the relation between “Website and Twitter” brand personality strength consistency and UCAS Demand. The interaction effect was not significant for both “Likes” and “Talking About” on UCAS Demand. Multiple regression analysis was also calculated upon the “Facebook” validation effect of “Likes” and “Talking About” upon the relation between “Website and Twitter” brand personality strength consistency and UCAS Points. The interaction effect was significant for both “Likes” and “Talking About” on UCAS Points performance.

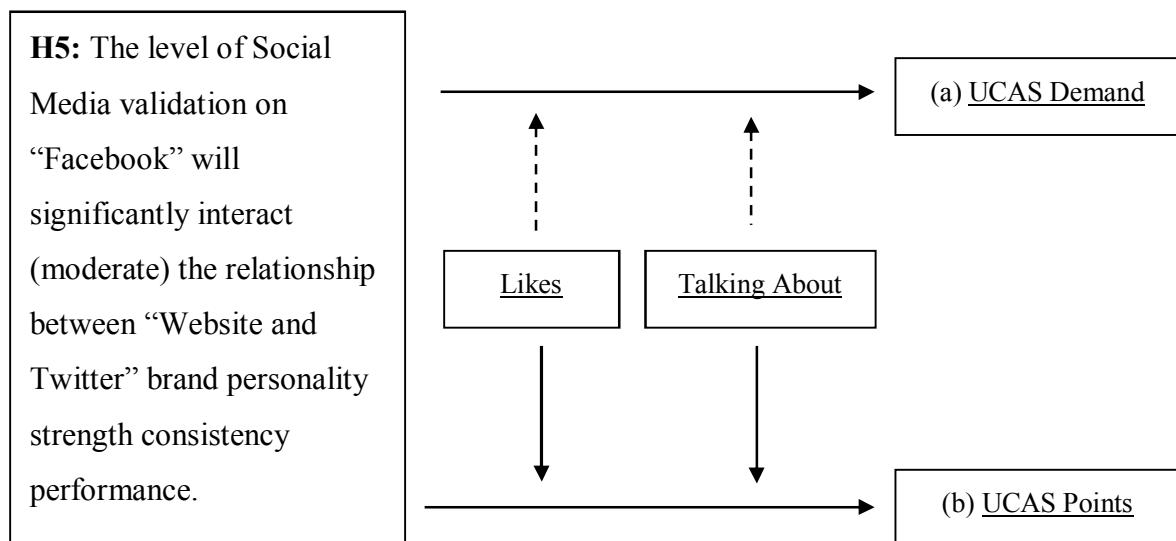


Figure 46 Diagram showing visual representation of Hypothesis Five

Therefore, results show that Facebook does significantly interact upon the relationship between “Website and Twitter” brand personality consistency and performance, both “Likes”

and “Talking About” adding significantly new variance. However this was only the case in UCAS Points performance. As a result, research Hypothesis 5 was partially supported.

Model 22 in Table 34 shows the moderation effect of *Talking About on Facebook* on the relationship between *Website and Twitter Brand Personality Strength Consistency* and *UCAS Points Performance*. Hypothesis H5(a) was **supported**. The number of people *Talking About on Facebook* significantly creates new variance (interacts) between the relationship of *Website and Twitter Brand Personality Strength Consistency* and *UCAS Points*. R for regression was significantly different from zero, $F(3,56) = 7.294$, $p < .001$, total $R^2 = .281$. *Website and Twitter Brand Personality Strength Consistency* ($\beta = .317$, $p < .05$) contributed significantly towards the model, *Talking About on Facebook* ($\beta = 2.580$, $p < .01$) and the interaction term ($\beta = -2.159$, $p < .05$) contributed significantly. Figure 47 below shows the consistency to performance relationship is strongest in the case of a low number of *Talking About on Facebook* and weaker in the case of a medium number. There is also a strong negative relationship between consistency and performance at the highest level of *Talking About on Facebook*.

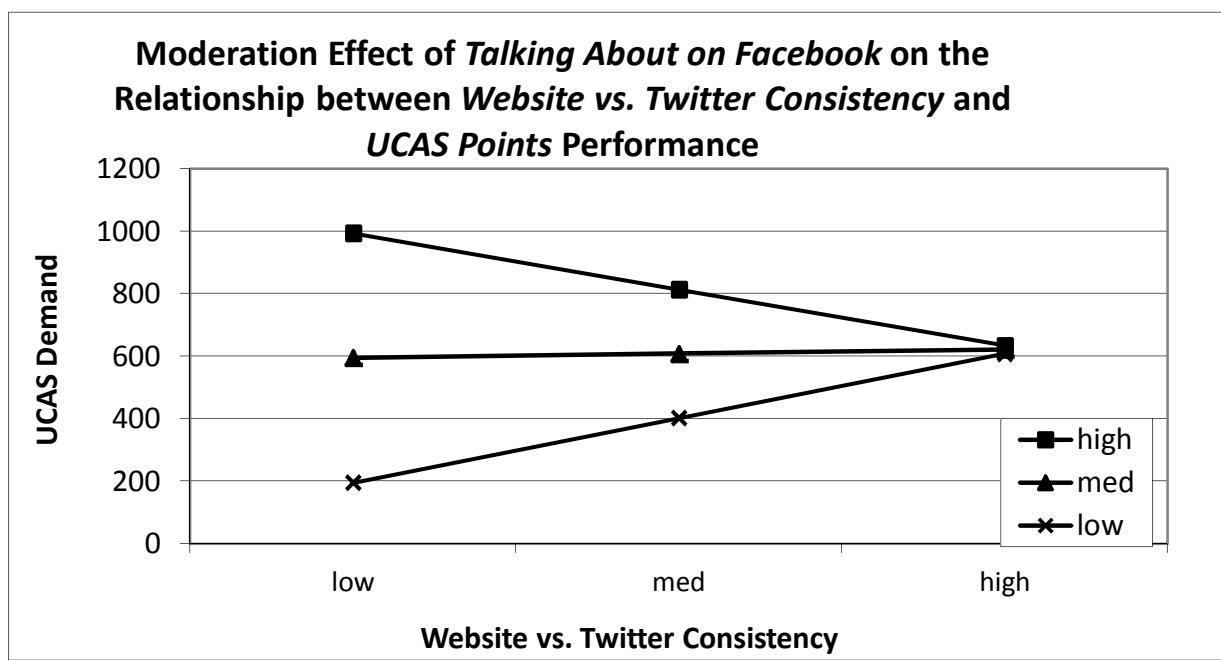


Figure 47 The moderation effect of *Talking About on Facebook* on the Relationship between *Website and Twitter Brand Personality Strength Consistency* and *UCAS Points Performance* at a low, medium and high frequency

Model 23 in Table 34 shows the moderation effect of *Likes on Facebook* on the relationship between *Website and Twitter Brand Personality Strength Consistency* and *UCAS Points Performance*. Hypothesis H5(a) was **not supported**. The number of *Likes on Facebook* significantly creates new variance (interacts) between the relationship of *Website and Twitter Brand Personality Strength Consistency* and UCAS Points. R for regression was significantly different from zero, $F(3,56) = 7.535$, $p < .053$, total $R^2 = .288$. *Website and Twitter Brand Personality Strength Consistency* ($\beta = .211$, $p = <.01$), *Likes on Facebook* ($\beta = 2.380$, $p < .05$) and the interaction term ($\beta = -1.941$, $p < .05$) contributed significantly. Figure 48 below, shows the consistency to performance relationship is strongest in the case of a low number of *Likes on Facebook* and weaker in the case of a medium number. There is also a strong negative relationship between consistency and performance at the highest level of *Likes on Facebook*.

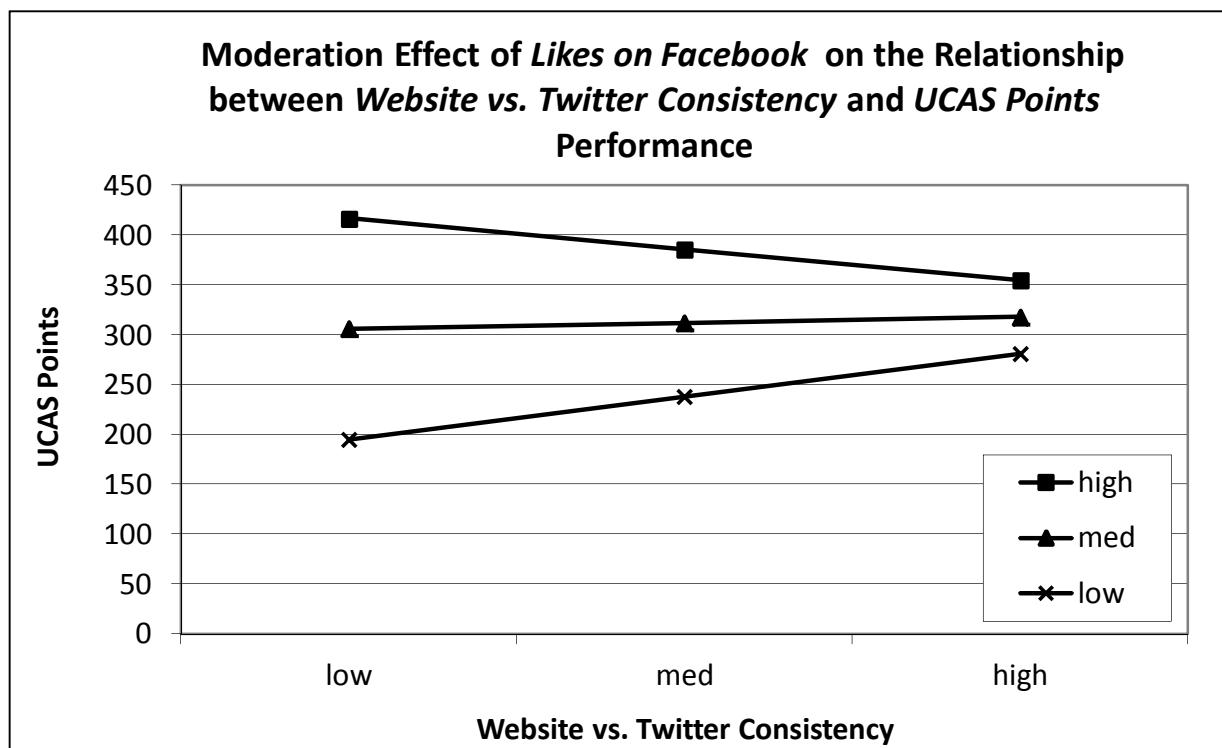


Figure 48 The moderation effect of *Likes on Facebook* on the Relationship between *Website and Twitter Brand Personality Strength Consistency* and *UCAS Points Performance* at a low, medium and high frequency

Independent Variables	<u>Student Quality (UCAS Points) Performance</u>					
	Model 22			Model 23		
	B	β	Sig.	B	β	Sig.
Constant	168.523		.003	210.154		< .001
Website Twitter	136.198	.317	.029	90.857	.211	.094
Talking About	.255	2.580	.008			
Likes				.005	2.380	.010
Moderator	-.219	-2.159	.025	-.004	-1.941	.035
<i>R</i> ²	.281			.288		

Table 34 Regression Results of *Brand Personality Strength Consistency and UCAS Points* Performance

Model 24 in Table 35 shows the moderation effect of *Likes on Facebook* on the relationship between *Website vs. Twitter Brand Personality Strength Consistency and UCAS Demand* Performance. Hypothesis H5(b) was **not supported**. The number of *Likes on Facebook* does not significantly create new variance (interacts) between the relationship of *Website and Twitter Brand Personality Strength Consistency and UCAS Demand*. R for regression was significantly different from zero, $F(3,56) = .076$, $p = .973$, total $R^2 = .004$. *Website vs. Twitter Brand Personality Strength Consistency* ($\beta = .032$, $p = .830$), *Likes on Facebook* ($\beta = .055$, $p = .958$) and the interaction term ($\beta = -.002$, $p = .999$) did not contribute significantly.

Model 25 in Table 35 shows the moderation effect of *Talking About on Facebook* on the relationship between *Website vs. Twitter Brand Personality Strength Consistency and UCAS Demand* Performance. Hypothesis H5(b) was **not supported**. The number of people *Talking About on Facebook* does not significantly create new variance (interacts) between the relationship of *Website vs. Twitter Brand Personality Strength Consistency and UCAS Demand*. R for regression was significantly different from zero, $F(3,56) = .254$, $p = .858$, total

$R^2 = .013$. Website vs. Twitter Brand Personality Strength Consistency ($\beta = .097$, $p = .562$), Talking About on Facebook ($\beta = .759$, $p = .491$) and the interaction term ($\beta = -.695$, $p = .530$) did not contribute significantly.

Independent Variables	Student Quality (UCAS Demand) Performance					
	Model 24			Model 25		
	B	β	Sig.	B	β	Sig.
Constant	543.259		< .001	484.468		.001
Website Twitter	29.376	.032	.830	89.953	.097	.562
Likes	0.00	.055	.958			
Talking About				.162	.759	.491
Moderator	-7.13E-06	-.002	.999	-.153	-.695	.530
R^2	.004			.013		

Table 35 Regression Results of *Brand Personality Strength Consistency* and *UCAS Demand Performance*

6.2. Social Media Participation

This hypothesis analyses the relationship between participation and validation on social media platforms by HEI brands. Research had previously suggested social media can accurately predict future outcomes and Twitter and Facebook were identified as the two most utilised and distinct forms of social media. Therefore Twitter and Facebook were statistically analysed in order to ascertain whether a significant relationship existed between social media participation, validation and performance.

H6: The level of Social Media (a) participation on “Twitter” (b) validation on “Facebook” will be positively and significantly related to (a) RAE (b) UCAS Points performance.

A Spearman’s correlation coefficient was computed between the number of “Tweets”, “Following” and “Followers” on Twitter and RAE performance, all of which resulted in a significant positive relationship existing. Simple regression was calculated between the number of “Tweets”, “Following” and “Followers” on Twitter and UCAS Points. Each regression resulted in a significant positive relationship existing.

A Spearman’s correlation coefficient was computed between the number of “Likes”, “Talking About” and “Were Here” on Facebook and RAE, all of which resulting in a significant positive relationship existing. While simple regression was calculated between the number of “Likes”, “Talking About” and “Were Here” on Facebook and UCAS Points, each regression resulted in a significant positive relationship existing.

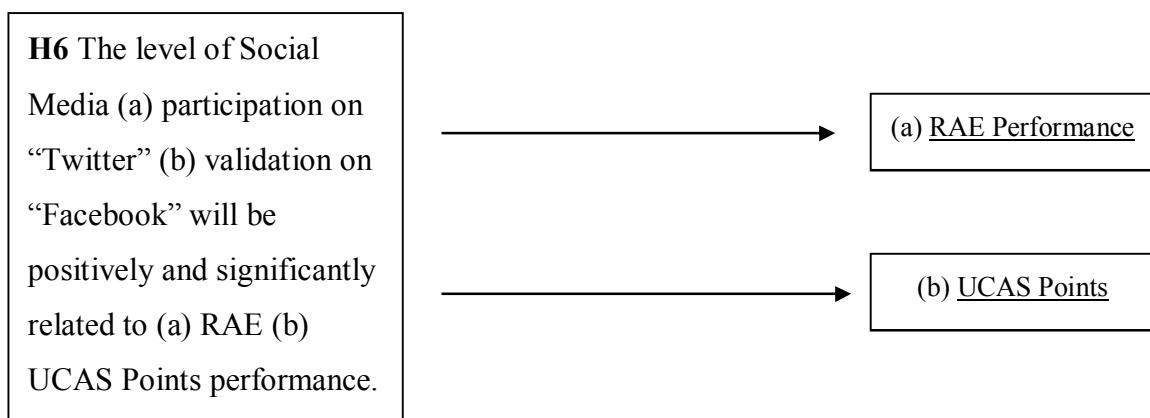


Figure 49 Diagram showing visual representation of Hypothesis Six

Therefore, results show that the level of HEI participation of “Tweets”, “Following” and “Followers” on “Twitter” is significantly positively related to performance defined as RAE performance H6(a)(a) and UCAS Points H6(a)(b). Also that validation of “Likes”, “Talking About” and “Were Here” on “Facebook” is significantly positively related to performance defined as RAE performance H6(b)(a) and UCAS Points H6(b)(b).

As a result, research Hypothesis 6, that the level of social media participation and validation is significantly positively related to performance, was supported.

6.2.1. Twitter

A Spearman's correlation coefficient was computed to assess the relationship between *RAE 2008* Performance and the number of *Tweets on Twitter*. Hypothesis H6(a)(a) was **supported**. There was a significant positive correlation between the number of *Tweets on Twitter* and *RAE 2008* ($r = .381$, $n = 60$, $p < .001$). Increases in the number of *Tweets on Twitter* were correlated with a better ranking in the *RAE 2008*. A scatter plot summarises the results in Figure 50.

A Spearman's correlation coefficient was computed to assess the relationship between *RAE 2008* Performance and the number of *Followers on Twitter*. Hypothesis H6(a)(a) was **supported**. There was a significant positive correlation between the number of *Followers on Twitter* and *RAE 2008* ($r = .645$, $n = 60$, $p < .001$). Increases in the number of *Followers on Twitter* were correlated with a better ranking in the *RAE 2008*. A scatter plot summarises the results in Figure 51.

A Spearman's correlation coefficient was computed to assess the relationship between *RAE 2008* performance and the number of *Following on Twitter*. Hypothesis H6(a)(a) was **supported**. There was a significant positive correlation between the number of *Following on Twitter* and *RAE 2008* ($r = .262$, $n = 60$, $p < .05$). Increases in the number of *Following on Twitter* were correlated with a better ranking in the *RAE 2008*. A scatter plot summarises the results in Figure 52.

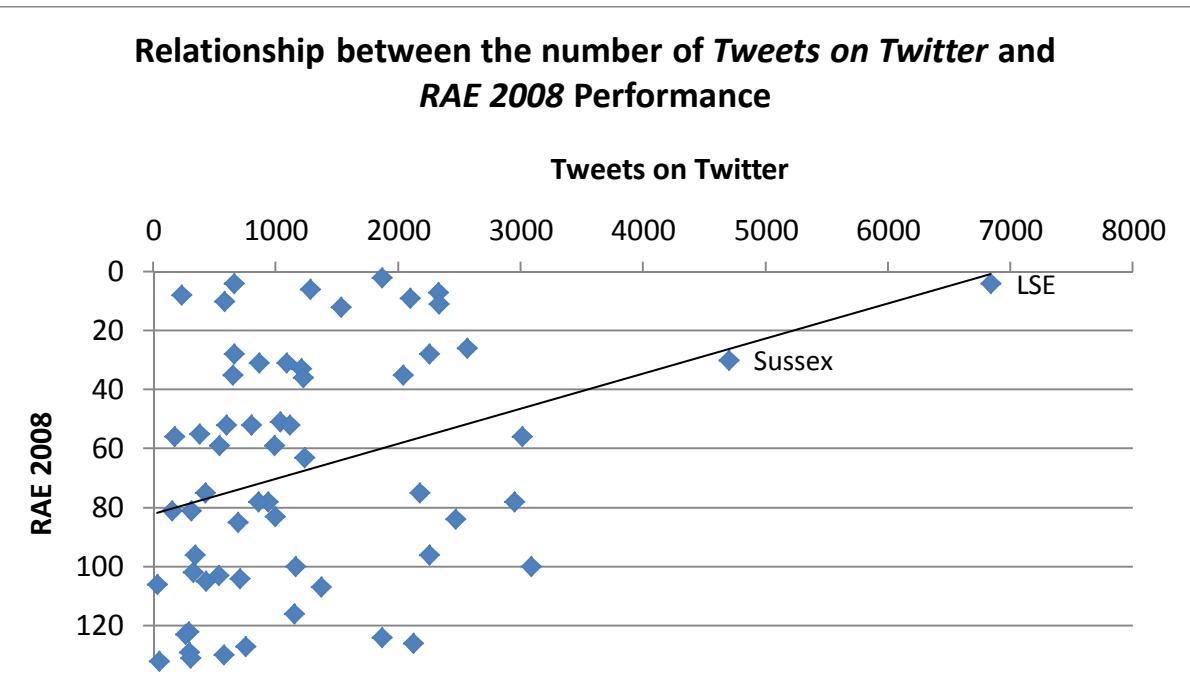


Figure 50 Scatter plot showing the relationship between the number of *Tweets on Twitter* and RAE 2008 Performance

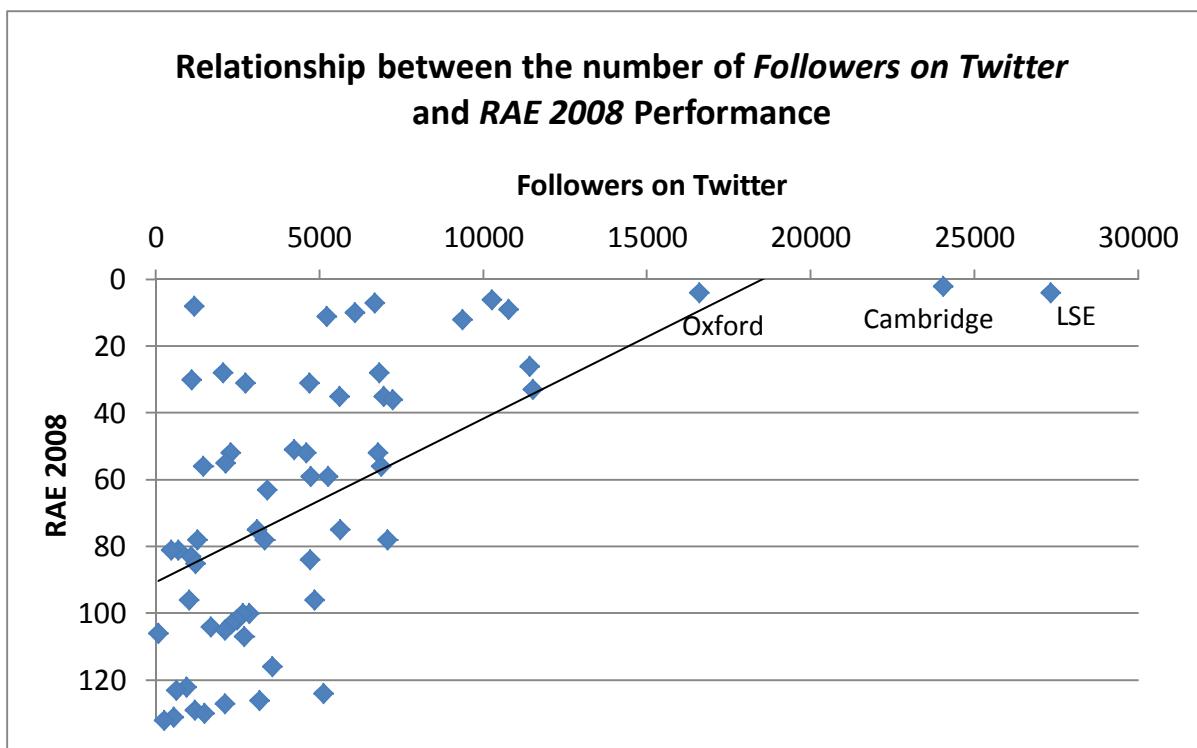


Figure 51 Scatter plot showing the relationship between the number of *Followers on Twitter* and RAE 2008 Performance

**Relationship between the number of *Following on Twitter*
and *RAE 2008 Performance***

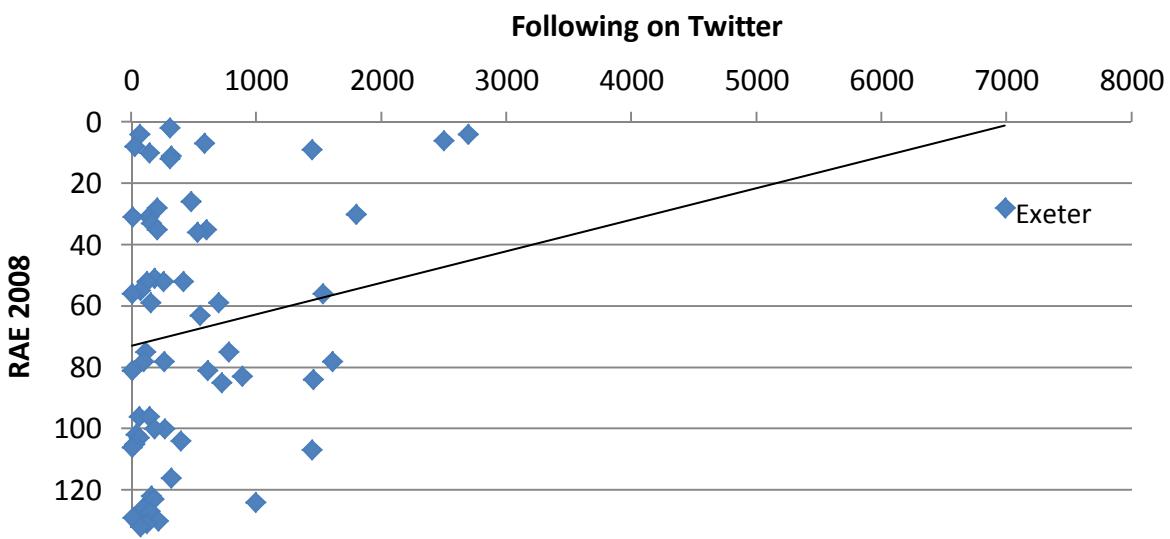


Figure 52 Scatter plot showing the relationship between the number of *Following on Twitter* and *RAE 2008 Performance*

Model 26 in Table 36 shows the number of *Tweets on Twitter* against *UCAS Points* Performance. Hypothesis H6(a)(b) was **supported**. The number of *Tweets on Twitter* was significantly related to *UCAS Points*. R for regression was significantly different from zero, $F(1,58) = 6.899$, $p < .05$, total $R^2 = .106$. *Tweets on Twitter* ($\beta = .326$, $p < .05$) contributed significantly towards the model. There was a positive correlation between the number of *Tweets on Twitter* and *UCAS Points*. Increases in *Tweets on Twitter* were correlated with higher average *UCAS Points*. A scatter plot summarises the results in Figure 53.

Model 27 in Table 36 shows the number of *Followers on Twitter* against *UCAS Points* Performance. Hypothesis H6(a)(b) was **supported**. The number of *Followers on Twitter* was significantly related to *UCAS Points*. R for regression was significantly different from zero, $F(1,58) = 75.109$, $p < .001$, total $R^2 = .564$. *Followers on Twitter* ($\beta = .751$, $p < .001$) contributed significantly towards the model. There was a positive correlation between the number of *Followers on Twitter* and *UCAS Points*. Increases in *Followers on Twitter* were correlated with higher average *UCAS Points*. A scatter plot summarises the results in Figure 54.

Model 28 in Table 36 shows the number of *Following on Twitter* against *UCAS Points* Performance. Hypothesis H6(a)(b) was **supported**. The number of *Following on Twitter* was significantly related to *UCAS Points*. R for regression was significantly different from zero, $F(1,58) = 4.130$, $p < .05$, total $R^2 = .066$. *Following on Twitter* ($\beta = .258$, $p < .05$) contributed significantly towards the model. There was a positive correlation between the number of *Following on Twitter* and *UCAS Points*. Increases in *Following on Twitter* were correlated with higher average *UCAS Points*. A scatter plot summarises the results in Figure 55.

Independent Variables	<u>Student Quality (UCAS Points) Performance</u>								
	Model 26			Model 27			Model 28		
	B	β	Sig.	B	β	Sig.	B	β	Sig.
Constant	275.29		< .001	243.32		< .001	293.66		< .001
Tweets	.025	.326	.011						
Followers				.013	.751	< .001			
Following							.022	.258	.047
R^2	.106			.564			.066		

Table 36 Regression Results of *Twitter Social Media* and *UCAS Points* Performance

Relationship between the number of *Tweets on Twitter* and *UCAS Points* Performance

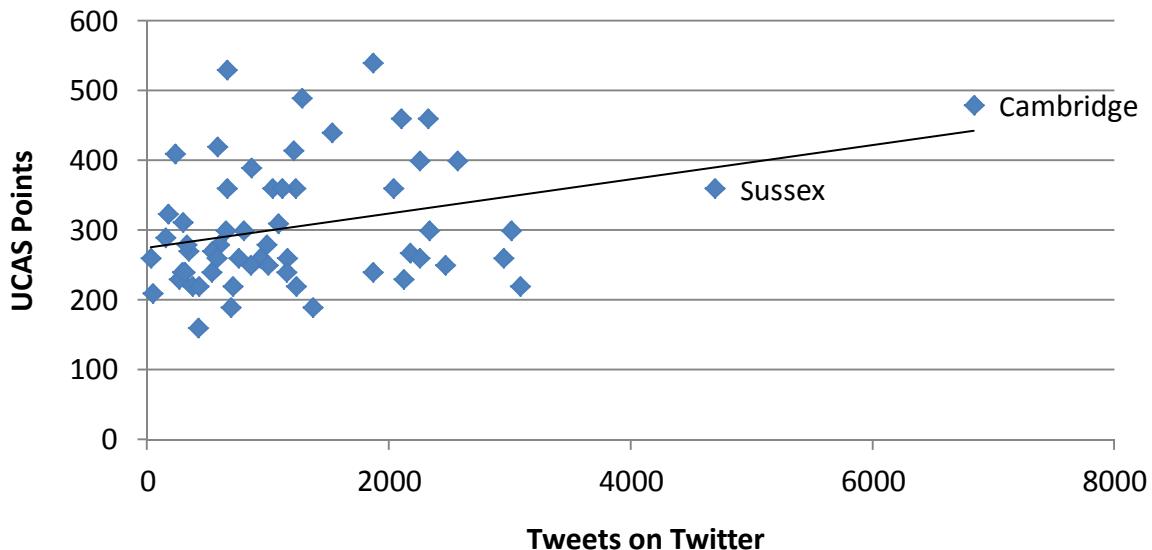


Figure 53 Scatter plot showing the relationship between the number of *Tweets on Twitter* and *UCAS Points* Performance

Relationship between the number of *Followers on Twitter* and *UCAS Points* Performance

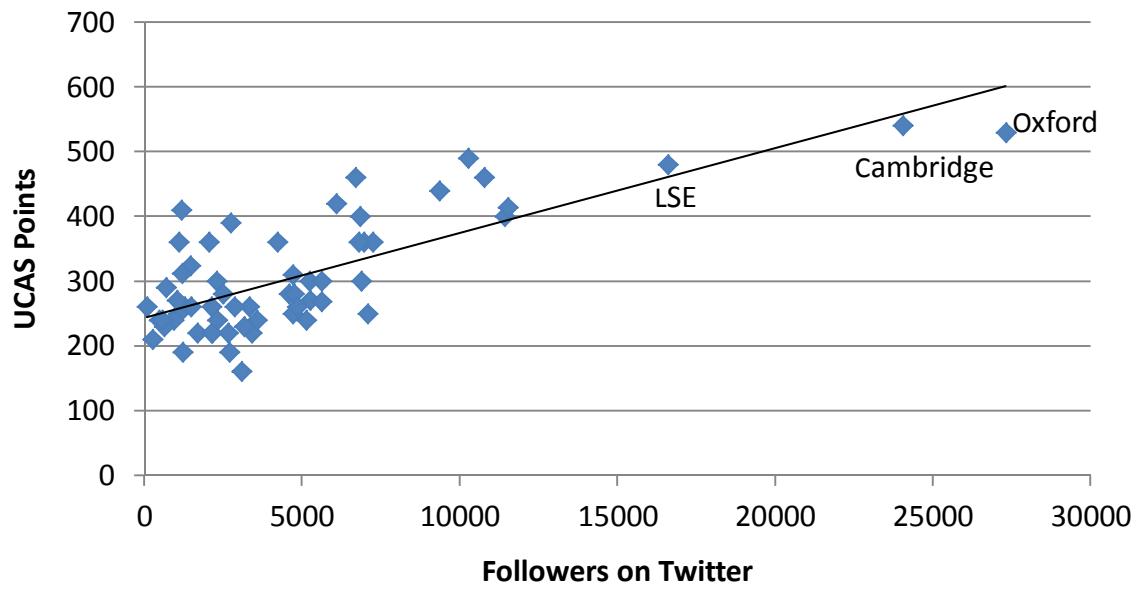


Figure 54 Scatter plot showing the relationship between the number of *Followers on Twitter* and *UCAS Points* Performance

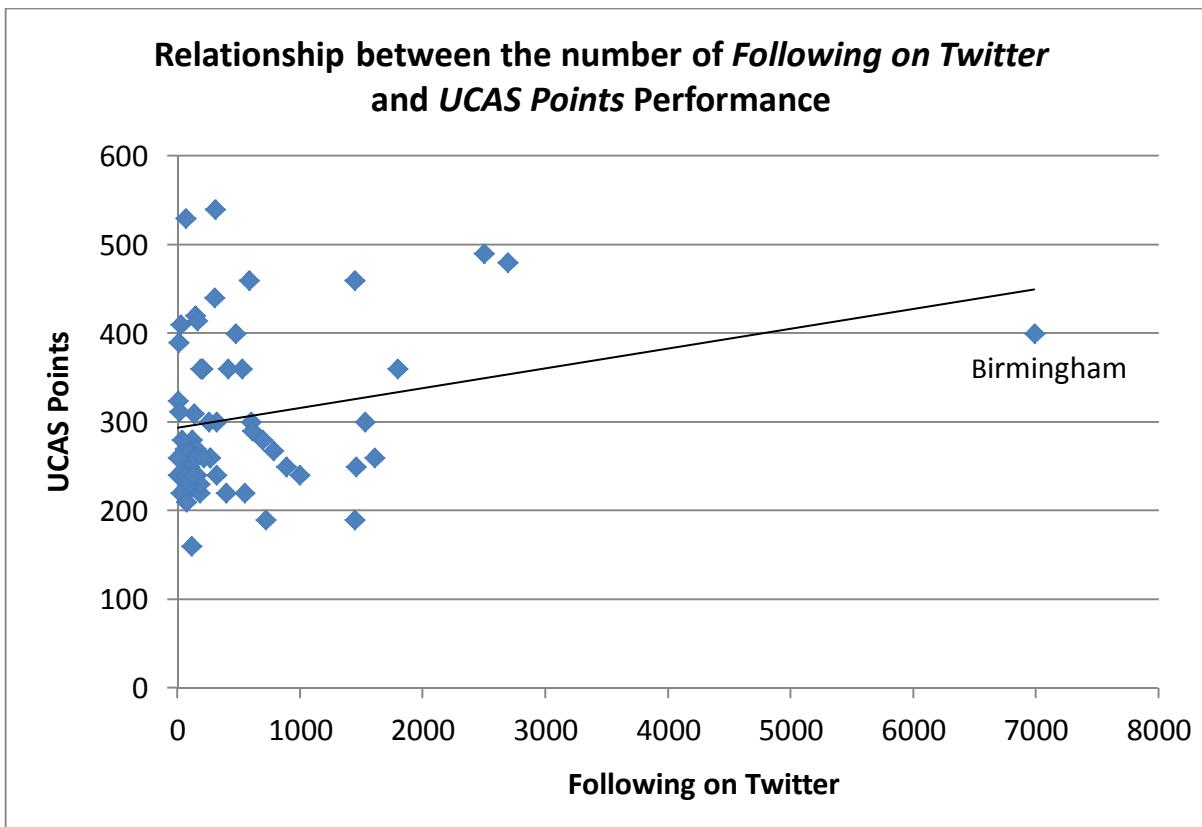


Figure 55 Scatter plot showing the relationship between the number of *Following on Twitter* and *UCAS Points* Performance

6.2.2. Facebook

A Spearman's correlation coefficient was computed to assess the relationship between *RAE 2008* Performance and the number of *Likes on Facebook*. Hypothesis H6(b)(a) was **supported**. There was a significant positive correlation between the number of *Likes on Facebook* and *RAE 2008* ($r = .513$, $n = 60$, $p < .001$). Increases in the number of *Likes on Facebook* were correlated with a better ranking in the *RAE 2008*. A scatter plot summarises the results in Figure 56.

A Spearman's correlation coefficient was computed to assess the relationship between *RAE 2008* Performance and the number of *Talking About on Facebook*. Hypothesis H6(b)(a) was **supported**. There was a significant positive correlation between the number of *Talking About on Facebook* and *RAE 2008* ($r = .441$, $n = 60$, $p < .001$). Increases in the number of *Talking About on Facebook* were correlated with a better ranking in the *RAE 2008*. A scatter plot summarises the results in Figure 57.

A Spearman's correlation coefficient was computed to assess the relationship between *RAE 2008* Performance and the number of *Were Here on Facebook*. Hypothesis H6(b)(a) was **supported**. There was a significant positive correlation between the number of *Were Here on Facebook* and *RAE 2008* ($r = .382$, $n = 60$, $p < .001$). Increases in the number of *Were Here on Facebook* were correlated with a better ranking in the *RAE 2008*. A scatter plot summarises the results in Figure 58.

Relationship between the number of *Likes* on Facebook and RAE 2008 Performance

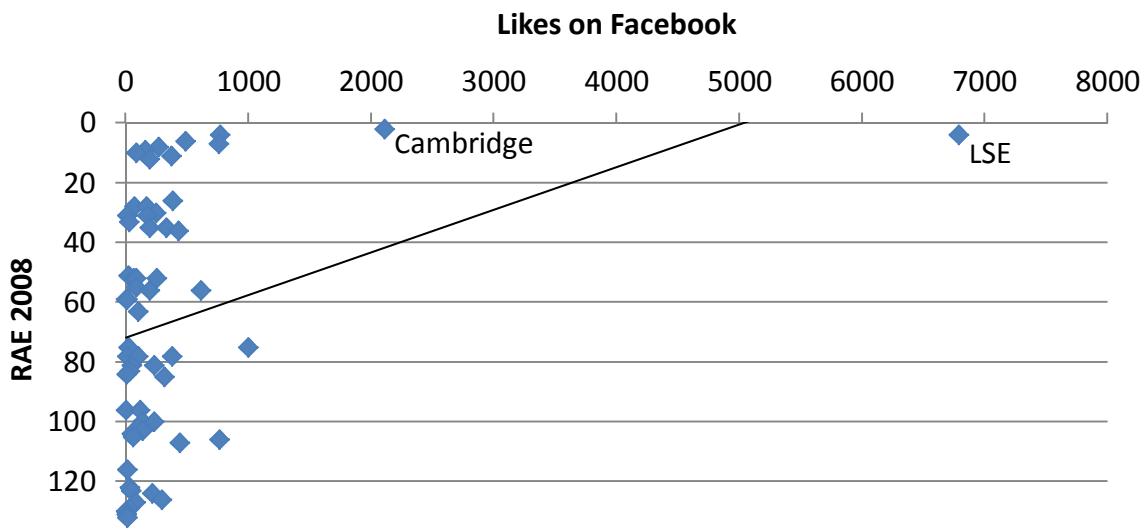


Figure 56 Scatter plot showing the relationship between the number of *Likes* on Facebook and RAE 2008 Performance

Relationship between the number of *Talking About* on Facebook and RAE 2008 Performance

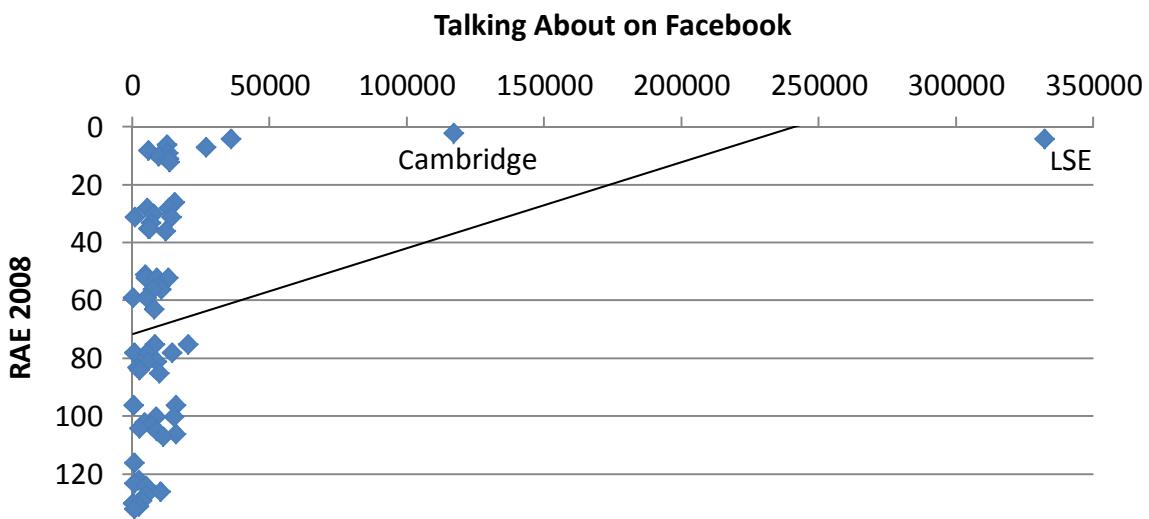
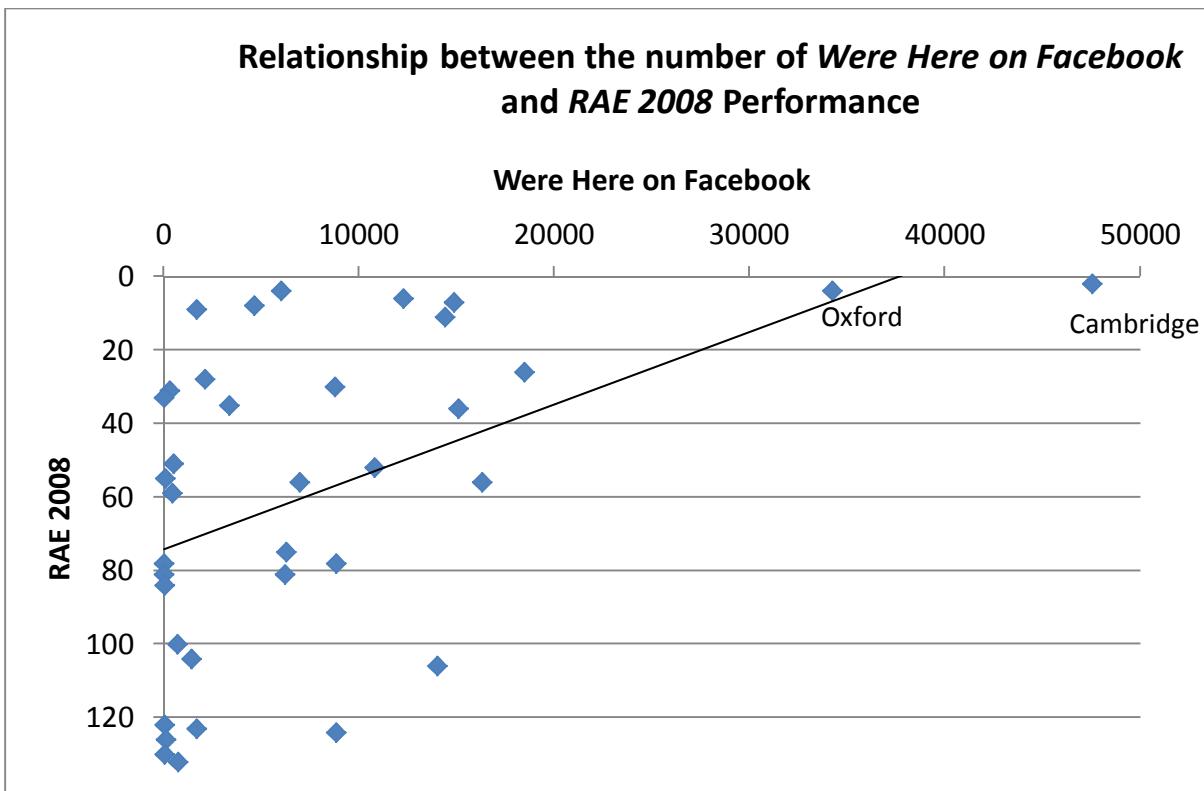


Figure 57 Scatter plot showing the relationship between the number of people Talking About on Facebook and RAE 2008 Performance



Increases in *Talking About on Facebook* were correlated with higher average *UCAS Points*. A scatter plot summarises the results in Figure 60.

Model 31 in the Table 37 shows the number of *Were Here on Facebook* against *UCAS Points* Performance. Hypothesis H6(b)(b) was **supported**. In detail, the number of *Were Here on Facebook* was significantly related to *UCAS Points*. R for regression was significantly different from zero, $F(1,58) = 26.645$, $p < .001$, total $R^2 = .315$. *Were Here on Facebook* ($\beta = .561$, $p < .001$) contributed significantly towards the model. There was a positive correlation between the number of *Were Here on Facebook* and *UCAS Points*. Increases in *Were Here on Facebook* were correlated with higher average *UCAS Points*. A scatter plot summarises the results in Figure 61.

Independent Variables	<u>Student Quality (UCAS Points) Performance</u>								
	Model 29			Model 30			Model 31		
	B	β	Sig.	B	β	Sig.	B	β	Sig.
Constant	264.25		< .001						
Likes	.004	.288	.030						
Talking About				.044	.455	< .001			
Were Here							.006	.561	< .001
<i>R</i> ²	.083			.198			.315		

Table 37 Regression Results of *Facebook Social Media* and *UCAS Points* Performance

Relationship between the number of *Likes on Facebook* and *UCAS Points* Performance

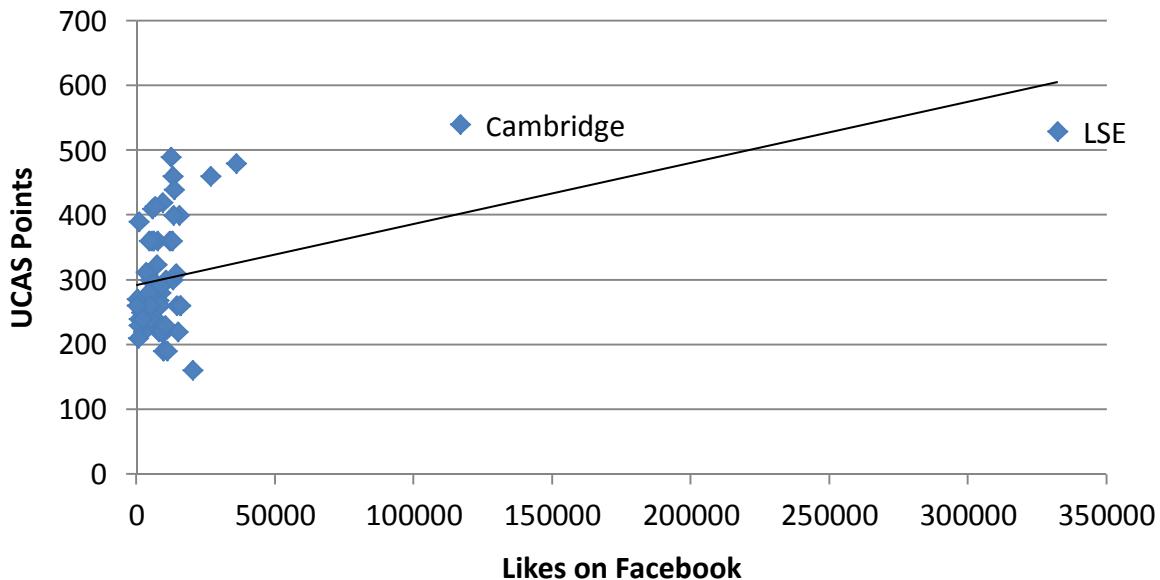


Figure 59 Scatter plot showing the relationship between the number of *Likes on Facebook* and *UCAS Points* Performance

Relationship between the number of *Talking About on Facebook* and *UCAS Points* Performance

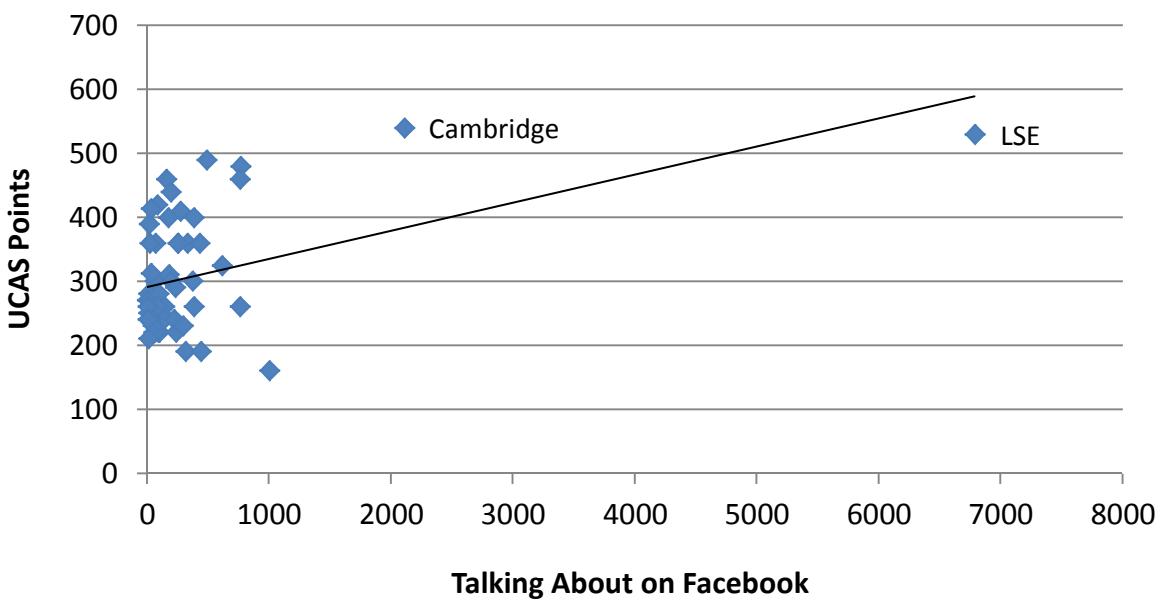


Figure 60 Scatter plot showing the relationship between the number of *Talking About on Facebook* and *UCAS Points* Performance

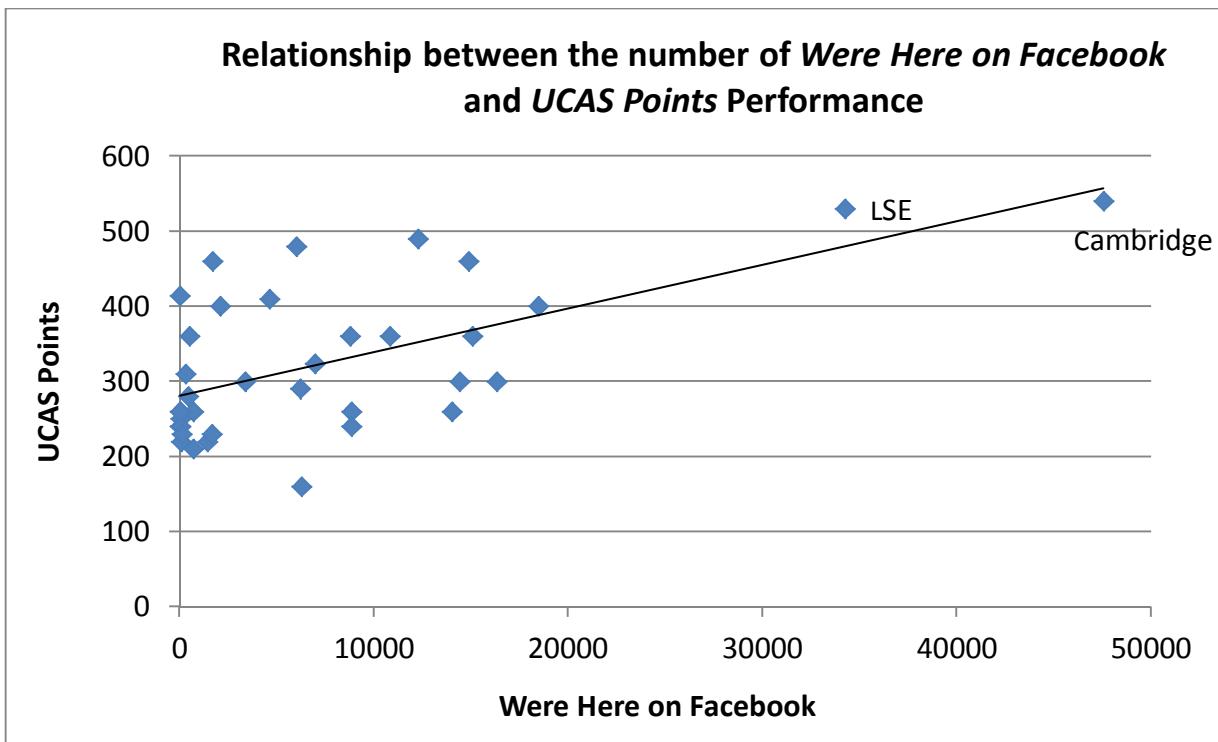


Figure 61 Scatter plot showing the relationship between the number of *Were Here on Facebook* and *UCAS Points* Performance

6.3. Brand Personality Strength

This hypothesis examines the relationship between brand personality strength and performance. The literature highlighted that strong brands are linked with higher levels of performance, therefore the prospectus was analysed and compared to the average amount of UCAS Points of the students it was accepting.

H7: The level of Prospectus Brand Personality Strength of (a) Competence (b) Excitement (c) Ruggedness (d) Sincerity (e) Sophistication will be positively and significantly related to UCAS Points performance.

Multiple regression analysis was performed upon the five dimensions of brand personality of “Competence”, “Excitement”, “Ruggedness”, “Sincerity” and “Sophistication” and UCAS Points. The results of the regression were significant between “Competence”, “Excitement”, “Sincerity” and “Sophistication”, however these were significant **negative relationships**, except between “Sophistication” and UCAS Points which was significantly positively related.

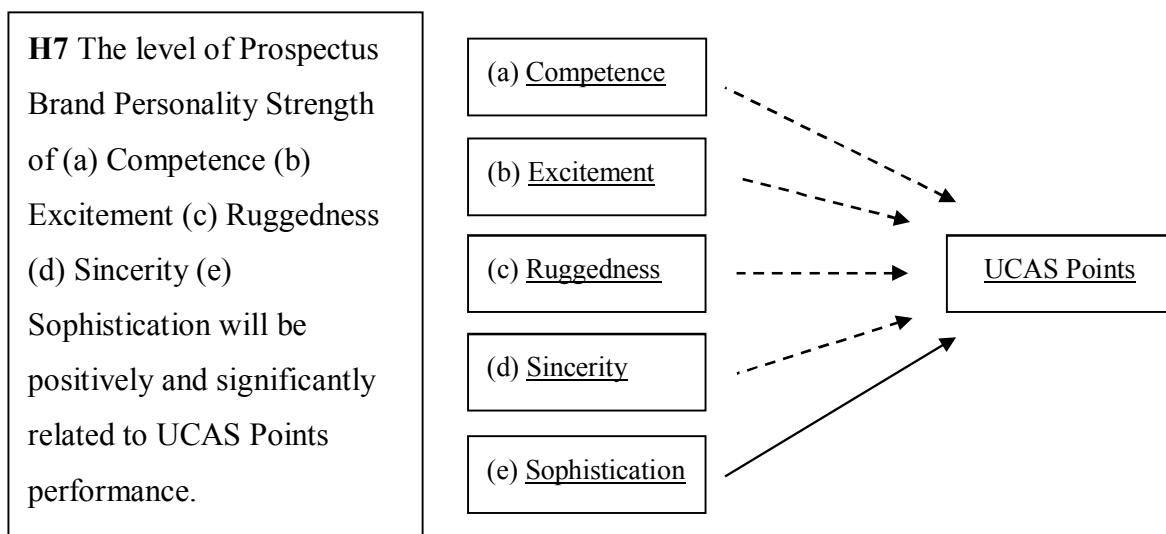


Figure 62 Diagram showing visual representation of Hypothesis Seven

Therefore, results show that the strength of brand personality communicated via the prospectus significantly affects student quality. However there is a negative relationship between competence, excitement and sincerity, whilst there is a positive relationship between sophistication and student quality.

Resultantly the hypotheses of “Competence” H7(a), “Excitement” H7(b), “Ruggedness” H7(c) and “Sincerity” H7(d) were not supported and “Sophistication” H7(e) was supported. As a result, research Hypothesis 7 that the strength of brand personality communicated through the prospectus is positively related to performance was partially supported.

Model 37 in Table 38 shows the relationship between *Prospectus Brand Personality Strength* and *UCAS Points* Performance. Hypothesis H7 was **not supported**. In detail, the level of *Prospectus Brand Personality Strength* was significantly related to *UCAS Points*. R for regression was significantly different from zero, $F(5,53) = 8.602$, $p < .001$, total $R^2 = .448$. *Competence* ($\beta = -.311$, $p < .001$), *Excitement* ($\beta = -.340$, $p < .001$), *Sincerity* ($\beta = -.013$, $p < .001$) and *Sophistication* ($\beta = .239$, $p < .05$) contributed significantly. *Ruggedness* ($\beta = -.013$, $p = .907$) did not contribute significantly.

Model 32 in Table 38 shows the relationship between *Prospectus Competence Brand Personality Strength* and *UCAS Points* Performance. Hypothesis H7(a) was **not supported**. In detail, the level of *Prospectus Competence Brand Personality Strength* was significantly related to *UCAS Points*. R for regression was significantly different from zero, $F(1,57) = 5.071$, $p < .05$, total $R^2 = .082$. *Prospectus Competence Brand Personality Strength* ($\beta = -.286$, $p < .05$) contributed significantly. There was a significant positive correlation between *Prospectus Competence Brand Personality Strength* and *UCAS Points*. A scatter plot summarises the results in Figure 63.

Model 33 in Table 38 shows the relationship between *Prospectus Excitement Brand Personality Strength* and *UCAS Points* Performance. Hypothesis H7(b) was **not supported**. The *Prospectus Excitement Brand Personality Strength* was significantly related to *UCAS Points*. R for regression was significantly different from zero, $F(1,57) = 9.431$, $p < .001$, total $R^2 = .142$. *Prospectus Excitement Brand Personality Strength* ($\beta = -.377$, $p < .005$) contributed significantly. There was a significant positive correlation between *Prospectus Excitement Brand Personality Strength* and *UCAS Points*. A scatter plot summarises the results in Figure 64.

Model 34 in Table 38 shows the relationship between *Prospectus Ruggedness Brand Personality Strength* and *UCAS Points* Performance. Hypothesis H7(c) was **not supported**. The *Prospectus Ruggedness Brand Personality Strength* was not significantly related to *UCAS Points*. R for regression was not significantly different from zero, $F(1,57) = .871$, $p = .355$,

total $R^2 = .015$. *Prospectus Ruggedness Brand Personality Strength* ($\beta = -.123$, $p = .355$) contributed significantly. There was a no significant correlation between *Prospectus Ruggedness Brand Personality Strength* and *UCAS Points*. A scatter plot summarises the results in Figure 65.

Model 35 in Table 38 shows the relationship between *Prospectus Sincerity Brand Personality Strength* and *UCAS Points* Performance. Hypothesis H7(d) was **not supported**. The *Prospectus Sincerity Brand Personality Strength* was significantly related to *UCAS Points*. R for regression was significantly different from zero, $F(1,57) = 11.537$, $p < .005$, total $R^2 = .168$. *Prospectus Sincerity Brand Personality Strength* ($\beta = -.410$, $p < .001$) contributed significantly. There was a significant positive correlation between *Prospectus Sincerity Brand Personality Strength* consistency and *UCAS Points*. A scatter plot summarises the results in Figure 66.

Model 36 in Table 38 shows the relationship between *Prospectus Sophistication Brand Personality Strength* and *UCAS Points* Performance. Hypothesis H7(e) was **supported**. The *Prospectus Sophistication Brand Personality Strength* was significantly related to *UCAS Points*. R for regression was significantly different from zero, $F(1,57) = 6.512$, $p < .05$, total $R^2 = .103$. *Prospectus Sophistication Brand Personality Strength* ($\beta = .320$, $p < .05$) contributed significantly. There was a significant positive correlation between *Prospectus Sophistication Brand Personality Strength* consistency and *UCAS Points*. A scatter plot summarises the results below in Figure 67.

Independent Variables	<u>Student Quality (UCAS Points) Performance</u>																	
	Model 32			Model 33			Model 34			Model 35			Model 36			Model 37		
	B	B	Sig.	B	β	Sig.	B	β	Sig.	B	β	Sig.	B	β	Sig.	B	β	Sig.
Constant	372.214		< .001	442.077		< .001	325.461		< .001	417.864		< .001	231.647		< .001	548.271		< .001
Competence	-93.249	-.286	.028													-101.604	-.311	.004
Excitement				-180.049	-.377	.003										-162.507	-.340	.003
Ruggedness							-98.532	-.123	.355							-10.115	-.013	.907
Sincerity										-122.419	-.410	.001				-111.171	-.373	.001
Sophistication													546.755	.320	.013	407.001	.239	.027
<i>R</i> ²	.082			.142			.015			.168			.103			.448		

Table 38 Regression Results of *Prospectus Brand Personality Strength* and *UCAS Points* Performance

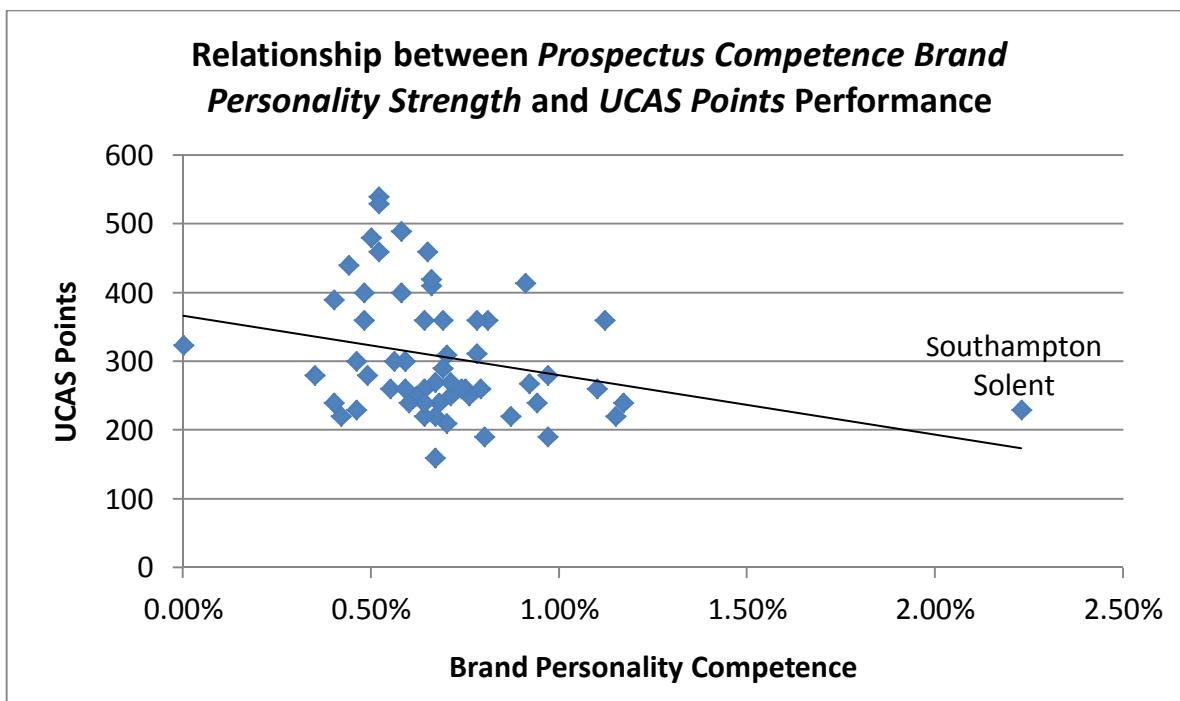


Figure 63 Scatter plot showing the relationship between *Prospectus Competence* Brand Personality Strength and UCAS Points Performance

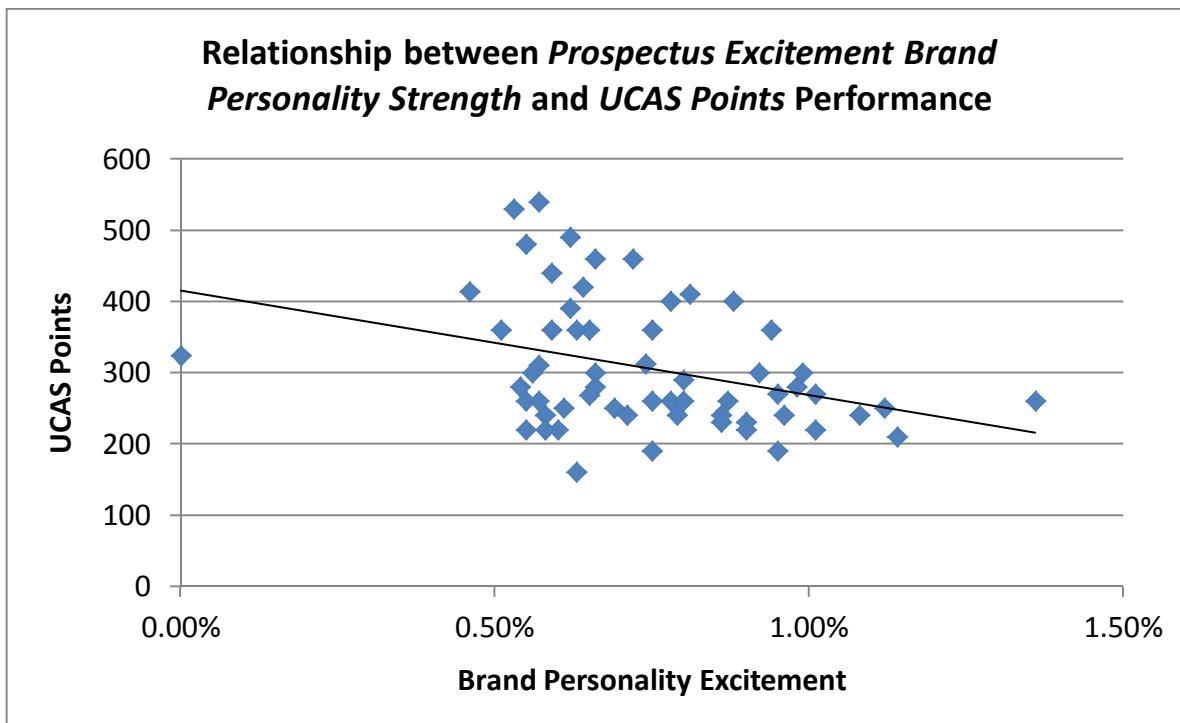


Figure 64 Scatter plot showing the relationship between *Prospectus Excitement* Brand Personality Strength and UCAS Points Performance

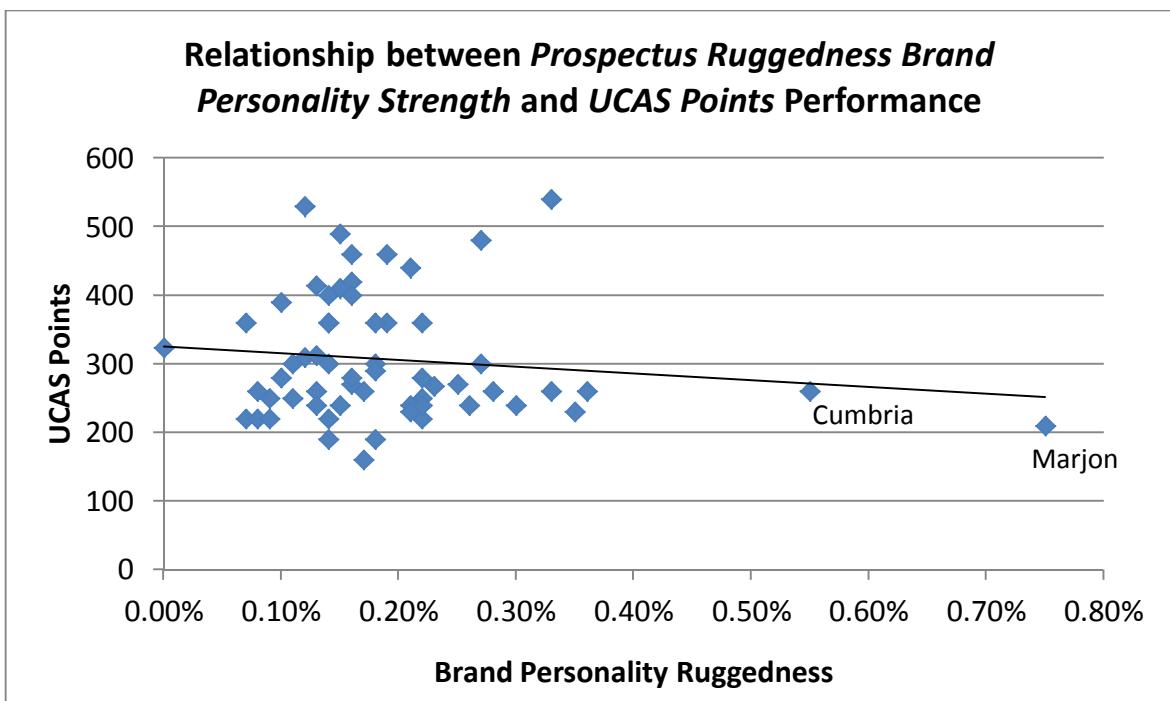


Figure 65 Scatter plot showing the relationship between *Prospectus Ruggedness Brand Personality Strength* and *UCAS Points Performance*

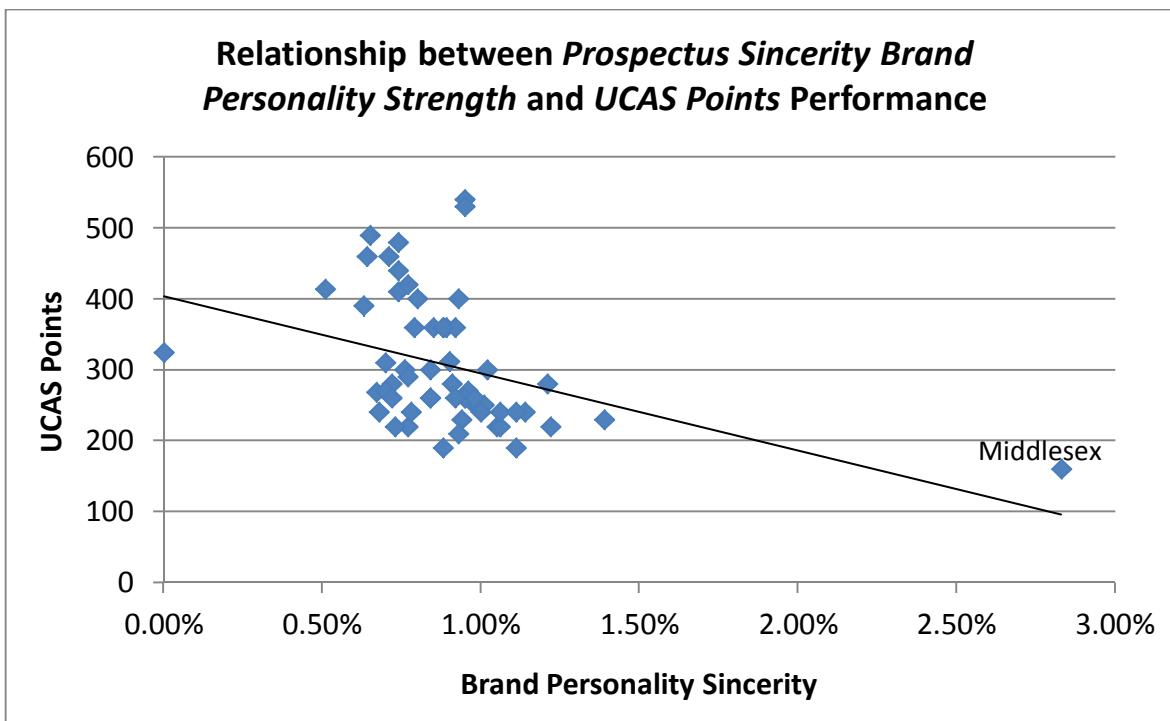


Figure 66 Scatter plot showing the relationship between *Prospectus Sincerity Brand Personality Strength* and *UCAS Points Performance*

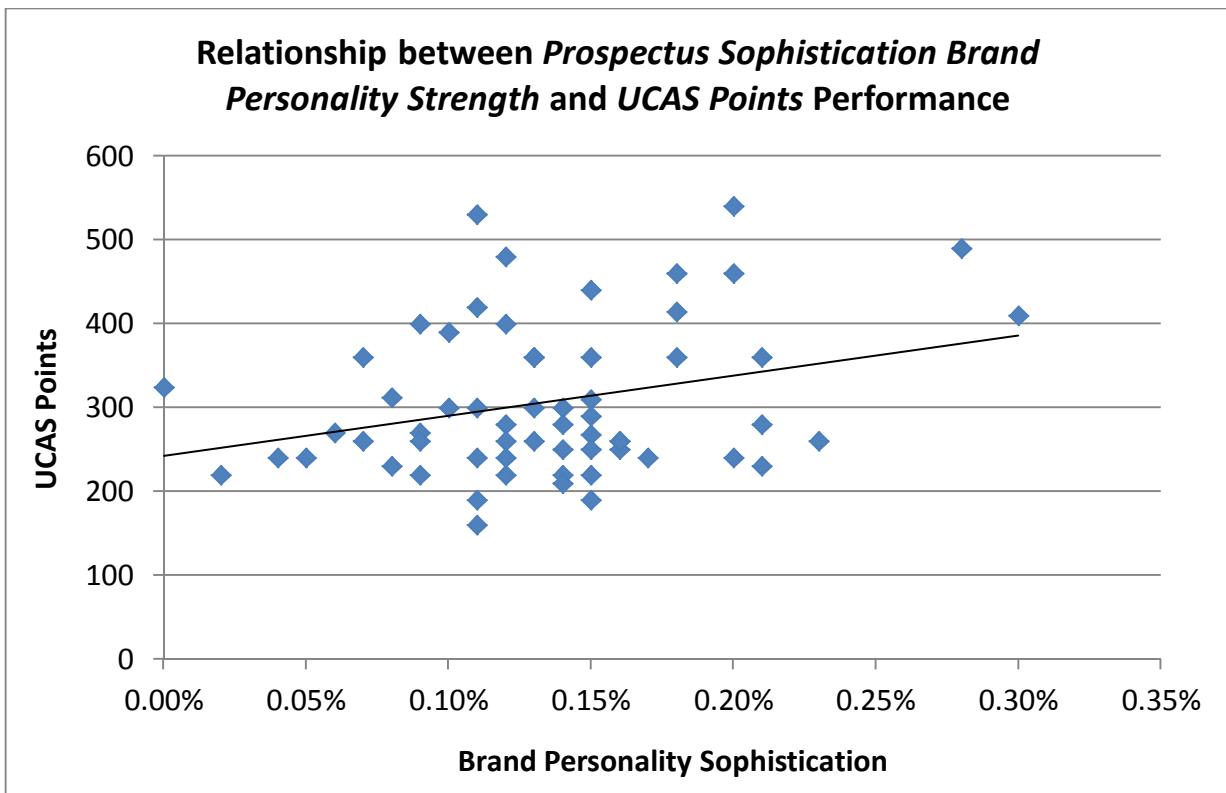


Figure 67 Scatter plot showing the relationship between *Prospectus Sophistication Brand Personality Strength* and *UCAS Points Performance*

6.4. Hypotheses Overview

This section presents a high level overview of the statistically tested hypotheses, which were constructed from the literature review.

Table showing supported, partially supported and unsupported hypotheses.

No	Hypothesis	Result
H1	Brand Personality Strength Consistency between the “Prospectus and Website” will be positively and significantly related to H1(a) RAE H1(b) NSS H1(c) UCAS Points H1(d) UCAS Demand performance.	Partially Supported
H2	The level of Social Media H2(a) participation on “Twitter” H2(b) validation on “Facebook” will significantly moderate the relationship between “Prospectus and Website” Brand Personality Strength Consistency and (a) UCAS Demand (b) UCAS Points performance.	Partially Supported
H3	Brand Personality Strength Consistency between “Website and Twitter” will be positively and significantly related to H3(a) RAE H3(b) NSS H3(c) UCAS Points H3(d) UCAS Demand performance.	Not Supported
H4	Brand Personality Strength Consistency between the “Website and Twitter” will significantly mediate the relationship between Brand Personality Strength of H4(a) Competence H4(b) Excitement H4(c) Ruggedness H4(d) Sincerity H4(e) Sophistication within the “Prospectus” and UCAS Demand performance.	Not Supported
H5	The level of Social Media validation on “Facebook” will significantly moderate the relationship between “Website and Twitter” brand personality strength consistency and H5(a) UCAS Demand and H5(b) UCAS Points performance.	Partially Supported
H6	The level of Social Media H6(a) participation on “Twitter” H6(b) validation on “Facebook” will be positively and significantly related to	Supported

	(a) RAE (b) UCAS Points performance.	
H7	The level of Prospectus Brand Personality Strength of H7(a) Competence H7(b) Excitement H7(c) Ruggedness H7(d) Sincerity H7(e) Sophistication will be positively and significantly related to UCAS Points performance.	Partially Supported

Table 39 Showing the supported, partially and not supported hypotheses.

6.5. Summary of Findings

The statistical analysis successfully provided evidence that brand personality strength consistency influences RAE, UCAS Demand and UCAS Points' performance. However, it did not influence NSS teaching performance. Support was found that social media significantly moderates the relationship between brand personality consistency and UCAS Demand, fully supported on Facebook (both likes and talking about) and partially supported on Twitter (followers only). However no support was found for a moderation effect between consistency and UCAS Points.

No support was found for a statistically significant relationship between within online brand consistency and any measure of performance and further brand personality consistency within online media did not mediate the relationship with prospectus brand personality strength and performance. Further to this, the level of social media validation on Facebook did statistically moderate the relationship between within online brand consistency and UCAS Points, however not UCAS Demand.

The level of social media participation on Twitter and validation on Facebook was significantly and positively related to RAE and UCAS Points performance on all measures of Twitter (Tweets, Following Followers) and Facebook (Likes, Talking About, Were Here).

Lastly the brand personality strength communicated via the prospectus was significantly and positively related to performance upon the dimension of Sophistication, but significantly and negatively related to performance upon the dimensions of Competence, Excitement, Ruggedness and Sincerity.

The findings are discussed in relation to the literature in Chapter 7.

7. Discussion

This chapter discusses the findings from this empirical study, and seeks to compare and contrast them to existing literature. The sections below will discuss how brand personality, brand personality consistency between marketing channels and the use of social media affect different aspects of performance within the higher education sector.

This research was based upon a measurement scale of brand personality produced by Aaker (1997). This scale was adapted by Opoku (2006) to be used as a method of textual content analysis, predominantly for assessing organisation's websites so as to ascertain which dimensions of brand personality these organisations were projecting to their consumers. Opoku's (2006) system of brand personality measurement provides a key underpinning of this thesis.

Brand personality consistency was conceptualised within the literature as not simply involving the repetition of identical communications, but rather as consistently communicating the same brand personality dimensions (Kapferer, 2008, p.211). Opoku's (2006) measurement system was designed to capture similarities within brand personality communication, whilst not being reliant on the communication being exactly the same on each occasion. Opoku used this system to compare the websites of different organisations. In this study, the system was used to conduct a comparison between different marketing channels (website, prospectus and Twitter), and between organisations.

For this study, brand personality consistency was measured and compared by examining the textual elements of each HEI's prospectus, website and Twitter feeds. HEI performance was measured using RAE, NSS and UCAS data. This data was available from widely published HEI league tables.

The following sections discuss the findings from this research, first considering brand personality strength and then brand personality consistency between marketing channels, and finally examining the emergent influence of social media.

1. **Brand Personality Strength** was found to be significantly related to performance, both positively and negatively.
2. **Brand Consistency** examines the relationship between the prospectus and website brand communications, and their relationship with multiple measures of performance.

3. **Social Media** discusses the brand consistency aspect of social media with other marketing communications, the usage and participation of social media by HEI brands, and finally the interaction element of social media.

These sections relate to the research hypotheses and is dissected as shown in Figure 68 below.

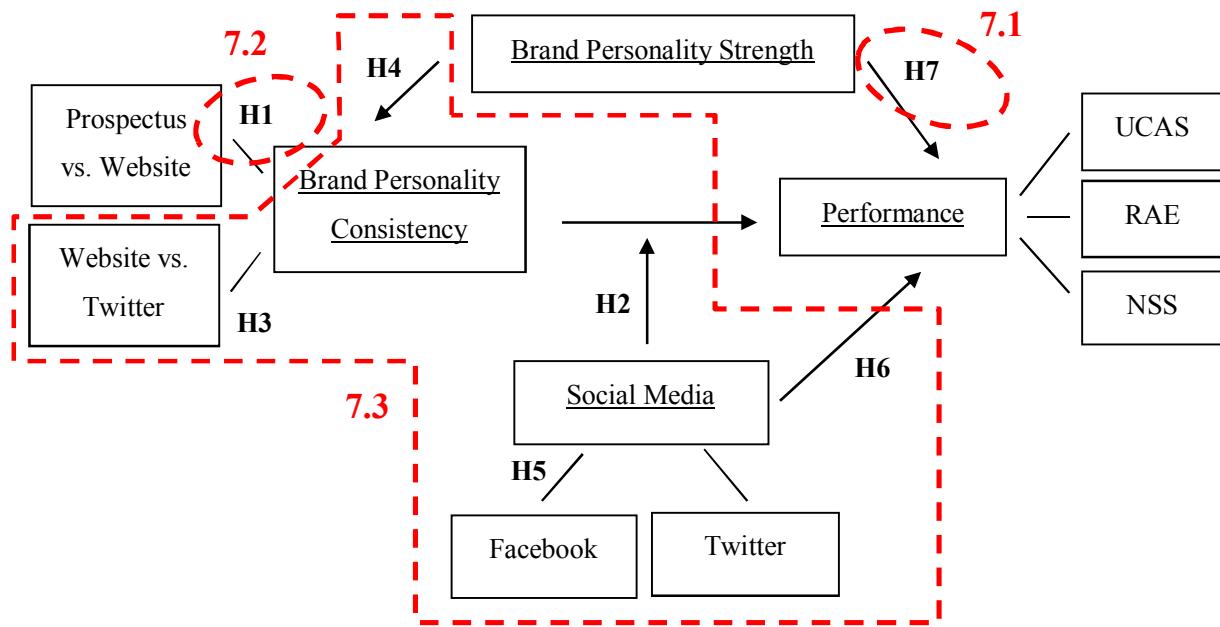


Figure 68 Conceptual Brand Consistency Research Hypotheses Model

This section begins broadly with a discussion of brand and strength, and then focuses upon brand consistency strength between marketing channels. Finally, it focuses upon consistency, strength, and the interaction which occurs between and within social media and multiple measures of performance.

7.1. Brand Personality Strength

This section discusses how (H7) brand personality strength as communicated through the prospectus is related to HEI performance. For brand personality strength, only the dimension of sophistication H7(e) was found to be significantly and positively correlated with performance. All other dimensions [competence H7(a), excitement H7(b), sincerity H7(c) and ruggedness H7(d)] were significant, but *negatively* correlated to performance. Within this hypothesis, performance was measured using UCAS tariff points, demonstrating the quality of students attracted to and recruited by the HEI in question.

Brands are not just for products, but are also drivers of success in service based organisations such as higher education institutions (Berry, 2000). Institutions which build themselves around their brand often perform better (Hoeffler and Keller, 2003; Aaker, 1991). Within the context of student quality, our findings indicate that branding is important within the HE sector, and that university brands which build themselves around sophistication recruit higher quality students. The literature indicates that strong brands perform better (Freling and Forbes, 2005, p.406; Keller, 2001a), as strong and distinctive brand communication may increase the level of consumer attention paid towards the brand. This, in turn, creates stronger and more favourable brand associations (de Chernatony, 2012b; Fombrun and van Riel, 2004). Our findings extend the literature on both brand personality dimensional strength and student recruitment performance, indicating that for higher education, only one dimension of brand personality strength (sophistication) performs better than others. Ramaseshan (2007) also used Aaker's model and found that the dimensions of sophistication and excitement were strongly linked to perceived quality, as well as finding that brand personality must be consistent and congruent with a brand's standing and related metaphors. Our findings partially support Ramaseshan's (2007) findings, in that a sophisticated brand personality yields higher performance in terms of student quality. However, these research findings show that the excitement brand personality dimension is actually negatively correlated to student recruitment performance.

Previous research has suggested that newer institutions are better at branding activities than older institutions (Chapleo, 2005). The findings from this study show that newer institutions on average seem to exhibit stronger and more diverse brand personalities than older institutions. However, strength within the dimensions of competence, sincerity, ruggedness and competence is negatively correlated with performance, whilst strength within the dimension of sophistication is positively correlated with student recruitment performance. These findings qualify Chapleo's (2005) previous study. Although there is support for his finding that strong brands are present in newer HEIs, this study shows that if the wrong personality dimension is emphasised, this will not support high quality student recruitment.

This study was conducted with reference to the UK higher education sector. It is therefore important that the findings are interpreted within this context. The Educational UK Brand organisation, managed by the British Council, state that the “brand is how we distinguish the UK education offer from those of our competitors. The brand represents a recognisable personality for UK education” (BritishCouncil, 2013). Upon the world stage, UK institutions are portrayed as the “most prestigious” and “more highly regarded than [institutions in] both

Australia and the US" (Baty, 2009). Therefore, taking into account a conscious and explicit strategy, it is not surprising that significant relationships exist between brand personality strength and performance within the UK context, particularly when relating to dimensions associated with superior quality. These findings may not be entirely generalisable to other Western contexts or countries, and cultural differences between countries and their higher education philosophies may have an influence on such generalisability. For example, a study of Swedish HEIs conducted by Becker and Palmer (2009) found that institutions which communicated sophistication performed worse than those with other personality dimensions. However, it is worth noting that it was not concluded that dimensions of personality at different strengths affect different performance outcomes. Although sophistication may not improve the recruitment of quality students, it was found that such HEIs have higher rates of staff retention.

Previous research has found that university brands have attempted to develop brand authenticity (Henderson and Bowley, 2010), and that this provides a key differentiator within the marketplace (Wiedmann *et al.*, 2011). If brands are perceived as being less authentic, this can erode trust in that brand (Beverland, 2009; Eggers *et al.*, 2012). Institutions which have achieved a high level of brand authenticity are often less likely to over sell themselves (Interbrand, 2012). Grant (1999, p.98) stated that "authenticity is the benchmark, against which all brands are now judged" and research by Eggers (2012) has examined brand authenticity as consisting of three measures: brand consistency, congruency, and customer orientation. Eggers (2012) found that consistency and congruency were positively related to brand authenticity, whilst customer orientation was not. Becker (2009) also argues that if the image a brand is communicating is not congruent with reality, then it is not likely to be effective. Brands that are more authentic and consistent are naturally more believable.

In the next section, the relationship between brand personality consistency and performance is explored.

7.2. Brand Personality Consistency

This section discusses how (H1) brand personality consistency between offline and online marketing channels is related to different aspects of HEI performance. The findings show that there is a significant and positive relationship between brand personality consistency in the website and prospectus, and research [H1(a)] and student recruitment [H1(c) and H1(d)]

measures of performance. However there is no significant relationship between brand personality consistency and teaching performance [H1(b)].

Other research has shown that brands represent crucial aspects of success in mature markets (Tilley, 1999), and that consistency can be a key driver in creating strong brands (Kay, 2006). This study extends these findings into the HE context. Whilst previous research has examined the brand image of HEIs over time (Alessandri *et al.*, 2006), and has concluded that consistency is important to performance, these findings are extended in this study to multiple channels within a fixed point in time. The findings also provide empirical support to anecdotal literature, which states that brands are important differential tools in higher education (Almadhoun *et al.*, 2011; Molesworth *et al.*, 2011, p.80). An online brand's synonymity with its offline brand is also crucial to performance (Ha and Perks, 2005), and the findings show that brand personality consistency is highly and positively correlated with research performance, as well as both quality and demand measures of student recruitment performance.

7.2.1. Research Performance

Previous research has argued that higher education brands matter to all stakeholders. These findings indicate that brand personality consistency has a significant positive impact upon RAE results, through research output quality. Previous literature has ascertained that the brand plays a role in communicating what an institution stands for, along with the strength of what it stands for. This can be a driving force behind its perceived agenda (Doorley and Garcia, 2006, p.273), which is communicated externally as a contributor to competitive advantage. Chapeleo (2004) found that brand position can occupy either a teaching or research position, but not both, and that this influences performance accordingly. The findings of this research indicate that consistency is less important for those brands attempting to occupy a teaching position, whilst it is more important for those brands which occupy a research position. For such organisations, consistency impacts both research and student recruitment performance. UK HEIs which are able to sustain a strong brand are more likely to accumulate talented students (Hiltrop, 1999; Ready *et al.*, 2008). The knock on effect of student talent, albeit in the long-term, is an increased quality of work at undergraduate level, which feeds through into postgraduate and doctoral level. This can result in world leading research. Therefore, HEI branding can influence RAE results, which are vital when making top level decisions on

research investment (REF, 2012) within institutions. This can include the accumulation of additional funding.

Ultimately, a measure of brand consistency is an indirect measure of brand management (M'zungu *et al.*, 2010). Research and recruitment performance are positively linked to brand consistency strength, and this supports the literature which states that efficient brand management activities are a proxy of good management. Such a conclusion also supports anecdotal evidence to the effect that strong brands are not created solely through the big actions that an organisation takes, but rather in the accumulation of small steps. In other words, big brands do lots of small things extremely well (Fubini *et al.*, 2006, p.73; Till and Heckler, 2009, p.195; Vinjamuri, 2008, p.11). This concentration on small improvements is indicative of organisational culture (Ngambi, 2011), as well as an attention to detail (Sackett and Kefallonitis, 2010) on the part of employees who are engaged, and who take pride in their work. Within the larger context of brands, achieving a high level of brand consistency and exhibiting competence in many aspects of brand communication is a sign of a culture which supports and rewards good effort and quality work (Geisler and Wickramasinghe, 2009, p.157; Armstrong, 2010, p.67).

Further, these findings support the literature which states that brand management is a proxy of good overall management, and that well managed organisations encourage employees to “love the doing” (Maxwell and Knox, 2009). Such employees do not see their job as a ‘9 to 5’ task. Instead, they are proud to be working for their organisation, and tend to go the extra mile. This is in contrast to slapdash approaches to work in organisations with low morale. In such organisations, so called “brand saboteurs” often operate (Wallace and de Chernatony, 2007).

When people enjoy working in an environment which is both positive and supportive, employees buy into the brand (Crain, 2009). Evidence shows that branding can be used to attract the best staff talent (Backhaus and Tikoo, 2004; Davies, 2008; Hieronimus *et al.*, 2005). This creates a virtuous circle between good management, employee output quality, increased performance and the attraction of higher quality academic staff (which further builds the brand). When employees put their best efforts into their work, research inevitably improves (2010). It has already been seen that HEIs with strong brand consistency seem to attract more and higher quality students.

7.2.2. Student Recruitment Performance

Consistency of communication is used within effective brand strategies to attract students (Becker and Palmér, 2009), and the recruitment performance findings within this study support this strategy. This research extends such findings from the Swedish higher education sector to the UK. Our findings also broaden these previous studies, both in terms of brand consistency and by addressing the specific context of recruitment within the higher education sector.

Student demand and UCAS Points are positively related to brand consistency, indicating that brands which are more consistent receive more applications (UCAS Demand), and are thus able to select the best students (UCAS Points).

Brand communications as exhibited through prospectuses and websites represent the surface layer of a brand. Nonetheless, they do reflect what an institution stands for, how it operates, and how its service is provided. Strong and consistent brands connect prospective students to an institution, by reflecting an understanding of what prospective students are looking for. Research suggests that most students do not come to universities primarily for research led teaching, or after looking at league tables. As tuition fees have increased, prospective students have increasingly become consumers (Maringe, 2006). They choose institutions which offer a suitable course (Scutter *et al.*, 2011), and they use institutional marketing material to inform their decisions on which university to attend (Haywood and Molesworth, 2010).

Our findings support research which has examined the extent to which a clear brand personality impacts positively upon performance (Freling *et al.*, 2011). More specifically, Chapleo (2005) found that certain HEIs were associated with being successful, and that this related to their clear brand message. The research findings also support broader managerial literature, which argues that internal and external consistency both create and are the creation of a sense of ‘oneness’, as brand clarity is likely to influence commitment by employees to the brand’s cause (Burmann and Zeplin, 2005). The solidification of a brand within an institution can help individuals to feel that they are part of something larger (Supornpraditchai *et al.*, 2007). Unsurprisingly, this influences performance in a positive direction.

Chapleo (2005) identified the top 3 institutions in the UK, in terms of successful branding, as the Universities of Warwick, Manchester and Middlesex. Our findings indicate that the University of Warwick was consistent upon all dimensions, and that the Universities of Manchester and Middlesex were consistent on 4 out of the 5 dimensions between both the “Prospectus and Website” and the “Website and Twitter”. Other universities of note included

the London School of Economics and Loughborough. This appears to indicate that our finds are corroborated by Chapleo's, as all of these institutions were either consistent upon all dimensions, or very nearly. These findings also support a subsequent study by Chapleo (2010), in which he stated once more that a clear brand message, communicated consistently to an external audience, results in a stronger brand. However, on this occasion Chapleo qualified his findings, explaining that the amount of money spent on marketing communications may not necessarily be correlated with a stronger brand. Within marketing communications, care must be taken to communicate the brand clearly in order for consistency to be achieved. This research extends previous findings to the HE context of student recruitment and research performance.

7.2.3. Teaching Quality Performance

It would seem to be commonly agreed that managerialist philosophies within the context of HEIs necessarily lead to high performance. However, our findings disagree on this point. The existing literature suggested that students would rate teaching performance higher within institutions which could boast consistent, well managed brands (Kok *et al.*, 2010). This was expected, as well managed brands can be seen as a proxy for other areas of good management. However, this was not the case in the current study. Whilst good management plays a role, differing amount of variance may be accounted by the brand itself against certain performance measures. Indeed, some research has argued that too much control may in fact have adverse effects upon some performance metrics (Teelken and Lomas, 2009; Pritchard, 2012). In other words, whilst brand management plays an important role in recruitment performance, equal amounts of good management may be less likely to result in an increased perception of teaching quality.

Brand associations alone do not influence satisfaction with teaching quality, and student experience is based upon multiple factors of which brand consistency is only one. Our findings indicate that other factors, such as poor student experience on a day-to-day basis (Shields and Toledo, 2008, p.43), may explain the relationship between brand consistency and performance. Previous research has emphasised the significant complexity of this relationship, with certain effects likely being compounded, such as peer assessment measures (Pond *et al.*, 1995). For example, receiving a poor mark on an assignment can lead to dissatisfaction, and this may occur more frequently in better performing universities, which are likely to have higher academic standards (Brown, 2010). The Quality Assurance Agency have consistently

identified tutor assessment of assignment as weak across many subject areas, particularly in terms of feedback provided to students (Rust, 2007), and the results of the National Student Survey show that undergraduate students are not satisfied with feedback during their courses (HEFCE, 2009). Whilst brand persona and marketing does affect student ratings, psychological and psychosocial elements (Elliott and Healy, 2001) also seem to be important, perhaps creating more variability than the brand alone. Therefore, whilst brand consistency was highlighted in relation to recruitment and research, it was not found to be related to teaching quality. It could be that other sociological factors (such as satisfaction with assessment and response received to questions) mediate the relationship between brand personality strength consistency and performance. Finally, in relation to H7, it should be noted that in relation to dimensional consistencies and strengths in which sophistication was related to increased performance, sophisticated institutions may be more boring to students (Marszal, 2012). Attendance at the University of Cambridge is certainly good for one's CV, but conversation with friends at other universities who are doing less work may make the 'grass appear greener' at other institutions.

Consequently, these findings agree with the existing research which argues that brand relationships in terms of satisfaction and disappointment are not linear (Sung and Choi, 2010). Previous research has examined how institutions can manage student experience for the better (Schuetz, 2008), mainly concentrating on university procedures, practices, and environments which can promote students' feelings of belonging, competence, and independence. It was expected, therefore, that consistent brands would achieve higher levels of student satisfaction. However, the interplay between brand, expectations and the lived experience of that brand are more complex, suggesting further interaction variables are required.

In the next section, the relationship between social media, brand personality, consistency and performance is explored.

7.3. Social Media

This section will discuss the use of social media within the context of the higher education sector. Firstly, (H3) the relationship between performance and consistency of brand personality via the website and social media will be considered, including the (H4) mediating role of consistency between strength and performance. Secondly, the relationship between (H6) social media presence and performance will be discussed. Finally, this section discusses the potential moderating influence of social media on the relationships between (H2) website

and prospectus, as well as the relationships between (H5) performance and consistency of website and social media brand personality.

7.3.1. Brand Consistency

This section relates (H3) brand personality consistency between the website and social media, and multiple measures of HEI performance. It also examines (H4) whether the level of consistency between the website and social media mediates the relationship between brand personality strength and recruitment demand performance.

Firstly, it should be noted that our overall findings showed that Website vs. Twitter consistency had no significant relationship with performance (H3) upon any definition. The level of consistency between the websites and Twitter ranged broadly over all institutions, and averaged out to a similar amount within each of the six groupings.

At first glance, these findings are not terribly surprising. Typically, the website is managed by one set of employees and Twitter is managed by another. Looking after the website is often the responsibility of the most technical individual in the department, whilst Twitter is most usually the delegated responsibility of a young member of staff in the marketing department (Mirchandani, 2012). This lack of inter departmental collaboration increases the likelihood of inconsistencies. However, overall these findings are not supportive of prior research, which suggests a relationship between consistency across all communication channels and performance. Consistency itself seems to be influential within prospectus vs. Website. However, between the website vs. Twitter, all institutional groupings are similarly inconsistent in their consistencies. This averages out within the groupings, as shown in Figure 69.

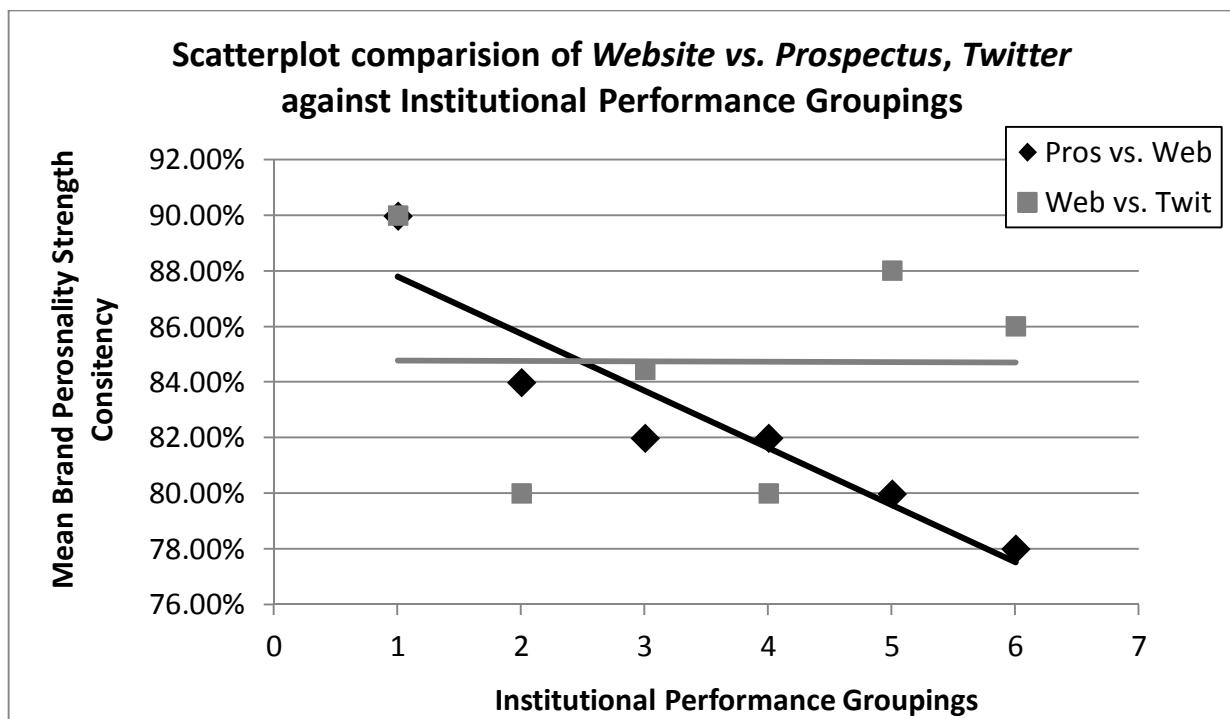


Figure 69 Showing a scatter plot of the relationship between both *website vs. prospectus* and *website vs. Twitter* against institutional performance groupings.

These findings support the literature which suggests that to remain consistent upon an ever number of growing communication media presents a substantial challenge to brands (Hedin and Balogh, 2011). Hedin (2011) found that whilst the logo, signage and images used were relatively easy to keep consistent, brand metaphor dimensions were not as straight forward. Previous research has found that consistent styles of verbal expressions can exert influence upon how brand identity is processed into brand image (Franzen and Moriarty, 2008, p.120) by stakeholders. Consistent brand image leads consumers to understand what the brand stands for, and to better predict its behaviour (Erdem and Swait, 1998; Keller, 1999; Lange and Dahlén, 2003). This has led to planning methods such as that developed by Arruda (2009), encompassing multiple brand communication channels to ensure consistency between all marketing communications, regardless of platform. Our findings suggest that brands are not utilising such planning methods. If they have, then they are executing them with varying degrees of success.

These findings deepen previous research by Navarro-Bailon (2011), which concluded that whilst strategic brand consistency campaigns are more effective than their non-consistent counterparts, in the context of social media consistency this was not the case. However, these

findings do not suggest that consistency is not important. All groupings averaged similar (in)consistencies, but there does not seem to be a clear link to performance.

Further research by Arruda (2009) and Interbrand (2012) suggest that brand consistency is one of the basic rules to which every brand should adhere when communicating brand qualities. It should be used in order to create brand strength and, in turn, encourage better performance.

Whilst research within social media has mainly concentrated upon the interactions of consumers with regards to brands, this research has measured consistency between the website and Twitter communications by the brand. Previously, there has been a lack of empirical evidence to support brand communication consistency between social media channels, which has resulted in the brand consistency literature being generalised to branded social media consistency. These findings extend previous literature by both Arruda (2009) and Interbrand (2012) into the context of Twitter, finding that brands in some cases are consistent. However, the findings do not support a link between consistency and performance within the context of the UK HE sector.

7.3.1.1. Word of Mouth

The findings also agree with research which suggests that Twitter is a form of conversation, rather than simple ‘self-presentation’. (Kietzmann *et al.*, 2011). Use of Twitter is generally less concerned with brand image metaphors, and more with adopting a conversational tone with consumers. Twitter can be seen as online ‘word of mouth’, and represents the glue holding together the brand image (Interbrand, 2012), which is also being communicated through other channels such as the prospectus and online channels. In other words, Twitter acts as the differential between what is being communicated and perceived, and the voice of consumers who are discussing the brand. Therefore, emphasis is placed not upon what the brand is tweeting about itself, but rather on what consumers are saying about the brand (Carter and Levy, 2011), and particularly whether their opinions are positive or negative (Fox, 2010). This may indicate that whilst there is no relationship between consistency and performance in these findings, consistency is not unimportant. Rather, other factors such as “social buzz” may account for a larger proportion of the variance.

7.3.1.2. Brand Message

These findings support previous studies which have suggested that the medium is the message, as opposed to the content. Previous research has examined consistency between offline and

online brand image, but this has always been in the context of a website representing the online marketing channel (Muller, 2008). These findings extend brand communication consistency literature into a new domain of technological communications, extending concepts such as “the medium is the message” (McLuhan and Fiore, 1967) and arguing that the form of medium selected embeds into the message itself, and influences how the message is perceived. This can be seen in the changing role of the letter, for example, which has evolved from a routine to a more formal method of communication (Levitt and Harwood, 2009, p.171). Twitter, on the other hand, is seen as less formal (Wankel, 2011, p.118; Yan, 2011) and more forward thinking (Minocha, 2009). Minocha (2009) has previously suggested that simply by adopting social media as a communication channel, HEI brand image is built into that of a “forward thinking” organisation, which in turn attracts students and funding from external bodies. This suggests that perhaps consistency is important, but more so with regard to the chosen medium (Twitter vs. Instagram) than in the content communicated to stakeholders.

These findings also support arguments which have been put forward supporting the importance of cohesion over consistency within the context of Twitter and social media. Indeed, due to the social nature of Twitter and the number of individuals usually involved in a brand’s social media campaign, consistency and the brand ‘oneness’ it requires may be unattainable. Conformation is defined as a matching attitude and belief between individuals to group norms (Hogg and Vaughan, 2008), and has been linked negatively to the context of brand consistency management and social media (Wasserman, 2011). Philosophical work by the Transcendentalist, Emerson (1890), has suggested that “a foolish consistency is the hobgoblin of little minds”, and in the context of social media, total consistency does not let brands adapt to the specific nature of a medium. Consumers of social media do not want or expect consistency, which in fact can look unnatural and forced on Twitter. In contrast, cohesion allows brands to tell a story around the core brand message, without necessarily being precisely consistent at all times.

These findings support previous research which has argued that Twitter, in particular, has not been used to its full dialogic potential (Park and Reber, 2008; Bortree and Seltzer, 2009). Dialogue is described as “any negotiated exchange of ideas and opinions” (Kent and Taylor, 1998, p.325). Whilst consistency between the website and Twitter seems very random, averaging out to be very similar between groupings, perhaps this indicates a lack of focus on the importance of social media management (Kaplan and Haenlein, 2010). These findings indicate that whilst institutions are using Twitter, they are perhaps not being consistent when

communicating or having dialogue with stakeholders, as no positive significant relationship between brand consistency and performance has been found. This begs the question of whether strong brands with increased consistency between their website and Twitter would experience a positive impact on their performance.

These findings largely disagree with the body of existing literature which states that tone of voice (Dennis and Valacich, 1999), which in this case is encompassed by brand personality, is even more important than in traditional media channels (Ramsay, 2010; Branthwaite and Patterson, 2011). This also pertains to brand as it relates to authenticity of response (Eggers *et al.*, 2012), in that there are preconceived perceptions of how the official brand will talk to consumers, as opposed to an unofficial ‘fan club’. One of the largest brand consultancy companies, Interbrand (2012), argue that expectations are at the forefront of social media communications when communicating with consumers. For example, prospective students would not expect a HEI to be flippant or uneducated within social responses. Even if universities do not consider the tone of voice in which they are communicating, the personality of their tweets will lead to consumers forming opinions based upon their communications, eventually impacting upon how consumers view the brand (Thompson *et al.*, 2006).

7.3.1.3. Brand Behaviour

These findings agree with cutting edge practitioner thinking, which posits that in a post-digital environment, communication has been fundamentally altered by technology (Frampton, 2011). Twitter is more spontaneous (Conard, 2009, p.49; Clough *et al.*, 2011, p.338) and less thought out than has traditionally been the case. A new prospectus, for example, requires months of work and attention to detail. In contrast, Twitter involves ‘spur of the moment’ communication. Indeed, it has been classed as more perverse than other marketing channels (Anderson, 2010, p.170), with communications involving seemingly ‘off the wall’ items such as updates on the weather, or even a clip from a local news programme which gives a glimpse of university campus. As a result, all employees should be encouraged to use Twitter and to have the freedom to talk enthusiastically about the brand. However, there also needs to be a dimension of institutional control, which will prevent employees from straying too far from the brand. Such potential problems are compounded by the lightning speed of modern communications technology. Today, there is no difference between brand behaviour and image (Huber *et al.*, 2010), justifying the saying that “the brand is as it behaves”. Traditionally, brands could hide behaviour behind their image, but now the two are inextricably linked, with

less than a nano-second interposing between behaviour and image due to social media. Therefore, these findings indicate that management of Twitter is quite complex in practice. If each tweet is stringently managed, the spontaneity is gone. Conversely, if Tweets are completely unmanaged then employees may stray too far from the brand. The danger of a lack of employee supervision is highlighted by case studies such as that involving Nestlé (Fox, 2010), where employees have actively argued with their customers.

7.3.1.4. Impression Management

Our findings do not agree with typical university polices as they relate to impression management of the university's brand to stakeholders. Impression management, defined as methods used to manage or control the perceptions of others (Bozeman and Kacmar, 1997; Drory and Zaidman, 2007) and within the context of brands, often utilises managerial tactics which are put in place to attempt to manage the perceptions of stakeholders external to the brand (Avery and McKay, 2006; Mohamed and Gardner, 2004). Previous research has attempted to apply textual analysis techniques to social media posts, in order to analyse social media management of impressions (Terrell and Kwok, 2011). This has been used in an effort to identify optimal management strategies. Research by McNeil (2012) concluded that universities tend to dictate roles to university staff, with the threat of punishment if the brand is not communicated through their method of "impression management". However, this goes against the free nature of expression inherent within social media, as the brand is the way in which the company does business. When employees are responding to consumers, they may be simply and transparently trying to influence them, without regard for the brand and its personality. However, if the brand is strong internally it will be communicated externally.

Our second set of findings showed that Website vs. Twitter Brand Personality Strength Consistency did not fully or partially mediate the relationship between Prospectus Brand Personality Strength and UCAS Demand on the dimensions of Competence, Sincerity, Excitement, Ruggedness or Sophistication.

These results extend current literature, which has suggested a positive relationship between brand strength and consistency. Until this thesis, no studies have examined the link between offline brand personality strength and its effect upon online brand personality consistency and performance, either within the context of brands in general or within the HE sector. The literature argues that strong and distinctive brand communications may increase consumer attention paid towards the brand, which in turn creates strong and more favourable brand

associations (Freling and Forbes, 2005, p.406). Traditionally, within offline literature, research has suggested that if a brand is strong then it is communicated more consistently through its stakeholders and marketing communications. Good brands have their identity stamped through them, and this results in stakeholder understanding and being able to communicate the brand values. Further, previous empirical evidence suggests that stronger brands are able to communicate quality and uniqueness more effectively, which results in consistency (patterns of associations communicated) and also brand congruence (the level of agreement and synergy within the communication) (Aaker and Biel, 1993, p.67-83; Keller, 1993). For instance, consultancy company Interbrand (2012) suggest that a strong brand aids alignment of brand, creating consistency. For this reason, it was believed that a strong offline brand would result in a high level of online brand personality consistency (between website and Twitter). These findings suggest that this is not the case.

These findings, as well as extending empirical data into a new context of online consistency, also indicate that communicating a brand consistently actually results in a strong brand. Acknowledging that brand communications need to be carefully managed (Stewart and Kamins, 2002) and coordinated (Thorson and Moore, 1996) to achieve synergy of persuasion, research by Tschorhart (2008) has argued that consistency creates strong brand associations, with strength of brand associations representing the strength of a brand. In other words, continually communicating brand personality consistently builds brand strength and creates synergy of persuasion. However, it is important to note that in reality a feedback loop may exist, with communication consistency leading to a strong brand, and that strong brand resulting in a higher probability of cross channel brand personality consistency.

7.3.1.5. Evolving Brand Personality

These findings may support research which suggests brands are defined as evolving entities (de Chernatony and Riley, 1998). Originally, this was intended as explanation of the transitional nature of brands through stages of definitions, and it may indicate that brands have multiple, evolving stages of personality. The literature argues that in order for brand strategies to be executed they require support over time through brand consistency (Berthon *et al.*, 2008, p.14), and that in order to build strong brand associations, the associations communicated should also be consistent over a period of time (Thorson and Moore, 1996, p.128). In turn, this provides higher levels of consumer-based brand equity (Pike, 2010, p.13) over time as part of a long-term strategy (Matthiesen and Phau, 2005; de Chernatony and McDonald, 2003;

Argenti and Druckenmiller, 2004; Knox and Bickerton, 2003). Whilst the website represents a ‘point in time’ snapshot of a university’s brand personality, Twitter represents more of a longitudinal source of brand personality. It may therefore be the case that brand personality consistency between tweets is not consistent, if the brand began using Twitter sparsely before building up to a fully managed campaign. However, this does contradict the literature inasmuch as brand personality should be enduring, and hence consistent within communications over time.

7.3.1.6. Social Velocity

These findings support social reach and velocity as a possible extra moderator, accounting for variance. A key metric to measure clout on social media is social reach, calculated by the number of followers multiplied by the amount of tweets (Dustdar and Gaedke, 2011). Less tweets to a higher number of followers are potentially more influential than more tweets to a lower number of followers. Marketers refer to a sweet spot (Sinha, 2006, p.76), which is the optimal number of tweets for the audience. This ensures that the audience is not annoyed through ‘over tweeting’, but is contacted sufficiently for the brand to remain ‘front of mind’. Social velocity (Morgan, 2009, p.122) is the rate at which social reach changes each week to month. It could be that whilst consistency does vary from brand to brand, the social velocity a brand adopts could in fact moderate the relationship with performance. An inconsistent brand could tweet more to a larger audience, and have a different effect to that of a consistent brand tweeting more to a smaller audience. However, in order to measure this effect, calculations designed to track velocity would need to be made each week. As well as the direct benefits of social reach, there are also likely to be indirect benefits (Van Belleghem, 2012, p.105). For example, a shoe maker once tweeted to a large global audience asking for interested parties to contact him regarding a job working at his Belgium based shoe shop. Critics suggested that he was wasting his time, but the next day one of the best known newspapers in Belgium posted a full page article about his tweet. Consequently, two days later his vacancies were filled.

7.3.2. Social Media Participation

This section discusses how (H6) social media participation through (a) interaction (by the HEI itself) and (b) validation (of the HEI by stakeholders) is related to (a) research and (b) recruitment performance. Statistical analysis found that the level of social media participation on Twitter and validation on Facebook was significantly and positively related to RAE and

UCAS Points' performance on all measures of Twitter (Tweets, Following, Followers) and Facebook (Likes, Talking About, Were Here).

These findings support previous research, which has indicated that due to the scale of adoption of social media sites by individuals likely to attend university, its utilisation provides a powerful strategy which HEIs can adopt to build their brand and recruit the best students (Roblyer *et al.*, 2010). These findings indicate that universities are embracing the power of social media within their marketing mix strategy (Reuben, 2008), but with varying degrees of success. Previous research has suggested that social media is of particular interest to HEIs when exploring recruitment and in further engaging students (Heinze, 2011). The social media platforms of Twitter and Facebook were noted to be of particular interest to HEIs (Linville *et al.*, 2012), due to their user demographics.

Social media interaction represents an avenue which has not been fully explored by branding theory, with brand associations continually being formed online by consumers who see certain individuals liking, re-tweeting or affiliating themselves with a brand (Naylor *et al.*, 2012). This provides both opportunities and possible difficulties. Social media can act as a powerful medium of potential referral, but also has the potential to generate negative publicity. Social media participation represents both the interaction performed by an institution and validation which the institution is receiving from stakeholders.

7.3.2.1. Interaction

Previous research has suggested that interaction through social media platforms such as Twitter can enhance the social presence of institutions (Dunlap and Lowenthal, 2009). Research examining online interaction and communication is originally rooted within Information Systems (IS) literature, and is collectively known as "social presence theory". This classifies communication along a scale of "social presence", representing the sense of presence obtained by individuals within an interaction (Sallnäs *et al.*, 2000). Whilst these theories were developed prior to computer usage, marketing research suggests that individuals attribute electronic systems (such as Twitter profiles) as social actors, ascribing human traits to them while knowing that they are inanimate (Wang *et al.*, 2007). Dunlap (2009, p.1) specifically argues that institutions which are "providing space and opportunities for [potential] students and faculty to engage in social [media] activities" are perceived as more social places, which enhances stakeholder perceptions. Good quality learning often takes place within social

contexts. Institutions which are perceived as being more interactive and social may perform better than institutions with less of this kind of reputation.

Previous research has identified relationships between student engagement and performance (Astin, 1984; Astin, 1999; Pascarella, 2006; Zhao and Kuh, 2004). Wise (2011) argued that Facebook, in particular, encourages a social environment within universities. However, this can detract from research quality, as student engagement is dichotomised into social and academic. Facebook interactivity is more likely to be related to the former. Our findings extend previous findings by Wise (2011), who examined social interaction predominantly between students. This research measured interactions by the university itself. Whilst interactive social institutions may be perceived as more social and socially orientated within the context of learning, student quality and research were both positively and significantly related to these interactions. In other words, whilst intra-student engagement can be detrimental to academic quality, interaction with institutions can be positively related to both academic research quality and student recruitment academic quality (Coates, 2007; Coates, 2006).

These findings support previous research which has examined the level of social media adoption by universities, with higher levels of social media adoption anecdotally leading to greater performance. Previous research has shown that universities tweet relating to information on their website within 69% of the time (Linville *et al.*, 2012), suggesting that this interaction creates a wave of visits to their site. This suggests that perhaps there is a link between how consistent a university's brand is between channels, and how much interaction it engages in. The number of those 'following' a university and the number of tweets is positively and significantly related to performance, indicating that more consistent online brands interact more, pushing prospective students to their consistent brand.

7.3.2.2. Validation

The empirical findings agree with previous research, and findings that suggest a positive relationship between social media interaction, research quality and student quality (Lanier, 2012). This relates to the social interaction by the institutions themselves, not by prospective students amongst themselves. In today's world of social networking, prospective customers are constantly telling each other what they are doing, what they want and what they dislike. In the case of Twitter, this takes place 20 million times per day. In such an environment, it is essential that institutions keep up with the changing needs and desires of prospective students,

with particular emphasis placed on how prospective students are behaving. This highlights the need for the HE sector, which has typically been slow to adapt to prospective student demands, to use the same tools and techniques to communicate with stakeholders as the stakeholders use to talk amongst themselves (Wankel *et al.*, 2010, p.87).

These findings also support the literature which suggests that validation through social media today is as important as traditional word of mouth, and is the new digital word of mouth (Davis and Khazanchi, 2008). Digital word of mouth technologies allow consumers who are currently engaged in a relationship (Baer and Naslund, 2011, p.168) with the brand to add this association to their social feed, providing exposure to more potential consumers (Bughin, 2011). As was mentioned earlier, social mentions can even be purchased, as evidenced in the recent investigation into a tweet by prominent footballer Rio Ferdinand advocating a Snickers bar (Barnett, 2012b), which was later deemed acceptable by an independent UK advertising watchdog (Barnett, 2012a). Twitter represents a digital form of WOM (Word of Mouth) (Davis and Khazanchi, 2008), and WOM can be engaging and highly influential, although it usually represents a hard to influence form of marketing (Dellarocas, 2003; Ha, 2002; Phelps *et al.*, 2004). Positive use of WOM has always been very powerful, and studies suggest that digital WOM (DWOM) is also highly effective (Jansen *et al.*, 2009). These findings suggest a strong relationship between social media interaction, validation and performance. However, it is important to note that social media may act more as a predictor than a direct influencer.

7.3.2.3. Content Virality

Social media interaction (in terms of likes and sharing) can be a measure of content quality, with well managed institutions creating and maintaining content of a higher standard and hence virality (Berger and Milkman, 2011; Hinz *et al.*, 2011). Research by Berger (2011) found that positive content is much more viral than negative content, and that virality was driven by physiological arousal. For instance, content which causes high arousal in a positive sense can cause awe, whilst anger can be caused through negative high arousal. Both of these emotions drive a viral response, whilst emotions associated with low arousal such as sadness are less likely to cause virality. The findings support previous research, in that stronger brands create high levels of arousal within consumers,

These findings extend literature which argues that social virality is dependent upon the message (Kaplan and Haenlein, 2011), as it has been shown that the greater the amount of interaction and validation, the higher the likelihood that a brand will perform better. This could

be said to indicate that, after all, "all publicity is good publicity". Whilst content quality has not been measured, the sheer numbers involved indicate that if enough is communicated, then the likelihood of more virality increases.

This research supports previous findings, which have argued that social influence (Booth and Matic, 2011) is an important factor to predict social outcomes. This can be measured by a consumer's net social media lifetime worth (Weinberg and Berger, 2011), which could in fact play a critical role in the relationship between brands and performance. In a similar way that offline individuals have social influence, the level of social influence that an individual has online is represented by the number of connections or following that he or she may have (Drye, 2011). If an individual of high social media influence validates a brand, it will not only be seen by a larger audience, but can also be seen as more authentic.

7.3.2.4. Multiple Profiles

It is worth mentioning that universities often have multiple Twitter profiles (Linvill *et al.*, 2012). For example, the University of East Anglia has an overall Twitter profile, multiple departments with the university have their own Twitter profiles, and other teams and societies have their own Twitter profiles. Even individual scholars have their own accounts (Veletsianos, 2012), which are often re-tweeted by the university and departments. However, the overall institutional Twitter account is under the direct control of the University in all instances, ensuring that it was comparable across multiple institutions. However, it should be noted that in order to ensure consistency across an institution, there should be synergy between profiles, with departments often cross tweeting and re-tweeting relevant news. This also encompasses situations in which employees create their own brands, which are aligned with institutional brands. A growing number of professionals are building personal and public brands of their own, based on their work for their organisation. These often seek to capitalise upon their institution's brand (Samuel, 2012).

In the next section, the relationship between social media, brand personality, consistency and performance is explored.

7.3.3. Social Media Interaction

This final subsection examines the influence/moderation of social media upon (H2) offline and online, (H5) website and social media brand personality consistency and performance. Firstly, our findings showed that social media moderation via validation on Facebook between the

relationship of prospectus vs. website and UCAS Demand was fully supported, as well as partially supported by follows on Twitter. However no support was found for a moderation effect of either validation or interaction on UCAS Points. Secondly, our findings show that the level of social media validation on Facebook did statistically moderate the relationship between website vs. Twitter brand personality consistency and UCAS Points performance, however this was not the case for UCAS Demand performance.

These findings support the literature which argues that social media has changed brand communication strategies (Wang *et al.*, 2006), and that in today's social media environment brands must be more responsive (Dean, 2004; Kent, 2010; Baron and Philbin, 2009) than ever in repelling negative brand image (Kietzmann *et al.*, 2011). Social media is the digital equivalent of traditional word of mouth, and as such is extremely important to public relations. The main difference from traditional forms of media is speed of communication. The situation today can be contrasted with traditional case studies such as the PR disaster of the Ford Pinto, which was famous for its exploding gas tank when involved in a crash (Birsch and Fielder, 1994). Whilst this resulted in negative word of mouth and negative reports on news channels, businesses were able to hold crisis talks over days and weeks involving outside advisors, consultants and directors, in order to decide upon the best course of action. Today, this would not be possible, as social media has changed the landscape of consumer interactions and relations. Organisations must be prepared (White, 2011) and ready to deal with crisis as and when it happens (King, 2010), as they cannot afford to delay. The most recent example of this can be seen in the case of Toyota and the faulty brakes scandal (Madslien, 2010), as well as in the case of the Sony laptop which caught fire. News of the latter was spread around the world in 20 minutes by viral communication (Christman, 2012).

7.3.3.1. Validation vs. Interaction

These findings extend the literature on social media interaction into a distinction between social media validation and interaction. In this case our findings suggest validation of what the brand is saying is more likely to influence the strength of the relationship, rather than interaction. Previous research has concentrated upon interaction and effectuation (Fischer and Reuber, 2011). However it seems that interaction between brands is less important than validation. This highlights a distinction between interactions which are favourable and validate a brand online. The distinction is that social media interaction can be seen as the interactions which occur between the brand and consumer. This may occur in the form of messages,

images and communications, and at this stage these may be positive or negative (Kaplan and Haenlein, 2010). Social media validation within this research is when consumers ‘follow’, ‘like’ or visit a brand’s location, working no differently (in principle) from offline social validation. When humans are in doubt over what course of action to take, they will look to peers (Crowe, 2012) who may have previously interacted with a brand and validated its claims. Often, brands that are ‘too good to be true’ will fail social validation tests (Hardey, 2010). In the case of this research, only positive indications of validation were tested, in which the more validations there are the better the performance.

These findings concur with the existing research which argues that the brand of a university has begun to shift from what a brand is communicating about itself through marketing communications, to what consumers are saying about the brand (McNeill, 2012). It is in agreement with the proposition that social media provides a new vital channel of communication (Dabner, 2012) which must be coordinated with other communications. Indeed, it suggests that social media is seen more as the glue holding together other brand communications (Interbrand, 2012). Where brands have been less socially validated, it seems consistency is more strongly linked to performance, and brands can hide behind what they are communicating. Conversely, in the case of high levels of social validation the relationship is weaker, indicating that if a brand is strongly validated it can be less consistent whilst still achieving high performance. McNeill (2012) argues that social media is about protecting a university’s brand and reputation, acknowledging it has the potential to trouble institutions if mismanaged. However, while validation matters, if consumers validate a brand’s claim a causal relationship with performance is not necessarily proven. Rather, this may be an indication that consumers accept and follow the brand.

These findings also support evidence which suggests that social media in itself does not represent a direct causal relationship (Eysenbach, 2011), as multiple measures interact with performance. Whilst social media may be highly correlated with performance, it is unlikely to explain all of the variance. It simply represents consensus, as opposed to forming or dictating it. For example, if students see that a university is well liked they will attend. Social media validation can be used to predict future performance, but it is not solely causal.

Speculatively, the results appear to indicate that inconsistent brands with low social validation perform the worst. This means that institutions which perform better than their perceived value have significant opportunities to do more. As previously discussed, the users of social media

are also the most likely to attend university. However, if brands are overpromising, they are now found out more quickly. Today, brands operate within a culture of cynicism (Brand and Rocchi, 2011) and consumers are quick to point out things which are not being done very well. These findings indicate that if institutions are not performing as well as they want to be, they should not be tempted to suggest that they are excellent. HEIs must make internal steps to improve, and once this has been achieved, communicate this externally. These claims will then be judged and validated accordingly.

7.3.3.2. Twitter vs. Facebook

Our findings extend research which argues that Twitter and Facebook possess both similarities and differences (Kirtiş and Karahan, 2011; Jones, 2011; Hughes *et al.*, 2011). Brands still need to carefully consider which platforms they use for marketing and communication.

Research suggests that whereas Twitter is more conversational, Facebook is more self-presentational (Zywica and Danowski, 2008). Both social media platforms have methods of interaction and validation, but this research used the validation and interaction features of one platform. Within a brand's page on Facebook, there are many validator variables which can be seen by consumers, and actions which can be taken to show validation including "shares", "Likes", "Talking About", "Were Here". Twitter also has such features, but they are not as transparent, with validator variables only including "Followers". Hence both social media platforms offer both a conversational and self-presentational platform, as both offer the method of validating other users. This enables consumers to indicate if a brand is communicating a different message to the reality of the situation. Due to the speed of social media, consumers quickly discover the truth, and this is represented through social media validation.

While Twitter is less conclusive, Facebook moderation indicates significant interaction upon UCAS Demand through "Likes" and "Talking About". Whilst this finding disagrees with that regarding Twitter, it is actually a more reliable measure of interaction. Firstly, it is slightly harder to 'game', through buying social stats on Twitter and in terms of the likelihood of "like"/"shares" (BBC, 2012a). Secondly, the general conversation about the university does not become a one-sided conversation, as "talking about" takes into account consumer interaction (Hughes *et al.*, 2011). This is opposed to the institution tweeting about themselves. For example, people who already attend the university could be friends with prospective students, and are also likely to be in the same geographic area. This could indicate that

interaction with a prospective student in a geographic area has a causal relationship with UCAS Demand, which could be just as or more powerful than brand consistency.

These findings extend research which suggests that universities in particular should carefully consider how they choose and use individual social media platforms (Zailskaitė-Jakštė and Kuvykaitė, 2010). Our findings suggest that the ways in which consumers use and interact with Twitter and Facebook are different. In terms of our findings, the main differences consist of the visual nature of brand validation on Facebook, with “Likes”, “Shares”, “Were Here”, contrasted with only followers being directly shown on the brand’s Twitter page.

7.3.3.3. Diminishing Returns

Only validation variables were found to interact, due to being external to the brand’s control. The nature of the interaction followed an unusual pattern, as the consistency to performance relationship was strongest in the case of a low number of *Social Media Validation*, weaker in the case of a medium number, and a negative relationship existed between the strength of the relationship between consistency and performance at the highest level of *Social Media Validation*. At a high level of social validation, the relationship between brand consistency and performance was weakest, indicating that in cases of strong brand validation through social media, brand consistency becomes less important. The nature of the moderation relationships support existing economics research which argues that as money is spent on marketing activities, a point will be reached at which the gains are either not possible or no longer worth the expense. This is also known as the economics law of diminishing returns (Hirschey, 2008, p.251). It suggests that only a certain amount of marketing is required, which would need to be set through a careful process of budgeting and strategic management.

On a final note, these findings are susceptible to social variable manipulation. This occurs when institutions purchase social mentions. This is possible on both Twitter and Facebook, and it is certainly a possibility that some of the lower level universities could have bought followers or paid for tweets (London, 2012). It is submitted, however, that it is unlikely that a higher education institution would choose to do this.

7.3.3.4. Social Media Consistency Interaction

The findings of this research in respect to social media are perhaps the most interesting. They suggest that whilst consistency alone is not correlated to performance, when social media interaction is added to the mix there is a moderation effect between website vs. Twitter

consistency and performance. On the face of these findings, two possibilities are forthcoming. Firstly, higher quality students are more concerned with social validation. In other words, the masses just go to universities which look the most exciting and which accept them. Secondly, it may be that the universities with the highest amounts of social media validation get the most high quality applications, and hence are able to pick from the best candidates.

Whichever hypothesis is true, these findings support validation as a key form of ‘social glue’, holding together other brand communications. Our findings are supportive of literature which suggests the increased importance of the role of social validation, as well as focusing on what a brand is communicating about itself through marketing communications (McNeill, 2012). Overall, it is clear that social media provides a new vital channel of communication (Dabner, 2012) in coordination with other communications, suggesting that social media is seen as the glue holding together other brand communications (Interbrand, 2012). Essentially, social media can be seen as the difference between what a brand is saying about itself, and what consumers are saying about it. Nike’s image may be consistently communicated by the company, for example, but ongoing issues about sweatshop labour are nonetheless constantly communicated via social media, and negatively affect the brand (Paharia and Deshpandé, 2009). Whilst some consumers can be fooled some of the time, if communications genuinely differ from the lived experience of consumers, this will inevitably be transmitted to other potential customers.

7.3.3.5. Social Reach and Virality

These findings could indicate that brands with a larger social reach and more consistency are noticed more, and are thus at the front of the minds of potential students. Facebook validation is a proxy for social reach, and the more exposure the university has the more likely it is to be favoured. A key metric to measure clout on social media is social reach (Dustdar and Gaedke, 2011), which takes into account the number of followers being reached by any one tweet.

These findings support research which suggests that social validation can improve performance. Overall, while no significant relationship exists between website vs. Twitter and performance alone, it seems that the interaction created by validation does in fact influence the relationship. The huge shift in emphasis from traditional to social consumption has left marketers looking for ways to innovate and to maximise the benefit of these shifts. Like the entrepreneurs who added celebrity endorsements to their strategies in the 1920s, brands are seeking ways to blend their marketing with social media (Feinman, 2011). Building on this, a

market has appeared which allow brands to pay for tweets and posts, in order to build credibility (Jensen, 2011; Touschner, 2011), ranging from \$10 to \$40,000 for top influencers such as Kim Kardashian, who was unknown before having sex on tape with a prominent celebrity (16,324,632 followers), and Sean John Combs known better as rapper P Diddy (8,938,514 followers). As well as simply using endorsers to validate a product, marketers have also begun to exploit combinations of social media, brands, and current television shows in order to create a string of associations (Thomas, 2011). For example, during the Superbowl influencers tweeted on the topic of why they loved eating a particular product whilst watching the game. The more public validation received by brands, the more likely it is that a viral effect will begin to build. Previous research suggests that brands validated by users of high influence experience disproportionate increases in virality (Hinz *et al.*, 2011).

7.4. Summary of Discussion

This section has discussed how the key findings of this study interact with the previous literature on this topic. Our findings have significantly extended those of previous studies, with which we have both agreed and disagreed.

Brand personality strength was expected to positively influence performance (UCAS points) upon all dimensions of Aakers model of brand personality. However, this was only true of sophistication, with all other dimensions being negatively related. These findings agree with previous research, which suggests that universities which build themselves around a sophisticated brand often perform better, with performance defined through the quality of students recruited. Previous research has suggested that newer institutions are actually better at managing their brands than older institutions. This may explain why brands which were stronger upon all other dimensions of personality actually performed worse.

Consistency was found to be positively and significantly related to research and recruitment performance, but not teaching performance. Previous studies haves argued that HEIs can either position themselves as research or teaching intensive, but not both. The findings of this research indicate that brand consistency is more important for brands occupying a research position. The findings agree that brand communication consistency is used within effective brand strategies to attract students. As prospective students have become increasingly consumerist, institutional marketing material has helped them to base their decisions upon perceived value and quality. The findings further support previous studies which have argued that a clear and consistent brand message is associated with top performing recruitment

campaigns. Lastly, teaching performance was not related to consistency. These findings extend literature which argues that managerialist philosophies within the context of HE do not necessarily lead to increased performance in isolation. Indeed too much control can have adverse effects upon certain performance measures. Previous studies have also concluded that brand associations alone do not influence satisfaction. For example, teaching quality is ultimately based upon multiple factors. This indicates that the relationship between brand and teaching performance may be significantly more complex than consistency alone.

The third section addressed the social media hypotheses, finding that consistency between online brand communications was not positively or significantly related to performance. The research showed that each university cluster varied in its average consistency. This supports literature which argues that brands struggle to deal with increasing numbers of communication channels. Previous studies have argued that Twitter is unique, in that it is a form of conversation over and above one way communications, meaning that brands are less concerned with communicating brand metaphors. These findings support research which argues that social media is the “glue” or “stitching” which holds together other brand communication channels. This is essentially the differential between what brands are communicating, and what consumers say is the reality of the situation. Behaviour studies have suggested that Twitter communication often takes place on the “spur of the moment”, as opposed to a stringently, planned and executed strategy. However, this is sometimes necessary in order to stay relevant, and aids spontaneity. The findings also showed that brand consistency online did not mediate the relationship between brand strength and performance, although this was unsurprising due to the previous findings related to Twitter.

Social media participation was positively and significantly related to research performance and student quality performance. These findings agree with previous research, which has argued that social media is very important to HE recruitment strategies. Previous studies have found that the level of interaction on social media can enhance social presence, providing space and an opportunity for stakeholders to engage with the brand. These findings agree with previous studies suggesting that institutions which are perceived as more social perform better, increased student engagement and leading to increased recruitment performance. Especially crucial to research and recruitment, validation provides a method for stakeholders to cite their approval of a HEI, which highlights the strong positive relationship between social media and research performance.

Social media moderation and mediation were tested in the final subsection. The findings highlighted the fact that full moderation occurred via Facebook validation between prospectus vs. website consistency and UCAS demand, as well as partial moderation via Twitter followers. Facebook validation also moderated the relationship between website vs. Twitter and UCAS points. These findings support previous studies which articulate social media as DWOM (digital word of mouth), arguing that social media is reflective and brands must be responsive. The findings suggest that validation is more influential than interaction (that is the validation of brand claims), as the differential between what brands communicate and what consumers see as the truth. This highlights a shift in emphasis from trust in what universities are saying about themselves, to whether current students actually agree. Whilst HEIs with low brand consistency and low social media validation perform worse, interestingly at a medium levels of interaction the relationship is stronger. This indicates that more consistent and validated brands perform better. However, at the highest levels of both consistency and social validation, performance hits a “glass ceiling”. In economics, this is known as the law of diminishing returns.

The next chapter concludes the research, articulates the theoretical contribution made, explores the implications for management, discusses the limitations of the study, and outlines future research opportunities.

8. Conclusion

The preceding chapter analysed and discussed the findings of this study, in the context of the literature review. The aim of this research was to contribute to an understanding of the relationship between brands and performance, within the context of the Higher Education Sector (HE). Consequently, the discussion was concerned with brand personality consistency, brand personality strength and social media's influence on performance.

This chapter will conclude the thesis by revisiting the rationale and content of each chapter in order to consolidate the research. The next section will highlight the theoretical contribution of these findings to knowledge, and discuss the managerial implications which the research has raised. As with all research projects, limitations exist, and these are acknowledged and discussed, before opportunities for future studies are suggested. The last section of this chapter summarises the major contributions of the thesis.

The introduction provided an overview of this study, identifying a gap within the brand management literature and outlining the context of the research. Significant academic and practitioner interest in brand management within the HE sector was noted. Brand management literature argues that brand consistency is a crucial driver of performance, and it has been suggested that HEIs do not manage their brands efficiently. Much of the existing literature took the form of anecdotal literature or single case studies. As a result, this research aimed to test certain hypotheses about brand consistency and performance empirically across a relatively large sample of organisations. Guided by this context, research questions were formulated which have underpinned this research:

1. Is the HEIs' brand personality consistent between online channels (website and social media) and the offline communication channel (traditional paper based marketing media) across Aaker's model of brand personality?
2. Is brand personality consistency and strength positively related to UK university performance?
3. Is the impact of Social Media significant between brand personality strength, consistency and performance?

The second chapter examined the literature surrounding brand management, communication, the higher education sector and their brands. This helped to clarify key conceptual terms

within the thesis, such as brand definitions, brand personality, brand communication and brand consistency. Current inconsistencies and anecdotal claims existing within the brand communication and consistency literature were also identified. Through the examination of brand personality, communication and consistency key variables were identified which could be used within the research hypotheses.

The research hypotheses chapter was grounded within brand management literature, and provided scope for the research to progress. It provided a mechanism to bridge key gaps within the literature through empirical research, including the relationship between multiple marketing channels, brand strength within individual channels, social media interaction and relationships to performance. The research hypotheses provided were used to answer the overall research questions.

The methodology chapter outlined the method by which the research hypotheses would be tested, and outlined the process of data collection. The process was predominantly guided by a positivist philosophy with a large quantitative data sample. HEI prospectuses, website pages, Facebook and Twitter accounts were scanned and downloaded from a stratified sample of 60 UK higher education institutions.

Once the data collection was complete, statistical analysis was performed (see Chapter 6) to assess multiple relationships between brand personality, consistency and performance. These analyses highlighted strong relationships between communication consistency, brand strength, social factors and performance measures, and also demonstrated areas where there were no statistical relationships.

The next chapter discussed the statistical findings within the context of the existing literature. The findings were discussed from three differing perspectives. Firstly, the relationship between multiple channel consistency and performance was examined. Secondly, the relationship between social media interaction and performance was discussed. Finally, brand strength and performance was covered. In this chapter, the overall research questions were addressed and the ways in which this study contributes to existing theoretical knowledge were highlighted.

The rationale and logic of the overall thesis having been clarified, the theoretical and managerial implications of this research will now be discussed, along with its potential limitations, and opportunities related to future research.

8.1. Theoretical Contribution

The findings of this research add to the existing body of literature on brand management, brand communication and higher education institution brands. The quantitative approach taken has provided new and unique insights. Previous research into brand consistency has concentrated on in-depth case studies of single organisations.

This research provided significant theoretical contributions in three different areas. This section outlines those key theoretical contributions.

8.1.1. Brand Management Theory

This research provided a significant theoretical contribution in three key areas of the brand management literature, namely brand consistency, brand strength and social media.

The literature had previously recognised consistency as important (Matthiesen and Phau, 2005; de Chernatony and Segal-Horn, 2003; Argenti and Druckenmiller, 2004; Knox and Bickerton, 2003), but such studies were either anecdotal or based on single cases. In contrast, this research collected empirical data across a range of brands in order to establish, through statistical analysis, whether brand consistency affected performance. Clauser (2001) argues that the traditional offline brand rules simply transfer to new online communication tools, including brand consistency (de Chernatony and Christodoulides, 2004). It is further argued that consistent communication of brand metaphors applies to online brand consistency (Arruda, 2009; Interbrand, 2012). This contradicts our findings, which indicate no relationship between website vs. Twitter consistency and performance. Therefore, the first significant theoretical contribution provided by this research was to confirm the observations of the anecdotal literature, and to show a clear, positive relationship between brand personality consistency (prospectus vs. website) and both research and student recruitment performance in the HE sector. Further, it enables us to reject literature which argues that Twitter should simply be used in the same way as traditional marketing communications. This research shows a more complex set of brand issues around the use of social media for marketing communications as discussed in Chapter 7.

The existing literature argues that brand strength is a key predictor of performance (Aaker and Biel, 1993, p.67-83; Keller, 1993), both directly through increased favourable consumer attention paid towards a brand (Freling and Forbes, 2005, p.406), but also mediated by consistency (Keller, 2008). Previous studies suggested that brand strength can affect the

consistency of brand communications (Aaker and Biel, 1993; Keller, 1993), yielding improved performance. However the findings of this study showed that brand consistency does not mediate the relationship between personality strength and recruitment performance, within the HE sector. It further showed that whilst the strength of sophistication was positively related to performance, other brand personality dimensions were negatively related. These findings represent a key contribution to brand management theory, and in particular to how brand personalities are developed and communicated within the HE sector.

Previous research has indicated positive links between social media interaction and validation, and performance (Gruhl *et al.*, 2005; Asur and Huberman, 2010). This research found that social media significantly interacts between the relationship of prospectus vs. website consistency and performance; however this was only in the case of validation variables, being external to the brands control. The findings indicated that while consistency was important, social validation plays a significant role in moderating the relationship between brand and performance, representing the glue holding together communication channels as the differential between what brands communicate they stand for and whether consumers agree.

Further, additional probing revealed an unusual pattern; the consistency to performance relationship being strongest in the case of a low level of validation and weaker in the case of a medium number. At a high level of social validation, the relationship between brand consistency and performance was weakest, indicating that in cases of strong brand validation through social media, brand consistency becomes less important. These findings are comparable to the law of diminishing returns (Hirschey, 2008, p.251).

The overall relationships between all measures of social media were shown to be positively related to performance. The findings were in agreement to prior studies (Naylor *et al.*, 2012; Nicholls, 2012; Fischer and Reuber, 2011) conducted within the corporate sector and extended previous findings to the HE sector.

8.1.2. Higher Education Sector Theory

Within the context of higher education, this section highlights two key theoretical contributions related to higher education institution brands and their strategies.

Current literature indicates that the higher education sector has experienced an increase in managerialism and new public management (Brown, 2011), leading to tools and practices traditionally used within the corporate sector being increasingly employed (Maringe, 2005).

Areas of specific focus include marketing and brand management, which are thought to attract students and build reputation (Chapleo *et al.*, 2011b). The findings of this research support literature which argues that HEIs are using brand management techniques in a similar way to commercial brands, with varying degrees of success. We have also found that significant relationships exist between the extent to which institutions manage their brand and performance. This research has made an important contribution by connecting key brand personality variables to higher education performance measures, which were significantly and positively related.

The findings of this research support the hitherto broadly anecdotal evidence that marketing practices used within the corporate sector are being used within the context of higher education. It further supports the idea that methods used within the corporate sector can be transferred to the higher education sector. Chapleo (2010) explained that universities had broadly embraced the concept of brand management, but went on to state that such strategies were inconsistent and a clear roadmap was needed. This research provides empirical evidence that HEIs that communicate their brand consistently and have a sophisticated brand personality tend to perform better on most measures of HEI performance.

8.1.3. Methodological Extension

The final key theoretical contribution provided by this research can be understood in the form of methodological advancement. This study connected a number of key methodologies. Collecting and analysing data on a large scale to measure brand personality, brand personality consistency and its relationship to performance had not been attempted before. New combinations of techniques had to be used to answer the research questions and this provides a methodological contribution. Firstly, Aaker's (1997) original study and measure of brand personality was considered. Secondly, Opoku's (2005) dictionary of synonyms was used. Thirdly, connecting these measures, Student's *t*-Tests, correlation and regression analysis and moderator presentation through Modgraph were all assessed. Combining these research tools to investigate the relationship between marketing communications and performance is unprecedented, and the present research offers a novel approach. Indeed, the findings that brand personality strength consistency could be analysed and can act as an indicator of performance clearly demonstrates the efficiency of linking such measures in this way. Subsequent research will be able to utilise this method so as to analyse different sectors and different countries, extending the generalisability of the research findings to new contexts.

As well as providing original theoretical contributions, this research also suggests practical implications. These can be adopted by HEIs. An overview is provided within the section below.

8.2. Management Implications

As marketing communication trends have evolved, communication strategies have significantly changed. Marketing practitioners are still grappling with these changes, and considering the ways in which they can apply new techniques and practices to new platforms, in order to communicate effectively with stakeholders. Understanding of these new marketing realities is, at best, nebulous. This highlights the importance of research, both to educate and improve practice within the sector.

The findings drawn from this study suggest that brand communication management plays a crucial role in the performance of HEIs. Therefore, brand managers are encouraged to ensure that clear, concise and consistent brand communications are a priority within their overall strategy.

Further, these findings will provide guidance to HEI stakeholders in the UK wishing to better manage the ways in which they conduct their marketing communications activities. This research provides up-to-date information on the current positioning of HEI communications between marketing channels within the UK. If professionals working in the sector wish to improve the way they communicate their brand personality, this study can provide valuable guidance. In particular, the literature review, analysis technique and findings can provide information on marketing, planning, and execution. This includes knowledge regarding efficient transference across channels, and a subsequent brand personality consistency communication measurement tool. Lastly, the findings give practitioners significant information regarding the applicability of traditional management methods of communication across new platforms, including the most prominent, Twitter and Facebook.

8.2.1. Brand Consistency

The findings indicate that consistent brands perform better than less consistent brands, meaning that HEIs should ensure consistency of their brand communications between marketing channels. Whilst this was already anecdotally established within the literature, this study was the first to clearly show a statistically significant link over a large sample of universities.

As brand communication across multiple channels can be consumed simultaneously by consumers, all HEIs should consider taking the following steps:

- 1) Brand managers need to ensure that their website marketing communications reflects the brand position, communicating the established position consistently.
- 2) HEIs must develop a set of processes to ensure brand personality consistency before publication. Consistency must be integral to strategy. Simply ensuring that the brand is consistent periodically will result in inconsistencies, and so each responsible stakeholder must fully understand the aims and objectives of the brand.
- 3) At the management level, dialogue within the organisation needs to clearly articulate the brand, ensuring that communication of the brand within the organisation is consistent. This will ensure that it can be expressed appropriately to external audiences.

8.2.2. Brand Strength

The brand strength of a HEI's prospectus did not lead to significantly consistent brands between the website and social media, in turn relating to increased performance. This indicates that having a strong offline brand is not enough by itself to result in higher levels of brand consistency and performance. HEIs should note the brand personality that they are communicating, in order to ensure that strength is consistent between all marketing channels.

Certain dimensions of brand personality are more likely to be present in the case of higher and lower performing HEI brands. In particular, HEIs which exhibit strong sophistication are more likely to be highly performing, and those that exhibit strong dimensions of ruggedness are likely to perform worse. This would indicate that HEIs looking to position their brand should ensure that they are communicating more sophistication and less ruggedness in their brand communication strategies. However, this does not mean that well established institutions should suddenly change their brand personality. Rather, incremental changes should be implemented, towards a more sophisticated brand personality.

8.2.3. Social Media

The findings of the study indicate that no link exists between social media brand communication consistency and performance. However, strong links were identified within independent measures of social media and performance. This was unexpected, but strongly highlights the importance of this technology.

Social media represents a more spontaneous marketing communication channel, and the approach to it by marketing professionals can often be less than systematic. In contrast to the weeks and months of preparation when considering printed literature, Twitter is, by its nature, communication which takes place on the ‘spur of the moment’. In order to ensure spontaneity of tweets, it is very difficult to ensure that each tweet is stringently managed. Social media interaction is linked strongly to performance, and therefore all employees should be encouraged to use social media, and to talk enthusiastically about their brand. However, that being said, a balance needs to be struck between stifling creativity and spontaneity and maintaining control to avoid straying too far from the core brand message.

In terms of social media, there is no difference between brand behaviour and image (Huber *et al.*, 2010). Social media has drastically reduced the difference between brand image communications (the brand telling consumers about its identity) and brand behaviour (what the brand actually is). A better and more nuanced comprehension of the access which consumers now have to vast amounts of peer created information is paramount to practitioner understanding.

8.3. Limitations and Further Research

“Scientists have known for centuries that a single study will not resolve a major issue. Indeed, a small sample study will not even resolve a minor issue. Thus, the foundation of science is the accumulation of knowledge from the results of many studies.” (Schmidt and Hunter, 2004)

The reliability of content analysis methodologies is predominantly concerned with and solely dependent upon the textual data being collected. Due to the available resources of the current study, the data was collected by a single researcher. A further confirmatory study should involve two or more researchers, enabling the cross-checking of data to ensure consistency.

It is also recognised that this was a UK based study, and that therefore the results might not be generalisable to other countries. However, further studies can replicate this research in other Western contexts. Because (brand) personality is traditionally a western concept, the study would need to be adapted to test the applicability of similar findings in non-Western contexts. Different personality scales would need to be used or developed, and this would help to widen the generalisability of these research findings.

This study was conducted within the context of the higher education sector, and therefore a study which examines brand consistency within the corporate sector would extend the generalisability of the findings and provide further insight and implications for managerial practice. Whilst research suggests that brand consistency is related to performance, and the findings of this study support a positive relationship between brand personality consistency and performance, no research has tested the relationship between consistency and performance empirically within the corporate sector. The tools and concepts drawn upon in the current study are predominantly used within the corporate sector, and therefore the same philosophical and research approach could be used, and the performance measure(s) tailored specifically to the sector.

A further study could also integrate other aspects of brand personality into the research, such as logo, graphics, colour, shapes and layout. This could be helpful in assessing consistency of brand personality within documents, as well as examining whether other elements are communicating stronger or weaker brand personalities. This could further be extended to measurements of search engine ranking position (SERP). This could be achieved as a measure of speed of locating the brand, and the relationship between keyword density (textual content written to achieve high positions within prominent search engines), as well as the trade-off between communication of brand personality consistency through the words institutions are using to talk about themselves on their prospectus, website and its impact upon performance.

This study was purely concerned with what the brand was communicating about itself. To complete the research journey, a further study could also interview prospective students. This would match their view of an organisation's brand personality with the brand personality being communicated by the information within the prospectus, websites and social media marketing channels. As the study used social media as a measure of interaction and validation, a further study could overlay social media engagement of the number of followers upon recruitment demand, in order to see what percentage of conversions are being achieved by institutions.

This study used Twitter and Facebook to represent social media, due to the difficulty of analysing every form of online media which might be utilised by HEIs. It would be useful for a future study also to consider other platforms and social media such as YouTube and blogs.

It is worth noting that this study was carried out within the context of a turbulent period within the UK higher education sector. It would be worth repeating similar research when funding is

more stable and the economic environment has changed or stabilised. The study was also conducted at a single point of time (2011). There is a lag between published performance data and brand communication. A further longitudinal study could test effects over time, and examine how brand personality, consistency and performance change relative to each other.

Finally, it would be useful to undertake qualitative interview based research, so as to see how HEIs are developing their marketing media and whether and how they are actively considering brand personality consistency issues.

8.4. Summary of Conclusion

This chapter consolidated and unified the study, which was achieved by reviewing the content and logic of the previous chapters.

The introduction laid the foundation and context of the research questions for the study. Next, the literature review and subsequent research hypotheses chapter provided a theoretical grounding and conceptual model for the research. The methodology outlined the research method, which was developed via philosophical underpinnings, and collected the data in order to test the research hypotheses. The statistical analysis chapter, guided by the research hypotheses, provided the results of the quantitative data analysis. This analysis revealed significant findings, both supporting previous literature and giving cause to reject some previous assumptions. The penultimate chapter discussed these findings within the context of the literature.

This research also examined the relationship of brand personality consistency, brand personality strength and social media validation and interaction. This included a study of the interaction effects of higher education institutions (HEIs), as communicated through their marketing channels and within the context of the UK higher education (HE) sector.

Considering that little research existed within the general brand literature in relation to brand consistency, and no empirical research had been conducted upon brand personality consistency, it is evident that this research contributes significantly to the literature of brand management and marketing communications. This is particularly the case when the growing importance of the higher education sector to the UK economy is taken into account.

New knowledge was generated through the creation of a framework, as well as a subsequent methodology which was able to measure the level of brand personality consistency between

marketing communications of HEIs. The findings confirm the literature, as brand personality consistency was positively and significantly related to research and recruitment performance. All measures of social media interaction and validation were positively and directly related to performance.

The brand personality strength findings extended the literature, as stronger brand personalities in certain dimensions did not relate positively to performance. Brand personality consistency between online channels was not related to any measure of performance, nor did it act as a mediator between brand strength and performance. These findings contradict existing literature.

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Appendix

1. Online Brand Elements

Summary of online brand elements adapted from Chernatony (2004)

Elements of enactment	Description
Locating the brand and the Speed of download	<p>The initial tissue facing a possible consumer is locating the brands website; opportunities to increase the speed of location can include affiliate marketing, links and spill over effects, and search engine optimisation.</p> <p>Since not all internet users have high-speed connections to the internet, a clear simplistic approach is required when developing a brand's website.</p>
Site Appearance	<p>This is concerned with the Tone of voice and Consistency of the appearance.</p> <p>The tone of voice is the style of writing and in this context, how the website sounds to a user, and is therefore the editorial representation and execution of the brand. Specifically the homepage should consist of a positive welcome, emphasis on welcoming the consumer. This may also incorporate a structure of pictures which relates or depicts events which are related to the brand.</p> <p>Consistency ensures the brand elements (colours, logos etc) are in fact communicated through the website and are consistently placed, while also being consistent across different media and channels. Finally it is also necessary to ensure that the brand is reasonably consistent across different locations, which may mean tailoring pricing structures or currencies but also ensuring that different regions appear and feel the same.</p>

Navigation	<p>Navigation of the websites creates an additional perception by way of clues regarding the brand. According to Lindstrom (2000) website consumers must at all times be able to easily know “where they are, where they have been, where do they go now and how do they get back.”</p> <p>Compare for instance the complexity of navigating a university website consisting of 500,000 pages, in comparison to a simple 10 page website. Not only is it important to consider the navigational flow of a website but also to signpost it appropriately with messaging that truly supports the brand and aligns with the brand’s values.</p>
Differential Reward	<p>Differential rewards are concerned with the consumer perception of why the online experience is preferential to the offline. Developers should pose this question, before any designing or programming begins.</p>
Personal Support	<p>How consumers are supported while using the online medium, needs as much thought as would be the case within a physical store. Brands need to recognise that consumers can use multiple channels simultaneously, for instance a consumer browsing the website, could be aided by telephone support, further building trust in the brand (Marshak, 2000).</p>
Physical Delivery & Returns.	<p>How the brand deals with delivery of its merchandise to the end user, reflects the quality and perception of the brand. This is compounded via returning products, brands which make returns as painless as possible, allow the opportunity for repeat purchases. For some organisations logistics is more of a problem, for instance a company selling solid wood doors, as opposed to iTunes selling digital material.</p>

2. Analysis Summary

Adapted summary of Opoku Study (2005)

	Analysis Summary
Cluster 1	<p>Certain MBA websites are located closer to certain dimensions than their competitors indicating for instance that sophistication is more prominently communicated by the Wharton MBA website than by Chicago, as it is positioned further from the dimension.</p> <p>While alternatively if a website is positioned between two dimensions it may indicate that two dimensions are being communicated together or alternatively no clear dimensions are.</p>
Cluster 2	<p>The Imperial College's Tanaka is not particularly close to any dimension which indicates that it is not communicating a strong brand personality.</p> <p>Warwick communicates sophistication strongly, while Michigan excitement as both MBA websites are close to their dimension with a relatively large distance from the others. This is contrasted with weaker communication being displayed by Smeal which displays strong sincerity but is also positioned closest to competence.</p> <p>Sophistication and sincerity appear to relate as they are positioned in the upper right quartile which contrasts with competence and excitement which are placed in diagonally adjacent quartiles on their own.</p>
Cluster 3	<p>Durham, Birmingham and ESCP-EAP associate closely with competence, although the last two also communicate (weaker than competence) sophistication. Also Washington, Trinity, George Washington and Fisher communicate weak excitement, while Edinburgh communicates sincerity. The last 3 MBA websites including Bath and Pepperdine communicate ruggedness and weak competence to no dimension respectively.</p> <p>The diagram also shows a relationship between sincerity and ruggedness for the first time, also it highlights the lack of relationship between competence</p>

	and excitement.
All Clusters	The correspondence map of all 30 schools (shown in the figure below) clearly indicates that 28 classify themselves upon a single brand personality dimension while another identifies with two, the remaining brand with an unclear identity. Seven of the top ten schools are positioned in the black circle; mostly positioning themselves with competence and sophistication. Most of the 10 worst-position schools in the league table are located within the purple circle.

3. UK University League Tables

Institution	The Independent 2011	The Times 2011	The Sunday Times 2011	The Guardian 2011	<u>Bigest</u> <u>Difference</u>
Chichester	53	53	83	42	30
Hertfordshire	41	63	71	60	30
Portsmouth	89	74	60	85	29
Teesside	105	90	76	79	29
Buckingham	20	na	48	na	28
University of Wales Institute , Cardiff	59	67	85	46	26
Cumbria	81	78	104	83	26
Gloucestershire	62	64	88	64	26
Worcester	102	90	116	98	26
Birmingham City	58	81	82	66	24
Trinity Saint David	85	85	108	77	23
Salford	96	88	73	100	23
SOAS	15	27	38	11	23
Winchester	76	74	96	96	22
Abertay Dundee*	98	102	81	110	21
Glyndwr	92	93	113	95	21
Kingston	84	92	72	98	20
Stirling	52	45	32	27	20
Aston	17	29	37	36	20
Middlesex	97	104	117	112	20
University of the Arts, London	70	86	66	na	20
University of Wales, Newport	89	96	109	99	20
Greenwich	110	103	91	102	19
Staffordshire	80	77	95	69	18
Manchester Metropolitan	89	95	78	104	17
Aberdeen	44	33	27	33	17
Edge Hill	88	76	93	88	17
Brighton	73	71	57	78	16
Glasgow Caledonian	79	65	63	79	16
Canterbury Christ Church	106	97	91	107	15
York St John	78	81	93	90	15
Sunderland	93	79	87	52	14
Roehampton	87	87	101	106	14
Leeds Metropolitan	85	99	97	101	14
Bournemouth	55	59	68	38	13
Glamorgan	86	94	99	76	13
Liverpool John Moores	102	98	89	109	13
Queen Margaret	77	67	80	63	13
Goldsmiths College	57	52	44	58	13

Bolton	112	108	120	116	12
Exeter	24	12	17	14	12
Lincoln	71	62	74	72	12
Southampton Solent	111	110	122	115	12
Swansea	60	49	52	93	11
Dundee	45	44	34	22	11
Westminster	94	100	89	105	11
Heriot-Watt	34	43	45	32	11
Lancaster	8	10	19	6	11
Buckinghamshire New	108	112	119	113	11
Northampton	100	89	100	94	11
West London	95	106	na	na	11
Edinburgh Napier	74	66	64	55	10
Cardiff	41	34	31	46	10
Bradford	61	57	52	74	9
Queen Mary	39	36	30	46	9
Coventry	75	84	79	87	9
Hull	56	48	47	59	9
Bangor	63	54	62	65	9
Essex	37	41	46	43	9
Northumbria	64	59	68	67	9
Robert Gordon	51	46	54	27	8
Derby	104	104	112	91	8
Huddersfield	67	73	75	54	8
De Montfort	65	57	57	73	8
Nottingham Trent	49	55	57	53	8
Sheffield Hallam	68	72	64	71	8
Queen's, Belfast	35	38	42	56	7
Bath Spa	83	80	76	67	7
Sheffield	25	18	18	31	7
Leicester	22	15	20	12	7
Aberystwyth	47	40	43	49	7
Southampton	14	19	12	18	7
Bristol	16	14	10	33	6
Loughborough	21	16	15	9	6
East London	113	111	107	117	6
Nottingham	18	20	14	21	6
Anglia Ruskin	106	107	111	84	5
Manchester	31	30	26	51	5
Newcastle	29	25	24	37	5
Royal Holloway	30	31	35	41	5
Reading	40	35	36	45	5
East Anglia	28	23	28	19	5
University College London	9	7	4	5	5
Brunel	46	50	49	75	4

City	47	47	51	24	4
Plymouth	65	61	61	49	4
Strathclyde	35	36	39	25	4
Liverpool	32	28	29	39	4
Central Lancashire	72	69	68	69	4
Edinburgh	11	11	15	15	4
Glasgow	26	23	22	23	4
London School of Economics	5	5	9	8	4
Kent	38	39	41	27	3
Durham	4	6	7	17	3
King's College London	13	16	13	25	3
Leeds	27	26	24	35	3
Birmingham	23	22	20	30	3
Sussex	19	21	22	15	3
Keele	43	42	40	44	3
West of England, Bristol	68	69	67	62	2
Warwick	7	8	6	3	2
Chester	81	83	83	79	2
Bath	12	13	11	13	2
London South Bank	114	113	115	114	2
St Andrews	6	4	5	4	2
Ulster	54	56	55	na	2
York	10	9	8	9	2
University for the Creative Arts	109	109	110	79	1
Surrey	33	32	33	20	1
Oxford Brookes	50	51	50	48	1
Bedfordshire	101	101	102	103	1
Cambridge	2	2	1	2	1
Oxford	1	1	2	1	1
Imperial College London	3	3	3	7	0
London Metropolitan	115	na	na	118	0

4. Dictionary of Brand Personality Words

Opoku (2006) dictionary of brand personality words

Competence	Excitement	Ruggedness	Sincerity	Sophistication
Able	Active	Al_Fresco	Above-Board	A_La_Mode
Able-Bodied	Aggressive	Alfresco	Accommodating	Alluring
Adept	Artistic	Animal	Accurate	Amiable
Adroit	Asty	Animals	Actual	Angelic
Assiduous	Audacious	Arduous	Affable	Appealing
Assured	Audacity	Beefy	Approachable	Aristocracy
Astute	Autonomous	Boisterous	Approaching	Aristocrat
Award-Winning	Avant-Garde	Brutal	Authentic	Aristocratic
Blooming	Awe-Inspiring	Bumpy	Beneficial	Aristocratical
Booming	Awesome	Callous	Benevolent	Attractive
Brainy	Bold	Challenge	Benign	Baronial
Celebratory	Boldness	Challenging	Blunt	Beautiful
Certified	Boost	Coarse	Bonafide	Blue_Blood
Competence	Bracing	Confrontation	Bright	Blue-Blooded
Competent	Brandnew	Cowboy	Buoyant	Brush_Up
Complete	Brand-New	Cragged	Candid	Captivate
Comprehensive	Brave	Craggy	Charitable	Captivating
Concern	Bravery	Crimson	Cheerful	Celebrated
Conclusive	Breathtaking	Crudeness	Civil	Charismatic
Confined	Brisk	Crudity	Civilised	Charm
Conglomerate	Colorful	Cruel	Civility	Charming
Conquering	Colourful	Dangerous	Civilized	Cherubic
Conscientious	Cool	Daunting	Clean-Cut	Classy
Consistent	Courage	Daybreak	Clear-Cut	Cosmopolitan
Constant	Courageous	Dayspring	Common	Cotoure
Craftiness	Courageousness	Demanding	Commonplace	Courtier
Crafty	Courant	Desert	Companionable	Cultivated
Cunning	Crazy	Difficult	Compassionate	Cultured
Dependable	Creative	Durable	Congenial	Cute
Dexterous	Creativity	Effortful	Content	Dandyish
Diligence	Crisp	Endeavor	Conventional	De_Luxe
Diligent	Current	Endeavour	Convivial	Delicate
Doingwell	Daring	Endure	Cooperative	Dignified
Dominant	Dazzling	External	Cordial	Distinction
Enterprise	Designer	Extinct	Correct	Distinguished
Enterprisingness	Determined	Extreme	Courteous	Downy
Equipotent	Early	Extremum	Customary	Dulcet
Establishment	Electrifying	Ferocious	Decent	Edification
Everlasting	Elevate	Forcible	Defensible	Elegant
Exhaustive	Emancipate	Fresco	Direct	Eloquent
Experienced	Emancipated	Freshair	Distinctive	Enchant
Exultant	Energise	Frontier	Down-To-Earth	Enchanting
Fail-Safe	Energising	Furrow	Earnest	Endearing
Firm	Energize	Godforsaken	Ebullient	Engaging
First-Place	Energizing	Granitelike	Emotional	Ennobling

Flourishing	Enliven	Granitic	Everyday	Enrapture
Foolproof	Enlivening	Grating	Existent	Enthrall
For_Certain	Enterprising	Gravel	Existing	Enthrall
Forefront	Exalt	Grueling	Fact-Based	Enthralling
Gainful	Exalting	Gruelling	Factual	Enticing
Genius	Excitation	Hard	Faithful	Entrancing
Get-Ahead	Excite	Hard-Boiled	Forthcoming	Epicurean
Gifted	Excited	Hardened	Forthright	Esteemed
Glorious	Excitement	Hard-Hitting	Frank	Esthetic
Governance	Exciting	Harsh	Friendly	Excellent
Guarantee	Exhilarate	Hazardous	Generous	Exclusive
Guaranteed	Exhilarating	Heavy-Duty	Genial	Exclusivity
Hardworking	Exuberant	Hunt	Genuine	Expensive
Hard-Working	Feisty	Hunting	Glad	Exquisite
Hi-Tech	Forceful	Huskiness	Good	Exquisitely
Illustrious	Fresh	Inhumane	Good-Hearted	Extravagant
Imperishable	Freshness	Insensitive	Good-	Eye-Catching
In-Front	Gutsy	Irregular	Humoured	Fabulous
In-Charge	Happening	Jagged	Gracious	Fantabulous
Industrial	Heroic	Jeans	Gregarious	Fascinating
Industrialise	Heroism	Jerking	Guileless	Fashionable
Industrialised	High-Spirited	Jerky	Hale And	Female
Industrialized	Hip	Jolting	Hearty	Feminine
Industrious	Imaginative	Jolty	Healthful	First-Class
Industriousness	Independent	Jungle	Heartfelt	First-Rate
Industry	Individual	Labourious	Hearty	Flossy
In-No-Doubt	Innovative	Leathery	Helpful	Fluent
Intellectual	Inspiring	Macho	Honest	Fragile
Intelligent	Intrepid	Manfully	Honestness	Fragrant
Jubilant	Inventive	Manly	Honesty	Fulgid
Knowing	Invigorating	Mannish	Honorable	Genteel
Knowledgeable	In-Vogue	Masculine	Honorableness	Gentle
Knowledgeable_A	Juvenile	Maverick	Honourable	Gentlemanlike
bout	Latest	Mountainous	Honourableness	Gentlemanly
Lasting	Liberated	Mountains	Humane	Gentlewoman
Leader	Lifting	Nerve-Racking	Humble	Gilded
License	Liven_Up	Nerve-Wracking	Indisputable	Glamorous
Logical	Lone	Open-Air	Inimitable	Glamour
Long-Lasting	Modern	Outdoor	Inspired	Glamourous
Long-Lived	Modern-Day	Outdoors	Irreplaceable	Glib
Long-Suffering	Modernistic	Outdoorsy	Jovial	Glib-Tongued
Loyal	Modernness	Outer	Kin	Glittering
Lucrative	Modish	Out-Of-Door	Kind	Glossy
Manufacture	Moving	Out-Of-Doors	Kindly	Good-Looking
Marketable	Nerve	Outside	Kinship	Good-Natured
Mechanical	New	Pachydermatous	Legitimate	Gorgeous
Mercantile	Newly_Arisen	Perdurabile	Legitimatiser	Graceful
Methodological	Nifty	Perilous	Legitimatiser	Handsome
Meticulous	Plucky	Physical	Legitimise	Haute_Cotoure
Moneymaking	Present	Pointy	Legitimise	High-Born

Money-Making	Present-Day	Potholed	Lucky	High-Brow
Outstanding	Prevailing	Prairie	Matchless	Highbrowed
Painstaking	Pristine	Precarious	Maudlin	High-Class
Partnership	Recent	Prohibited	Merciful	High-Profile
Perpetual	Refreshed	Punishing	Merry	High-Status
Persevering	Refreshen	Rampageous	Modest	In_Style
Persistent	Refreshful	Resilient	Natural	In_Vogue
Poised	Refreshing	Rigorous	Nourishing	Indulgent
Potent	Represent	Robust	Novel	Lady
Prize-Winning	Resolute	Rocklike	Obliging	Lord
Procedural	Resourceful	Rocky	Old-Fashioned	Lustrous
Production	Risky	Rough	Open	Luxurious
Profit	Rousing	Roughened	Openhearted	Magnanimousnes
Profitable	Shake_Up	Roughish	Ordinary	s
Promising	Sharp	Rough-Textured	Original	Magnificent
Prosper	Smashing	Rugged	Originality	Mellifluous
Prospering	Sole	Ruggedness	Perky	Mellisonant
Prosperous	Solitary	Ruthless	Plainspoken	Nice-Looking
Protected	Solo	Rutted	Pleasant	Nobility
Proud	Sovereign	Safari	Plentiful	Noble
Punctilous	Specific	Saloon	Polite	Nobleman
Responsible	Spine-Tingling	Savanna	Politeness	Noble-Minded
Profit-Making	Spirited	Savannah	Positive	Nobleness
Safe	State-Of-The-	Scraggy	Practical	Noblesse
Salable	Art	Scratchy	Pragmatic	Noblewoman
Saleable	Stimulating	Serrated	Proper	Patrician
Scientific	Stirring	Severe	Properness	Photogenic
Secure	Stout	Spartan	Real	Picturesque
Self-Assured	Strong-Willed	Stony	Realistic	Pleasing
Self-Confident	Thrilling	Straining	Relation	Polished
Self-Possessed	Tonic	Strapping	Relations	Posh
Sellable	Trendy	Strenuous	Relationship	Precious
Sheltered	Turn_On	Strong-Arm	Reliable	Preeminence
Smart	Unconstrained	Struggle	Remarkable	Prestigious
Solid	Undeveloped	Sturdy	Respectable	Pretty
Staunch	Unfettered	Sunrise	Responsive	Princely
Steadfast	Unique	Sunset	Scrupulous	Profligate
Steady	Unmarked	Survivor	Self-Effacing	Prominent
Strong	Unmatched	Testing	Sentimental	Queenlike
Successful	Up-To-Date	Thick-Skinned	Simple	Queenly
Superior	Up-To-The-	Timberland	Simple-Minded	Refined
Systematic	Minute	Toothed	Sincere	Renowned
Talented	Valiant	Touch-And-Go	Single	Righteous
Technical	Venturesome	Tough	Small-Town	Royal
Thorough	Vibrant	Toughened	Smiling	Satin
Thoroughgoing	Vibrate	Toughness	Sociable	Satiny
Thriving	Vital	Treacherous	Sprightliness	Scintillant
Tireless	Vouge	Trek	Standard	Scintillating
Topplace	Young	Trekking	Straight	Seductive
Trade	Youthful	Tricky	Straightforward	Sensational

Transnational		Uncharitable	Straightness	Seraphic
Triumphal		Uncivilised	Sympathetic	Shining
Triumphant		Uncivilized	The_Right_Way	Shiny
Trusty		Uncomfortable	True	Silk
Unattackable		Uncovered	True-Life	Silky
Unbeatable		Undomesticated	Trustworthy	Silver-Tongued
Unbeaten		Uneven	Truthful	Snobbish
Unbendable		Unforgiving	Typical	Sophisticate
Undeviating		Unkind	Unadulterated	Sophisticated
Unfailing		Unmerciful	Unassuming	Sophistication
Unfaltering		Unpadded	Unchanging	Spectacular
Unflagging		Unpleasant	Understanding	Splendid
Unfluctuating		Unpolished	Unglamorous	Striking
Unshakable		Unrefined	Unglamourous	Stunning
Unswerving		Unrelenting	Uninterested	Stylish
Unwavering		Unrestrained	Unostentatious	Suave
Up-And-Coming		Unsmooth	Unpretentious	Sugariness
Vendable		Unsteady	Unquestionable	Superfine
Vendible		Untamed	Unspoilt	Top-Notch
Venture		Weather-Beaten	Up-Front	Upmarket
Victorious		Weathered	Valid	Upper-Class
Wily		Weatherworn	Warm	Upperclasses
Winning		Venturous	Welcoming	Well-Bred
Witty		Westerly	Well-Founded	Velvet
		Western	Well-Mannered	Velvety
		Wild	Veritable	Voguish
		Wildlife	Verity	Voluptuary
		Violent	Wholesome	Voluptuous
		Woodland	Vigorous	Womanlike
			Virtuous	Womanly
			Vivacious	